Delta Water Treatment Plant Groundwater Recharge Basins Project

Final
Initial Study/Addendum

Prepared for:

City of Stockton
425 N. El Dorado Street
Stockton, CA 95202

Prepared by:

HELIX Environmental Planning, Inc.
1180 Iron Point Road, Suite 130
Folsom, CA 95630

April 2025 | 08030.00004.001

This page intentionally left blank

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont.)

LIST OF TABLES

LIST OF APPENDICES

ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act
AF/year	acre-feet per year
AG-40	General Agriculture, 40-acre minimum
A/G	General Agriculture
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
Amsl	above mean sea level
APE	Area of Potential Effects
APN	Assessor's Parcel Number
AWWA	American Water Works Association
bgs	below ground surface
BMP	Best management practices
BRA	Biological Resources Assessment
CalEEMod	California Emissions Estimator Model
Cal/EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGS	California Geological Survey
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
City	City of Stockton
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
COSMA	City of Stockton Metropolitan Area
County	San Joaquin County
CRHR	California Register of Historical Resources
CVRQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
CY	cubic yard
dB	decibels
DOC	California Department of Conservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources

ACRONYMS AND ABBREVIATIONS (cont.)

DWSP	Delta Water Supply Project
DWTP	Delta Water Treatment Plant
EIR	Environmental Impact Report
EOP	Emergency Operations Plan
EQ Zapp	Earthquake Hazards Zone Application
ESA	Endangered Species Act
ESJGWA	Eastern San Joaquin Groundwater Authority
°F	degrees Fahrenheit
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HDPE	high density polyethylene
HMMP	Hazardous Materials Management Plan
Hz	Hertz
IS	Initial Study
JPA	Joint Powers Authority
LHMP	Local Hazard Mitigation Plan
LOS	Level of Service
LRA	Local Responsibility Area
mgd	million gallons per day
MND	mitigated negative declaration
MRZ	Mineral Resource Zone
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSLU	noise-sensitive land uses
O&M	Operation and Maintenance
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation

ACRONYMS AND ABBREVIATIONS (cont.)

OMR	State Office of Mining Reclamation
OSFM	Office of the State Fire Marshal
OSHA	Occupational Safety and Health Administration
PM_{10}	coarse particulate matter
$PM_{2.5}$	fine particulate matter
PPV	peak particle velocity
PRC	Public Resources Code
QSD	Qualified SWPPP Developer
ROG	Reactive Organic Gases
RWCF	Stockton Regional Wastewater Control Facility
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Controls and Data Acquisition
SCH	State Clearinghouse
SGMA	Sustainable Groundwater Management Act
SJCOG	San Joaquin Council of Governments
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SJV	San Joaquin Valley
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLF	Sacred Lands File
SO_2	sulfur dioxide
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWQCCP	Stormwater Quality Control Criteria Plan
SWRCB	State Water Resource Control Board
TAC	Toxic Air Contaminant
TAC	Technical Advisory Committee
UBC	Uniform Building Code
UPRR	Union Pacific Railroad
USEPA	United States Environmental Protection Agency
USCS	Unified Soil Classification System
VHFHSZ	Very High Fire Hazard Severity Zone
VOC	volatile organic compound
WID	Woodbridge Irrigation District
WSP	welded steel pipeline
WTP	water treatment plant

INITIAL STUDY INFORMATION SHEET

1.	Project title:	Delta Water Treatment Plant Groundwater Recharge Basins Project
2.	Lead agency name and address:	City of Stockton 425 N. El Dorado Street Stockton, CA 95202
3.	Contact person and phone number:	Danny Trejo, Program Manager II (209) 937-8782
4.	Project location:	11373 N. Lower Sacramento Road, San Joaquin County, CA
5.	General plan designation:	General Agriculture (A/G)
6.	Zoning:	General Agriculture, 40 acres minimum (AG-40)

7. Description of project:

The proposed Delta Water Treatment Plant Groundwater Recharge Basins Project (Project) would include construction of three groundwater recharge basins and associated site improvements and infrastructure adjacent to the existing City of Stockon's Delta Water Treatment Plant (DWTP). The Project would be located at 11373 N. Lower Sacramento Road on City-owned property in San Joaquin County, on Assessor's Parcel Number (APN) 059-030-02. The Project site is conservatively estimated to encompass a total of 134.2 acres; however, the Project footprint would comprise approximately 78 acres adjacent to the existing DWTP. The proposed groundwater basins, viewing platform, parking lot, and associated infrastructure would encompass approximately 64 acres of the Project site, and the proposed temporary stockpile areas would encompass approximately 14 acres of the Project site.

8. Surrounding land uses and setting:

The Project site is adjacent to the City's existing DWTP and is surrounded by agricultural fields to the north, agricultural fields and N. Lower Sacramento Road to the east, agricultural fields and single-family residential homes to the south, and the DWTP and agricultural fields to the west.

9. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement:

- Central Valley Regional Water Quality Control Board (CVRWQCB)
- San Joaquin County Environmental Health Department (SJCEHD)
- San Joaquin Council of Governments (SJCOG)
- State Water Resources Control Board (SWRCB)

1.0 INTRODUCTION

1.1 INITIAL STUDY/ADDENDUM

HELIX Environmental Planning, Inc. (HELIX) has prepared this Initial Study (IS)/Addendum on behalf of the City of Stockton (City) per the requirements of the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000, et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.). The City certified a Program Environmental Impact Report (Program EIR) for the Stockton Delta Water Supply Project (DWSP) in October 2005 (State Clearinghouse [SCH] No. 2003112060). This IS/Addendum addresses whether the proposed Delta Water Treatment Plant Groundwater Recharge Basins Project (proposed Project) may cause significant effects on the environment beyond what was analyzed in the certified Stockton DWSP Program EIR. Consistent with PRC Section 21166 and CEQA Guidelines Sections 15152 and 15162, this IS/Addendum focuses on any effects on the environment that are specific to the proposed Project which were not analyzed as potentially significant effects in the certified DWSP Program EIR, or for which substantial new information shows that identified effects would be more significant than described in the certified DWSP Program EIR.

CEQA Guidelines Regarding an Addendum

Pursuant to PRC Section 21166 and CEQA Guidelines Section 15162, when an EIR has been certified for a project, no subsequent or supplemental EIR shall be prepared for that project unless the lead agency determines, based on substantial evidence in light of the whole record, one or more of the following:

- Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects;
- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
    - The project will have one or more significant effects not discussed in the previous EIR;
    - Significant effects previously examined will be substantially more severe than shown in the previous EIR;
    - Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives; or
    - Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Where none of the conditions specified in Section 15162 are present, the lead agency must determine whether to prepare an Addendum or whether no further CEQA documentation is required (CEQA Guidelines Section 15162[b]). An Addendum is appropriate where some minor technical changes or additions to the project or the previously certified EIR are necessary, but there are no new or substantially more severe significant impacts than those identified in the previously certified EIR (CEQA Guidelines Section 15164).

1.2 DOCUMENT ORGANIZATION

This IS/Addendum evaluates the potential environmental impacts of the proposed Project. The document is divided into the following sections:

1.0 Introduction – This chapter provides an introduction, CEQA guidelines regarding an addendum, and describes the purpose and organization of the document.

2.0 Project Background – This chapter provides an overview of the certified Stockton DWSP Program EIR, summarizes the Project purpose and need, and lists the Project-specific technical studies prepared and incorporated into this IS/Addendum.

3.0 Project Location and Setting – This chapter provides information on the existing physical conditions of the Project site, as well as a brief description of the existing use.

4.0 Project Description – This chapter discusses the proposed Project in detail.

5.0 Determination – This chapter provides a determination if the Project will or will not have a new significant impact on the environment compared to the certified Stockton DWSP Program EIR. This chapter determines if the appropriate CEQA document is an addendum, tiered mitigated negative declaration (MND), tiered EIR, or if nothing further is required as the environmental impacts of the Project were previously analyzed in a prior CEQA document, and if potential significant impacts have been avoided or mitigated.

6.0 Environmental Initial Study Checklist – This chapter provides a description of the environmental setting and impact analysis for each of the environmental subject areas analyzed in the certified Stockton DWSP Program EIR. Project impact analysis is provided in response to subject-specific questions for each environmental subject area analyzed in the certified Stockton DWSP Program EIR, and an impact determination is made for each question. Impact determinations may be “no new or substantially more severe impact,” “less than significant impact,” “less than significant impact with mitigation incorporated,” or “new significant or substantially more severe impact” in response to the questions included in the environmental checklist for each environmental subject area.

7.0 References – This chapter identifies documents, websites, people, and other sources consulted during the preparation of this IS/Addendum.

8.0 Preparers – This chapter identifies who worked on the preparation of this IS/Addendum.

2.0 PROJECT BACKGROUND

2.1 STOCKTON DELTA WATER SUPPLY PROJECT PROGRAM EIR

The DWSP Program EIR was prepared for the City of Stockton to analyze the DWSP as a new supplemental water supply for the City of Stockton Metropolitan Area (COSMA). The proposed components of the DWSP included a new water intake facility, raw water transmission pipelines from the intake facility to the water treatment plant (WTP), a WTP, an electrical power supply, treated water pipelines between the WTP and City's distribution system, and a groundwater recharge program. The DWSP Program EIR was certified by the City of Stockton City Council (SCH No. 2003112060) on November 8, 2005 (City 2005). At the time this IS/Addendum was prepared, the water intake facility, raw water transmission pipelines, WTP, electrical power supply, and treated water pipelines were constructed and are currently in operation.

The certified DWSP Program EIR contemplated a future groundwater recharge program as part of the DWSP, which would be developed following the preparation of a feasibility study to assess the suitability of the potential project site. In December 2023, a Feasibility Study Report was prepared by Geosyntec Consultants to evaluate the potential for groundwater recharge at the City's existing Delta Water Treatment Plant (DWTP) site. The Feasibility Study Report concluded that the soils beneath the proposed Project site would be suitable for groundwater recharge (2023 Geosyntec Consultants). Therefore, the City proposes to construct three groundwater recharge basins and associated site improvements and infrastructure at the DWTP site. The certified DWSP Program EIR evaluated the potential environmental effects for each of the individual DWSP components, including the water intake facility, raw water transmission pipelines from the intake facility to the WTP, WTP, and treated water pipelines between the WTP and City's distribution system. Therefore, since the proposed Project would be located within the WTP site evaluated in the certified DWSP Program EIR, this IS/Addendum compares the proposed Project impacts to the impacts evaluated for the development of the WTP.

This IS/Addendum compares the proposed Project's impacts to the impacts evaluated in the certified DWSP Program EIR for each of the identified environment topic areas, excluding Section 4.1, *Fisheries.* Section 4.1, *Fisheries*, of the certified DWSP Program EIR discusses potential impacts on fishery resources in the Sacramento-San Joaquin Delta from implementation of the DWSP, which included the in-river intake facility and in-bank intake facility. This section of the certified DWSP Program EIR was only applicable to those two components of the DWSP, and therefore, it did not evaluate the impacts on fishery resources from implementation of the WTP as it was not applicable. For these reasons, Section 4.1 of the certified DWSP Program EIR is not applicable to the proposed Project and is not further analyzed in this IS/Addendum.

2.2 PROJECT PURPOSE

In 2014, the California legislature, including Assembly Bill (AB) 1739, Senate Bill (SB) 1168, and SB 1319, enacted the Sustainable Groundwater Management Act (SGMA) in response to the continued overdraft of California's groundwater resources, requiring local agencies to form groundwater sustainability agencies (GSAs) for the high and medium basins, and to develop and implement groundwater sustainability plans (GSPs) to avoid undesirable results and mitigated overdraft from groundwater basins within 20 years.

The Eastern San Joaquin Groundwater Subbasin (Subbasin No. 5-022.01) is one of 21 basins and subbasins identified by the California Department of Water Resources (DWR) as being in a state of critical overdraft. As defined by SGMA, "A basin is subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts" (DWR 2024a). SGMA requires preparation of a GSP to address measures necessary to attain sustainable conditions in the Subbasin. Within the framework of SGMA, sustainability is generally defined as long-term reliability of the groundwater supply and the absence of undesirable results. According to the SGMA 2019 Basin Prioritization, the Eastern San Joaquin Subbasin was identified as a critically overdrafted and high priority basin (DWR 2024b). As such, the Eastern San Joaquin Groundwater Authority (ESJGWA) was formed in 2017 in response to SGMA. A Joint Exercise of Powers Agreement establishes the ESJGWA and is composed of 16 GSAs, which includes the City of Stockton.

Efforts began in 2019 to prepare the draft Eastern San Joaquin Subbasin GSP, which was most recently revised in 2022 (ESJGWA 2022). The GSP outlines the need to reduce overdraft conditions through either the replacement of groundwater use (offset) or supplement groundwater supplies (recharge) to meet current and future water demands. The proposed Project has been identified in the Eastern San Joaquin Subbasin GSP to supplement groundwater supplies in the subbasin. In 2022, the City received a 2022 SGMA Implementation Round 1 Grant to assist in funding a geotechnical and hydrogeologic study at the proposed Project site, which included the 2023 Feasibility Study Report.

The purpose of the proposed Project is to improve water supply reliability and raise groundwater levels in the Eastern San Joaquin Subbasin. Additionally, the proposed groundwater recharge basins would be designed and constructed to provide ancillary benefits including habitat for birds, providing water, shelter, and/or breeding places during their migration along the Pacific Flyway.

2.3 PROJECT-SPECIFIC TECHNICAL STUDIES

The following Project-specific technical reports, assessments, and/or surveys were prepared or conducted to support the impact analysis included in this IS/Addendum and are incorporated by reference:

- Biological Resources Assessment, February 2025, prepared by HELIX.
- Air Quality Analysis, February 2025, prepared by HELIX.
- Cultural Resources Assessment, February 2025, prepared by HELIX.

3.0 PROJECT LOCATION AND SETTING

3.1 PROJECT LOCATION

The proposed Project would be constructed at the City of Stockon Municipal Utilities Department (MUD) DWTP, which is located between the City of Stockton and City of Lodi, at 11373 N. Lower Sacramento Road in unincorporated San Joaquin County (County) on APN 059-030-02. The Project site is situated in Sections 33 and 34 of Township 3 North, Range 6 East, Mount Diablo Meridian, and is depicted on the U.S. Geological Survey (USGS) *Lodi South, California* 7.5-minute topographic quadrangle. The Project site is conservatively estimated to encompass 134.2 acres; however, the permanent and temporary Project

impact footprint would comprise a total of approximately 78 acres adjacent to the existing DWTP. See Figure 1, Site and Vicinity Map, and Figure 2, Aerial Map, in Appendix A.

3.2 ENVIRONMENTAL SETTING

The proposed Project is located at the City's DWTP, which currently treats surface water diverted from the Sacramento-San Joaquin Delta (Delta) and Mokelumne River. The DWTP site is developed with paved roads, associated infrastructure, and three concrete-lined sludge basins to support the DWTP operations. The Project site is surrounded by agricultural fields to the north, agricultural fields and N. Lower Sacramento Road to the east, agricultural fields and single-family residential homes to the south, and the DWTP and agricultural fields to the west.

4.0 PROJECT DESCRIPTION

The proposed Project would include construction of three groundwater recharge basins and associated infrastructure at the City-owned DWTP. The proposed infrastructure would be constructed to divert raw surface water from existing sources to the new groundwater recharge basins during surplus. The Project would also construct a new access roadway, parking lot, and viewing platform. These proposed permanent Project components would encompass approximately 64 acres of the Project site. See below for the proposed Project components in more detail.

4.1 GROUNDWATER RECHARGE BASIN COMPONENTS

Groundwater Recharge Basins

The proposed Project would include construction of three groundwater recharge basins of the following approximate sizes: 16.6 acres, 15.4 acres, and 13.5 acres. Each groundwater recharge basin would be excavated to about three feet below ground surface (bgs), and the top of the perimeter roads would be approximately five feet above grade. The interior levees of the recharge basins would be filled at a 3:1 slope ratio to encourage growth of vegetation along the perimeters.

Forebays

A forebay would be constructed along the western side of each groundwater recharge basin. The corners of the forebays would be lined with riprap, and the slopes would be constructed at a 2:1 ratio.

Aboveground and Underground Piping

An existing 54-inch raw water connection is located in the western portion of the DWTP. The proposed 30-inch motorized butterfly valve would be installed above ground and adjacent to the existing 54-inch raw water connection. This proposed 30-inch motorized butterfly valve would connect to the existing DWTP Supervisory Controls and Data Acquisition (SCADA) system and would serve as an isolation valve for the proposed groundwater recharge basins. From the proposed 30-inch butterfly valve, a proposed underground 36-inch welded steel pipeline (WSP) would move east for approximately 1,000 feet until it reaches three proposed 24-inch electrically actuated butterfly valves, that would be used to control flows to each proposed groundwater recharge basin. The three proposed 24-inch butterfly valves would then be connected to the existing DWTP SCADA system. From the proposed three 24-inch butterfly valves, three proposed 30-inch high density polyethylene (HDPE) pipelines would convey flows directly

into each proposed forebay. A proposed concrete manhole in each proposed forebay would be used to dissipate energy upward. After the water flow settles in the proposed forebays, the water would flow over one of three proposed 150-foot-long concrete curbs, located between the proposed forebays and the proposed groundwater recharge basins. Each proposed curb would be slightly lower in elevation to encourage water to flow to the entire length of the proposed forebay.

Dry Wells

Two dry wells would be constructed in each of the proposed groundwater recharge basins. The dry wells would be constructed by excavating down to approximately 20 feet below grade to increase groundwater recharge volumes in addition to the recharge volume that would occur through the groundwater recharge basin bottoms. The dry well holes would be excavated with steep slopes and would be filled with washed angular crushed rock. At grade, the dry wells would be covered with fabric, and two feet of gravel would be placed above the fabric. The gravel may need to be cleaned every few years.

Infiltration Wells

Each groundwater recharge basin would include installation of a large diameter vertical infiltration well, which would be placed in areas with high permeabilities to depths of 20 to 50 feet bgs to increase groundwater recharge volumes. The infiltration wells would be placed in large diameter borings filled with gravel to maximize the amount of water that can be directed to these depths. Trenches filled with gravel would be sloped towards the infiltration wells to allow water flow towards these areas. The infiltration rate for each groundwater recharge basin would range from approximately 15,000 acre-feet per year (AF/year) to 30,000 AF/year, assuming the basins are used 335 days per year.

Monitoring Wells

Five nested groundwater monitoring wells, similar to the existing Monitoring Well MW-1, would be installed within the Project site to monitor groundwater conditions. The monitoring wells would extend 200 feet bgs and would be installed in accordance with the SJCEHD requirements. Each well would be monitored with a single pressure transducer on a regular basis.

4.2 WATER SUPPLY

According to the draft Preliminary Scope Validation Memo prepared for the proposed Project in December 2024, the City currently has about 21,000 AF/year of raw water from existing surface water supplies from the Delta and Woodbridge Irrigation District (WID) or Mokelumne River Integrated Conjunctive Use Program (MICUP) available for recharge (NEXGEN 2024). The WID has the authority to divert water from the Mokelumne River (Lodi Lake) via the main diversion canal in Woodbridge, which runs underneath Lower Sacramento Road and feeds the majority of the canals to the south. This raw surface water would be used to supply the proposed groundwater recharge basins during times of surface water surplus.

Assuming 335 days for recharge in the groundwater basins, the 21,000 AF/year of available existing water supply would require an average infiltration rate of about 1.44 feet/day. The recharge volume would be accomplished through the groundwater recharge basins bottom and dry wells within the basins.

4.3 VIEWING PLATFORM AND RESTROOM

A shaded viewing platform would be constructed in the northwestern portion of the Project site, east of the existing WTP facility, to allow visitors to view migratory birds that are anticipated to use the proposed basins during their migration along the Pacific Flyway, which is a major north-south flyway for migratory birds that spans from Alaska to South America. The viewing platform is anticipated to be approximately 2,000 square feet (sf) in size and 15 feet tall. The viewing platform would be constructed immediately north of the proposed recharge basins and would be constructed on an elevated surface similar in height to the top of the basin's perimeter berms (five feet amsl). The height of the viewing platform from existing grade would be approximately 20 feet.

A detached prefabricated restroom would be installed adjacent to the proposed viewing platform for visitor use. The proposed restroom would be approximately 126 sf in size. If feasible, the restroom would tie into existing sewer lines that run along Lower Sacramento Road. However, if connecting to existing nearby utilities is not feasible, then a new septic tank would be installed for the proposed restroom and would be serviced approximately six times per year.

4.4 ACCESS, CIRCULATION, AND PARKING

The DWTP includes an existing staff parking area near the northern portion of the DWTP and has two existing vehicular access driveways, a northern and southern access driveway, off N. Lower Sacramento Road. The DWTP includes existing internal roadways that connect the two existing access driveways.

The proposed Project would construct an access roadway located west of the groundwater recharge basins which would also connect the two existing access driveways. A new parking area in the northeast corner of the Project site would be constructed to provide parking for visitors and would include one Americans with Disabilities Act (ADA) accessible van stall and one standard ADA accessible stall. It is anticipated that the parking lot would include approximately 14 standard parking stalls. The proposed access roadway and parking lot would be designed with sufficient vehicle width to accommodate turnaround for a standard-sized school bus.

4.5 SIGNAGE AND LANDSCAPE

Educational signage would be located near the proposed viewing platform. Landscape improvements would include the area immediately adjacent to the proposed parking area and hydroseed would be added along the slopes of the levees of the proposed basins. New landscaping would include California native species and/or low water-use plantings.

4.6 FENCING AND SECURITY

Wrought iron fencing would be located along N. Lower Sacramento Road and the northern boundary of the Project site. Chain link fencing would be located along the southern boundary of the Project site and on the western boundary of the northern groundwater recharge basin.

4.7 CONSTRUCTION SCHEDULE AND STOCKPILE AREAS

Construction of the proposed Project may begin as early as May of 2025 and is anticipated to be completed in June 2026. It is anticipated that construction of the three groundwater recharge basins would occur concurrently. Per the Project engineer, debris and vegetation from site preparation and soil from basin excavation would be temporarily stockpiled on the DWTP site. The proposed temporary stockpile areas would be located west of the groundwater recharge basins and adjacent to the City's DWTP and would encompass approximately 14 acres of the Project site. Following excavation and temporary stockpiling, the excavated soils would be used on-site to construct the perimeter berms for the proposed basins, and remaining soil (if any) would be balanced on-site. It is anticipated that no off-site export of debris, vegetation, or soil would be required.

Approximately 219 cubic yards (CY) of aggregate would be imported during underground utilities and 500 CY of concrete and aggregate would be imported during basin and berm construction, per the Project engineer. Additionally, per the Project engineer, 296 CY of asphalt concrete/aggregate base course (AC/AB) would be imported during paving and 140 CY of crushed rock would be imported during construction of the percolation wells.

4.8 OPERATION AND MAINTENANCE

Operational activities associated with the proposed Project would include occasional maintenance trips for the on-site restroom and maintenance of landscaping. Per the Project engineer, a truck would service the septic tanks six times a year (if connection to existing utilities is not feasible), and landscape maintenance, including weed and irrigation maintenance, would occur two to four times a year and additionally as needed. Staff that currently manage/operate the City-owned DWTP would perform the operation and maintenance (O&M) tasks required for the proposed Project, and no new employees would be required to support the proposed Project.

Each groundwater recharge basin is anticipated to be used annually for 335 days. This operation would allow for a "drying out" period of 30 days over the year for each groundwater recharge basin. "Drying out" periods would be staggered for the three groundwater recharge basins so that recharge could be conducted throughout the year. Allowing "drying out" periods has been shown to increase the efficiency of a groundwater recharge basin. These periods could also be used to conduct any other maintenance requirements including clearing out the infiltration pipelines, removal of vegetation that occurs, etc.

Operation of the proposed Project would also include infrequent educational visits from local public or private schools, organizations, other interested groups, etc. as allowed by the DWTP facility management. It is anticipated that educational visits would be limited to one school bus per visit (up to 72 students, per standard school bus sizes) and would occur between typical daytime school hours and operational hours of the DWTP.

4.9 REQUIRED PERMITS AND APPROVALS

A listing and brief description of the approvals and/or regulatory permits required to implement the proposed Project are provided below. This environmental document is intended to address the environmental impacts associated with the following discretionary actions and approvals.

City of Stockton

- **Consideration of the Environmental Document:** City of Stockton will act as the Lead Agency as defined by CEQA and will have authority to determine if the environmental document is adequate under CEQA and the State CEQA Guidelines.

- **Project Approval:** City of Stockon City Council will consider approval of the Project.

Agencies

- **San Joaquin County Environmental Health Department:** Well and Boring Permit for the proposed monitoring wells.

- **San Joaquin Council of Governments:** San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

- **Central Valley Regional Water Quality Control Board:** National Pollutant Discharge Eliminated System (NPDES) Construction General Permit, which requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP).

5.0 DETERMINATION

The City of Stockton previously certified the DWSP Program EIR, and on the basis of this initial evaluation and pursuant to CEQA Guidelines:

☒	I find that the proposed Project WOULD NOT have new or substantially more severe significant effects on the environment that have not already been addressed by the certified Stockton DWSP Program EIR (SCH No. 2003112060), no substantial changes have occurred with respect to the circumstances under which the Project will be undertaken, and no new information of substantial importance to the Project has been identified. However, minor technical changes or additions are necessary, and in accordance with CEQA Guidelines Section 15164, an ADDENDUM has been prepared.
☐	I find that although the Project WOULD have one or more new or substantially more severe significant effects on the environment, there will not be a significant effect in this case because new Project-specific mitigation measures have been identified that would reduce the effects to a less than significant level. In accordance with CEQA Guidelines Section 15162, a TIERED MITIGATED NEGATIVE DECLARATION has been prepared.
☐	I find that the Project MAY have a new or substantially more severe significant effect on the environment that was not adequately addressed in the certified DWSP Program EIR, and there may not be feasible mitigation which would reduce the new or substantially more severe significant effect to a less than significant level. In accordance with CEQA Guidelines Section 15162, a TIERED ENVIRONMENTAL IMPACT REPORT is required.

Signature _____ Date _____

Printed Name _____ For _____

6.0 ENVIRONMENTAL INITIAL STUDY CHECKLIST

The Lead Agency has defined the column headings in the environmental checklist as follows:

A. "New or Substantially More Severe Significant Impact" is appropriate if there is substantial evidence that an effect may be significant or substantially more severe. If there are one or more "New or Substantially More Severe Significant Impact" entries when the determination is made, an EIR is required.

B. "Less Than Significant with Mitigation Incorporated" applies where the inclusion of mitigation measures has reduced an effect from "New or Substantially More Severe Significant Impact" to a "Less Than Significant Impact." All mitigation measures are described, including a brief explanation of how the measures reduce the effect to a less than significant level. Mitigation measures from the certified DWSP Program EIR are cross-referenced as applicable to the proposed Project.

C. "Less Than Significant Impact" applies where the Project does not create an impact that exceeds a stated significance threshold.

D. "No New or Substantially More Severe Impact" applies where a Project does not create a new impact in that category compared to the determinations made for an existing and certified EIR.

The explanation of each issue outlined in the following pages identifies the significance criteria or threshold used to evaluate each question; and the mitigation measure identified, if any, to reduce the impact to less than significance. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [CEQA Guidelines Section 15063(c)(3)(D)]. Where appropriate, the discussion identifies the following:

a) Earlier Analyses Used. Identifies where earlier analyses are available for review.

b) Impacts Adequately Addressed. Identifies which effects from the checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and states whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less Than Significant with Mitigation Incorporated," describes the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the Project.

I. LAND USE, RECREATION, AND AESTHETIC RESOURCES

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 3.2-1 of the certified DWSP Program EIR):				
LU-1: Construction of the proposed DWSP could physically divide an established community.	☐	☐	☐	☒
LU-2: Construction of the proposed DWSP facilities could reduce access to, or interfere with the use of, existing recreational facilities.	☐	☐	☐	☒
LU-3: Construction of DWSP facilities could conflict with existing agricultural uses.	☐	☐	☐	☒
LU-4: The proposed DWSP could conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.	☐	☐	☐	☒
LU-5: Construction of the DWSP WTP and raw water pipeline appurtenant facilities would convert economically viable prime farmland and farmland of statewide importance to nonagricultural use.	☐	☐	☐	☒
LU-6: The proposed DWSP could conflict with existing zoning for agricultural use, or a Williamson Act contract	☐	☐	☐	☒
LU-7: The proposed DWSP could involve other changes in the existing environment that, due to its location or nature, could individually or cumulatively result in loss of economically viable farmland.	☐	☐	☐	☒
LU-8: The proposed DWSP could indirectly: (a) increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility could occur or be accelerated; or (b) include recreational facilities or require the construction or expansion of recreational facilities which could have an adverse physical effect on the environment.	☐	☐	☐	☒
LU-9: Operation of the DWSP intake could reduce access to, or interfere with the use of, existing recreational facilities.	☐	☐	☐	☒

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
LU-10: The DWSP intake and WTP would have a substantial adverse effect on scenic vistas, substantially damage scenic resources, or substantially degrade the existing visual character or quality of the site and its surroundings.	☐	☐	☐	☒
LU-11: The DWSP intake and WTP would create a new source of substantial light or glare that would adversely affect nighttime views in the area.	☐	☐	☐	☒

Affected Environment

Land Use

The proposed Project site is City-owned property located in unincorporated San Joaquin County, immediately north and west of the City of Stockton and south of the City of Lodi. The Project site is located outside of the City of Stockton limits, and, therefore, does not have a zoning designation within the City. However, although the Project site is outside of the City's sphere of influence, the City's General Plan 2040 Land Use Map designates the Project site as Institutional (City 2024).

The 2035 San Joaquin County General Plan, most recently updated in 2016, is a comprehensive, long-term document that serves to guide all future land use, development, preservation, and resource conservation decisions in the unincorporated areas of the County. The Project site is designated General Agriculture (A/G) in the County General Plan and is zoned General Agriculture (AG-40). The A/G land use designation provides for large-scale agricultural production and associated processing, sales, and support uses. This land use designation generally applies to areas outside areas planned for urban development where soils are capable of producing a wide variety of crops and/or support grazing. Typical building types include low-intensity structures associated with farming and agricultural processing and sales (County 2016). The General Agriculture zone was established to preserve agricultural land for the continuation of commercial agricultural enterprises and implements the A/G land use designation of the County General Plan (County 2024a).

No agricultural activities or timber management currently occur on the Project site, nor is the Project site under a Williamson Act contract. According to the California Important Farmland Finder Interactive Map prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation (DOC), the undeveloped eastern portion of the Project site is classified as Farmland of Local Importance and the western portion of the Project site is classified as Urban and Built-Up Land. The DOC defines Farmland of Local Importance as land of importance to the local agricultural economy as determined by the County's Board of Supervisors and a local advisory committee. Urban and Built-Up land is defined as land occupied by structures or infrastructure with a building density of at least one unit to one and one-half acres, or approximately six structures to a 10-acre parcel (DOC 2024).

Recreation

San Joaquin County Parks and Recreation is responsible for the planning and management of regional parks in the unincorporated County. Additionally, the City of Stockton maintains 66 City parks and open space areas, ranging from two-acre neighborhood sites to 64-acre community parks. The closest recreation facilities to the Project site include: Dorotha Mae Pitts Park, located approximately one mile to the southwest; Elkhorn Golf Club, located approximately 1.5 miles to the southwest; Baxter Park, located approximately two miles to the southwest; Mick Grove Park, located approximately 2.25 miles to the east; Laughlin Park, located approximately 2.8 miles to the southwest; Harry Corren Park, located approximately 2.8 miles to the southwest; and Shumway Oak Grove Regional Park, located approximately three miles to the west.

Aesthetic Resources

There are no designated scenic vistas, State scenic highways, or County scenic routes within the Project area. The closest designated State scenic highway is State Route (SR) 160, located approximately 20 miles west of the Project site. The closest designated County scenic route is Isleton Road, located approximately 17 miles northwest of the Project site (Caltrans 2024). Additionally, the Project site is not located within or immediately adjacent to a Wild and Scenic River System (NWSRS 2024). The major scenic vistas in San Joaquin County are provided by the east-west travel corridors that provide views of the Sierra Nevada foothills and the Diablo Range. These visual resources within the County are also visible from Interstate (I-) 5 and I-580, the two major highways within the County. More "close-in" County scenic vistas include viewing lands under agricultural production, vineyards, and orchards. Views of major river corridors are most clearly visible from parklands that adjoin the rivers, as the motorist often catches only a quick glimpse of the river corridors while crossing bridges (County 2014).

Summary of Impacts from the Certified Stockton Delta Water Supply Project Program EIR

Section 3.2, *Land Use, Recreation, and Aesthetic Resources,* of the certified DWSP Program EIR provided an analysis of potential impacts to land use, agriculture, recreation, and aesthetics. The certified DWSP Program EIR concluded that construction of the DWSP components could physically divide an established community; however, the impact from construction of the WTP was determined to be less than significant. It was concluded that construction of proposed DWSP facilities could reduce access to, or interfere with the use of, existing recreational facilities; however, no impact to these facilities was determined to occur from construction of the WTP. The certified DWSP Program EIR concluded that construction of the DWSP facilities could conflict with existing agricultural uses by converting agricultural lands to non-agricultural uses; however, it was determined that the impact from construction of the WTP would be less than significant. The DWSP components could conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect by converting agricultural lands to non-agricultural uses; however, the impact from the WTP was determined to be less than significant.

The certified DWSP Program EIR concluded that construction of the WTP and raw water pipeline appurtenant facilities would convert economically viable prime farmland and farmland of Statewide importance to nonagricultural use; therefore, the impact from construction of the WTP was determined to be significant and unavoidable. The proposed DWSP could conflict with zoning for agricultural use, or a Williamson Act contract; however, the impact from the WTP was determined to be less than significant. Additionally, the proposed DWSP could involve other changes in the existing environment

that, due to its location or nature, could individually or cumulatively result in loss of economically viable farmland, however the impact from the WTP was determined to be less than significant.

The certified DWSP Program EIR concluded that the DWSP could indirectly increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility could occur or be accelerated, or include recreational facilities or require the construction or expansion of recreational facilities which could have an adverse physical effect on the environment; however, it was determined that no impact would occur from the WTP. Operation of the DWSP intake could reduce access to, or interfere with the use of, existing recreational facilities; however, it was determined that no impact would occur from the WTP.

Lastly, the certified DWSP Program EIR concluded that implementation of the DWSP components would have a substantial adverse effect on scenic vistas, substantially damage scenic resources, or substantially degrade the existing visual character or quality of the site and its surroundings; however, it was determined that the impact from the WTP would be less than significant. The certified DWSP Program EIR concluded that the DWSP intake and WTP would create a new source of substantial light or glare that would adversely affect nighttime views in the area, and the impact was determined to be significant and unavoidable for the WTP. Although the DWSP Program EIR identified Mitigation Measure LU-11 to minimize the impact from outdoor light sources, the certified DWSP Program EIR concluded that the impact from the WTP would remain significant and unavoidable, and a Statement of Overriding Considerations was adopted upon certification of the DWSP Program EIR.

Impact Analysis

The impact analysis questions related to land use, agriculture, recreation, and aesthetic resources are included in Table 3.2-1, Summary of Impacts – Land Use, Recreation, and Aesthetic Resources, in Section 3.2, *Land Use, Recreation, and Aesthetic Resources,* of the certified DWSP Program EIR.

Impact LU-1: Construction of the proposed DWSP could physically divide an established community.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP components could physically divide an established community; however, the impact from construction of the WTP was determined to be less than significant.

The proposed Project would include the construction of three groundwater recharge basins and associated infrastructure located directly east of the City's existing DWTP. The proposed Project is located immediately north of the City of Stockton in unincorporated San Joaquin County. The Project site is surrounded by agricultural fields and N. Lower Sacramento Road to the east, agricultural fields and single-family residential homes to the south, the DWTP and agricultural fields to the west, and agricultural fields to the north. Construction activities and staging of construction equipment for the proposed Project would be contained within the Project site. Construction of the proposed Project would not further separate these land uses or physically divide an established community, and no impact would occur. Therefore, there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-2: Construction of proposed DWSP facilities could reduce access to, or interfere with the use of, existing recreational facilities.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of proposed DWSP facilities could reduce access to, or interfere with the use of, existing recreational facilities; however, no impact to these facilities was determined to occur from construction of the WTP.

The proposed Project would be constructed immediately east of the City's existing DWTP, and within the WTP site evaluated in the certified DWSP Program EIR, in a primarily rural area of the County. There are no existing recreational facilities in the immediate Project vicinity. Therefore, construction of the proposed Project would not interfere with the use of existing recreational facilities, no impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-3: Construction of DWSP facilities could conflict with existing agricultural uses.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities would conflict with existing agricultural uses; however, with implementation of mitigation, the impact from construction of the WTP was determined to be less than significant.

The proposed Project would be located adjacent to the City's existing DWTP and is located on primarily undeveloped land that is not currently used for agricultural uses. Therefore, the proposed Project would not conflict with existing agricultural uses, and no impact would occur. Therefore, there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-4: The DWSP could conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that the DWSP components could conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect by converting agricultural lands to non-agricultural uses; however, the impact from the WTP was determined to be less than significant.

The proposed Project would construct three groundwater recharge basins directly east of the City's existing DWTP. The Project site is in a primarily rural area of the County and is surrounded by agricultural fields and N. Lower Sacramento Road to the east, agricultural fields and single-family residential homes to the south, the DWTP and agricultural fields to the west, and agricultural fields to the north. As discussed above in Impact LU-3, although the Project is surrounded by land in agricultural production, the proposed Project would not conflict with existing agricultural uses. The location of the proposed Project is due to the unique site area requirements, as surface water would be delivered to the forebays and then the groundwater recharge basins by tapping into the existing raw water supply pipeline at the DWTP facility. The proposed Project would be consistent with Policy LU-7.2, Agricultural Support Uses, of the *Community Development Element* of the County General Plan, which states:

> *The County shall require new agricultural support development and non-farm activities to be compatible with surrounding agricultural operations. New developments shall be required to demonstrate that they are located in an agricultural area because of unique site area*

> *requirements, operational characteristics, resource orientation, or because it is providing a service to the surrounding agricultural area. The operational characteristics of the use may not have a detrimental impact on the operation or use of surrounding agricultural properties. Developments must be sited to avoid any disruption to the surrounding agricultural operations. (County 2016).*

Additionally, the proposed Project would service the surrounding agricultural area, as the Project would increase groundwater recharge. The proposed Project would not conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect, and the impact would be less than significant. Therefore, there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-5: Construction of the DWSP WTP and the raw water pipeline appurtenant facilities would convert economically viable prime farmland and farmland of statewide importance to non-agricultural use.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP WTP and raw water pipeline appurtenance facilities would convert economically viable Prime Farmland and Farmland of Statewide Importance to non-agricultural use, and the impact from construction of the WTP was determined to be significant and unavoidable even with incorporation of Mitigation Measures LU-5a and LU-5b.

Mitigation Measures LU-5a and LU-5b, would not be applicable to the proposed Project, as the Project site does not currently support agricultural production. Additionally, according to the DOC's FMMP California Important Farmland Finder Interactive Map, the undeveloped eastern portion of the Project site is classified as Farmland of Local Importance and the western portion of the Project site is classified as Urban and Built-Up Land. Therefore, construction of the proposed Project would not convert viable Prime Farmland or Farmland of Statewide Importance to non-agricultural use, the impact would be less than significant, and no mitigation would be necessary. Therefore, *no new or substantially more severe impact* would occur compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-6: The proposed DWSP could conflict with existing zoning for agricultural use, or a Williamson Act contract.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that the DWSP components could conflict with existing zoning for agricultural use, or a Williamson Act contract; however, the impact from implementation of the WTP was determined to be less than significant.

The proposed Project site is located in unincorporated San Joaquin County and is currently zoned AG-40, which implements the A/G land use designation of the County General Plan, and the parcels are not currently under a Williamson Act contract. Chapter 9-203 of the County Development Title prescribes land use regulations for agricultural zones. However, pursuant to Government Code Section 53091(e), the location or construction of facilities for the production, generation, storage, treatment, or transmission of water by a special district are not subject to the zoning ordinance of the County in which the Project would be located. Although the proposed Project is not required to comply with the San Joaquin County Zoning Ordinance, it is the Project's intent to enhance groundwater recharge, thereby sustaining agriculture. The implementation of the proposed groundwater recharge basins would promote groundwater security, inherently protecting agricultural resources in the County. The proposed

Project would not conflict with the existing zoning for agricultural use, and the impact would be less than significant. There would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-7: The proposed DWSP could involve other changes in the existing environment that, due to its location or nature, could individually or cumulatively result in loss of economically viable farmland.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that the DWSP components could involve other changes in the existing environment that, due to its location or nature, could individually or cumulatively result in loss of economically viable farmland; however, the impact from the WTP was determined to be less than significant.

As discussed above in Impact LU-5, the proposed Project would be constructed immediately east of the City's existing DWTP. The undeveloped eastern portion of the Project site is classified as Farmland of Local Importance and the western portion of the Project site is classified as Urban and Built-Up Land; the Project site is not classified as economically viable Prime Farmland or Farmland of Statewide Importance. Therefore, the proposed Project would not result in the loss of economically viable farmland. The impact would be less than significant, and *no new or substantially more severe impact* would occur compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-8: The proposed DWSP could indirectly: (a) increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility could occur or be accelerated; or (b) include recreational facilities or require the construction or expansion of recreational facilities which could have an adverse physical effect on the environment.

No New Impact. The certified DWSP Program EIR concluded that the WTP would not increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility could occur or be accelerated, nor include recreational facilities or require the construction or expansion of recreational facilities which could have an adverse physical effect on the environment; therefore, it was determined that no impact would occur.

The proposed Project would include construction of three groundwater recharge basins located directly east of the City's DWTP. The proposed Project would not result in substantial population growth within or near the Project vicinity and thus would not increase the demand for additional recreational facilities, nor otherwise promote or indirectly induce new development that would require the construction or expansion of recreational facilities. Further, the Project does not include the construction of recreational facilities which could have an adverse physical effect on the environment. Therefore, the proposed Project would not increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility could occur or be accelerated, nor include recreational facilities or require the construction or expansion of recreational facilities which could have an adverse physical effect on the environment, and no impact would occur. Therefore, there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-9: Operation of the DWSP intake could reduce access to, or interfere with the use of, existing recreational facilities.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that the operation of the DWSP intake could reduce access to or interfere with the use of existing recreational facilities; however, it was determined that no impact would occur from operation of the WTP.

As previously discussed in Impact LU-2, there are no existing recreational facilities in the immediate Project vicinity. Operation of the proposed Project would not interfere with the use of existing recreational facilities. Therefore, no impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-10: The DWSP intake and WTP would have a substantial adverse effect on scenic vistas, substantially damage scenic resources, or substantially degrade the existing visual character or quality of the site and its surroundings.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that the WTP would have a substantial adverse effect on scenic vistas, substantially damage scenic resources, or substantially degrade the existing visual character or quality of the site and its surroundings. The impact from implementation of the WTP was determined to be less than significant.

The Project site consists of primarily undeveloped land adjacent to the City's existing DWTP. The topography of the Project site is relatively flat with an elevation that ranges between approximately 18 to 30 feet amsl, similar to that of the surrounding areas. The Project site is surrounded by agricultural fields and N. Lower Sacramento Road to the east, agricultural fields and scattered single-family residential homes to the south, the DWTP and agricultural fields to the west, and agricultural fields to the north. The northern, eastern, and western edges of the Project site are currently fenced. The Project site is located in a generally rural area of the County, and publicly accessible areas with views of the site would include N. Lower Sacramento Road. As such, viewer sensitivity to the visual character or quality of the Project site would generally consist of motorists along N. Lower Sacramento Road.

The closest designated State Scenic Highway is SR 160, located approximately 20 miles west of the Project site. The closest designated County scenic route is Isleton Road, located approximately 17 miles northwest of the Project site (Caltrans 2024). Therefore, due to the distance from SR 160 and Isleton Road, the proposed Project would not damage scenic resources within a State scenic highway or County scenic route. A scenic vista is defined as a viewpoint that provides an expansive view of a highly valued landscape for the benefit of the general public. The major scenic vistas in the County include views of the Sierra Nevada foothills, Diablo Range, and viewing lands under agricultural production, vineyards, and orchards.

The proposed Project would be constructed on undeveloped land adjacent to the City's DWTP. The proposed temporary stockpile areas would encompass approximately 14 acres of the Project site. The stockpiling areas and staging of construction equipment would temporarily alter the visual character of the site and surrounding areas; however, the stockpile and staging areas would be located in previously disturbed areas setback over 1,700 feet from N. Lower Sacramento Road and used short-term during Project construction. As such, construction of the proposed Project would not adversely affect scenic vistas.

The proposed groundwater basins, shaded viewing platform, parking lot, and associated infrastructure would encompass approximately 64-acres of the Project site adjacent to the City's existing DWTP. Each groundwater recharge basin would be excavated to about three feet below existing grade and the surrounding perimeter roads/berms would be built up approximately five feet above existing grade. The

height of the elevated viewing platform would be approximately 20 feet from existing grade. Wrought iron fencing would replace the existing fencing along N. Lower Sacramento Road and the northern boundary of the Project site. Chain link or similar fencing would be installed along the southern boundary of the Project site and on the western boundary of the northern groundwater recharge basin. However, as N. Lower Sacramento Road is currently lined with tall vertical features (e.g., mature trees, utility poles, streetlights, and roadway signs) and horizontal features (e.g., building and pavement edges, fences, and utility lines), the proposed fencing would be consistent with the vertical and horizontal features within the Project area. Therefore, Mitigation Measure LU-10 identified in the certified DWSP Program EIR, which require avoiding the use of bright reflective materials and colors to reduce the visual impact of the proposed viewing platform and associated aboveground infrastructure, would remain applicable to the proposed Project and would be implemented. For these reasons, the proposed Project would not substantially degrade the existing visual character or quality of the site. Therefore, the impact would be less than significant with implementation of Mitigation Measure LU-10, and *no new or substantially more severe impact* would occur compared to what was evaluated in the certified DWSP Program EIR.

Impact LU-11: The DWSP intake and WTP would create a new source of substantial light or glare that would adversely affect nighttime views in the area.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that the WTP would create a new source of substantial light or glare that would adversely affect nighttime views in the area, and the impact was determined to be significant and unavoidable with implementation of Mitigation Measure LU-11.

The proposed Project would be located adjacent to the existing DWTP, which currently has nighttime lighting for safety and security purposes. Any lighting associated with the proposed Project would be similar to the existing DWTP's lighting and would adhere to Mitigation Measure LU-11, which would require the shielding and angling of outdoor light sources to prevent light trespass on adjacent properties. Therefore, the impact would not be substantially more severe than what was analyzed in the certified DWSP Program EIR with implementation of Mitigation Measure LU-11, and *no new or substantially more severe impact* would occur.

Mitigation Measures

The certified DWSP Program EIR identified Mitigation Measures LU-5a, LU-5b, LU-10, and LU-11 to mitigate impacts related to land use, agriculture, recreation, and aesthetics from implementation of the WTP. However, Mitigation Measures LU-5a and LU-5b would not be applicable to the proposed Project, as the Project site does not currently support agricultural production and is not designated prime farmland or farmland of Statewide importance.

As described above, Mitigation Measures LU-10 and LU-11 from the certified DWSP Program EIR would remain applicable to the proposed Project and would be implemented. These mitigation measures are provided below.

Mitigation Measure LU-10: The design of the intake facility and WTP, including the choice of color and materials, shall seek to reduce the visual impact of the facilities. Bright reflective materials and colors shall be avoided.

Mitigation Measure LU-11: Outdoor light sources shall be properly shielded and installed to prevent light trespass on adjacent properties. Any flood or spot lamps installed for purposes other than waterway navigation must be aimed no higher than 45 degrees above straight down (halfway between straight down and straight to the side) when the source is visible from any off-site residential property or public roadway.

II. GEOLOGY, SOILS, AND SEISMICITY

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 3.3-3 of the certified DWSP Program EIR):				
GEO-1: Construction of the proposed DWSP could lead to accelerated soil erosion and possible sedimentation of local surface waters.	☐	☐	☐	☒
GEO-2: In the event of seismic activity strong ground motion, secondary hazards in the form of settlement, and/or associated ground failure (e.g., liquefaction) could possibly impact DWSP facilities.	☐	☐	☐	☒
GEO-3: Structural improvements associated with the proposed DWSP could be subject to soil-related hazards including expansive and/or corrosive soil materials or settlement.	☐	☐	☐	☒
GEO-4: DWSP facilities, including pipelines, intake facility, sub-surface foundations, and other underground utilities, would be subjected to hazards associated with regional subsidence.	☐	☐	☐	☒

Affected Environment

Geologic Setting

San Joaquin County is located in the central portion of the Great Valley geomorphic province of California. This geomorphic province is characterized as a northwestward-trending trough that formed between the Coast Range Mountains to the west and the Sierra Nevada Mountains to the east. The Great Valley is about 50 miles wide and extends for 400 miles through the center of California. The northern and southern portions of the Great Valley are referred to as the Sacramento Valley and San Joaquin Valley, respectively; with the Sacramento River draining areas to the north and the San Joaquin River draining areas to the south. The topography of the Project site is generally flat, with an elevation that ranges between approximately 18 to 30 feet amsl.

The Project area is generally underlain by Quaternary-aged sedimentary rocks and portions of the Modesto Formation. The Modesto Formation is an alluvial fan deposit that generally ranges in thickness from 150 to 200 feet, and consists of discontinuous clay and silt lenses, interbedded with fine and coarse sand deposits derived from the Sierra Nevada.

Soils

Erosion is the wearing away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind, and underground water. Excessive soil erosion can eventually lead to damage to building foundations and roadways. Areas that are susceptible to erosion are often those that become exposed during the construction phase of development when existing cover is removed, or earthwork activities disturb sub-grade areas (County 2014).

Settlement can occur from immediate settlement, consolidation, shrinkage of expansive soil, and liquefaction. Soils tend to settle at different rates and by varying amounts depending on the load weight or changes in properties over an area, which is referred to as differential settlement. Subsidence can result in reduced storage capacity of groundwater aquifers. Subsidence within the County is usually the result of pumping groundwater or oxidation of peat in the Delta (County 2014).

The Feasibility Study Report prepared in December 2023 for the proposed Project included an evaluation of the ability for soils on the Project site to transmit water downward. Four soil borings were conducted on the Project site to assess infiltration rates. According to the report, the Unified Soil Classification System (USCS) soil classifications found within the four borings included SM (silty sand), SW (well-graded sand, fine to coarse sand), SC (clayey sand), SP (poorly graded sand), and CL (lean clay). It was concluded that these soils beneath the proposed groundwater recharge area appear to be suitable for groundwater recharge. However, surface soils down to 15 feet have lower permeabilities that could limit the ability to maximize the amount of water that can be recharged annually. The report found that improved permeability occurs below 20 feet bgs.

Expansive soils are characterized by their potential “shrink-swell” behavior. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the process of wetting and drying. Clay minerals such as smectite, bentonite, montmorillonite, beidellite, vermiculite and others are known to expand with changes in moisture content. According to the soil survey data for San Joaquin County, close to half of the upper five feet of soils throughout the County have a low shrink-swell potential, a lesser portion is considered to have a moderate potential, and about an eighth of the area (primarily in the southwestern end of the County) has been mapped with a high potential (County 2014).

Seismicity

The nearest faults to the Project area exhibiting historic displacement (activity within the last 200 years) are the Concord-Green Valley, Hayward, and Marsh Creek-Greenville faults, located approximately 25 to 46 miles west of the Project area. Portions of the Calaveras fault zone that are considered active within the last 200 years are located approximately 45 miles west of the Project area. Other active faults within 100 miles include the Dunnigan Hills (58 miles north), Ortigalita (62 miles west), Healdsburg-Rodgers Creek (64 miles west), West Napa (47 miles west), and San Andreas (65 miles west) fault zones. According to the California DOC Earthquake Zones of Required Investigation Map (EQ Zapp), the Project is within an unevaluated area and is not located within an Alquist-Priolo Fault Zone, Liquefaction Zone, or Landslide Zone (DOC 2024b).

Mineral Resources

The California Geological Survey (CGS) classifies the regional significance of mineral resources in accordance with the California Surface Mining and Reclamation Act of 1975. Mineral Resource Zones (MRZ) have been designated to indicate the significance of mineral deposits. The MRZ categories are as follows:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- MRZ-3: Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ.

The primary extractive resources in San Joaquin County are sand and gravel aggregate. Peat soil, placer gold, and silver are extracted to a much lesser extent. Mining activities are monitored by the State Office of Mining Reclamation (OMR) and the County Public Works Department to ensure compliance with applicable laws, to promote reclamation that is cost-effective and beneficial to end-uses, and to protect public health and safety (County 2014). The Project site is not within a mapped MRZ (DOC 2024c), nor is the Project site within or adjacent to any active mining operations (DOC 2024d).

Summary of Impacts from the certified Stockton Delta Water Supply Project Program EIR

Geology, soils, and seismicity impacts are discussed in Section 3.3, *Geology, Soils, and Seismicity*, of the certified DWSP Program EIR. The document concluded that construction of the DWSP facilities could lead to accelerated soil erosion and possible sedimentation of local surface waters; however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measure GEO-1. The certified DWSP Program EIR also concluded that in the event of seismic activity, strong ground motion, secondary hazards in the form of settlement, and/or associated ground failure (e.g., liquefaction) could possibly impact the DWSP facilities; however, the impact from the WTP was determined to be less than significant with implementation of Mitigation Measures GEO-2a through GEO-2c. Structural improvements associated with the DWSP could be subject to soil-related hazards including expansive and/or corrosive soil materials or settlement; however, the impact from the WTP was determined to be less than significant with implementation of Mitigation Measures GEO-3a and GEO-3b. Lastly, the certified DWSP Program EIR concluded that the DWSP facilities, including pipelines, intake facility, sub-surface foundations, and other underground utilities, would be subjected to hazards associated with regional subsidence; however, the impact from the WTP was determined to be less than significant.

The certified DWSP Program EIR also concluded that no mineral resource extraction areas were identified within the DWSP Project area in the City of Stockton, City of Lodi, or County general plans. As a result, construction and operation of the DWSP components would neither interfere with any existing extraction operations nor reduce the availability of an MRZ-2 classified resource. For these reasons, the potential impacts on mineral resources were not discussed further in the certified DWSP Program EIR and are not analyzed in this IS/Addendum.

Impact Analysis

The impact analysis questions related to geology, soils, and seismicity are included in Table 3.3-3, Summary of Impacts – Geology, Soils, and Seismicity, in Section 3.3, *Geology, Soils, and Seismicity,* of the certified DWSP Program EIR.

Impact GEO-1: Construction of the proposed DWSP could lead to accelerated soil erosion and possible sedimentation of local surface waters.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities could lead to accelerated soil erosion and possible sedimentation of local surface waters; however, impacts from construction of the WTP were determined to be reduced to less than significant with implementation of Mitigation Measure GEO-1.

The proposed Project would include construction of three groundwater recharge basins with associated infrastructure, a visitor restroom, a shaded viewing platform, and a paved parking lot. Construction of the proposed Project would require surface disturbance including grading, excavation, and vegetation removal, which would expose soils on the Project site to potential erosion from wind and rain. With implementation of Mitigation Measure GEO-1, potential short-term impacts from construction would be addressed through conformance with applicable elements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, including preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would implement Best Management Practices (BMPs) during construction to reduce on-site erosion of disturbed soil. Therefore, the proposed Project would not result in substantial soil erosion or the loss of topsoil, and the impact would be less than significant with implementation of Mitigation Measure GEO-1. There would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact GEO-2: In the event of seismic activity strong ground motion, secondary hazards in the form of settlement, and/or associated ground failure (e.g., liquefaction) could possibly impact DWSP facilities.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that in the event of seismic activity, strong ground motion, secondary hazards in the form of settlement, and/or associated ground failure (e.g., liquefaction) could possibly impact the WTP; however, the impact from the WTP was determined to be reduced to a less than significant impact with implementation of Mitigation Measures GEO-2b and GEO-2c.

The proposed Project would be located in unincorporated San Joaquin County at the City's DWTP. Terrain in the Project site is relatively flat with an elevation that ranges between approximately 18 to 30 feet amsl. The Project site is not located within an Alquist-Priolo Fault Zone, and there are no known faults in the Project site or the near vicinity. The nearest faults to the Project area exhibiting historic displacement (activity within the last 200 years) are the Concord-Green Valley, Hayward, and Marsh Creek-Greenville faults, located approximately 25 to 46 miles west of the Project area. Seismic activity and strong ground motion in the Project area are unlikely to occur.

As there are no known earthquake faults on or near the Project site, secondary hazards in the form of settlement and/or associated ground failure such as liquefaction would also be unlikely to occur. However, construction of the proposed groundwater recharge basins and associated infrastructure would be required to follow standard guidance from a geotechnical engineer and State construction requirements to reduce potential hazards resulting from strong seismic ground shaking. Further,

Mitigation Measure GEO-2b as identified in the certified DWSP Program EIR would remain applicable to the proposed Project and would be implemented, which would require the proposed Project to be designed to comply with the site-specific design recommendations as provided by a licensed geotechnical or civil engineer. Therefore, with implementation of Mitigation Measure GEO-2b identified in the certified DWSP Program EIR, impacts related to seismic activity would be reduced to less than significant with mitigation. Therefore, *no new or substantially more severe impact* would occur compared to what was evaluated in the certified DWSP Program EIR.

Impact GEO-3: Structural improvements associated with the proposed DWSP could be subject to soil-related hazards including expansive and/or corrosive soil materials or settlement.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that structural improvements associated with the proposed DWSP could be subject to soil-related hazards including expansive and/or corrosive soil materials or settlement; however, the impact from the WTP was determined to be less than significant with implementation of Mitigation Measures GEO-3a and GEO-3b. Expansive soils are characterized by their potential "shrink-swell" behavior. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the process of wetting and drying. Clay minerals such as smectite, bentonite, montmorillonite, beidellite, vermiculite and others are known to expand with changes in moisture content. The effects of expansive soil materials would result in cracking, settlement, and uplift of foundations of aboveground structures, paved service roads, and concrete slabs. Settlement of fill material would occur from static loads with possibly half of the settlement taking place during construction or shortly thereafter. Differential settlement would also occur due to variability in the underlying soil materials.

The proposed Project would include the construction of three groundwater recharge basins with associated infrastructure, a visitor restroom, a shaded viewing platform, and a paved parking lot. Waste from the visitor restroom would be treated on-site via a new septic tank (if connection to existing utilities is not feasible). Standard engineering practices generally require the removal and replacement of expansive soil materials with non-expansive engineered fill that would prevent the impact of pressure or settlement. Additionally, Mitigation Measure GEO-3a and GEO-3b from the certified DWSP Program EIR would remain applicable to the proposed Project and would be implemented, which would require the installation of a cathodic protection system for all underground metallic fittings, appurtenances, and piping to prevent corrosion, and would require the use of isolation valves to prevent significant losses of surface water in the event of pipeline rupture. Therefore, the impacts to soil-related hazards including expansive and/or corrosive soil materials or settlement would be reduced to less than significant with implementation of Mitigation Measures GEO-3a and GEO-3b, and *no new or substantially more severe impact* would occur compared to what was previously evaluated in the certified DWSP Program EIR.

Impact GEO-4: DWSP facilities, including pipelines, intake facility, sub-surface foundations, and other underground utilities, would be subjected to hazards associated with regional subsidence.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that the DWSP facilities, including pipelines, intake facility, sub-surface foundations, and other underground utilities, would be subjected to hazards associated with regional subsidence; however, it was concluded that the WTP is not located within an area identified as experiencing significant subsidence, and the impact from the WTP was determined to be less than significant.

The proposed Project would be located immediately east of the City's existing DWTP and within the WTP site as evaluated in the certified DWSP Program EIR. Therefore, the proposed Project would not be located within an area identified as experiencing significant subsidence. Therefore, the impact would be less than significant, and *no new or substantially more severe impact* would occur compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

As discussed in the sections below, the certified DWSP Program EIR identified Mitigation Measures GEO-1, GEO-2b, GEO-2c, GEO-3a, and GEO-3b to mitigate impacts related to geology, soils, and seismicity from implementation of the WTP. These mitigation measures would remain applicable to the proposed Project. However, Mitigation Measure GEO-2c, which required the City to prepare an Earthquake Response Plan and evacuation plans for all personnel-occupied structures, would not be required for the proposed Project because the proposed Project would not construct new personnel-occupied structures.

Mitigation Measure GEO-1: The City shall prepare a SWPPP for all construction phases of the proposed Project, as required by the Central Valley Regional Water Quality Control Board (CVRWQCB). The objectives of the SWPPP are to identify pollutant sources that may affect the quality of stormwater discharge and to implement BMPs to reduce pollutants in stormwater discharges. BMPs may include, but would not be limited to:

- Excavation and grading activities in areas with steep slopes or directly adjacent to open water shall be scheduled for the dry season only (April 15 to October 15), to the extent possible. This will reduce the chance of severe erosion from intense rainfall and surface runoff.

- If excavation occurs during the rainy season, storm runoff from the construction area shall be regulated through a stormwater management/erosion control plan that shall include temporary on-site silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters. Stockpiles of loose material shall be covered and runoff diverted away from exposed soil material. If work stops due to rain, a positive grading away from slopes shall be provided to carry the surface runoff to areas where flow would be controlled, such as the temporary silt basins. Sediment basins/traps shall be located and operated to minimize the amount of off-site sediment transport. Any trapped sediment shall be removed from the basin or trap and placed at a suitable location on-site, away from concentrated flows, or removed to an approved disposal site.

- Temporary erosion control measures shall be provided until perennial revegetation or landscaping is established and can minimize discharge of sediment into nearby waterways. For construction within 500 feet of a water body, appropriate erosion control measures shall be placed upstream adjacent to the water body.

- Erosion protection shall be provided on all cut-and-fill slopes. Revegetation shall be facilitated by mulching, hydroseeding, or other methods and shall be initiated as soon as possible after completion of grading and prior to the onset of the rainy season (by October 15).

- BMPs selected and implemented for the Project shall be in place and operational prior to the onset of major earthwork on the site. The construction phase facilities shall be maintained

regularly and cleared of accumulated sediment as necessary. Effective mechanical and structural BMPs that would be implemented at the Project site include the following:

- Mechanical stormwater filtration measures, including oil and sediment separators or absorbent filter systems such as the Stormceptor® system, can be installed within the storm drainage system to provide filtration of stormwater prior to discharge.

- Vegetative strips, high infiltration substrates, and grassy swales can be used where feasible throughout the development to reduce runoff and provide initial stormwater treatment.

- Roof drains shall discharge to natural surfaces or swales where possible to avoid excessive concentration and channelization of stormwater.

- Permanent energy dissipaters can be included for drainage outlets.

- The water quality detention basins are designed to provide effective water quality control measures including the following:

  - Maximize detention time for settling of fine particles;

  - Establish maintenance schedules for periodic removal of sedimentation, excessive vegetation, and debris that may clog basin inlets and outlets;

  - Maximize the detention basin elevation to allow the highest amount of infiltration and settling prior to discharge.

- Hazardous materials such as fuels and solvents used on the construction-sites shall be stored in covered containers and protected from rainfall, runoff, vandalism, and accidental release to the environment. All stored fuels and solvents will be contained in an area of impervious surface with containment capacity equal to the volume of materials stored. A stockpile of spill cleanup materials shall be readily available at all construction-sites. Employees shall be trained in spill prevention and cleanup, and individuals shall be designated as responsible for prevention and cleanup activities.

- Equipment shall be properly maintained in designated areas with runoff and erosion control measures to minimize accidental release of pollutants. The SWPPP also will specify measures for removing sediment from water pumped for trench dewatering before the water is released to waterways.

Mitigation Measure GEO-2b: Facility design for all DWSP facilities will comply with the site-specific design recommendations as provided by a licensed geotechnical or civil engineer. These recommendations will be based on the anticipated peak ground acceleration (PGA) for each Project-component within the overall Project area. In instances where conflicting PGA values are obtained, the City will apply the greater of the two values to ensure maximum structural integrity. Design recommendations provided in the geotechnical report will demonstrate compliance with 1997 Uniform Building Code (UBC) and 2001 California Building Code (CBC) requirements for structures located in seismic zone 3.

Mitigation Measure GEO-3a: The City shall install a cathodic protection system for all underground metallic fittings, appurtenances, and piping to protect these facilities from corrosion. The cathodic protection system shall be designed consistent with City standards.

Mitigation Measure GEO-3b: Isolation valves will be incorporated into all pipelines to prevent significant losses of surface water in the event of pipeline rupture. The specifications of the isolation valves will conform to the UBC, American Water Works Association (AWWA), and City standards.

III. DRAINAGE AND FLOODPLAIN MANAGEMENT

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 3.4-1 of the certified DWSP Program EIR):				
DFM-1: Dewatering of excavated areas during construction in areas of shallow groundwater could affect surface water quality.	☐	☐	☐	☒
DFM-2: DWSP construction activities could result in increased erosion and sedimentation, or release fuels or other hazardous materials associated with construction equipment that could impact surface water quality.	☐	☐	☐	☒
DFM-3: DWSP intake and WTP facilities would increase the amount of impervious surfaces, which in turn would increase local storm runoff volumes that could exceed the capacity of on-site drainage systems, and create localized flooding or contribute to a cumulative flooding impact downstream.	☐	☐	☐	☒
DFM-4: Removal and stockpiling of tunnel spoils during construction of the raw and treated water pipelines could release chemicals or spoils into the surrounding environment that could affect surface water quality.	☐	☐	☐	☒
DFM-5: Construction of the intake facility and raw water pipelines could potentially increase the risk of flooding on Empire Tract and King Island.	☐	☐	☐	☒

Affected Environment

The Central Valley is a very large, flat alluvial valley that dominates the central portion of California. The valley stretches approximately 500 miles from north to south, from about 100 miles south of the Oregon border to the boundary between Kern and Los Angeles counties. The Central Valley is divided into three

hydrologic regions or surface water basins including the Sacramento River Basin in the north, San Joaquin River Basin in the center, and Tulare Lake Basin to the very south. Together, the Sacramento and San Joaquin River Basins cover about one fourth of the total areas of the State and over 30 percent of the irrigable land. The two main drainages for these valleys, the Sacramento River and San Joaquin River, empty into the San Francisco Bay estuary system through a large expanse of interconnected canals, streambeds, sloughs, marshes and peat islands known as the Delta (County 2014).

The County lies entirely within the San Joaquin River Basin, which is bounded topographically and geologically by the bedrock of the Diablo Range on the west and the Sierra Nevada to the east. The San Joaquin River flows in a southeast to northwest direction from the Sierra Nevada through the County into the Delta, San Francisco Bay, and ultimately the Pacific Ocean. Both the headwaters and ultimate destination of the San Joaquin River and its tributaries are outside of the county. Four major rivers and streams drain from the western slope of the Sierra Nevada traversing or bordering the County, including Calaveras River, Mokelumne River, Stanislaus River, and San Joaquin River (County 2014).

The Delta occupies the western portion of San Joaquin County and represents the point of discharge for the Sacramento and San Joaquin River systems. Water flows out of the Delta, into San Francisco Bay, and through the Golden Gate to the Pacific Ocean, creating an extensive estuary where salty ocean water and fresh river water commingle. In sum, water from over 40 percent of the State's land area is discharged into the Delta. The Delta supports several beneficial uses, including water supply to local municipalities and agricultural uses, ecological support for fisheries including wetlands and important habitat, in-Delta agriculture, flood management, water quality management, and a major conveyance for transporting fresh water from northern to southern portions of the state. Within the San Joaquin County portion of the Delta, three irrigation districts provide irrigation water from Delta channels to farms within the Delta (County 2014).

In general, surface water quality depends on seasonal hydrologic patterns, mineral composition of watershed soils, topography, land use, and sources of contamination. During low-flow conditions of the summer months, the surface water quality characteristics of most importance to aquatic life are temperature, dissolved oxygen, turbidity, nutrients such as nitrogen and phosphorous, algae growth, and other toxic constituents including ammonia, pesticides, and residual chlorine. Higher flow conditions in the winter are influenced more by stormwater runoff and associated pollutants such as sediment (turbidity), petroleum hydrocarbons, nutrients and bacteria from livestock areas and agricultural fields, heavy metals, pesticides, and various other pollutants (County 2014).

According to the Interactive Flood Zone Map for San Joaquin County, the proposed Project would be located within the Federal Emergency Management Agency (FEMA) Flood Zone "X", which indicates an area of minimal to moderate flood risk hazard (0.2 percent annual chance of flood hazard; County 2024b). The nearest inundation zone is located approximately 6 miles north of the Project site and is associated with the New Woodbridge Diversion (DWR 2024b).

Water supply sources for the proposed groundwater recharge basins would include water from the Delta, WID, and/or the MICUP during surplus. As mentioned in Section 4.2, *Water Supply,* the City currently has about 21,000 AF/year of raw water of existing surface water supplies from these sources available for recharge (NEXGEN 2024). The WID has the authority to divert water from the Mokelumne River (Lodi Lake) via the main diversion canal in Woodbridge, which runs underneath Lower Sacramento Road and feeds the majority of the canals to the south.

Summary of Impacts from the certified Stockton Delta Water Supply Project Program EIR

Drainage and floodplain impacts are discussed in Section 3.4, *Drainage and Floodplain Management*, of the certified DWSP Program EIR. The certified DWSP Program EIR concluded that dewatering of excavated areas during construction in areas of shallow groundwater could result in adverse impacts to surface water quality, but the impact from the WTP was determined to be less than significant with implementation of Mitigation Measure DFM-1. Additionally, construction of the DWSP facilities could result in increased erosion and sedimentation, or release fuels or other hazardous materials associated with construction equipment that could impact surface water quality; however, the impact from the WTP was determined to be less than significant with implementation of Mitigation Measure GEO-1. The certified DWSP Program EIR concluded that the DWSP intake and WTP would increase the amount of impervious surfaces, which in turn would increase local storm runoff volumes that could exceed the capacity of on-site drainage systems and create localized flooding or contribute to a cumulative flooding impact downstream; however, the impact from the WTP was determined to be less than significant with implementation of Mitigation Measure DFM-3. Removal and stockpiling of tunnel spoils during construction of the raw and treated water pipelines could release chemicals or spoils into the surrounding environment that could affect surface water quality; however, it was determined that no impact would occur from construction of the WTP. Lastly, construction of the intake facility and raw water pipelines could potentially increase the risk of flooding on Empire Tract and King Island; however, the impact was determined to be less than significant from the WTP.

Impact Analysis

The impact analysis questions related to drainage and floodplain management are included in Table 3.4-1, Summary of Impacts – Hydrology, Flooding, and Water Quality, in Section 3.4, *Drainage and Floodplain Management,* of the certified DWSP Program EIR.

Impact DFM-1: Dewatering of excavated areas during construction in areas of shallow groundwater could affect surface water quality.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that dewatering of excavated areas during construction in areas of shallow groundwater could result in adverse impacts to surface water quality, however the impact from the WTP was determined to be reduced to less than significant with implementation of Mitigation Measure DFM-1.

The proposed Project would be constructed immediately east of the City's existing DWTP and would include the construction of three groundwater recharge basins totaling approximately 45.5 acres. The proposed groundwater recharge basins would be excavated to approximately three feet bgs and would require approximately 212,860 CY of cut. It is anticipated that if shallow groundwater is encountered during construction, dewatering of the shallow groundwater would be required. If chemicals are present or sediment is released into the extracted water, discharge of this groundwater into surface water would affect surface water quality. Therefore, implementation of Mitigation Measure DFM-1, as required in the certified DWSP Program EIR, would ensure that in the event that dewatered groundwater cannot be contained on-site, the City shall pump the water into multiple-gallon Baker tanks or approved equivalent with either a filter or gel coagulant system or other containment to remove sediment. Therefore, the impact would be reduced to less than significant with implementation of Mitigation Measure DFM-1, and *no new or substantially more severe impact* would occur.

Impact DFM-2: DWSP construction activities could result in increased erosion and sedimentation, or release fuels or other hazardous materials associated with construction equipment that could impact surface water quality.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities could result in increased erosion and sedimentation, or release fuels or other hazardous materials associated with construction equipment that could impact surface water quality; however, the impact from construction of the WTP was determined to be reduced to less than significant with implementation of Mitigation Measure GEO-1.

The proposed Project would include the construction of three groundwater recharge basins totaling approximately 45.5 acres, which would be excavated to approximately three feet bgs and would require approximately 212,860 CY of cut. Excavated soil would be temporarily stored in the proposed stockpile areas, which would encompass approximately 14 acres of the Project site. Ground disturbing activities during Project construction and temporary soil stockpiling could result in exposure of soils to runoff, which would cause erosion and transportation of soil particles that, once in surface water runoff, could cause sediment and other pollutants to leave the construction-site and affect the water quality of the San Joaquin River and/or other surface water in the Project area. Hazardous materials associated with construction equipment and practices, such as fuels, oils, antifreeze, coolants, and other substances, could adversely affect water quality if released to groundwater or surface water. However, implementation of Mitigation Measure GEO-1 would require the City to prepare a SWPPP for all construction phases of the proposed Project, as required by the CVRWQCB, which would identify pollutant sources that may affect the quality of stormwater discharge and to implement BMPs to reduce pollutants in stormwater discharges during construction. Therefore, the construction-related impact would be less than significant with implementation of Mitigation Measure GEO-1, and *no new or substantially more severe impact* would occur.

Impact DFM-3: DWSP intake and WTP facilities would increase the amount of impervious surfaces, which in turn would increase local storm runoff volumes that could exceed the capacity of on-site drainage systems, and create localized flooding or contribute to a cumulative flooding impact downstream.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that the DWSP intake and WTP would increase the amount of impervious surfaces, which in turn would increase local storm runoff volumes that could exceed the capacity of on-site drainage systems and create localized flooding or contribute to a cumulative flooding impact downstream; however, the impact from construction and operation of the WTP was determined to be less than significant with implementation of Mitigation Measure DFM-3.

Development of the proposed Project would include the construction of three groundwater recharge basins with associated infrastructure, a visitor restroom, a shaded viewing platform, and a paved parking lot. Increases in impervious surfaces and the resulting increases of surface water runoff volumes and rates can produce considerable changes to downstream hydrology in areas where portions of the drainage system are converted from pervious to impervious surfaces; however, the proposed Project would add minimal impervious surfaces and would also construct infiltration wells within each groundwater recharge basin to increase groundwater recharge. Mitigation Measure DFM-3 would remain applicable to the proposed Project and would require the City to comply with all measures of the 2020 Stormwater Quality Control Criteria Plan (SWQCCP), which is a joint plan between the City of

Stockton and San Joaquin County. The 2020 SWQCCP, most recently revised in 2023, is an update to the 2009 SWQCCP and reflects the most recent Phase I municipal stormwater NPDES permit requirements and new Statewide trash control requirements (City of Stockton and San Joaquin County 2020).

Additionally, as discussed above in Impact DFM-2, with implementation of Mitigation Measure GEO-1, potential short-term impacts from construction would be addressed through conformance with applicable elements of the NPDES Construction General Permit, including implementation of a SWPPP. The SWPPP would implement BMPs during construction to reduce on-site erosion of disturbed soil. Therefore, with implementation of Mitigation Measure GEO-1 and Mitigation Measure DFM-3, implementation of the proposed Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, and the impact would be less than significant. There would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact DFM-4: Removal and stockpiling of trench and tunnel spoils during construction of the raw and treated water pipelines could release chemicals or spoils into the surrounding environment that could affect surface water quality.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that removal and stockpiling of tunnel spoils during construction of the raw and treated water pipelines could release chemicals or spoils into the surrounding environment that could affect surface water quality. The certified DWSP Program EIR concluded that construction of the raw and treated water pipelines would occur primarily by open trench construction adjacent to existing roadways. These trench and tunnel spoils or materials, removed from the subsurface as pipe is installed, would contain lubrication and hydraulic chemicals, very fine sediments, and would have a high water content. The certified DWSP Program EIR concluded that some components of the DWSP would release of these spoils into surface water runoff or soils in adjacent agricultural fields would cause potential adverse effects on surface water quality and soil productivity; however, the certified DWSP Program EIR concluded that construction of the WTP would not result in impacts to surface water quality or soil productivity on adjacent lands.

The proposed Project would temporarily stockpile debris and vegetation from site preparation and soil from basin excavation on-site. The proposed temporary stockpile areas would be located west of the groundwater recharge basins and adjacent to the City's DWTP and would encompass approximately 14 acres of the Project site. Following excavation and temporary stockpiling, the excavated soils would be used on-site to construct the perimeter berms for the proposed basins, and remaining soil (if any) would be balanced on-site. Implementation of standard BMPs, such as installation of straw wattles around the perimeter of the stockpiled soil, would minimize the potential for soil erosion. Further, the proposed Project would not require the construction of new raw and/or treated water pipelines off-site or adjacent to existing roadways which could contain lubrication and hydraulic chemicals. Therefore, the proposed Project would not release chemicals or soils into the surrounding environment that could affect water quality. No impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact DFM-5: Construction of the intake facility and raw water pipelines could potentially increase the risk of flooding on Empire Tract and King Island.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the intake facility and raw water pipelines could potentially increase the risk of flooding on Empire Tract and King Island; however, the impact from construction of the WTP was determined to be less than significant. The certified DWSP Program EIR contemplated that both the in-river intake and the in-bank intake would be constructed on the river side of the existing levee. The in-bank intake would be constructed into the levee; the raw water pipelines would pass through or under the levee. Construction crews and equipment would require access to and over the levee into the river channel.

The proposed Project would be constructed immediately east of the City's existing DWTP and would not require the construction of any Project components within the immediate vicinity of the river channel. Therefore, the proposed Project would not increase the risk of flooding on Empire Tract and King Island. No impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

The certified DWSP Program EIR identified Mitigation Measures DFM-1, DFM-3, and GEO-1 to mitigate impacts related to drainage and floodplain management from implementation of the WTP. As described in the impact analyses above, all mitigation measures identified for the WTP related to drainage and floodplain management would remain applicable to the proposed Project and would be implemented. These mitigation measures are provided below. See Section 6.II, *Geology, Soils, and Seismicity,* for Mitigation Measure GEO-1.

Mitigation Measure DFM-1: During construction, if groundwater cannot be contained on-site, the City shall pump the water into multiple-gallon Baker tanks or approved equivalent with either a filter or gel coagulant system or other containment to remove sediment. The remaining water will then be discharged to irrigation ditches. On upland areas sprinkler systems may be used to disperse the water in farmers' fields. BMPs, as described in the SWPPP, will also be implemented, as appropriate, to retain, treat, and dispose of groundwater. Measures shall include but are not limited to:

- Retaining pumped groundwater in surface facilities to reduce turbidity and suspended sediments concentrations.

- Treating (i.e., flocculate) pumped groundwater, as appropriate, to reduce turbidity and concentrations of suspended sediments.

- Directly conveying pumped groundwater to a suitable land disposal area capable of percolating flows.

If contamination is suspected, water collected during dewatering will be tested for contamination prior to disposal. Discharges shall comply with the Central Valley Regional Water Quality Control Board's requirements.

Mitigation Measure DFM-3: The City shall comply with all measures of the City's Stormwater Quality Control Criteria Plan to effectively manage and minimize increases in stormwater runoff resulting from the operation of DWSP facilities. Measures to be implemented may include detention basins, vegetated swales, buffer strips, and/or infiltration basins.

IV. BIOLOGICAL RESOURCES

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 3.5-3 of the certified DWSP Program EIR):				
BIO-1: Construction of DWSP facilities would result in the loss of jurisdictional waters of the U.S., including wetlands.	☐	☐	☐	☒
BIO-2: Construction of DWSP facilities could result in impacts to special-status species.	☐	☐	☐	☒
BIO-3: Construction of the proposed DWSP raw and treated water pipelines could result in temporary impacts to riparian habitats or other sensitive natural communities.	☐	☐	☐	☒
BIO-4: Construction of the proposed DWSP raw and treated water pipelines could impact native wildlife migration corridors or nursery sites.	☐	☐	☐	☒
BIO-5: The proposed DWSP could conflict with adopted City and County tree preservation ordinances.	☐	☐	☐	☒
BIO-6: The proposed DWSP could conflict with the SJMSCP.	☐	☐	☐	☒

A Biological Resources Assessment was prepared by HELIX in February 2025 for the proposed Project and is included as Appendix B.

Affected Environment

The approximately 134.2-acre Study Area encompasses the entirety of the Project site, which includes the 78-acre permanent and temporary Project impact footprint adjacent to the existing DWTP and its infrastructure. The Study Area supports the existing water treatment facility with several structures,

native plant landscaping, and sewer treatment ponds in addition to undeveloped land that supports valley grassland. The Study Area and surrounding area has changed little over the last 30 years based on a review of historic aerial imagery, which consists primarily of agricultural uses and rural residences. The DWTP was constructed on the northwestern portion of the Study Area in 2010.

Terrain in the Study Area is comprised of generally flat land with an elevation that ranges between approximately 18 to 30 feet amsl. The Study Area consists of developed areas with structures, ruderal/disturbed areas, and valley grassland, dominated by annual grasses and forbs. The Study Area does not support any natural drainages or wetlands, but agricultural ditches run along the northern and western border of the Study Area, with one upland ditch that originates in the Study Area and runs north to south, where it terminates in a vineyard.

The Study Area is in the San Joaquin Delta watershed (USGS Hydrologic Unit Code [HUC] 18040003). The Study Area is generally flat, and drainage of the Study Area is directed via sheet flow to upland roadside or agricultural ditches.

Soils

Two soil map units are mapped within the Study Area: Acampo sandy loam, 0 to 2 percent slopes, and Rioblancho clay loam, drained, 0 to 2 percent slopes. The general characteristics and properties associated with these soils are described below (NRCS 2024a).

- **Acampo sandy loam, 0 to 2 percent slopes**, is a moderately well-drained soil that consists of sandy loam, underlain by dense cemented layers. The parent material for this soil is alluvium derived from granite. This soil unit is moderately well drained and is found on fan remnants. This soil map unit is considered to support prime farmland of statewide importance if it is irrigated. Minor components of this soil map unit are considered hydric on valley floors (NRCS 2024b).

- **Rioblancho clay loam, drained, 0 to 2 percent slopes**, is a well-drained soil that consists of clay loam and sandy loam underlain by cemented layers. The parent material for this soil is alluvium derived from mixed rock sources. This soil unit is somewhat poorly drained and is found on rims on basin floors. This soil map unit covers the majority of the Study Area and is also rated as moderately alkaline. This soil map unit is considered to support prime farmland of statewide importance. This soil map unit is considered a hydric soil on basin floors (NRCS 2024b).

Vegetation Communities

Upland vegetation communities that occur within the Study Area include valley grassland, urban/industrial/built, sewer treatment ponds, ruderal, and drainage ditch. All habitat types in the Study Area were reviewed and compared to habitats mapped in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) (SJMSCP 2000). These habitat types are discussed below.

Valley Grassland

A total of 89.38 acres of valley grassland habitats were mapped within the Study Area. This community includes open grasslands composed primarily of annual plant species. Many of these species also occur as understory plants in oak woodland and other habitats. Structure in valley grassland depends largely on weather patterns and livestock grazing; dramatic differences in physiognomy, both between seasons and between years, are characteristic of this habitat. Dominant species observed within valley grassland

habitat in the Study Area include rattail six weeks grass (*Festuca myuros*), slender oats (*Avena barbata*), soft brome (*Bromus hordeaceus*), stinkwort (*Dittrichia graveolens*), and yellow star-thistle (*Centaurea solstitialis*). Prior to 2010, when the DWTP was constructed, areas currently mapped as valley grassland consisted of agricultural lands and has since been fallowed and returned to a grassland vegetation community that provide habitat for wildlife species that utilize grassland habitat.

The valley grassland community supports breeding, foraging, and shelter for several species of wildlife. Species observed in the Study Area included red-tailed hawk (*Buteo jamaicensis*), white-tailed kite (*Elanus leucurus*), turkey vulture (*Cathartes aura*), American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), lark sparrow (*Chondestes grammacus*), and evidence of burrowing small mammals such as California ground squirrel (*Otospermophilus beecheyi*).

Urban/Industrial/Built

Urban/industrial/built or developed areas comprise 21.37 acres in the Study Area. Urban/industrial/built consist of areas that are graveled or support buildings with associated ornamental vegetation. The eastern and central side of the Study Area is dominated by buildings and structures associated with the treatment facility. The treatment facility was built in 2010. Prior to the construction of the treatment plant, these areas consisted of agricultural fields.

Sewer Treatment Ponds

A total of 5.17 acres of sewer treatment ponds were mapped within the Study Area, consisting of five separate features. Three large basins are concrete-lined sludge basins and two smaller earthen basins are vegetated with riparian scrub vegetation. These features are maintained as part of the water treatment system and are not natural features. Additionally, earthen basins support hydrophytes, however, other wetland hydric soil indicators are not present in the soil.

Ruderal

A total of 18.12 acres of ruderal lands were mapped in the Study Area. Ruderal or disturbed areas have been subject to past or on-going human disturbance but retain a soil substrate. If vegetated, there is no recognizable plant community, and the species assemblage depends on local colonization potential. Ruderal and disturbed areas include dirt roads, trails, parking areas, and weedy open areas where the natural vegetation has been removed. Ruderal and disturbed areas are not described in treatments of plant communities.

The eastern and central portion of the Study Area around the treatment facility is mostly ruderal, which was heavily disturbed by past activities likely associated with routine vegetation maintenance. Ruderal areas are dominated by rattail six weeks grass, slender oats, stinkwort, and yellow star-thistle.

Drainage ditch

A total of 0.18-acre of drainage ditch was mapped within the Study Area, consisting of one earthen ditch that occurs along the northern boundary of the Study Area. The ditch is associated with a vineyard north of the Study Area and appears to drain water from the vineyard and roadside drainage from North Lower Sacramento Road. The ditch originates along the roadside of North Lower Sacramento Road, where it continues west to another ditch outside of the Study Area. The ditch was mostly barren but was dominated by annual fireweed (*Epilobium brachycarpum*) and western ragweed (*Erigeron bonariensis*). The ditch does not meet the three-parameter criteria for vegetation, hydrology, and soils to qualify as a wetland, and this ditch does not convey water for long enough duration to scour the ditch to exhibit an

"ordinary high-water mark (OHWM)". The ditch appears to be maintained in conjunction with the vineyard north of the Study Area.

Special-Status Species

Sensitive plant and wildlife species identified during database queries were evaluated for their potential to occur within the Study Area based on the results of the field survey and the criteria described below.

Listed and Special-Status Plants

According to the database query, 19 listed and/or special-status plant species have the potential to occur on-site or in the vicinity of the Study Area (CNPS 2024; CDFW 2024; USFWS 2024). Based on field observations, literature review, and published information, no listed and/or special-status plants have the potential to occur in the Study Area. Plants identified in the database query occur in vernal pools, fresh emergent wetlands and in habitat types or soils that do not occur in the Study Area. The Study Area is comprised of alkaline sandy loam and clay loam soils with no natural water resources. An upland or managed ditch occurs in the Study Area but does not support wetland conditions or convey enough flow to form an ordinary high-water mark. In addition, the Study Area previously consisted of agricultural lands and currently appears to be routinely disturbed and/or altered for vegetation management for the facility. There is no suitable habitat for special-status plants within the Study Area.

Listed and Special-Status Wildlife

According to the database query, 24 listed and/or special-status wildlife species have the potential to occur on-site or in the vicinity of the Study Area (CDFW 2024; USFWS 2024). Based on field observations, published information, and literature review, six special-status wildlife species have the potential to occur within the Study Area: valley elderberry longhorn beetle (*Desmocerus californicus californicus*), northwestern pond turtle (*Actinemys marmorata*), giant garter snake (*Thamnophis gigas*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*). These species are discussed in more detail below. In addition to these special-status wildlife species, other migratory birds and raptors protected under federal, State, and local laws/policies also have the potential to occur within the Study Area. The Study Area is not located within federally-designated critical habitat for any wildlife species.

Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the FGC (i.e., riparian areas) and/or Sections 401 and 404 of the CWA, which include wetlands and other waters of the U.S. Sensitive habitats. Aquatic resources that may qualify as potential waters of the U.S. or State were not observed in the Study Area.

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. This fragmentation of habitat can also occur when a portion of one or more habitats is converted into another habitat; for instance, when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or construction activities. Wildlife corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species

extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs. The Study Area is located in an area of San Joaquin County surrounded by busy roadways and agricultural lands.

Methods

Biological studies conducted for the Study Area consisted of a special-status species evaluation that included a desktop review and database searches to identify known biological resources in the Study Area and vicinity, as well as a biological and wetland field survey.

Database and Literature Review

Before conducting the field survey, background research was conducted to inform and create target lists to focus the survey efforts. Accessible information in public databases pertaining to natural resources in the region of the Study Area was queried and provided in Appendix A of Appendix B.

Biological Surveys

The biological and wetland reconnaissance survey was conducted on October 22, 2024, by HELIX biologists Patrick Martin and Kate Valdez. The weather during the field survey was clear and warm with a high temperature of 80 degrees Fahrenheit and relatively calm winds and clear conditions. The Study Area was systematically surveyed on foot to ensure total search coverage, with special attention given to portions of the Study Area with the potential to support special-status species and sensitive habitats. Binoculars were used to further extend site coverage and identify species observed. Following the field survey, the potential for each species identified in the database query to occur within the Study Area was determined based on the site survey, soils, habitats present within the Study Area, and species-specific information, as shown in Appendix B of Appendix B. All plant and animal species observed on-site during the surveys were recorded in Appendix C of Appendix B. All biological communities occurring within the Study Area were characterized according to the SJMSCP vegetation classifications (SJMSCP 2000).

Summary of Impacts from the certified Stockton Delta Water Supply Project Program EIR

Biological resources impacts are discussed in Section 3.5, *Biological Resources*, of the certified DWSP Program EIR. The certified DWSP Program EIR concluded that construction of the DWSP facilities would result in the loss of jurisdictional waters of the U.S., including wetlands; however, it was determined that no impact would occur from construction of the WTP because there were no jurisdictional waters on the WTP site. Additionally, construction of the DWSP facilities could result in impacts to the following special-status species: giant garter snake, Swainson's hawk, western pond turtle, white-tailed kite, other nesting raptors, loggerhead shrike, western burrowing owl, Suisun marsh aster, rose mallow, Delta tule pea, Mason's lilaeopsis, Delta mudwort, eel-grass pondweed, Sanford's arrowhead, marsh skullcap, and blue skullcap; however, the impact from construction of the WTP was determined to be less than significant with incorporation of Mitigation Measures BIO-2a and BIO-2b. Further, the certified DWSP Program EIR concluded that construction of the DWSP raw and treated water pipelines could result in temporary impacts to riparian habitats or other sensitive natural communities; however, it was determined that no impact would occur from construction of the WTP. Construction of the DWSP raw and treated water pipelines could impact native wildlife migration corridors or nursery sites; however, it was determined that there would be no impact to wildlife migration corridors from construction of the WTP. The certified DWSP Program EIR also concluded that the DWSP facilities could conflict with adopted City and County tree preservation ordinances; however, the impact from the WTP was

determined to be less than significant with implementation of Mitigation Measure BIO-5. Lastly, the DWSP facilities would be consistent with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP); therefore, it was determined that no impact would occur from the WTP.

Impact Analysis

The impact analysis questions related to biological resources are included in Table 3.5-3, Summary of Impacts – Biological Resources, in Section 3.5, *Biological Resources,* of the certified DWSP Program EIR.

BIO-1: Construction of DWSP facilities would result in the loss of jurisdictional waters of the U.S., including wetlands.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities would result in the loss of jurisdictional waters of the U.S., including wetlands; however, it was determined that no impact would occur for the WTP because there are no jurisdictional features on the WTP site.

The proposed Project would be constructed immediately east of the City's existing DWTP. No aquatic resources that may qualify as potential waters of the U.S. or State were observed on the Project site. Therefore, construction of the proposed Project would not result in the loss of jurisdictional waters of the U.S., and no impact would occur. Therefore, there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

BIO-2: Construction of DWSP facilities could result in impacts to special-status species.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities could result in impacts to the following special-status species: giant garter snake, Swainson's hawk, western pond turtle, whitetailed kite, other nesting raptors, loggerhead shrike, western burrowing owl, Suisun marsh aster, rose mallow, Delta tule pea, Mason's lilaeopsis, Delta mudwort, eel-grass pondweed, Sanford's arrowhead, marsh skullcap, and blue skullcap; however, the impact for the WTP was determined to be reduced to less than significant with incorporation of Mitigation Measures BIO-2a and BIO-2b.

Listed and Special Status-Plant Species

According to the database query, 19 listed and/or special-status plant species have the potential to occur on-site or in the vicinity of the Project site. Based on field observations, literature review, and published information, no listed and/or special-status plants have the potential to occur in the Project site. Plants identified in the database query occur in vernal pools, fresh emergent wetlands and in habitat types or soils that do not occur in the Project site. Therefore, construction of the proposed Project would not impact listed or special-status plant species, and no mitigation would be necessary. i

Listed and Special-Status Wildlife

The Project site contains potential habitat for special-status wildlife species, including valley elderberry longhorn beetle, northwestern pond turtle, giant garter snake, burrowing owl, Swainson's hawk, and white-tailed kite, as well as potential habitat for nesting migratory birds and raptors. However, with implementation of Mitigation Measure BIO-2a from the certified DWSP Program EIR potential impacts from construction of DWSP facilities would be reduced, which includes the proposed Project, and would

apply to the proposed Project. An abridged version of the applicable portion of Mitigation Measure BIO-2a is provided below:

> The City anticipates that the DWSP would be approved for participation in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) for the land-based facilities (pipelines and WTP). Compliance with the SJMSCP would provide for impact avoidance measures (e.g., pre-construction surveys during appropriate seasons for identification, construction set-backs, restriction on construction timing) and mitigation for loss of habitat for all species that may be affected by this impact, with the exception of eelgrass pondweed and marsh skullcap. Impact avoidance measures would include, but are not limited to, the species-specific measures presented below, which are summarized from the SJMSCP.

Complete impact avoidance and habitat compensation measures for special-status species with the potential to occur in the Project site, consistent with the SJMSCP, are discussed for each species below. (Note: The applicable measures from Mitigation Measure BIO-2a in the certified DWSP Program EIR, consistent with the SJMSCP, are identified as Mitigation Measures BIO-2a.i, BIO-2a.ii, BIO-2a.iii, BIO-2a.iv, BIO-2a.v, BIO-2a.vi, and BIO-2a.vii for purposes of clarity within this IS/Addendum).

Valley Elderberry Longhorn Beetle

The Project site contains suitable habitat for valley elderberry longhorn beetle (VELB) since elderberry shrubs located along the entrance roadway provide habitat for this species, with several shrubs supporting multiple stems over one inch diameter as measured at the base of the shrub. However, elderberry shrubs are not located within the Project impact footprint and are unlikely to be impacted by the Project. Although the potential for Project impacts to elderberry shrubs remains low, the proposed Project would implement Mitigation Measure BIO-2a.i, which contains measures from Section 5.2.4.1 of the SJMSCP, to avoid potential impacts to a less than significant level to VELB in areas with elderberry bushes.

Northwestern Pond Turtle

The Project site contains suitable habitat for northwestern pond turtle within sewer treatment ponds and a canal located to the west of the Project site. Adjacent upland areas near the sewer treatment ponds and canal may provide nesting or refuge habitat for northwestern pond turtles. If present within the Project site, this species could be impacted by the proposed Project during implementation of Project activities that include the installation of pipelines and establishment of laydown areas or other temporary disturbance areas. The installation of the proposed recharge basins are outside of the 300-foot buffer zone recommended by the SJMSCP. However, to avoid potential impacts to northwestern pond turtle during Project construction, Mitigation Measure BIO-2a.ii would be implemented to reduce potential impacts to a less-than-significant level, which contains measures from Section 5.2.4.10 of the SJMSCP.

Giant Garter Snake

The Project site contains suitable habitat for giant garter snake within sewer treatment ponds and a ditch located west of the Project site. Adjacent upland areas near aquatic features may provide refuge habitat for giant garter snake. Ditches that occur adjacent to the Project site are contiguous with the White Slough area, which is considered to be occupied by the giant garter snake. If present within the Project site, this species could be impacted by the proposed Project during implementation of Project

activities that include the installation of pipelines and establishment of laydown areas or other temporary disturbance areas. The installation of the proposed recharge basins are outside of the 200-foot buffer zone recommended by the SJMSCP. However, to avoid potential impacts to giant garter snake during construction, Mitigation Measure BIO-2a.iii would be implemented to reduce potential impacts to a less-than-significant level, which contains measures from Section 5.2.4.8 of the SJMSCP.

Burrowing Owl

The Project site contains suitable habitat for burrowing owl in open areas such as valley grassland. Additional suitable habitat is present within the vicinity of the Project site in other opens areas or along ditches. If present within the Project site, burrowing owl could be impacted by all aspects of the proposed Project through grading, vegetation removal, or other Project related activities. To avoid potential impacts to burrowing owl during construction, Mitigation Measure BIO-2a.iv would be implemented to reduce potential impacts to a less-than-significant level, which contains measures from Section 5.2.4.15 of the SJMSCP.

Swainson's Hawk

Swainson's hawk has a high potential to occur in the vicinity of the Project site due to the presence of suitable nesting and foraging habitat and known occurrences within five miles of the Project site. If the Project activities take place during the nesting season (February 1 to August 31), nesting Swainson's hawks may be impacted during all aspects of the proposed Project. If Project activities take place outside of the nesting season, no mitigation measures for Swainson's hawk are required. If Project activities take place during the nesting season, Mitigation Measure BIO-2a.v, which contains measures from Section 5.2.4.11 of the SJMSCP, and Mitigation Measure BIO-2a.vii, which contains measures from Section 5.2.3.1(G) of the SJMSCP, would be implemented to avoid or minimize potential impacts, reducing them to a less than significant level, to Swainson's hawk.

White-tailed Kite

The Project site contains suitable habitat for white-tailed kite in trees with foraging habitat in open areas that consist of ruderal areas and valley grassland. Additional suitable habitat is present within the vicinity of the Project in other opens areas or trees. If present within the Project site, white-tailed kite could be impacted by during all aspects of the proposed Project. To avoid potential impacts to white-tailed kite, the Project would implement Mitigation Measure BIO-2a.vi, which contains measures from Section 5.2.4.19 of the SJMSCP, consistent with the provisions of the Migratory Bird Treaty Act described in Section 5.2.3.1(G) of the SJMSCP, to reduce impacts to a less than significant level to the white-tailed kite.

<u>Migratory Birds</u>

Several special-status species of migratory birds have the potential to forage and nest in the Project site, including special-status species such red-tailed hawk, western meadowlark, and other migratory birds. Active nests are protected by the California Fish and Game Code Section 3503.5 and the Migratory Bird Treaty Act (MBTA). The SJMSCP covers lawful activities which must comply with all federal, State, and local laws for coverage. In addition to the applicable measures of Section 5.4.2 of the SJMSCP, identified above in Mitigation Measures BIO-2a.i through BIO-2a.vi, Mitigation Measure BIO-2a.vii would also be implemented to avoid impacts to migratory birds, which includes Section 5.2.3.1(G) of the SJMSCP, reducing the Project impacts to a less than significant level.

Proposed Project Impact Discussion

The proposed Project would implement the applicable measures contained within Mitigation Measure BIO-2a, as identified in the certified DWSP Program EIR, to mitigate potential impacts to special-status species and migratory birds. Mitigation Measure BIO-2b would not be applicable to the proposed Project, as this measure only applies to the raw water pipeline components of the DWSP that would impact eel-grass pondweed and marsh skullcap. Therefore, with implementation of the applicable measures contained within Mitigation Measure BIO-2a, and consistent with the applicable measures contained within SJMSCP, the impact would be less than significant. Therefore, there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

BIO-3: Construction of the proposed DWSP raw and treated water pipelines could result in temporary impacts to riparian habitats or other sensitive natural communities.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP raw and treated water pipelines could result in temporary impacts to riparian habitats or other sensitive natural communities; however, it was determined that no impact would occur for the WTP because there is no riparian habitat or sensitive natural community on the WTP site.

Upland vegetation communities that occur within the Project site include valley grassland, urban/industrial/built, sewer treatment ponds, ruderal, and drainage ditch. The proposed Project would permanently impact 64.21 acres of valley grassland (63.66 acres), ruderal (0.09 acre), urban/industrial/built (0.45 acre), and an earthen sewer treatment pond (0.01 acre) from construction of the groundwater recharge basins, viewing platform, and associated infrastructure and improvements (e.g., parking lot, visitor restroom, pipelines, fencing). Stockpiling of dirt and construction materials during Project construction would result in temporary impacts to 13.65 acres of valley grassland (13.53 acres) and urban/industrial/built (0.12 acre) that would be restored to pre-Project conditions following Project construction. The proposed Project would be constructed immediately east of the City's existing DWTP, which is currently developed with a total of 5.17 acres of sewer treatment ponds consisting of five separate features. Three large basins are concrete-lined sludge basins and two smaller earthen basins are vegetated with riparian scrub vegetation. However, these features are maintained as part of the water treatment system and are not natural features. Therefore, construction of the proposed Project would not temporarily impact riparian habitats or other sensitive natural communities. No impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

BIO-4: Construction of the proposed DWSP raw and treated water pipelines could impact native wildlife migration corridors or nursery sites.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP raw and treated water pipelines could impact native wildlife migration corridors or nursery sites, and it was determined that there would be no impact for the WTP because there is no wildlife migration corridor or nursery site at the WTP site. Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance.

The Project site is located immediately east of the City's existing DWTP and is substantially surrounded by roadways and agricultural lands. For these reasons, construction of the Project would not adversely

affect wildlife migration corridors or nursery sites. No impact would occur, there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

BIO-5: The proposed DWSP could conflict with adopted City and County tree preservation ordinances.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that the DWSP facilities could conflict with adopted City and County tree preservation ordinances; however, the impact for the WTP was determined to be less than significant with implementation of Mitigation Measure BIO-5.

The Project site primarily consists of valley grassland. Trees on the Project site are limited to the northern perimeter of the site and immediately east of the DWTP. No tree removal is anticipated for the proposed Project; however, Mitigation Measure BIO-5 would remain applicable to the proposed Project and would be implemented. The impact would be less than significant with mitigation, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

BIO-6: The proposed DWSP would be consistent with the SJMSCP.

No New or Substantially More Severe Impact. The certified DWSP Program EIR determined that the DWSP's conversion of agricultural land to non-agricultural land uses would not decrease the majority of the acreage available for coverage under the SJMSCP; therefore, the DWSP was determined to be consistent with the SJMSCP and no impact would occur from implementation of the WTP. The determination of the DWSP's consistency with the SJMSCP was based on the San Joaquin County Joint Powers Authority (JPA) approval required by the City prior to approval of the DWSP Program EIR. Further, the JPA was required to determine that the applicable SJMSCP measures implemented in the certified DWSP Program EIR would appropriately mitigate impacts on the SJMSCP covered species.

The proposed Project would be located adjacent to the City's existing DWTP, which is located in the Central Zone of the SJMSCP. As discussed in Impact BIO-2, the Project would implement the applicable measures contained in Mitigation Measure BIO-2a of the certified DWSP Program EIR, consistent with measures contained in the SJMSCP. With implementation of these mitigation measures, the Project would not conflict with a local, regional, or State conservation plan. Therefore, no impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

Mitigation Measure BIO-2a: The City anticipates that the DWSP would be approved for participation in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) for the land-based facilities (pipelines and WTP). Compliance with the SJMSCP would provide for impact avoidance measures (e.g., pre-construction surveys during appropriate seasons for identification, construction set-backs, restriction on construction timing) and mitigation for loss of habitat for all species that may be affected by this impact, with the exception of eelgrass pondweed and marsh skullcap. Impact avoidance measures would include, but are not limited to, the species-specific measures presented below, which are summarized from the SJMSCP.

Mitigation Measure BIO-2a.i: Valley Elderberry Longhorn Beetle

The following mitigation measure is from Section 5.2.4.1 of the SJMSCP.

A. If elderberry shrubs are present on the Project site, a setback of 20 feet from the dripline of each elderberry bush shall be established.

B. Brightly colored flags or fencing shall be placed surrounding elderberry shrubs throughout the construction process.

C. For all shrubs without evidence of VELB exit holes which cannot be retained on the Project site as described in A and B, above, the JPA shall, during preconstruction surveys, count all stems of 1" or greater in diameter at ground level. Compensation for removal of these stems shall be provided by the JPA within SJMSCP Preserves as provided in SJMSCP Section 5.5.4(B).

D. For all shrubs with evidence of VELB exit holes, the JPA shall undertake transplanting of elderberry shrubs displaying evidence of VELB occupation to VELB mitigation sites during the dormant period for elderberry shrubs (November 1 - February 15). For elderberry shrubs displaying evidence of VELB occupation which cannot be transplanted, compensation for removal of shrubs shall be as provided in SJMSCP Section 5.5.4 (C).

Mitigation Measure BIO-2a.ii: Pond Turtles

The following mitigation measure is from Section 5.2.4.10 of the SJMSCP.

When nesting areas for northwestern pond turtles are identified on a Project site, a buffer area of 300 feet shall be established between the nesting site (which may be immediately adjacent to wetlands or extend up to 400 feet away from wetland areas in uplands) and the wetland located near the nesting site. These buffers shall be indicated by temporary fencing if construction has or will begin before nesting periods are ended (the period from egg laying to emergence of hatchlings is normally April to November).

Mitigation Measure BIO-2a.iii: Giant Garter Snake

The following mitigation measure is from Section 5.2.4.8(B) of the SJMSCP.

B. For areas with potential giant garter snake habitat, the following is required. Potential GGS habitat elements are described in SJMSCP Section 2.2.2.2 and exist in the Primary Zone of the Delta and the Central Zone contiguous with known occupied habitat in the White Slough area north to the San Joaquin/Sacramento County line and south to Paradise Cut; in the Central Zone east of Stockton in Duck Creek, Mormon Slough, Stockton Diverting Canal, Little John's Creek, Lone Tree Creek, and French Camp Slough (wherever habitat elements are present); and the Southern Central Zone and Southwest/Central Transition Zone including the area east of County Route J4 from the Alameda-San Joaquin County Line to Tracy and area south of Tracy and east of Interstate 580 to the east edge of Agricultural Habitat Lands east of the San Joaquin River.

    1. Construction shall occur during the active period for the snake, between May 1 and October 1. Between October 2nd and April 30th, the JPA, with the concurrence of the

Permitting Agencies' representatives on the TAC, shall determine if additional measures are necessary to minimize and avoid take.

2. Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to the minimal area necessary.

3. Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance.

4. Prior to ground disturbance, all on-site construction personnel shall be given instruction regarding the presence of SJMSCP Covered Species and the importance of avoiding impacts to these species and their habitats.

5. In areas where wetlands, irrigation ditches, marsh areas or other potential giant garter snake habitats are being retained on the site:

    a. Install temporary fencing at the edge of the construction area and the adjacent wetland, marsh, or ditch;

    b. Restrict working areas, spoils and equipment storage and other Project activities to areas outside of marshes, wetlands and ditches; and

    c. Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents.

6. If on-site wetlands, irrigation ditches, marshes, etc. are being relocated in the vicinity: the newly created aquatic habitat shall be created and filled with water prior to dewatering and destroying the pre-existing aquatic habitat. In addition, non-predatory fish species that exist in the aquatic habitat and which are to be relocated shall be seined and transported to the new aquatic habitat as the old site is dewatered.

7. If wetlands, irrigation ditches, marshes, etc. will not be relocated in the vicinity, then the aquatic habitat shall be dewatered at least two weeks prior to commencing construction.

8. Pre-construction surveys for the giant garter snake (conducted after completion of environmental reviews and prior to ground disturbance) shall occur within 24 hours of ground disturbance.

9. Other provisions of the USFWS Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat shall be implemented (excluding programmatic mitigation ratios which are superseded by the SJMSCP's mitigation ratios).

Mitigation Measure BIO-2a.iv: Burrowing Owls

The following mitigation measure is from Section 5.2.4.15 of the SJMSCP.

The presence of ground squirrels and squirrel burrows are attractive to burrowing owls. Burrowing owls may therefore be discouraged from entering or occupying construction areas by discouraging the presence of ground squirrels. To accomplish this, the Project proponent should prevent ground squirrels from occupying the Project site early in the planning process by employing one of the following practices:

A. The Project proponent may plant new vegetation or retain existing vegetation entirely covering the site at a height of approximately 36" above the ground. Vegetation should be retained until construction begins. Vegetation will discourage both ground squirrel and owl use of the site.

B. Alternatively, if burrowing owls are not known or suspected on a Project site and the area is an unlikely occupation site for red-legged frogs, San Joaquin kit fox, or tiger salamanders:

   The Project proponent may disc or plow the entire Project site to destroy any ground squirrel burrows. At the same time burrows are destroyed, ground squirrels should be removed through one of the following approved methods to prevent reoccupation of the Project site. Detailed descriptions of these methods are included in Appendix A, Protecting Endangered Species, Interim Measures for Use of Pesticides in San Joaquin County, dated March 2000:

1. **Anticoagulants**. Establish bait stations using the approved rodenticide anticoagulants. Rodenticides shall be used in compliance with U.S. Environmental Protection Agency label standards and as directed by the San Joaquin County Agricultural Commissioner. It should be noted, that although the SJMSCP recommends the use of anticoagulants that include Chlorophacinone or Diphacinone, however these chemicals have recently been banned in California.

2. **Zinc Phosphide**. Establish bait stations with non-treated grain 5-7 calendar days in advance of rodenticide application, then apply Zinc Phosphide to bait stations. Rodenticides shall be used in compliance with U.S. Environmental Protection Agency label standards and as directed by the San Joaquin County Agricultural Commissioner.

3. **Fumigants**. Use below-ground gas cartridges or pellets and seal burrows. Approved fumigants include Aluminum Phosphide (Fumitoxin, Phostoxin) and gas cartridges sold by the local Agricultural Commissioner's office. NOTE: Crumpled newspaper covered with soil is often an effective seal for burrows when fumigants are used. Fumigants shall be used in compliance with U.S. Environmental Protection Agency label standards and as directed by the San Joaquin County Agricultural Commissioner.

4. **Traps**. For areas with minimal rodent populations, traps may be effective for eliminating rodents. If trapping activities are required, the use of, shall be consistent with all applicable laws and regulations.

If the measures described above were not attempted or were attempted but failed, and burrowing owls are known to occupy the Project site, then the following measures shall be implemented:

C. During the non-breeding season (September 1 through January 31) burrowing owls occupying the Project site should be evicted from the Project site by passive relocation as described in the *California Department of Fish and Game's Staff Report on Burrowing Owls* (Oct, 1995).

D. During the breeding season (February 1 through August 31) occupied burrows shall not be disturbed and shall be provided with a 75 meter protective buffer until and unless the TAC, with the concurrence of the Permitting Agencies' representatives on the TAC; or unless a qualified biologist approved by the Permitting Agencies verifies through non-invasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Once the fledglings are capable of independent survival, the burrow can be destroyed.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G) of the SJMSCP.

Mitigation Measure BIO-2a.v: Swainson's Hawk

The following mitigation measure is from Section 5.2.4.11 of the SJMSCP.

The Project proponent has the option of retaining known or potential Swainson's hawk nest trees (i.e., trees that hawks are known to have nested in within the past three years or trees, such as large oaks, which the hawks prefer for nesting) or removing the nest trees.

If the Project proponent elects to retain a nest tree, and in order to encourage tree retention, the following Incidental Take Minimization Measure shall be implemented during construction activities:

- If a nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest.

Mitigation Measure BIO-2a.vi: Birds Nesting Along Riparian Corridors (Cooper's Hawk, Yellow-Breasted Chat, Osprey, White-Tailed Kite)

The following mitigation measure is from Section 5.2.4.19 of the SJMSCP.

A. For white-tailed kites, preconstruction surveys shall investigate all potential nesting trees on the Project site (e.g., especially tree tops 15-59 feet above the ground in oak, willow, eucalyptus, cottonwood, or other deciduous trees), during the nesting season (February 15 to September 15) whenever white-tailed kites are noted on-site or within the vicinity of the Project site during the nesting season.

B. For the Cooper's hawk, yellow-breasted chat, osprey and white-tailed kite, a setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin

during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the Migratory Bird Treaty Act as described in Section 5.2.3.1(G).

Mitigation Measure BIO-2a.vii: Incidental Take Minimization Strategy and Expectations for All SJMSCP Covered Species

The following mitigation measure is from Section 5.2.3.1(G) of the SJMSCP.

Pursuant to the Migratory Bird Treaty Act (16 USC 703-711), it is unlawful at any time, by any means or in any manner to pursue, hunt, take, capture, kill, attempt to take, capture, or kill any migratory bird, any part, nest, or eggs of any such bird is defined as Take. All SJMSCP Covered Bird Species are subject to the Migratory Bird Treaty Act. Because the SJMSCP is based on the more stringent, federal standard for "Take" pursuant to the ESA which includes modification of habitat, Incidental Take Permits for SJMSCP Covered Bird Species are included in the SJMSCP, to allow for the Conversion of habitat for SJMSCP Covered Bird Species with appropriate creation of compensatory habitat for these species. To fulfill the requirements of the Migratory Bird Treaty Act, however, the Incidental Take Minimization Measures of the SJMSCP for all SJMSCP Covered Bird Species must result in no Take, as Take is defined by the MBTA, of SJMSCP Covered Bird Species.

Mitigation Measure BIO-5: The City shall ensure that the DWSP complies with San Joaquin County's General Plan Tree Preservation and Riparian Habitat requirements, and with the City's Tree Preservation ordinance. Prior to construction, the City shall conduct a survey for heritage trees that may be impacted by the Project (i.e., the dripline of trees is within the treated water pipeline alignment). The City shall coordinate with City and County staff to ensure that impacts to heritage trees are avoided to the extent feasible.

If it is necessary to remove a heritage tree, a permit will be obtained from the City's Parks and Recreation Department. The tree(s) will be replaced on a one for one basis at the discretion of the City's Landscape Architect. The size of the replacement tree shall be based on the size of the tree removed.

If heritage trees are identified in riparian areas, the City shall implement Mitigation Measure BIO-3.

V. AIR QUALITY

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 3.6-3 of the certified DWSP Program EIR):				
AIR-1: Construction of DWSP facilities would result in a temporary increase in air pollutant emissions.	☐	☐	☐	☒
AIR-2: Operation of DWSP facilities would result in air emissions from powering of pumps, various processes, and equipment at the WTP and from vehicle trips to DWSP facilities.	☐	☐	☐	☒
AIR-3: Operation of DWSP facilities could result in odors.	☐	☐	☐	☒

An Air Quality Analysis was prepared by HELIX in February 2025 for the proposed Project and is included as Appendix C.

Affected Environment

The proposed Project is located in unincorporated San Joaquin County, which lies within the San Joaquin Valley Air Basin (SJVAB). Air quality in the SJVAB is regulated by the U.S. Environmental Protection Agency (USEPA) at the federal level, by the California Air Resources Board (CARB) at the state level, and by the San Joaquin Valley Air Pollution Control District (SJVAPCD) at the regional level.

The SJVAB comprises all or part of eight counties: San Joaquin, Stanislaus, Fresno, Merced, Madera, Kings, Tulare, and Kern. The distinctive climate of the SJVAB is determined by its terrain and geographic location. The SJVAB is in the southern half of California's Central Valley and is 250 miles long and averages 35 miles wide. The SJVAB is bounded by the Sierra Nevada Mountains to the east, the Coast Ranges to the west, the Tehachapi Mountains to the south, and is open to the Sacramento Valley and San Francisco Bay Area to the north.

The SJVAB is in a Mediterranean climate zone which is characterized by typically hot and dry summers and sparse rainfall mainly during the winter. Especially in summer, winds in the SJVAB most frequently blow from the northwesterly direction. The region's topographic features restrict air movement and channel the air mass towards the southeastern end of the basin. A secondary but significant summer wind pattern is from the southeasterly direction and can be associated with nighttime drainage winds from the Sierra Nevada Mountains, and prefrontal conditions. Many days in the winter are marked by stagnation events where winds are very weak. Transport of pollutants during winter can be very limited.

The vertical dispersion of air pollutants in the SJVAB can be limited by persistent temperature inversions. Temperature inversions that occur on the summer days are usually encountered 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor. The mountains surrounding the basin are mostly above the typical summer height of inversion layers, restricting dispersion of pollutants (SJVAPCD 2015).

Sensitive Receptors

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: adults over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis, known as sensitive receptors (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptor locations. Examples of these sensitive receptor locations are residences, schools, hospitals, and daycare centers.

The closest existing sensitive receptor locations to the Project site are single-family residential homes located 160 feet west/southwest of the Project site. The nearest schools to the Project site include Elkhorn Elementary School, located 1.4 miles southwest of the Project site and Podesta Ranch Elementary School, located approximately 1.9 miles south of the Project site.

Summary of Impacts from the certified Stockton Delta Water Supply Project Program EIR

Air quality impacts are discussed in Section 3.6, *Air Quality*, of the certified DWSP Program EIR. The document concluded that construction of the DWSP facilities would result in a temporary increase in air pollutant emissions, but the impact was determined to be less than significant for PM_{10} and CO. And although the certified DWSP Program EIR identified Mitigation Measure AIR-1a and AIR-1b, the impact remained significant and unavoidable for NO_x and ROG. The certified DWSP Program EIR concluded that operation of the DWSP facilities would result in air emissions from powering of pumps, various processes, and equipment at the WTP and from vehicle trips to the DWSP facilities; however, the impact from operation of the WTP would be reduced to a less than significant with implementation of Mitigation Measure AIR-2. Lastly, the certified DWSP Program EIR concluded that operation of the DWSP facilities would not generate odors; therefore, it was determined that no impact would occur from operation of the WTP.

Impact Analysis

The impact analysis questions related to air quality are included in Table 3.6-3, Summary of Impacts – Air Quality, in Section 3.6, *Air Quality,* of the certified DWSP Program EIR.

Impact AIR-1: Construction of DWSP facilities would result in a temporary increase in air pollutant emissions.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities would result in a temporary increase in air pollutant emissions, and the impact would be less than significant for particulate matter with a diameter of 10 microns or less (PM_{10})and carbon monoxide (CO). However, the certified DWSP Program EIR determined that even with

Mitigation Measure AIR-1a and AIR-1b, the impact would remain significant and unavoidable for nitrogen oxides (NO_x) and reactive organic gases (ROG).

SJVAPCD recommended that determination of significance with respect to construction impacts be based not on quantification of emissions and comparison to thresholds, but upon inclusion of feasible control measures for PM_{10} and compliance with SJVAPCD Regulation VIII, Rule 8011. Compliance with Regulation VIII and implementation of appropriate measures to control PM_{10} emissions are considered to be sufficient to render a Project's impacts less than significant.

Although no thresholds are required to determine the significance of construction impacts, the California Emissions Estimator Model (CalEEMod) version 2022.1 was used to quantify Project-generated construction emissions for informational purposes only. Assumptions included in the model are described in *Methodology and Assumptions* and the detailed model output sheets are included in Attachment B of Appendix C. Construction of the proposed Project is anticipated to begin May of 2025 and be completed in June 2026. The quantity, duration, and intensity of construction activity influence the amount of construction emissions and related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction activity is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of: (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in CalEEMod; and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

The Project's construction emissions were estimated using CalEEMod, as described above. The emissions generated from construction activities include:

- Dust (including PM_{10} and $PM_{2.5}$), primarily from fugitive sources such as soil disturbance and vehicle travel over paved and unpaved surfaces; and

- Combustion emissions of air pollutants (including ROG, NO_X, PM_{10}, $PM_{2.5}$, CO, and sulfur oxides [SO_X]), primarily from operation of heavy off-road equipment and haul trucks.

The results of the calculations for Project construction are shown below in Table 1, *Annual Construction Emissions*, on the following page. The data is presented as the annual anticipated emissions for comparison with the SJVAPCD thresholds. The data shown assumes application of water sprayed onto exposed surfaces a minimum of two times per day in compliance with SJVAPCD Rule 8021, *Construction, Demolition, Excavation, Extraction, and other Earth Moving Activities*.

Table 1
ANNUAL CONSTRUCTION EMISSIONS

Year	Pollutant Emissions (tons per year)					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2025	0.3	2.5	2.8	<0.1	0.4	0.2
2026	<0.1	0.1	0.2	<0.1	<0.1	<0.1
Maximum Annual Emissions	**0.3**	**2.5**	**2.8**	**<0.1**	**0.4**	**0.2**
SJVAPCD Threshold	*10*	*10*	*100*	*27*	*15*	*15*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (Appendix C); Thresholds: SJVAPCD 2015
ROG = reactive organic gas; NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = respirable particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = fine particulate matter with a diameter of 2.5 microns or less; SJVAPCD = San Joaquin Valley Air Pollution Control District

As shown in Table 1, the Project's construction emissions would not exceed SJVAPCD thresholds and would not result in a temporary increase in air pollutant emissions. To further reduce Project construction emissions, Mitigation Measure AIR-1a would be required to ensure compliance with SJVAPCD Regulation VIII. Under Mitigation Measure AIR-1a, a Dust Control Plan would be submitted to the SJVAPCD prior to the start of construction. Additionally, Mitigation Measure AIR-1b would be implemented to reduce ozone precursor emissions.

As outlined in Section 3.6 of the certified Program EIR, impacts related to construction of the DWSP were determined to be less than significant for PM_{10} and CO and significant and unavoidable for NO_X and ROG even with implementation of Mitigation Measures AIR-1a and AIR-1b. While the Project would contribute to those emissions, it would not result in a *new or substantially more severe impact* than what was previously evaluated in the certified Program EIR.

Impact AIR-2: Operation of DWSP facilities would result in air emissions from powering of pumps, various processes, and equipment at the WTP and from vehicle trips to DWSP facilities.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP facilities would result in air emissions from powering of pumps, various processes, and equipment at the WTP and from vehicle trips to the DWSP facilities; however, the impact for the WTP was determined to be less than significant with implementation of Mitigation Measure AIR-2.

Operational activities associated with the proposed Project would include occasional maintenance trips for the on-site visitor restroom and landscaping. A total of 39.5 lbs/day of solid waste would be generated from visitors. A truck would service the septic tank for the restroom (if connection to existing utilities is not feasible) six times a year, and landscape maintenance, including weed and irrigation maintenance, would occur two to four times a year. Staff that currently operate the DWTP facility would perform the O&M tasks required for the proposed Project, and no new employees would be required for the proposed Project. Therefore, operation of the Project would not result in a population increase and would not generate new vehicle trips beyond occasional maintenance activities. These minor operational activity maintenance trips are within the scope of what was covered in the initial Program EIR, and therefore, the proposed Project would not result in additional operational emissions beyond what was previously evaluated.

As outlined in Section 3.6 of the certified DWSP Program EIR, operational impacts were found to be less than significant with implementation of Mitigation Measure AIR-2, which required operational equipment to operate in compliance with SJVAPCD permit requirements and regulations.

Operational impacts associated with the proposed Project would still remain less than significant with implementation of Mitigation Measure AIR-2. Therefore, the Project would not substantially increase operational emissions compared to the initial DWSP Program EIR, and *no new or substantially more severe impact* would occur compared to what was previously evaluated in the DWSP Program EIR.

AIR-3: Operation of DWSP facilities could result in odors.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP facilities would not generate odors; therefore, no impact would occur for the WTP.

The DWSP Program EIR concluded that operation of the DWSP facilities would not generate odors; therefore, no impact would occur for the WTP. As noted in Section 3.6 of the Program EIR, WTP are not documented sources of odors in the SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts (SJVAPCD 2015). Therefore, as the proposed Project would construct groundwater recharge basins at the WTP, the operation of the Project would not result in odors affecting a substantial number of people. The Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people and no impact would occur.

The Project would have no impact related to odors, consistent with the DWSP Program EIR; therefore, *no new or substantially more severe impact* would occur compared to what was evaluated in the DWSP Program EIR.

Mitigation Measures

The certified DWSP Program EIR identified Mitigation Measures AIR-1a, AIR-1b, and AIR-2 to mitigate impacts related to air quality from implementation of the WTP. As described above, all mitigation measures identified for the WTP related to air quality would remain applicable to the proposed Project and would be implemented. These mitigation measures are provided below.

Mitigation Measure AIR-1a: The City shall comply with Regulation VIII and implement its control measures during construction. The following applicable control measures listed by the Valley Air District shall be implemented, where appropriate.

- The City shall submit a Dust Control Plan subject to review and approval of the Valley Air District at least 30 days prior to the start of any construction activity on a site that includes five acres or more of disturbed surface area.

Specific control measures for construction, excavation, extraction, and other earthmoving activities listed by the Valley Air District include:

Pre-Activity

- Pre-water site sufficient to limit visible dust emissions to 20 percent opacity, and

- Phase work to reduce the amount of disturbed surface area at any one time.

During Active Operations

- Apply water or chemical/organic stabilizers/suppressants sufficient to limit the visible dust emissions to 20 percent opacity; or

- Construct and maintain wind barriers sufficient to limit the visible dust emissions to 20 percent opacity. If utilizing wind barriers, the above control measure shall also be implemented.

- Apply water or chemical/organic stabilizers/suppressants to unpaved haul/access roads and unpaved vehicle/equipment traffic areas sufficient to limit the visible dust emissions to 20 percent opacity and meet the conditions of a stabilized unpaved road surface.

Temporary Stabilization During Periods of Inactivity

- Restrict vehicular access to the area; and

- Apply water or chemical/organic stabilizers/suppressants, sufficient to comply with the conditions of a stabilized surface. If 0.5 acres or more of disturbed surface area remains unused for seven or more days, the area must comply with the conditions for a stabilized surface area as defined in Rule 8011.

Vehicle Movement:

- Limit the speed of vehicles traveling on uncontrolled unpaved access/haul roads within constructions sites to a maximum of 15 miles per hour.

- Post speed limit signs that meet state and federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance. At a minimum, speed limit signs shall be posted at least every 500 feet and shall be readable in both directions of travel along uncontrolled unpaved access/haul roads.

- To control wind generated fugitive dust, outdoor construction, excavation, extraction, and other earth moving activities that disturb the soil shall cease whenever the visible dust emissions exceeds 20 percent opacity.

Demolition Activities

- Apply sufficient water to building exterior surfaces, unpaved surface areas where equipment will operate, and razed building materials to limit the visible dust emissions to 20 percent opacity throughout the duration of razing and demolition activities.

- Apply sufficient dust suppressants to unpaved surface areas within 100 feet where materials from razing or demolition activities will fall in order to limit the visible dust emissions to 20 percent opacity.

- Apply sufficient dust suppressants to unpaved surface areas where wrecking or hauling equipment will be operated in order to limit the visible dust emissions to 20 percent opacity.

- Handling, storage, and transport of bulk materials on-site or off-site resulting from the demolition of buildings shall comply with the requirements specified in Rule 8031 (Bulk Materials).

- Apply water within one hour of demolition to unpaved surfaces within 100 feet of the demolished structure.

- Prevent and remove carryout or trackout on paved public access roads from demolition operations in accordance with Rule 8041 (Carryout and Trackout).

Mitigation Measure AIR-1b: The City shall implement the following mitigation measures listed below to reduce ozone precursor (NO_X and ROG) emissions from off-road equipment, where appropriate.

- Use of alternative fueled or catalyst equipped diesel construction equipment;

- Minimize idling time (e.g., 10 minute maximum);

- Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use;

- Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set); and

- Implement activity management (e.g., rescheduling activities to reduce short-term impacts).

Mitigation Measure AIR-2: The WTP shall be designed so that each piece of equipment operates in compliance with applicable SJVAPCD permit requirements and regulations including the Authority to Construct and the Permit to Operate. The equipment used, particularly the pumps and diesel generators, shall be operated as per the SJVAPCD permit requirements and regulations.

VI. NOISE

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 3.7-4 of the certified DWSP Program EIR):				
NOISE-1: Construction of DWSP facilities could temporarily increase noise levels at sensitive receptors.	☐	☐	☐	☒
NOISE-2: Operation of the intake facility and WTP could increase noise levels at nearby sensitive receptors.	☐	☐	☐	☒

Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others, sensitivity being a function of noise exposure (in term of both exposure duration and insulation from noise) and the types of activities involved. Noise-sensitive land uses (NSLUs) are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Noise-sensitive land uses typically include residences, hospitals, schools, daycare facilities, transient lodging, libraries, and certain types of recreational uses. NSLUs in the vicinity of the Project site include two single-family residences located adjacent to the southern boundary of the site and one single-family residence located east of N. Lower Sacramento Road approximately 500 feet east of the Project site.

Noise Metrics

All noise-level and sound-level values presented herein are expressed in terms of decibels (dB), with A weighting, abbreviated "dBA," to approximate the hearing sensitivity of humans. Time averaged noise levels of one hour are expressed by the symbol "L_{EQ}" unless a different time period is specified. Maximum noise levels are expressed by the symbol "L_{MAX}." Some of the data also may be presented as octave-band-filtered and/or A-octave band-filtered data, which are a series of sound spectra centered on each stated frequency, with half of the bandwidth above and half of the bandwidth below, the stated frequency. These data are typically used for machinery noise analysis and barrier-effectiveness calculations. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added five dBA weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting. This is similar to the Day Night sound level (L_{DN}), which is a 24-hour average with an added 10 dBA weighting on the same nighttime hours but no added weighting on the evening hours.

Because decibels are logarithmic units, S_{PL} cannot be added or subtracted through standard arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a three dBA increase. In other

words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be three dBA higher than from one source under the same conditions. For example, if one automobile produces an S_{PL} of 70 dBA when it passes an observer, two cars passing simultaneously would not produce 140 dBA—rather, they would combine to produce 73 dBA. Under the decibel scale, three sources of equal loudness together produce a sound level five dBA louder than one source.

Under controlled conditions in an acoustic laboratory, the trained, healthy human ear is able to discern 1 dBA changes in sound levels, when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000 Hertz [Hz]–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dBA are generally not perceptible. It is widely accepted, however, that people begin to detect sound level increases of three dB in typical noisy environments. Further, a five dBA increase is generally perceived as a distinctly noticeable increase, and a 10 dBA increase is generally perceived as a doubling of loudness.

Vibration Metrics

Ground-borne vibration consists of rapidly fluctuating motions or waves transmitted through the ground with an average motion of zero. Sources of ground-borne vibrations include natural phenomena and anthropogenic causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Peak particle velocity (PPV) is commonly used to quantify vibration amplitude. The PPV, with units of inches per second (in/sec), is defined as the maximum instantaneous positive or negative peak of the vibration wave.

Regulatory Setting

San Joaquin County

Section 9-404.060(a), Additional Regulations for Specific Activities, of the San Joaquin County Development Code limits general construction noise to weekdays from 6:00 a.m. to 9:00 p.m. Pre-construction activities, including loading and unloading, deliveries, truck idling, backup beeps, and radios, also are limited to these construction noise hours. Additionally, no noise-producing construction activities shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the Building Official.

Section 9-404.040(b), Noise Limits, of the San Joaquin County Development Code states that proposed Projects that will create new stationary noise sources or expand existing stationary noise sources shall be required to mitigate the noise levels from these sources, so as not to exceed the noise level standards specified in Table 9-404.040, Part II (See Table 2, on the following page) for the specified noise sensitive land uses:

Table 2
MAXIMUM ALLOWABLE NOISE EXPOSURE FOR NOISE-SENSITIVE LAND USES
PART II: STATIONARY NOISE SOURCES

Sound Level	Outdoor Activity Areas of Noise Sensitive Land Uses	
	Daytime[1] (7:00 a.m. – 10:00 p.m.)	Nighttime[2] (10:00 p.m. – 7:00 a.m.)
Hourly equivalent sound level (L_{EQ}), dB[3]	55	45
Maximum sound level (L_{MAX}), dB	75	65

Source: County 2024a

[1] Where the location of outdoor activity areas is unknown or is not applicable, the noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.

[2] Each of the noise level standards specified shall be reduced by 5 dB for impulsive noise, single tone noise, or noise consisting primarily of speech or music.

[3] If the noise source operates for less than 30 minutes per hour, then the maximum sound level standard shall apply.

City of Stockton

Section 8.20, Noise Regulations, of the City of Stockton Code of Ordinances provides performance standards in order to prevent unnecessary, offensive, or excessive noise levels within the City. Section 8.20.030(A), General Noise Regulations, provides standards which shall be considered in determining whether a violation of noise regulations consists of (but is not limited to) considerations such as the nature of the noise (usual or unusual), the proximity of the noise to residential sleeping facilities, the duration, the intensity, and the time of day or night the noise occurs.

Section 16.60, Noise Standards, of the City of Stockton Development Code establishes standards to protect the health, safety, and welfare of those living and working in the City. Municipal Code Section 16.60.030(A) prohibits operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work between the hours of 10:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line. Section 16.60.040(B)(2)(c) states that public facility land uses adjacent to any NSLU shall comply with the performance standards contained in Table 3-7 Maximum Allowable Noise Exposure for Noise-Sensitive Land Uses – Part II: Land Use-Related Noise Standard (See Table 3) below:

Table 3
MAXIMUM ALLOWABLE NOISE EXPOSURE FOR NOISE-SENSITIVE LAND USES
PART II: LAND USE-RELATED NOISE STANDARD

Noise Level Descriptor	Outdoor Activity Areas	
	Day (7:00 a.m. – 10:00 p.m.)	Night (10:00 p.m. – 7:00 a.m.)
Hourly equivalent sound level (L_{EQ}), dB	55	45
Maximum sound level (L_{MAX}), dB	75	65

Source: City 2025

Summary of Impacts from the Stockton Delta Water Supply Project Program EIR

Noise impacts are discussed in Section 3.7, *Noise*, of the certified DWSP Program EIR. The certified DWSP Program EIR concluded that construction of the DWSP facilities could temporarily increase noise

levels at sensitive receptors above the County noise standards; however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measure Noise-1a through Noise-1e. Additionally, operation of the WTP could increase noise levels at nearby sensitive receptors; however, the impact was determined to be less than significant with implementation of Mitigation Measure Noise-2.

Although the City-owned WTP site is outside of the City limits, the analysis of noise impacts from construction and operation of the WTP contained in the certified DWSP Program EIR included both City and County noise regulations.

Impact Analysis

The impact analysis questions related to noise are included in Table 3.7-4, Summary of Impacts – Noise, in Section 3.7, *Noise,* of the certified DWSP Program EIR.

Impact Noise-1: Construction of DWSP facilities could temporarily increase noise levels at sensitive receptors.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities could temporarily increase noise levels at sensitive receptors; however, the impact for construction of the WTP would be less than significant with implementation of Mitigation Measure NOISE-1a through NOISE-1e.

Construction of the proposed Project is anticipated to begin May of 2025 and be completed in June 2026. It is anticipated that construction of the three groundwater recharge basins would occur concurrently. The City-owned Project site would be constructed immediately east of the City's existing DWTP in a primarily rural area of the unincorporated County. As summarized in *Regulatory Setting* above, the County Development Code limits general construction noise to weekdays from 6:00 a.m. to 9:00 p.m., and the City Code of Ordinances prohibits operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work between the hours of 10:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line. The Project would be consistent with both the City's and County's noise regulations and implement Mitigation Measure NOISE-1a, which would limit construction noise to the hours of 7:00 a.m. to 9:00 p.m. Mitigation Measure NOISE-1a, as identified in the certified DWSP Program EIR, limited construction noise to the hours of 7:00 a.m. to 10:00 p.m.; however, this mitigation measure is revised in this IS/Addendum in order to be consistent with both the City's and County's noise regulations.

Per the Project engineer, debris and vegetation from site preparation and soil from basin excavation would be stockpiled on-site. No off-site export of debris, vegetation, or soil would be required. Approximately 219 CY of aggregate would be imported during underground utilities and 500 CY of concrete and aggregate would be imported during basin and berm construction, per the Project engineer. Additionally, per the Project engineer, 296 CY of AC/AB would be imported during paving and 140 CY of crushed rock would be imported during construction of the percolation wells. The nearest NSLUs to the proposed stockpile areas include a residence located approximately 350 feet to the south, a church located approximately 1,200 feet to the southeast, a residence located approximately 1,300 feet to the southeast, and a residence located approximately 1,900 feet to the east. However, the proposed Project would be required to implement Mitigation Measure NOISE-1b identified in the certified DWSP Program EIR, which would require the Project contractor to select staging areas as far as

reasonably feasible from existing residences and to limit activities within the temporary staging areas to the hours specified in Mitigation Measure NOISE-1a. Implementation of Mitigation Measures NOISE-1a and 1-b would reduce construction-related noise impacts on NSLUs to a less-than-significant level.

Although construction noise would be temporary and short-term and would adhere to the construction hours specified in Mitigation Measure NOISE-1a, construction of Project components may temporarily increase noise levels at the NSLUs described above. The proposed Project would be required to implement Mitigation Measure NOISE-1c, which would require the contractor to maintain construction equipment with the manufacturers' specified noise muffling devices, as well as Mitigation Measure NOISE-1d, which would require the Project contractor to place stationary noise-generating construction equipment as far as reasonably feasible from NSLUs or in an orientation that minimizes noise impacts. Implementation of Mitigation Measures NOISE-1c and NOISE-1d would further reduce construction-related noise impacts on NSLUs to a less-than-significant level.

As discussed above, Mitigation Measures NOISE-1a through NOISE-1d identified in the certified DWSP Program EIR would remain applicable to the proposed Project and would be implemented to reduce construction-related impacts to a less-than-significant level. Mitigation Measure Noise-1e would not be applicable to the proposed Project, as the Project site is located in a primarily rural area of the County and would not require hauling or construction routes through residential areas. Therefore, the impact would be less than significant with implementation of Mitigation Measures NOISE-1a through NOISE-1d, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact Noise-2: Operation of the WTP could increase noise levels at nearby sensitive receptors.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the WTP could increase noise levels at nearby sensitive receptors above the County noise standards; however, the impact was determined to be less than significant with implementation of Mitigation Measure NOISE-2.

Long-term operation of the proposed groundwater recharge basins would involve a "drying out" period of 30 days over the year for each groundwater recharge basin. "Drying out" periods would be staggered for the three groundwater recharge basins so that recharge could be conducted throughout the year. These periods could also be used to conduct any other maintenance requirements including clearing out the infiltration pipelines, removal of vegetation that occurs, etc. Operation of the proposed Project would also include infrequent educational visits from local public or private schools, organizations, other interested groups, etc. as allowed by the DWTP facility management. It is anticipated that educational visits would be limited to one school bus per visit (up to 72 students, per standard school bus sizes) and would occur between typical daytime school hours and operational hours of the DWTP.

Although operation of the proposed Project is not anticipated to substantially increase ambient noise levels, several NSLUs are located in the vicinity of the Project site, including two single-family residences located adjacent to the southern boundary of the site and one single-family residence located east of N. Lower Sacramento Road approximately 500 feet east of the Project site. Operation of the proposed Project may increase noise levels at these nearby sensitive receptors. However, Mitigation Measure NOISE-2, as identified in the certified DWSP Program EIR, would remain applicable to the proposed Project and would be implemented to reduce operation-related impacts to a less-than-significant level. Mitigation Measure NOISE-2 would require that stationary noise sources be designed to ensure that

noise levels at the property line do not exceed 70 dBA during Project operation. Therefore, the impact would be less than significant with implementation of Mitigation Measure NOISE-2, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

The certified DWSP Program EIR identified Mitigation Measures NOISE-1a through NOISE-1e and NOISE-2 to mitigate impacts related to noise from implementation of the WTP. However, Mitigation Measure Noise-1e would not be applicable to the proposed Project, as the Project site is located in a primarily rural area of the County and would not require hauling or construction routes through residential areas.

As discussed above, Mitigation Measures NOISE-1a through NOISE 1-d would remain applicable to the proposed Project and would be implemented. These mitigation measures are provided below.

Mitigation Measure NOISE-1a: Construction shall be limited to the hours of 7:00 a.m. to 9:00 p.m.

Mitigation Measure NOISE-1b: The City shall require in construction specifications that the contractor select staging areas as far as reasonably feasible from existing residences. Activities within these staging areas shall conform to the time limitations established in Mitigation Measure NOISE-1a.

Mitigation Measure NOISE-1c: The City shall require in construction specifications that the contractor maintain all construction equipment with manufacturers' specified noise muffling devices.

Mitigation Measure NOISE-1d: The City shall require in construction specifications that the contractor place all stationary noise generating construction equipment as far away as reasonably feasible from sensitive receptors or in an orientation minimizing noise impacts (i.e., behind existing barriers or storage piles, etc.).

Mitigation Measure NOISE-2: The design of the WTP and intake structure shall ensure that operational noise levels at the property line do not exceed a noise level of 70 dBA from the stationary equipment sources. Shielding and other specified measures as deemed appropriate and effective by the design engineer to comply with this performance standard shall be incorporated in final WTP and intake facility designs. Noise reduction measures may include, but are not necessarily limited to:

- Incorporation of equipment enclosures, fan silencers, mufflers, acoustical louvers, noise barriers, acoustical panels, etc.;
- Location of particularly noisy equipment as far away as feasibly possible from the property line and away from surrounding sensitive land uses;
- Orientation of acoustical exits away from sensitive receptors; and
- Incorporation of buildings, landscaping, where possible, to absorb and/or redirect noise.

VII. HAZARDOUS MATERIALS/PUBLIC HEALTH

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 3.8-1 of the certified DWSP Program EIR):				
HAZ-1: Construction of the proposed DWSP facilities could result in the disturbance of contaminated soil and/or groundwater.	☐	☐	☐	☒
HAZ-2: Construction of the proposed DWSP would involve the use and storage of hazardous materials such as gasoline and diesel fuels, oils, and solvents. Depending on the relative hazard of the hazardous material, if a spill of significant quantity were to occur, the accidental release could pose both a hazard to construction employees and the environment.	☐	☐	☐	☒
HAZ-3: Operation of the WTP could expose individuals to existing and/or potential future use of hazardous materials and generation of hazardous wastes.	☐	☐	☐	☒

Affected Environment

Hazardous materials include all flammable, reactive, corrosive, or toxic substances, which, because of these properties, pose potential harm to the public or environment. The California Code of Regulations (CCR) defines a hazardous material or hazardous waste as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either: (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed (County 2014). The predominant land use in the Project area is agriculture, as such, hazardous materials presently used in the Project vicinity are limited to those hazardous materials common to agriculture, including pesticides, fertilizers, and fuels.

Numerous federal and State laws regulate hazardous materials and wastes, such as the California Environmental Protection Agency (Cal/EPA) and Department of Toxic Substances Control (DTSC). However, depending on the waste, the Office of the State Fire Marshal (OSFM), the SWRCB, or another agency may be involved. Locally, the SJCEHD, San Joaquin County Office of Emergency Services (SJCOES), and the SJVAPCD have responsibility for enforcing some State standards (County 2014). The SJCEHD is the Certified Unified Program Agency (CUPA) for all cities and unincorporated areas within San Joaquin County. The CUPA was created by the California legislature to minimize the number of inspections and

different fees for businesses. The SJCEHD provides the management and record keeping of hazardous materials and underground storage tank (UST) sites for San Joaquin County, including the City of Stockton. Through the Hazardous Materials Program, the SJCEHD inspects businesses for compliance with the Hazardous Waste Control Act. Hazardous waste is subject to storage time limits, disposal requirements and labeling requirements on containers. The San Joaquin County OES is responsible for effective planning for emergencies including those related to hazardous material incidents. The OES coordinates planning, response to emergencies, improves procedures for incident notification, and provides training and equipment to safety personnel.

The following databases were reviewed for the Project site and surrounding area to identify potential hazardous contamination sites: the DTSC's EnviroStor online tool (DTSC 2024), SWRCB's GeoTracker tool (SWRCB 2024), and the USEPA's Superfund National Priorities List (NPL) (USEPA 2024). Based on the results of the databases reviewed, one record within a 0.25-mile radius of the Project site was listed on GeoTracker. The site is located to the east of the Project site and is a closed Cleanup Program Site. There are no active or open sites within the Project vicinity.

The Project site is located within the Lodi Unified School District. The nearest schools to the Project site are Elkhorn Elementary School, located approximately 1.9 miles southwest of the Project site; Podesta Ranch Elementary School, located approximately 2.0 miles south of the Project site; and John Muir Elementary School, located approximately 2.25 miles southwest of the Project site.

The San Joaquin Council of Governments (SJCOG) Board of Directors serves as the designated body to carry out the functions of the Airport Land Use Commission (ALUC). The SJCOG has adopted two Airport Land Use Compatibility Plans (ALUCP) to address the following airports: Kingdon Airport, Lodi (Lind's) Airport, Lodi (Precissi) Airpark, New Jerusalem Airport, Stockton Metropolitan Airport, and Tracy Municipal Airport. The Stockton Metropolitan Airport's ALUCP was last updated in 2018. The Countywide ALUCP, which covers the other five airports in the County, was also updated in 2018. The ALUCPs establish areas of influence within which airport operations are likely to affect land uses or land uses could affect airport operations. Safety and noise criteria are identified in the ALUCPs in order to minimize land use conflicts with airport operations. The nearest airport to the Project site is the Lodi Airpark, located approximately 0.8 mile north of the Project site, which currently serves as a base for aerial chemical application services; as a result, the majority of the operations at the airport are performed by aerial application aircraft or "crop-dusters". Additionally, the Kingdon Airpark is located approximately 2.0 miles northwest of the Project site, and is a privately-owned airport primarily used for pilot training and aerial application of agricultural chemicals (SJCOG 2018).

Summary of Impacts from the Stockton Delta Water Supply Project Program EIR

Hazardous materials and public health impacts are discussed in Section 3.8, *Hazardous Materials/Public Health*, of the certified DWSP Program EIR. The certified DWSP Program EIR concluded that construction of the DWSP facilities could result in the disturbance of contaminated soil and/or groundwater; however, as there were no contaminated sites identified within the vicinity of the WTP, the certified DWSP Program EIR concluded that the impact from WTP would be less than significant. Construction of the DWSP facilities would also involve the use and storage of hazardous materials such as gasoline and diesel fuels, oils, and solvents; however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measure HAZ-2. Additionally, the certified DWSP Program EIR concluded that operation of the WTP could expose individuals to existing and/or potential future use of hazardous materials and generation of hazardous waste. The impact from operation of the

WTP was determined to be less than significant with implementation of Mitigation Measure HAZ-3a and HAZ-3b.

Impact Analysis

The impact analysis questions related to hazardous materials and public health are included in Table 3.8-1, Summary of Impacts – Hazardous Materials/Public Health, in Section 3.8, *Hazardous Materials/Public Health,* of the certified DWSP Program EIR.

Impact HAZ-1: Construction of the proposed DWSP facilities could result in the disturbance of contaminated soil and/or groundwater.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities could result in the disturbance of contaminated soil and/or groundwater; however, as there were no contaminated sites identified within the vicinity of the proposed WTP, the certified DWSP Program EIR concluded that the impact from construction of the WTP was less than significant.

The proposed Project would be constructed immediately east of the City's existing DWTP and would include the construction of three groundwater recharge basins totaling approximately 45.5 acres. The proposed groundwater recharge basins would be excavated to approximately three feet bgs and would require approximately 212,860 CY of cut. During proposed Project construction, oil, gasoline, diesel fuel, solvents, and other hazardous materials may be present on-site. If spilled, these substances could pose a risk to the environment and to human health; however, the routine transport, use, and disposal of hazardous materials are subject to local, State, and federal regulations to minimize risk and exposure. Further, based on a review of online databases including the DTSC's EnviroStor, SWRCB's GeoTracker, and the USEPA's Superfund NPL, one record within a 0.25-mile radius of the Project site was listed on GeoTracker. The site is located to the east of the Project site and is a closed Cleanup Program Site. Therefore, as there are no active or open sites within the Project vicinity, the risk of disturbance of contaminated soil and/or groundwater would be unlikely. Therefore, the impact would be less than significant, and there would be *no new impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact HAZ-2: Construction of the proposed DWSP would involve the use and storage of hazardous materials such as gasoline and diesel fuels, oils, and solvents. Depending on the relative hazard of the hazardous material, if a spill of significant quantity were to occur, the accidental release could pose both a hazard to construction employees and the environment.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities would involve the use and storage of hazardous materials such as gasoline and diesel fuels, oils, and solvents; however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measure HAZ-2.

The proposed Project would be constructed immediately east of the City's existing DWTP and would include the construction of three groundwater recharge basins totaling approximately 45.5 acres. Under the proposed Project, the impact from the WTP would be similar compared to what was evaluated in the certified DWSP Program EIR, as oil, gasoline, diesel fuel, solvents, and other hazardous materials may be present on the Project site during construction. If spilled, these substances could pose a risk to the environment and to human health. However, the routine transport, use, and disposal of hazardous

materials would be subject to local, State, and federal regulations to minimize risk and exposure. Mitigation Measure HAZ-2 required the WTP to prepare a Hazardous Materials Management Plan (HMMP), which would address storage, containment, and transfers of hazardous materials related to Project construction. However, since the proposed Project would not require 660 gallons of hazardous materials on the Project site during construction, Mitigation Measure HAZ-2 would not be required for the proposed Project. Therefore, in compliance with local, State, and federal regulations, the proposed Project would not create a significant hazard through the use and storage of hazardous materials such as gasoline and diesel fuels, oils, and solvents. The impact would be less than significant, and *no new or substantially more severe impact* would occur compared to what was evaluated in the certified DWSP Program EIR.

Impact HAZ-3: Operation of the WTP could expose individuals to existing and/or potential future use of hazardous materials and generation of hazardous wastes.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the WTP could expose individuals to existing and/or potential future use of hazardous materials and generation of hazardous waste. The impact from operation of the WTP was determined to be less than significant with implementation of Mitigation Measure HAZ-3a and HAZ-3b. Mitigation Measure HAZ-3a would require compliance with the UBC, Uniform Fire Code, and HMMP, and Mitigation Measure HAZ-3b would require the City to consult with the appropriate authorities regarding its responsibilities concerning hazardous materials and their inventory, handling, and emergency response training. The certified DWSP Program EIR concluded that WTP would use potentially hazardous materials in the treatment of raw surface water to remove suspended solids, control and adjust pH, and disinfect raw surface water in order to achieve mandated drinking water limitations. As such, the routine storage, use, transportation, and disposal of these potentially hazardous materials required for operation of the WTP was determined to potentially expose individuals to existing and/or potential future use of hazardous materials and generation of hazardous wastes.

Project O&M activities would include periodic “drying out” of the groundwater recharge basins, clearing out the infiltration pipelines, removal of vegetation that occurs, etc. However, Mitigation Measure HAZ-3a and Mitigation Measure HAZ-3b would not be required for the proposed Project, as it is not anticipated that O&M activities would require the transport, use, or disposal of hazardous materials. Further, the routine transport, use, and disposal of hazardous materials would be subject to local, State, and federal regulations to minimize risk and exposure. Therefore, the impact would be less than significant, and *no new or substantially more severe impact* would occur compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

The certified DWSP Program EIR identified Mitigation Measures HAZ-2, HAZ-3a, and HAZ-3b to mitigate impacts related to hazardous materials and public health from implementation of the WTP. As described above, none of the mitigation measures identified for the WTP related to hazardous materials and public health would be required for construction or operation of the proposed Project.

VIII. TRANSPORTATION AND TRAFFIC

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 3.9-4 of the certified DWSP Program EIR):				
TR-1: Construction of the raw and treated water pipelines could temporarily reduce the number of, or the available width of, travel lanes on roads, resulting in an unacceptable LOS or v/c ratio.	☐	☐	☐	☒
TR-2: Construction would generate short-term increases in vehicle trips by construction workers and construction vehicles that could cause a substantial decrease in the LOS.	☐	☐	☐	☒
TR-3: Construction of the raw and treated water pipelines could adversely affect access to adjacent land uses and streets for both commercial and emergency traffic, and bicycle/pedestrian access.	☐	☐	☐	☒
TR-4: Construction of the raw and treated water pipelines could generate a demand for construction worker parking, and could temporarily displace existing on-street parking on pipeline routes.	☐	☐	☐	☒
TR-5: Construction of the raw and treated water pipelines could increase potential traffic safety hazards for vehicles, bicyclists and pedestrians on affected public roadways.	☐	☐	☐	☒
TR-6: Construction could increase wear and-tear on the designated haul routes used by construction vehicles to access the Project work site.	☐	☐	☐	☒
TR-7: Operation of the proposed WTP could increase vehicle trips on area roadways.	☐	☐	☐	☒

Affected Environment

The following regional and local transportation networks are located near the Project site and relevant to the analysis of transportation and traffic:

- **North Lower Sacramento Road**: N. Lower Sacramento Road is a two-lane undivided arterial. N. Lower Sacramento Road has discontinuous gravel shoulders and a paved cross-section of approximately 32 feet. N. Lower Sacramento Road is signalized at its intersection with Eight Mile Road.

- **Eight Mile Road**: Eight Mile Road is an arterial with varying width, consisting of a two-lane undivided road for the majority of its length within the Project area. Between Mokelumne Circle and Trinity Parkway (about 300 feet west of I-5), Eight Mile Road remains a two-lane arterial, but widens to approximately 49 feet. The roadway remains a two-lane roadway with no on-street parking. Near Oak Grove Regional Park, just east of the I-5 interchange, Eight Mile Road becomes a four-lane roadway, with two eastbound lanes, one center turn-lane, and one westbound lane. Between Thornton Road and West Lane, Eight Mile Road returns to be a two-lane roadway, with a width of about 30 feet.

- **Davis Road**: Davis Road is a two-lane undivided arterial, with discontinuous on-street parking and a paved cross-section of approximately 60 feet. The roadway is posted at 55 mph, with a 25-mph posting in the school zone. Davis Road is a four-way stop at its intersection with Eight Mile Road.

- **West Lane**: West Lane is a four-lane divided arterial. West Lane has emergency on-street parking only and a paved cross-section of approximately 30 feet on each side of the median. The roadway is posted at 55 mph. West Lane is signalized at its intersection with Eight Mile Road.

- **Interstate 5**: I-5 is a major north-south freeway and the primary regional roadway in the DWSP vicinity. I-5 is a six-lane divided freeway, with an overpass at Eight Mile Road. Its diamond interchange with Eight Mile Road is signalized at both the northbound and southbound ramps. Both the raw and treated water pipelines tunnel beneath I-5 just north of its intersection with Eight Mile Road.

Summary of Impacts from the Stockton Delta Water Supply Project Program EIR

Transportation and traffic impacts are discussed in Section 3.9, *Transportation and Traffic,* of the certified DWSP Program EIR. The certified DWSP Program EIR concluded that construction of the raw and treated water pipelines could temporarily reduce the number of, or the available width of, travel lanes on roads, resulting in an unacceptable level of service (LOS) or vehicle/capacity (v/c) ratio; however, no impact would occur from construction of the WTP. The certified DWSP Program EIR concluded that Project construction would generate short-term increases in vehicle trips by construction workers and construction vehicles that could cause a substantial decrease in the LOS to less than LOS D (i.e., approaching unstable operations where small increases in volume produce substantial increases in delay and decreases in speed); however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measures TR-2a and TR-2b. Construction of the raw and treated water pipelines could adversely affect access to adjacent land uses and streets for both commercial and emergency traffic, and bicycle/pedestrian access; however, no impact was determined

to occur from construction of the WTP. Additionally, construction of the raw and treated water pipelines could generate a demand for construction worker parking which could temporarily displace existing on-street parking on pipeline routes; however, no impact was determined to occur from construction of the WTP.

The certified DWSP Program EIR concluded that construction of the raw and treated water pipelines could increase potential traffic safety hazards for vehicles, bicyclists and pedestrians on affected public roadways; however, no impact would occur from construction of the WTP. Construction of the DWSP facilities was determined to increase wear-and-tear on the designated haul routes used by construction vehicles to access the Project work sites, and the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measure TR-6. Lastly, the certified DWSP Program EIR concluded that operation of the WTP could increase vehicle trips on area roadways; however, the impact from operation of WTP was determined to be less than significant.

Impact Analysis

The impact analysis questions related to transportation and traffic are included in Table 3.9-4, Summary of Impacts – Transportation and Traffic Facilities, in Section 3.9, *Transportation and Traffic,* of the certified DWSP Program EIR.

Impact TR-1: Construction of the raw and treated water pipelines could temporarily reduce the number of, or the available width of, travel lanes on roads, resulting in an unacceptable LOS or v/c ratio.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the raw and treated water pipelines could temporarily reduce the number of, or the available width of, travel lanes on roads, resulting in an unacceptable LOS or v/c ratio; however, no impact was determined to occur from construction of the WTP.

The proposed Project would be constructed immediately east of the City's existing DWTP. Construction activities and staging of construction equipment for the proposed Project would be contained within the Project site. As the Project would not require the installation of pipeline along or within the right-of-way of roadways in the Project vicinity, the Project would not reduce the number of, or available width of, travel lanes on roads in the Project area such that unacceptable LOS or v/c would occur. Therefore, no impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact TR-2: Construction of the proposed DWSP facilities would generate short-term increases in vehicle trips by construction workers and construction vehicles that could cause a substantial decrease in the LOS to less than LOS D, i.e., approaching unstable operations where small increases in volume produce substantial increases in delay and decreases in speed.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that project construction would generate short-term increases in vehicle trips by construction workers and construction vehicles that could cause a substantial decrease in the LOS to less than LOS D (i.e., approaching unstable operations where small increases in volume produce substantial increases in delay and decreases in speed); however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measures TR-2a and TR-2b.

The proposed Project would include construction of three groundwater recharge basins with associated infrastructure, a visitor restroom, a shaded viewing platform, and a paved parking lot. Construction of the proposed Project would be short-term and temporary and is therefore anticipated to generate short-term, temporary increases in vehicle trips associated with construction vehicles and worker trips. However, these construction-related vehicle trips would be dispersed throughout the daily hours of construction and would not cause a substantial increase in traffic along roadways in the Project area beyond the existing conditions. Mitigation Measures TR-2a and TR-2b would not be applicable to the proposed Project, as construction activities and staging of construction equipment for the proposed Project would be contained within the Project site, would not involve multiple work sites, nor require lane closures of roads in the vicinity of the Project site. Therefore, the impact would be less than significant, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact TR-3: Construction of the proposed raw and treated water pipelines could adversely affect access to adjacent land uses and streets for both commercial and emergency traffic, and bicycle/pedestrian access.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the raw and treated water pipelines could adversely affect access to adjacent land uses and streets for both commercial and emergency traffic, and bicycle/pedestrian access; however, no impact was determined to occur from construction of the WTP.

As discussed in Impact TR-1, construction activities and staging of construction equipment for the proposed Project would be contained within the Project site. As the Project would not require the installation of pipeline along or within the right-of-way of roadways in the Project vicinity, the Project would not adversely affect access to adjacent land uses and streets for commercial, emergency, or bicycle/pedestrian access. Therefore, no impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact TR-4: Construction of the proposed raw and treated water pipelines could generate a temporary demand for construction worker parking, and construction activity could temporarily displace existing on-street parking on pipeline alignment routes.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the raw and treated water pipelines could generate a demand for construction worker parking and could temporarily displace existing on-street parking on pipeline routes; however, no impact was determined to occur for construction of the WTP.

The proposed Project would be located immediately east of the City's existing DWTP, which has existing parking for DWTP staff. It is anticipated that construction worker vehicles could utilize this existing parking. Further, there is no formal on-street parking along roads in the Project vicinity. Therefore, construction of the proposed Project would not temporarily displace existing on-street parking, and no impact would occur. Therefore, there would be *no new or substantially more severe impact* compared to what was analyzed in the certified DWSP Program EIR.

Impact TR-5: Construction of the proposed raw and treated water pipelines could increase potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the raw and treated water pipelines could increase potential traffic safety hazards for vehicles, bicyclists and pedestrians on affected public roadways; however, no impact was determined to occur from construction of the WTP.

As previously discussed, construction activities and staging of construction equipment for the proposed Project would be contained within the Project site. As Project construction would not require the installation of pipeline along or within the right-of-way of roadways in the Project vicinity, nor require lane closures, the Project would not increase potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways. Therefore, no impact would occur, and there would be *no new or substantially more severe impact* compared to what was analyzed in the certified DWSP Program EIR.

Impact TR-6: Construction of the proposed DWSP facilities could increase wear-and-tear on the designated haul routes used by construction vehicles to access the Project work sites.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities could increase wear-and-tear on the designated haul routes used by construction vehicles to access the Project work sites, and the impact from construction of the WTP would be less than significant with implementation of Mitigation Measure TR-6. The certified DWSP Program EIR concluded that the degree to which this impact would occur would depend on the design (pavement type and thickness) and existing condition of the road. Major arterials and collectors are designed to accommodate a mix of vehicle types, including heavy trucks. However, rural roadways and residential streets may not have been constructed to support the weight and use by construction equipment.

The proposed Project would include construction of three groundwater recharge basins with associated infrastructure, a visitor restroom, a shaded viewing platform, and a paved parking lot. Although construction would be short-term and temporary, heavy duty construction equipment and vehicles would be used, which could affect road conditions along roadways in the Project vicinity. Mitigation Measure TR-6, as identified in the certified DWSP Program EIR, would remain applicable to the proposed Project and would be implemented, which would require any roads damaged by construction activities to be repaired to a structural condition equal to that which existed prior to construction activity. Therefore, the impact would be less than significant with implementation of Mitigation Measure TR-6, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact TR-7: Operation of the proposed WTP could increase vehicle trips on area roadways.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the WTP could increase vehicle trips on area roadways; however, the impact was determined to be less than significant.

Operational activities associated with the proposed Project would include occasional maintenance trips for the on-site restroom and landscaping. It is anticipated that a truck would service the septic tanks six times a year (if connection to existing utilities is not feasible), and landscape maintenance, including weed and irrigation maintenance, would occur two to four times a year. Staff that currently run the City-owned DWTP would perform the O&M tasks required for the proposed Project, and no new employees would be required to support the proposed Project. Operation of the proposed Project would also include infrequent educational visits from local public or private schools, organizations, other interested

groups, etc. as allowed by the DWTP facility management. It is anticipated that educational visits would be limited to one school bus per visit (up to 72 students, per standard school bus sizes) and would occur between typical daytime school hours and operational hours of the DWTP. Vehicle trips associated with operation of the proposed Project would be minimal and would not generate a noticeable increase in vehicle trips on roadways in the Project area. Therefore, the impact would be less than significant, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

The certified DWSP Program EIR identified Mitigation Measures TR-2a, TR-2b, and TR-6 to mitigate impacts related to transportation and traffic from implementation of the WTP. However, Mitigation Measures TR-2a and TR-2b would not be applicable to the proposed Project, as construction activities and staging of construction equipment for the proposed Project would be contained within the Project site, would not involve multiple work sites, nor require lane closures of roads in the vicinity of the Project site.

As described above, Mitigation Measure TR-6 would remain applicable to the proposed Project and would be implemented. This mitigation measure is provided below.

Mitigation Measure TR-6: Roads damaged by construction activities will be repaired to a structural condition equal to that which existed prior to construction activity.

IX. PUBLIC SERVICES AND UTILITIES/ENERGY

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 3.10-1 of the certified DWSP Program EIR):				
PUB-1: DWSP pipeline construction could result in temporary, planned, or accidental disruption to utility services.	☐	☐	☐	☒
PUB-2: Construction in specific segments of the proposed pipeline alignments could result in utility conflicts.	☐	☐	☐	☒
PUB-3: Pipeline construction could temporarily block access routes for city police departments, San Joaquin County Sheriff's Department, fire department, and emergency services.	☐	☐	☐	☒
PUB-4: DWSP construction could require short-term police and fire protection services to assist in traffic management or to respond to a construction-related accident.	☐	☐	☐	☒
PUB-5: DWSP construction could result in a substantial use of nonrenewable energy resources.	☐	☐	☐	☒
PUB-6: DWSP operation could result in substantial energy consumption.	☐	☐	☐	☒

Affected Environment

The Stockton Fire Department serves the City and the surrounding unincorporated areas of the County, including the Project site. Fire Station Number 14 is located approximately 2.25 miles northeast of the Project site.

The Stockton Police Department provides police protection within the City of Stockton and is located approximately nine miles south of the Project site. The unincorporated areas of San Joaquin County receive law enforcement services by the San Joaquin County Sheriff's Department and the Central

Division of the California Highway Patrol (CHP). The San Joaquin County Jail and Sheriff's Department are located approximately 13.5 miles south of the Project site in French Camp and the nearest CHP station is located approximately seven miles southeast of the Project site in the City of Stockton.

The Project site is located within the Lodi Unified School District. The nearest schools to the Project site include: Elkhorn Elementary School, located approximately 1.7 miles southwest of the Project site; Podesta Ranch Elementary School, located approximately 1.9 miles south of the Project site; John Muir Elementary School, located approximately 2.1 miles southwest of the Project site; Bear Creek High School, located approximately 2.3 miles southwest of the Project site; and Julia Morgan Elementary School, located approximately 2.5 miles southwest of the Project site.

San Joaquin County Parks and Recreation is responsible for the maintenance of several regional and community parks within the unincorporated areas of the County. Additionally, the City of Stockton Community Services Department maintains 66 parks and open spaces, ranging from neighborhood parks to community parks. The nearest parks to the Project site include: Baxter Park, located approximately 2.1 miles southwest of the Project site; Laughlin Park, located approximately 2.7 miles southwest of the Project site; Garrigan Park, located approximately 3.1 miles southwest of the Project site; and Faklis Community park, located approximately 3.6 miles southwest of the Project site.

Most library facilities in San Joaquin County are provided by the Stockton-San Joaquin County Public Library System. The Chavez Central Library in Stockton supports collections for nine branches, a bookmobile, and other various services. Branch libraries are located in Thornton, Linden, Tracy, Manteca, Ripon, Escalon, and throughout the City of Stockton.

Several major hospitals serve the Project site: Sutter Urgent Care is located approximately four miles southwest of the Project site; St. Joseph's Medical Center is located approximately seven miles south of the Project site, Dameron Hospital is located approximately eight miles south of the Project site in the City of Stockton, and San Joaquin General Hospital is located approximately 13 miles south of the Project site in the unincorporated community of French Camp.

The County Department of Public Works is responsible for the administration of solid waste and operation of facilities. The Environmental Health Division is involved in administering local and State regulations regarding waste management and has been appointed as the local enforcement agency throughout the County. Waste is collected by the incorporated cities or the County, or by private firms franchised and licensed by the cities or the County. The cities and the County are individually responsible for their own solid waste facilities, including transfer stations, disposal sites, and resource recovery facilities.

Wastewater treatment services are provided in the incorporated cities of San Joaquin County. Septic systems are used in many of the unincorporated communities and areas. The unincorporated areas are served by a combination of City sewers, County service districts, and private septic tanks. The City of Stockton operates a wastewater collection system through a system of pumping stations and sewer lines. The Stockton Regional Wastewater Control Facility (RWCF) provides secondary and tertiary treatment of municipal wastewater throughout the City. The RWCF is located north of SR 4 on both sides of the San Joaquin River. The primary and secondary treatment facilities are located east of the river, while the secondary polishing facilities, filtration facilities, and disinfection facilities are located on the west side of the river. Primary and secondary solids are treated by anaerobic digestion, dewatered, and disposed off-site. Effluent is discharged into the San Joaquin River adjacent to the RWCF.

Potable water for irrigation and domestic use in the County is provided through multiple agencies and water Projects, including federal, regional, and local water districts, special districts, and private systems. Water agencies acquire water from ground and surface supplies, treat the water, and distribute the treated water to the users. Retail water purveyors in the COSMA include the Stockton MUD, Cal Water, and San Joaquin County.

Drainage facilities are operated by the incorporated cities, urban communities, and irrigation districts, including the City. Urban portions of the City are served by a system of underground storm drains that are separate from the sanitary sewer system. Stormwater flows to catch basins or to outfall points along the City's natural drainage ways. At several locations, storm drains catch basins feed into the sanitary collection system. The storm drainage system is generally connected to flood control canals and channels that drain into sloughs of the San Joaquin River and the Delta. Some incorporated portions are served by roadside drainage ditches. Stormwater management in the City is regulated by certain federal, state, and local regulations, standards, and criteria related to the computation of runoff, facility design, and quality of runoff entering streams.

Summary of Impacts from the Stockton Delta Water Supply Project Program EIR

Public services and utilities/energy impacts are discussed in Section 3.10, *Public Services and Utilities/Energy*, of the certified DWSP Program EIR. The certified DWSP Program EIR concluded that construction of the DWSP pipeline could result in temporary, planned, or accidental disruption to utility services; however, it was determined that no impact would occur from construction of the WTP. Similarly, construction in specific segments of the pipeline alignments could result in utility conflicts; however, it was determined that no impact would occur from construction of the WTP. Pipeline construction could also temporarily block access routes for city police departments, San Joaquin County Sheriff's Department, fire department, and emergency services; however, no impact would occur from construction of the WTP. The certified DWSP Program EIR concluded that construction of the DWSP components could require short-term police and fire protection services to assist in traffic management or respond to a construction-related accident; however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measure PUB-3c. The certified DWSP Program EIR concluded that construction of the DWSP components would not result in a substantial use of nonrenewable energy resources, and the impact from construction of the WTP was determined to be less than significant. Lastly, operation of the DWSP could result in substantial energy consumption; however, the impact from operation of the WTP was determined to be less than significant.

Impact Analysis

The impact analysis questions related to public services, utilities, and energy are included in Table 3.10-1, Summary of Impacts – Public Services and Utilities/Energy, in Section 3.10, *Public Services and Utilities/Energy*, of the certified DWSP Program EIR.

PUB-1: DWSP pipeline construction could result in temporary, planned, or accidental disruption to utility services.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the raw and treated water pipelines for the DWSP could result in temporary, planned, or accidental disruption to utility services; however, it was determined that no impact would occur from construction of the WTP.

The proposed Project would construct three groundwater basins and associated infrastructure adjacent to the City's existing DWTP. The proposed Project would include construction of a 30-inch motorized butterfly isolation valve located adjacent to the existing raw water connection on the DWTP site. The new motorized butterfly isolation valve would tie into the DWTP's existing SCADA system, which would then connect to a 36-inch welded steel pipeline WSP. The WSP would then connect to three 24-inch butterfly valves that would be used to control flows to each groundwater recharge basin. From the three butterfly valves, three 30-inch HDPE pipelines would direct flows into each forebay. The proposed Project would not require the construction of new raw and/or treated water pipelines off-site and would not result in temporary, planned, or accidental disruption to utility services. Therefore, no impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

PUB-2: Construction in specific segments of the proposed pipeline alignments could result in utility conflicts.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction in specific segments of the raw and treated water pipeline alignments could result in utility conflicts; however, it was determined that no impact would occur from construction of the WTP.

As discussed above in Impact PUB-1, the proposed Project would construct a 30-inch motorized butterfly isolation valve located adjacent to the existing raw water connection on the DWTP site. The new motorized butterfly isolation valve would tie into the DWTP's existing SCADA system, which would then connect to a 36-inch welded steel pipeline WSP. The WSP would then connect to three 24-inch butterfly valves that would be used to control flows to each groundwater recharge basin. From the three butterfly valves, three 30-inch HDPE pipelines would direct flows into each forebay. The proposed underground infrastructure would be contained within the Project site and would not interfere with existing on-site or off-site utilities. Therefore, no impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

PUB-3: Pipeline construction could temporarily block access routes for city police departments, San Joaquin County Sheriff's Department, fire department, and emergency services.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the raw and treated water pipelines could also temporarily block access routes for city police departments, San Joaquin County Sheriff's Department, fire department, and emergency services; however, it was determined that no impact would occur from construction of the WTP.

As discussed above in Impact PUB-1 and PUB-2, the proposed Project would include the construction of underground pipelines on-site that control flows from the DWTP's existing SCADA system. Construction activities associated with the proposed infrastructure would be contained within the Project site and would not extend onto roadways in the Project area. Therefore, construction of the proposed pipelines would not temporarily block access routes for the Stockton Police Department, San Joaquin County Sheriff's Department, Stockton Fire Department, or other emergency services. No impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact PUB-4: DWSP construction could require short-term police and fire protection services to assist in traffic management or to respond to a construction-related accident.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of DWSP components could require short-term fire protection services to assist in traffic management or to respond to a construction-related accident; however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measure PUB-3c.

The proposed Project area receives police and fire protection services from the Stockton Fire Department, the Stockton Police Department, the San Joaquin County Sheriff's Department, and the Central Division of the CHP. The proposed Project would construct three groundwater recharge basins and associated infrastructure adjacent to the existing City-owned DWTP, which already receives police and fire protection services from the City and County. The potential for a minor increase in demand for police and fire services may occur during construction of the proposed Project if there was a construction-related accident; however, in the unlikely chance that there is a construction-related accident, the increased service demands would be short-term and temporary and would not overburden the existing City and County police and fire departments. Mitigation Measure PUB-3c would not be applicable to the proposed Project, because, as discussed in Section 6.VIII, *Transportation and Traffic,* construction activities and staging of construction equipment for the proposed Project would be contained within the Project site, would not involve multiple work sites, nor require lane closures of roads in the vicinity of the Project site thereby necessitating a Traffic Control Plan. Therefore, the impact would be less than significant, and no mitigation would be necessary. *No new or substantially more severe impact* would occur compared to what was evaluated in the certified DWSP Program EIR.

Impact PUB-5: DWSP construction could result in a substantial use of nonrenewable energy resources.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP components would not result in a substantial use of nonrenewable energy resources, and the impact from construction of the WTP was determined to be less than significant.

The proposed Project would include construction of three groundwater recharge basins with associated infrastructure, a visitor restroom, a shaded viewing platform, and a paved parking lot. Energy consumed for Project construction would primarily consist of fuels in the form of diesel and gasoline. Fuel consumption would result from the use of on-road and off-highway trucks for the transportation of construction materials and water, construction worker vehicles traveling to and from the proposed Project site, and from the use of off-road construction equipment. While construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. Therefore, construction of the proposed Project would not result in a substantial use of nonrenewable energy resources, and the impact would be less than significant. Therefore, there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

PUB-6: DWSP operation could result in substantial energy consumption.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP could result in substantial energy consumption; however, the impact from operation of the WTP was determined to be less than significant.

The proposed Project and the existing DWPT are within the PG&E service area for electricity. The proposed recharge basins would be filled with raw surface water by the proposed pumps, which would be powered by the existing motor control center at the City's DWTP; however, the proposed pumps

would not result in substantial energy consumption. Operational activities associated with the proposed Project would include occasional maintenance trips for the visitor restroom and landscaping. Per the Project engineer, a truck would service the septic tank for the restroom (if connection to existing utilities is not feasible) six times a year, and landscape maintenance, including weed and irrigation maintenance, would occur two to four times a year. Maintenance trips required for the proposed Project would result in a negligible amount of fuel consumption.

Operation of the proposed Project would also include infrequent educational visits from local public or private schools, organizations, other interested groups, etc. as allowed by the DWTP facility management. It is anticipated that educational visits would be limited to one school bus per visit (up to 72 students, per standard school bus sizes) and would occur between typical daytime school hours and operational hours of the DWTP. Such infrequent visits to the Project site would result in a negligible amount of fuel consumption. Therefore, operation of the proposed Project would not result in the consumption of substantial energy resources, and the impact would be less than significant. There would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

The certified DWSP Program EIR identified Mitigation Measure PUB-3c to mitigate impacts related to public services from implemented of the WTP. However, Mitigation Measure PUB-3c would not be applicable to the proposed Project, because, as discussed in Section 6.VIII, *Transportation and Traffic,* construction activities and staging of construction equipment for the proposed Project would be contained within the Project site, would not involve multiple work sites, nor require lane closures of roads in the vicinity of the Project site thereby necessitating a Traffic Control Plan. No other mitigation measures are applicable to the proposed Project related to public services, utilities, or energy.

X. CULTURAL RESOURCES

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Question (Table 3.11-1 of the certified DWSP Program EIR):				
CUL-1: Construction of DWSP facilities could damage unidentified buried archaeological, historical, or paleontological resources within the Project area.	☐	☐	☐	☒

A Cultural Resources Assessment (CRA) was prepared by HELIX in February 2025 for the proposed Project and is included as Appendix D.

Background Research

Archival Records Search

On October 17, 2024, staff at the Central California Information Center (CCIC) at California State University, Stanislaus in Turlock, California, conducted a California Historical Resources Information System (CHRIS) records search for the Project site plus a 0.25-mile radius. The results of the records search are summarized below.

Previous Studies

The CHRIS records search identified four studies that have previously been conducted within a 0.25-mile radius of the Project site. One of these previous studies partially overlapped with the Project. The four previous studies conducted in the Project vicinity are described in Table 4, below. Report SJ-06843, the previous study that partially overlaps with the proposed Project site, is briefly described after the table.

Table 4
PREVIOUS STUDIES CONDUCTED WITHIN 0.25-MILE OF THE PROJECT SITE

Report	Year	Author(s)	Title	Affiliation	Includes Project Site?
SJ-00831	1929	Schenck, W.E. and E.J. Dawson	Archaeology of the Northern San Joaquin Valley. University of California Publications in American Archaeology and Ethnology Vol. 25, No. 4, pp. 289-413	University of California, Berkeley	No
SJ-005487	2004	Jensen, Peter M.	Archaeological Inventory Survey, Proposed North Alpine Development Project, c. 369 acres along Eightmile Road, San	Jensen & Associates for The Grupe Company, Inc.	No

Report	Year	Author(s)	Title	Affiliation	Includes Project Site?
			Joaquin County, California		
SJ-006785	2008	Blind, H., M.R. Hibma, and C. Gerike	A Cultural and Paleontological Resources Study for the North Stockton Railroad Grade Separation and Bridge Replacement Project, North Stockton, San Joaquin County, California	LSA Associates, Inc. for Mark Thomas Company, Inc.	No
SJ-06843	2007	ESA	Stockton Delta Water Supply Project Cultural Resources Inventory Report	ESA; for the City of Stockton	Yes

Report SJ-06843 – This report, entitled *Stockton Delta Water Supply Project Cultural Resources Inventory Report*, was prepared by Environmental Science Associates (ESA) for the City of Stockton in October 2007, and was intended to support CEQA analysis of the proposed DWTP and associated infrastructure. The Area of Potential Effects (APE) addressed in the study entirely overlapped the current Project site and included pipeline corridors extending west to the San Joaquin River and south to the City of Stockton. The study found no archaeological resources or potentially significant historical structures within the Project site; at the time of the survey the Project site consisted of tilled and cropped agricultural fields with poor surface visibility. The report concluded that no historical resources would be impacted by the Project, although it acknowledged a slight potential for deeply buried archaeological resources to be encountered if excavations extend below approximately 10 feet.

Previously Recorded Resources

The CCIC records search also identified two previously documented cultural resources within 0.25 mile of the Project site, although neither of these resources are located within the boundaries of the Project site itself. The previously documented resources are described briefly in Table 5, below.

Table 5
PREVIOUSLY RECORDED CULTURAL RESOURCES WITHIN 0.25-MILE OF THE PROJECT SITE

Primary	Trinomial	Year	Recorder	Description	Within Project Site?
P-57-000170	CA-SJO-34	1929	Schenck and Dawson	No description provided (possibly an isolated artifact); “destroyed by cultivation”	No
P-57-000283	CA-SJO-166	1990	McIvers, K. and E. Derr	Precontact village and cemetery; heavily disturbed	No

Native American Heritage Commission Sacred Lands File Search

On October 25, 2024, HELIX requested that the Native American Heritage Commission (NAHC) conduct a search of the NAHC’s Sacred Lands File (SLF). On November 5, 2024, HELIX received a response from the NAHC that stated that the SLF search returned negative results.

Pedestrian Survey

On November 21, 2024, HELIX Staff Archaeologists Jentin Joe and Leah Wargo, RPA, surveyed the Project site under the direction of HELIX Senior Cultural Resources Project Manager II Clarus Backes, RPA. Ground visibility during the survey was fair (approximately 75 percent), with bare soil partially obscured by intermittent patches of short vegetation. Ultimately, the Project site was thoroughly examined during HELIX's pedestrian survey, but no precontact or historic-era materials or features were observed.

Summary of Impacts from the Certified Stockton Delta Water Supply Project Program EIR

Cultural resources impacts are discussed in Section 3.11, *Cultural Resources*, of the certified DWSP Program EIR. The certified DWSP Program EIR concluded that construction of the DWSP facilities could damage unidentified buried archaeological, historical, or paleontological resources within the Project area; however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measure CUL-1.

Impact Analysis

The impact analysis question related to cultural resources is included in Table 3.11-1, Summary of Impacts – Cultural Resources, in Section 3.11, *Cultural Resources*, of the certified DWSP Program EIR.

Impact CUL-1: Construction of DWSP facilities could damage unidentified buried archaeological, historical, or paleontological resources within the Project area.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that construction of the DWSP facilities could damage unidentified buried archaeological, historical, or paleontological resources within the Project area; however, the impact from construction of the WTP was determined to be less than significant with implementation of Mitigation Measure CUL-1.

The proposed groundwater basins, viewing platform, parking lot, and associated infrastructure would encompass approximately 64 acres of the Project site, and the proposed temporary stockpile areas would encompass approximately 14 acres of the Project site. HELIX's CCIC record search revealed that four studies have previously been conducted within a 0.25-mile radius of the proposed Project site. One of these previous studies (Report SJ-06843), which was associated with the construction of the City's DWTP, partially overlapped with the Project. The study found no archaeological resources or potentially significant historical structures within the Project site. The report concluded that no historical resources would be impacted by the proposed Project, although it acknowledged a slight potential for deeply buried archaeological resources to be encountered within the site if excavations extend below approximately 10 feet. The CCIC records search also identified two previously documented cultural resources within 0.25 mile of the Project site, although neither of these resources are located within the boundaries of the Project site itself.

On November 21, 2024, HELIX Staff Archaeologist Jentin Joe surveyed the Project site under the direction of HELIX Senior Cultural Resources Project Manager II Clarus Backes, RPA. The survey involved systematic investigation of the Project site's ground surface by walking in parallel 20-meter transects. No precontact or historic-era materials or features were observed within the Project site during the pedestrian survey. Based on the background research conducted and the pedestrian survey of the proposed Project site, no cultural resources were identified within the Project site. However, in the

unlikely event that funerary objects and/or archaeological cultural resources are discovered during Project construction, Mitigation Measure CUL-1 would require all work that would potentially affect the resources to halt, and the City would be required to consult with a qualified archaeologist or paleontologist to assess the significance of the resources. Additionally, in the event that human remains are encountered during Project constriction, Mitigation Measure CUL-1 would be implemented, which would require the San Joaquin Coroner to be contacted. Implementation of Mitigation Measure CUL-1 would reduce impacts to a less-than-significant level; therefore, there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

The certified DWSP Program EIR identified Mitigation Measure CUL-1 to mitigate impacts related to cultural resources from implementation of the WTP, which would remain applicable to the proposed Project. This mitigation measure is provided below.

Mitigation Measure CUL-1: Work shall be stopped in affected areas if cultural resources are discovered during Project construction and appropriate measures will be implemented.

Pursuant to CEQA Guidelines 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" shall be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work potentially affecting the resources shall be halted and the Project proponent and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the Project proponent and/or lead agency and the qualified archaeologist and/or paleontologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

If the discovery includes human remains, CEQA Guidelines 15064.5 (e)(1) shall be followed:

- In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken:
- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
    - The San Joaquin County coroner must be contacted to determine that no investigation of the cause of death is required, and
    - If the coroner determines the remains to be Native American:
        - The coroner shall contact the NAHC within 24 hours.
        - The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
        - The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for

means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

- Where the following conditions occur, the landowner or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
    - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
    - The descendant identified fails to make a recommendation; or
    - The landowner or their authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

XI. DELTA WATER RESOURCES

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Questions (Table 4-5 of the certified DWSP Program EIR):				
WATER-1: DWSP operation could affect Delta inflow and outflow, and river flow hydrologic conditions.	☐	☐	☐	☒
WATER-2: DWSP operation could affect CVP-SWP reservoir operations and deliveries.	☐	☐	☐	☒
WATER-3: DWSP operation could affect hydrodynamic and water quality conditions in the Delta and at major Delta water diversion-sites.	☐	☐	☐	☒

Affected Environment

Delta water resource impacts are addressed in Section 4.1, *Delta Water Resources*, of the DWSP Project Program EIR. The certified DWSP Program EIR identified the following resource topics in the Project vicinity relavent to the analysis of recreation.

Delta Flows

The three major sources of freshwater to the Delta are the Sacramento River, the San Joaquin River, and Eastside streams (Mokelumne, Consumnes, and Calaveras Rivers). The Sacramento River Hydrologic Region contains the entire drainage area of the Sacramento River and its tributaries and extends almost 300 miles from Collinsville in the Delta north to the Oregon border. The total land area within the region is approximately 27,000 square miles. The Sacramento River enters the Delta at Freeport. Most flood flows that come from the upper Sacramento River, Feather River, and Sutter Bypass are diverted west of Freeport and the Sacramento area into the Yolo Bypass through the Fremont Weir at Verona.

The flows from the San Joaquin River into the Delta are considerably lower than those from the Sacramento River. Most of the inflow to the San Joaquin River region originates from the upper watershed tributary streams between the Mokelumne River and the San Joaquin River, on the west slope of the Sierra Nevada. The San Joaquin River enters the Delta above Vernalis. Vernalis lies just inside the boundary of the Delta and is widely used as a monitoring point for Delta inflows and standards.

Delta Hydraulics

The hydraulics of the Delta are complicated by tidal influences, a multitude of agricultural, industrial, and municipal diversions for use within the Delta itself, and by State Water Project (SWP) and Central Valley Project (CVP) exports. The principal factors affecting Delta hydrodynamic conditions are: (1) river inflow and outflow from the Sacramento River and San Joaquin systems, (2) daily tidal inflow and outflow through the San Francisco Bay, and (3) export pumping from the south Delta primarily through the Banks and Tracy Pumping Plants.

Each region in the Delta is dominated by different hydraulic variables during any given period of time. In the west Delta, for example, tidal influences are strong and reverse flows occur frequently. The north Delta is more dominated by Sacramento River and Mokelumne River inflows. The south Delta is more affected by both San Joaquin River inflows and export pumping. All of these influences intersect in the central Delta.

Tidal action has a great influence on the flow of water in Delta channels. Over the tidal cycle, flows move downstream toward the San Francisco Bay during ebb tides and move upstream during flood tides. Twice-daily tides move water from the San Francisco Bay into the Delta. Historically, during extremely low runoff periods in summer, salt from tidal flows intruded into the Delta as far as Hood. During winter and spring, freshwater from heavy rains pushed the salt water back, well into the San Francisco Bay, and sometimes beyond. Saltwater intrusion into the Delta during summer is controlled by tides, freshwater inflows from reservoir releases, and Delta pumping. With the addition of Shasta, Folsom, and Oroville dams, saltwater intrusion into the Delta during summer months has been controlled by reservoir releases during what were the traditionally dry months under natural conditions (no dams). Flows from the Eastside streams and San Joaquin River also contribute to controlling saltwater intrusion. Typically, peaks in winter and spring flows have been dampened, and summer and fall flows have been increased. In very wet years, reservoirs are unable to control runoff, and salinity in the Bay is nearly reduced to freshwater levels.

Water Supply and Management

To facilitate movement of Sacramento River water to pumping facilities in the south Delta, the Delta Cross Channel diverts water, by gravity, from the Sacramento River to Snodgrass Slough into the North and South Forks of the Mokelumne River. Sacramento River water moves down these channels through the central Delta and into the San Joaquin River. Flows in the channel reverse as the tide changes and, at certain stages; there is considerable flow from the channel into the Sacramento River.

Flow that enters the Delta via the Sacramento River flows by various routes to the export pumps in the southern Delta. Some of this flow is drawn to the SWP and CVP pumps through interior Delta channels, facilitated by the CVP's Delta Cross Channel. Water that does not travel into the central Delta continues towards the San Francisco Bay. Under certain conditions, additional Sacramento River waters flow into the central and south Delta. The Sacramento River waters flow through Threemile Slough, around the western end of Sherman Island and up the San Joaquin River towards the export pumps. When freshwater outflow is relatively low, water with a higher salt concentration enters the Central and south Delta as tidal inflow from the San Francisco Bay.

Water supply sources for the proposed groundwater recharge basins would include water from the Delta, WID, and/or the MICUP during surplus. As mentioned in Section 4.2, *Water Supply,* the City currently has about 21,000 AF/year of raw water of existing surface water supplies from these sources

available for recharge (NEXGEN 2024). The WID has the authority to divert water from the Mokelumne River (Lodi Lake) via the main diversion canal in Woodbridge, which runs underneath Lower Sacramento Road and feeds the majority of the canals to the south.

Water Quality

Water quality in the Delta is continually changing in response to natural hydrologic conditions, operation of upstream reservoirs, agricultural and water supply diversions, and discharges into the Delta system. Seasonal trends reflect the effects of higher spring/summer runoff and fall/winter low-flow periods.

Trends in water quality in the Delta reflect the effects of inflows, tidal exchanges with the San Francisco Bay, diversions, and pollutant releases in the Delta. The north Delta tends to have better water quality in large part because of the inflow from the Sacramento River. The quality of water in the west Delta is strongly influenced by tidal exchange with the San Francisco Bay; during low-flow periods, seawater intrusion results in increased salinity. In the south Delta, water quality tends to be poorer because of the combination of inflows of poorer water quality from the San Joaquin River, discharges (agricultural return flows) from Delta islands, and effects of diversions that can sometimes increase seawater intrusion from the Bay.

The DWR, Reclamation, USGS, the California Data Exchange Center (CDEC), various water and reclamation districts, and various cities monitor water quality in the Delta. In general, water quality improves from upstream to downstream in the San Joaquin River (northwesterly direction). This improvement is due primarily to dilution from higher flows and the quality of the Sacramento River inflow that is drawn southwards to the State Water Project (SWP) and Central Valley Project (CVP) pumping plants. Delta water quality is influenced by the following:

- Discharges from Delta islands that have elevated concentrations of total organic carbon (TOC) and salts.
- High-salinity water from Suisun and San Francisco Bays that intrudes into the Delta during periods of low Delta outflow.
- Bromides associated with seawater that lead to the formation of brominated compounds in treated water supplies.
- Agricultural drainage into the Delta that can contain elevated levels of nutrients, suspended solids, organic carbon, salinity, selenium, and boron in addition to pesticides.
- Heavy metals, including cadmium, copper, mercury, and zinc, continue to enter the Delta. Sources of these metals include runoff from abandoned mine sites, tailings deposits, downstream sediments where metals have been deposited over the past 150 years, urban runoff, and industrial and municipal wastewater.

Impacts and Mitigation Measures from the Stockton Delta Water Supply Project Program EIR

Delta water resource impacts are addressed in Section 4.1, *Delta Water Resources*, of the certified DWSP Program EIR. The certified DWSP Program EIR concluded that operation of the DWSP could affect Delta inflow and outflow, and river flow hydrologic conditions; however, the impact from operation of the WTP was determined to be less than significant. Additionally, operation of the DWSP could affect CVP-

SWP reservoir operations and deliveries; however, the impact from operation of the WTP was determined to be less than significant. Lastly, operation of the DWSP could affect hydrodynamic and water quality conditions in the Delta and at major Delta water diversion-sites; however, it was determined that no impact would occur from operation of the WTP.

Impact Analysis

The impact analysis questions related to Delta water resources are included in Table 4-5, Summary of Impacts – Delta Water Resources, in Section 4.1, *Delta Water Resources*, of the certified DWSP Program EIR.

Impact WATER-1: DWSP operation could affect Delta inflow and outflow, and river flow hydrologic conditions.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP could affect Delta inflow and outflow, and river flow hydrologic conditions; however, the impact from operation of the WTP would was determined to be less than significant. The certified DWSP Program EIR concluded that the DWSP facilities would have no direct impact on upstream river flows. However, indirect effects could occur because changes in Delta conditions can trigger changes in CVP-SWP reservoir operations and changes in CVP-SWP exports from the south Delta.

Operation of the proposed Project would allow for groundwater recharge via each of the three proposed recharge basins during surplus. According to the draft Preliminary Scope Validation Memo prepared for the proposed Project in December 2024, the City currently has approximately 21,000 AF/year of raw water of existing surface water supplies from the Delta and WID or the MICUP available for recharge (NEXGEN 2024). The WID has the authority to divert water from the Mokelumne River (Lodi Lake) via the main diversion canal in Woodbridge, which runs underneath Lower Sacramento Road and feeds the majority of canals to the south. This existing raw surface water would be used to supply the proposed groundwater recharge basins during surplus. Assuming 335 days for recharge in the groundwater basins, the 21,000 AF/year of available existing water supplies would require an average infiltration rate of about 1.44 feet/day. The recharge volume would be accomplished through the groundwater recharge basins bottom and the dry wells within the basins. Therefore, operation of the proposed Project would not substantially affect Delta inflow and outflow and river hydrologic conditions. Impacts would be less than significant, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact WATER-2: DWSP operation could affect CVP-SWP reservoir operations and deliveries.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP could affect CVP-SWP reservoir operations and deliveries; however, the impact from operation of the WTP was determined to be less than significant. The certified DWSP Program EIR concluded that CVP and SWP deliveries are a function of inflow hydrology and contract conditions rather than water supply conditions. As such, they would not be affected by the DWSP facilities. The amount of carryover storage was determined to affect the balance between CVP-SWP long-term average annual deliveries and dry year deliveries. A reduction in water supply available to the CVP-SWP was determined to result in reduced deliveries and reduced carryover storage.

As discussed above in Impact WATER-1, the City currently has about 21,000 AF/year of raw water of existing surface water supplies from the Delta and the WID or the MICUP available for recharge. This

diversion of water would occur when there is a surplus in supply and would not substantially affect CVP-SWP reservoir operations and deliveries. Therefore, the impact would be less than significant, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact WATER-3: DWSP operation could affect hydrodynamic and water quality conditions in the Delta and at major Delta water diversion-sites.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP could affect hydrodynamic and water quality conditions in the Delta and at major Delta water diversion-sites; however, it was determined that no impact would occur from operation of the WTP. The certified DWSP Program EIR concluded that water quality in the Delta is a function of several factors, including tidal action, agricultural diversions and return flows, operation of flow control structures (Delta Cross Channel, temporary barriers in the south Delta, and Suisun Marsh Salinity Control Gate), Delta inflows (Sacramento River, Yolo Bypass, San Joaquin River, and Eastside streams), and export pumping at CVP and SWP facilities.

The proposed Project would include construction of three groundwater recharge basins and associated infrastructure at the City-owned DWTP. As discussed above in Impact WATER-1 and WATER-2, the City currently has about 21,000 AF/year of raw water of existing surface water supplies from the Delta and the WID or the MICUP available for recharge. Operation of the proposed Project would not significantly affect hydrodynamic and water quality conditions in the San Joaquin River, Delta, or at major Delta water diversion-sites or flows within the Stockton Deep Water Ship Channel. Further, the proposed Project would increase groundwater levels in the Eastern San Joaquin Subbasin, which is anticipated to improve groundwater quality within the basin. Therefore, the impact would be less than significant, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

The certified DWSP Program EIR did not identify any substantial adverse effects related to Delta water resources from implementation of the WTP. Therefore, no mitigation measures were identified.

XII. GROUNDWATER RESOURCES

	New or Substantially More Severe Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New or Substantially More Severe Impact
Impact Analysis Question (Table 5-3 of the certified DWSP Program EIR):				
GW-1: Operation of the DWSP would improve groundwater water levels.	☐	☐	☐	☒
GW-2: Operation of the DWSP would not alter the existing hydrological interaction between the surface water and the groundwater.	☐	☐	☐	☒
GW-3: Operation of the DWSP would reduce the risk of land subsidence in the region.	☐	☐	☐	☒
GW-4: Operation of the DWSP would improve groundwater water quality and would not violate water quality standards.	☐	☐	☐	☒

Affected Environment

The County lies within the San Joaquin Hydrologic Region and overlies three of the subbasins within the San Joaquin Valley Groundwater Basin: Eastern San Joaquin, Tracy, and Cosumnes. The San Joaquin Valley Groundwater Basin is divided into nine subbasins in this region. Of these nine subbasins, the proposed Project would occur within the area defined by the Eastern San Joaquin Subbasin. The Eastern San Joaquin Subbasin is bound by the Mokelumne River on the north and northwest, the San Joaquin River on the west, the Stanislaus River on the south, and the Sierra Nevada to the east. The Eastern San Joaquin Subbasin is drained by the San Joaquin River and its major tributaries – the Stanislaus, Calaveras, and Mokelumne Rivers. The San Joaquin River flows northward into the Sacramento and San Joaquin Delta and discharges into the San Francisco Bay. Annual precipitation within the subbasin ranges from about 11 inches in the southwest to about 25 inches in the northeast.

Groundwater in San Joaquin County moves from sources of recharge to areas of discharge. Most groundwater recharge to the aquifer system occurs from the Delta and along active stream channels where extensive sand and gravel deposits are found. Consequently, the highest groundwater elevations typically occur near the Delta and the Stanislaus and San Joaquin Rivers. Other sources of recharge within the Project area include subsurface recharge from fractured geologic formations to the east, as well as deep percolation from applied surface water and precipitation.

Groundwater levels in some portions of the Subbasin have been declining for many years, while groundwater levels in other areas of the Subbasin have remained stable or increased in recent years. The change in groundwater levels varies across the Subbasin, with the greatest declines occurring in the central portion of the Subbasin. The western and southern portions of the Subbasin have experienced less change in groundwater levels, in part due to the minimal groundwater pumping in the Delta area to the west and the import of surface water for agricultural and urban uses (ESJGWA 2022).

As mentioned in Section 2.2, *Project Purpose*, the Eastern San Joaquin Subbasin was identified as a critically overdrafted and high priority basin in the SGMA 2019 Basin Prioritization. The Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan, most recently revised in 2022, outlines the need to reduce overdraft conditions in the Subbasin in order to meet current and future water demands (ESJGWA 2022).

Summary of Impacts from the Stockton Delta Water Supply Project Program EIR

Groundwater resources impacts are addressed in Chapter 5, *Groundwater Resources*, of the certified DWSP Program EIR. The certified DWSP Program EIR concluded that operation of the DWSP facilities would improve groundwater water levels, and no impact was determined to occur from operation of the WTP. The certified DWSP Program EIR concluded that operation of the DWSP facilities would not alter the existing hydrological interaction between the surface water and the groundwater; therefore, no impact was determined to occur from operation of the WTP. Operation of the DWSP would reduce the risk of land subsidence in the region; therefore, the impact from operation of the WTP was determined to be less than significant. Lastly, the certified DWSP Program EIR concluded that operation of the DWSP facilities would improve groundwater water quality and would not violate water quality standards; no impact from operation of the WTP was determined to occur.

Impact Analysis

The impact analysis question related to groundwater resources is included in Table 5-3, Summary of Impacts – Groundwater Resources, in Chapter 5, *Groundwater Resources*, of the certified DWSP Program EIR.

Impact GW-1: Operation of the DWSP would improve groundwater water levels.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP facilities would improve groundwater water levels, and no impact was determined to occur from operation of the WTP.

The purpose of the proposed Project is to improve water supply reliability and raise groundwater levels in the Eastern San Joaquin Subbasin. Currently, due to limited surface water availability within San Joaquin County and the Projected growth in water demand, it is likely that groundwater levels would continue to decline. Declining groundwater levels could potentially result in increased groundwater pumping cost due to increased pumping depth, decreased yield from groundwater wells due to reduction in the saturated thickness of the aquifer, and reduced groundwater volume in storage. Additionally, declining groundwater levels would result in steeper local groundwater gradients, which would be expected to accelerate the eastward migration of poor-quality water. Operation of the proposed Project would allow for groundwater recharge via each of the three proposed recharge basins. The City currently has about 21,000 AF/year of raw water available for recharge from the Delta and WID or MICUP. It is anticipated that the infiltration rate for each groundwater recharge basin would range

from approximately 15,000 acre-feet AF/year to 30,000 AF/year, assuming the basins are used 335 days per year. The recharge volume would be accomplished through the groundwater recharge basins bottom and the dry wells within the basins. Operation of the proposed Project would not deplete groundwater supplies or interfere adversely with groundwater recharge. Rather, the proposed Project would raise groundwater levels in the Eastern San Joaquin Subbasin, which is an overdrafted, high priority basin. Therefore, no impact would occur from operation of the WTP, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact GW-2: Operation of the DWSP would not alter the existing hydrological interaction between the surface water and the groundwater.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP facilities would not alter the existing hydrological interaction between the surface water and the groundwater; therefore, no impact was determined to occur from operation of the WTP. The certified DWSP Program EIR concluded that the DWSP facilities would not alter the current rate of seepage (groundwater recharge) from the San Joaquin and Calaveras Rivers to the underlying groundwater basin.

As discussed above in Impact GW-1, the proposed Project would include construction of three groundwater recharge basins adjacent to the City's existing DWTP that would be filled with raw water available from the Delta and WID or MICUP during surplus. The purpose of the proposed Project is to improve water supply reliability and raise groundwater levels in the Eastern San Joaquin Subbasin. The Project would not substantially interfere with or alter the existing hydrological interaction between the surface water and groundwater. Rather, the proposed Project would raise groundwater levels in the Eastern San Joaquin Subbasin, which is an overdrafted, high priority basin. No impact would occur, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact GW-3: Operation of the DWSP would reduce the risk of land subsidence in the region.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP would reduce the risk of land subsidence in the region; therefore, the impact from operation of the WTP was determined to be less than significant. Land subsidence is the lowering of the land surface due to underground changes. Land subsidence can be caused by excessive groundwater extraction (i.e., pumping). Excessive groundwater extraction from confined and unconfined aquifers can result in a lowering of groundwater levels and, in confined aquifers, a decline in water pressure. Reduction in water pressure results in increased loading of the clay and silt beds, which may subsequently consolidate, resulting in the lowering of the ground surface. Subsidence can cause damage to structures and increase the flooding potential of low-lying areas.

As discussed above in Impact GW-1 and GW-2, the purpose of the proposed Project is to improve water supply reliability and raise groundwater levels in the Eastern San Joaquin Subbasin. Therefore, operation of the proposed Project would reduce the risk of land subsidence in the region. The impact would be less than significant, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Impact GW-4: Operation of the DWSP would improve groundwater water quality and would not violate water quality standards.

No New or Substantially More Severe Impact. The certified DWSP Program EIR concluded that operation of the DWSP facilities would improve groundwater water quality and would not violate water quality standards; no impact was determined to occur from operation of the WTP. Changes in groundwater levels or in the prevailing groundwater flow regime could cause a change in groundwater quality through a number of mechanisms. One mechanism is the potential mobilization of areas of poorer quality water, drawn down from shallow zones or drawn up into previously unaffected areas. Changes in groundwater gradients and flow directions could also cause (or speed up) the lateral migration of poorer quality water.

As discussed above in Impacts GW-1 through GW-3, the proposed Project would raise groundwater levels in the Eastern San Joaquin Subbasin; therefore, it is anticipated that the proposed Project would thereby reduce the rate of eastward migration of poorer water quality. Therefore, operation of the proposed Project would not adversely affect groundwater quality or violate water quality standards, and there would be *no new or substantially more severe impact* compared to what was evaluated in the certified DWSP Program EIR.

Mitigation Measures

The certified DWSP Program EIR did not identify any substantial adverse effects related to groundwater resources from implementation of the WTP. Therefore, no mitigation measures were identified.

7.0 REFERENCES

California Air Pollution Control Officers Association (CAPCOA). 2025. User's Guide for CalEEMod Version 2022.1. Accessed February 3, 2025 at: http://www.caleemod.com/

California Air Resources Board (CARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf

California Department of Conservation (DOC). 2024a. California Important Farmland Finder Map. Accessed October 17, 2024 at: DLRP Important Farmland Finder (ca.gov)

2024b. Earthquake Hazards Zone Application (EQ Zapp) Map. Accessed November 14, 2024 at: https://maps.conservation.ca.gov/cgs/EQZApp/app/

2024c. Mineral Lands Classification. Accessed November 15, 2024 at: CGS Information Warehouse

2024d. Mines Online. Accessed November 15, 2024 at: Mines Online

California Department of Fish and Wildlife (CDFW) 2024. California Natural Diversity Database (CNDDB); For: *Lodi South, Lodi North, Thornton, Lockeford, Terminous, Waterloo, Holt, Stockton West,* and *Stockton East* USGS 7.5-minute series quadrangles, Sacramento, CA. Accessed July 15, 2024.

California Native Plant Society (CNPS). 2024. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39) For: *Lodi South, Lodi North, Thornton, Lockeford, Terminous, Waterloo, Holt, Stockton West,* and *Stockton East* USGS 7.5-minute series quadrangles. Accessed July 15, 2024.

California Department of Toxic Substances Control (DTSC). 2024. Accessed October 18, 2024 at: https://www.envirostor.dtsc.ca.gov/public/search?basic=True.

California Department of Transportation (Caltrans). 2024. California State Scenic Highway System Map. Accessed October 17, 2024 at: California State Scenic Highway System Map (arcgis.com)

California Department of Water Resources (DWR). 2024a. Bulletin 18. Critically Overdrafted Basins. Accessed March 19, 2025 at: Critically Overdrafted Basins

2024b. Statewide Groundwater Management. Basin Prioritization. Accessed December 12, 2024 at: https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization

2024b. Division of Safety of Dams. California Dam Breach Inundation Map. Accessed December 16, 2024 at: Dam Breach Inundation Map Web Publisher

City of Stockton and San Joaquin County. 2020. Stormwater Quality Control Criteria Plan. Revised January 2023. Available at: Stormwater_Quality_Control_Criteria_Plan_SWQCCP_2020.pdf

Eastern San Joaquin Groundwater Authority (ESJGWA). 2022. Eastern San Joaquin Groundwater Subbasin. Revised Groundwater Sustainability Plan. Available at: Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan (Revised) – California Water Library

Geosyntec Consultants. 2023. *Feasibility Study Report*. Delta Water Treatment Plant Groundwater Recharge Improvement Project.

National Wild and Scenic Rivers System (NWSRS). 2024. Rivers in California. Accessed November 13, 2024 at: California | Rivers.gov

NEXGEN Utility Management (NEXGEN). 2024. *City of Stockton Delta Water Treatment Plant Groundwater Recharge Basin Design-Build Project Draft Preliminary Scope Validation Memo*.

Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February. Available at: https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

San Joaquin Council of Governments (SJCOG). 2018. Countywide Airport Land Use Compatibility Plan. Available at: Untitled-2

San Joaquin, County of (County). 2024a. Development Title. Accessed November 13, 2024 at: Series 200: - Base Zones | Development Title | San Joaquin County, CA | Municode Library

2024b. Interactive Flood Zone Map. Accessed December 16, 2024 at: Interactive Flood Zone Map

2016. San Joaquin County 2035 General Plan. Accessed October 17, 2024 at: GENERAL PLAN 2035.pdf (sjgov.org)

2014. San Joaquin County 2035 General Plan Draft Environmental Impact Report. Accessed November 14, 2024 at: San Joaquin County 2035 General Plan DEIR

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) 2000. Available online at: https://www.sjcog.org/DocumentCenter/View/5/Habitat-Planpdf?bidId=

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Available at: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF

State Water Resources Control Board (SWRCB). 2024. GeoTracker. Accessed October 18, 2024 at: https://geotracker.waterboards.ca.gov/search

Stockton, City of (City). 2025. City of Stockton Code of Ordinances. Available at: City of Stockton, CA Table of Contents

2024. General Plan 2040 Map. Last Revised December 6, 2024. Accessed February 24, 2025 at: GeneralPlan2040Map.pdf

2005. City Council/Redevelopment Concurrent Meeting. November 8, 2005. Available at: City Council/Redevelopment Concurrent Meeting

U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS). 2024a. Web Soil Survey: Area of Interest (AOI). Available December 20, 2024 at: http://websoilsurvey.sc.egov.usda.gov.

2024b. Climate Data and Summary Reports from AgACIS. Accessed December 20, 2024, at: http://agacis.rcc-acis.org/?fips= 06067

U.S. Environmental Protection Agency (USEPA). 2024. Superfund National Priorities List (NPL) Map. Accessed November 14, 2024 at: Superfund National Priorities List (NPL) Where You Live Map

U.S. Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation (IPaC) Trust Resource Report for the *Delta Water Treatment Plant Groundwater Recharge Basins Project*.

8.0 PREPARERS

This document has been completed by the City of Stockton as the CEQA Lead Agency for the proposed Project, with support from the following organizations and professional staff:

City of Stockton

Danny Trejo, Program Manager II

HELIX Environmental Planning, Inc.

Lesley Owning, Project Manager
Julia Pano, Assistant Project Manager
Emmaline deBecker, Environmental Planner
John DeMartino, Senior GIS Specialist
Victor Ortiz, Principal Air Quality Specialist
Andrew Pulcheon, Principal Archaeologist
Clarus Backes, Senior Archaeologist
Leah Wargo, Staff Archaeologist
Jentin Joe, Staff Archaeologist
David Bise, Principal Biologist
Patrick Martin, Senior Biologist
Kate Valdez, Biologist