CITY OF RIO VISTA

Initial Study – Mitigated Negative Declaration

Wastewater Plant Consolidation Project

September 2024

Kimley»Horn

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1.0 Introduction

1.1 Purpose and Scope of the Initial Study

This Initial Study has been prepared by the City of Rio Vista (City) as Lead Agency, in conformance with the California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations §15000 et seq.). The purpose of this Initial Study is to evaluate the potential environmental effects associated with construction and operation of the proposed Wastewater Plant Consolidation Project (proposed project). Pursuant to CEQA requirements, this Initial Study includes a description of the proposed project; an evaluation of the project's potential environmental impacts; the findings of the environmental analyses; and recommended standard conditions and mitigation measures to avoid or lessen the project's significant adverse environmental impacts.

This Initial Study has evaluated each of the environmental issue areas contained in the checklist provided in **Section 4.0, Environmental Evaluation**. This Initial Study provides decision-makers and the public with information concerning the potential environmental effects associated with project implementation, and ways to avoid or reduce potential environmental impacts. The City will use this Initial Study as a decision-making tool in considering and taking action on the proposed project. Any responsible agency may elect to use this environmental analysis for discretionary actions associated with project implementation.

CEQA - Plus

The proposed project would be partially funded from the California State Water Resources Control Board (SWRCB) Clean Water State Revolving Fund (CWSRF) program. The CWSRF Program is a federal-state partnership under the umbrella of the Environmental Protection Agency (EPA) but administration of the program has been delegated to the SWRCB. The CWSRF Program is intended to provide communities low-cost financing for a wide range of water quality infrastructure projects. To qualify for funding, the SWRCB requires that all projects include discussions including certain federal environmental protection laws. Accordingly, the SWRCB requires preparation of a "CEQA-Plus" environmental document which includes elements to conform with both State CEQA guidelines and federal National Environmental Policy Act (NEPA) standards.

To comply with CEQA-Plus requirements, this Initial Study considers additional information related to compliance with Federal Regulations and Programs including, but not limited to, the Clean Air Act, Coastal Barrier Resources Act, Coastal Zone Management Act, Endangered Species Act, Environmental Justice, Farmland Protection Policy Act, Flood Plain Management, National Historic Preservation Act, Magnuson-Stevens Fishery Conservation and Management Act, Migratory Bird Treaty Act, Protection of Wetlands, Fish and Wildlife Conservation Act, Safe Drinking Water Act, Sole Source Aquifer Protection, and Wild and Scenic Rivers Act. This discussion is provided in **Section 5.0: CEQA Plus Documentation**. Additionally, this Initial Study provides a discussion of project alternatives in **Section 6.0: Alternatives**. The SWRCB, as a responsible agency for the proposed project, will review this Initial Study to ensure all standards are met prior to any CWSRF loan authorization.

1.2 Summary of Findings

Based on the environmental checklist form completed for the proposed project and supporting environmental analyses, the project would result in no impact or a less than significant impact on the following environmental issue areas: Aesthetics, Agriculture, Air Quality, Energy, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Utilities and Service Systems, and Wildfire. The project's impacts on the following issue areas would be less than significant with mitigation incorporated: Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Transportation, and Tribal Cultural Resources. All impacts would be less than significant after mitigation.

As set forth in the State CEQA Guidelines Section 15070 (Decision to Prepare a Negative or Mitigated Negative Declaration), a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

(b) The initial study identifies potentially significant effects, but:

  (1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

  (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

This IS/MND contains and constitutes substantial evidence supporting the conclusion that preparation of an EIR, or other more involved environmental document is not required prior to approval of the project by the City.

1.3 Initial Study Public Review Process

CEQA Statutes and Guidelines (California Code of Regulations [CCR], Title 14, §15000 et seq.), sets forth the rules, regulations, and procedures for the implementation of CEQA. The requirements and steps of preparation and adoption of a Negative Declaration (ND) or Mitigated Negative Declaration (MND) are discussed in § 15070 through 15075 of the State CEQA Guidelines. Based on the evaluation in this IS, it was determined that the proposed project would result in No Impact, a Less than Significant Impact, or the impact would be Less than Significant with Mitigation.

A Notice of Intent (NOI) to adopt the MND based on State CEQA Guidelines § 15072, was prepared and submitted to the State Clearinghouse for filing and circulation. The document was made available for a 30-day public review period from September 12, 2024 to October 11, 2024. During this time the public, interested parties, stakeholders, and any state or local agency could provide comment on the document. The IS/MND may be viewed at the City of Rio Vista website at the following link: www.riovistacity.com/planning/page/california-environmental-quality-act-ceqa-and-environmental-reports, on the State Clearinghouse website, or at the City of Rio Vista, Public Works and Community Development Department, One Main Street, Rio Vista, CA 94571.

Written comments on the IS/MND should reference the "Wastewater Plant Consolidation Project," and be addressed to the Lead Agency at the following address:

City of Rio Vista Planning Department
Attn: Krystine Ball Public Works Program Manager
One Main Street
Rio Vista, CA 95945
or, kball@ci.rio.vista.ca.us

The City of Rio Vista as the Lead Agency for this project, will consider comments received and in accordance with (State CEQA Guidelines § 15074(b)), decide whether to adopt the IS/MND prior to taking action to approve the project. If the IS/MND is adopted and the proposed project is approved, the City also will adopt the MMRP, which will detail the mitigation measures, timing of mitigation implementation, and l list the responsible parties.

1.4 Report Organization

This document includes the following sections:

Section 1.0 – Introduction. This section provides an introduction and overview describing the Initial Study conclusions.

Section 2.0 – Project Description. This section identifies the project location, objectives, and key characteristics and includes a list of anticipated discretionary actions.

Section 3.0 – Environmental Checklist. The Environmental Checklist Form provides an overview of the potential impacts that may or may not result from project implementation.

Section 4.0 – Environmental Evaluation. This section contains an analysis of environmental impacts for each resource area identified in the environmental checklist.

Section 5.0 – CEQA Plus Documentation. This section contains an analysis of Federal Regulations and Programs as required by the SWRCB for CWRSF program eligibility.

Section 6.0 – Alternatives. This section contains an analysis of project alternatives required by the SWRCB for CWRSF program eligibility.

Section 7.0 – References. The section identifies resources used to prepare the Initial Study.

2.0 Project Description

2.1 Project Location and Setting

The proposed project is located in the City of Rio Vista in Solano County in the State of California. The City is located approximately 44 miles southwest of the City of Sacramento and approximately 61 miles east of the City of San Francisco. As further described below, the proposed wastewater line alignment and proposed improvements occur between the Beach Wastewater Treatment Plant (Beach WWTP) located in the southwestern portion of the City at 1000 Beach Drive and the Northwest Wastewater Treatment Plant (Northwest WWTP) located approximately 0.38-mile northwest of Airport Road's intersection with Church Road.

Regional access to the City is provided by three Highways (Hwy): Hwy-12 which provides connectivity to the easterly side of the Sacramento River, Hwy 160 which connects to Interstate 80 (I-80) on to the northwest, and Hwy 113 that connects to Interstate-5 (I-5) to the northeast. **Figure 2-1: Regional Location *Map*** shows the project site and the City within the region. **Figure 2-2: USGS Topographic Map** shows the project site's location within the Rio Vista quadrangle.

Local Setting

The City is located adjacent to west side of the Sacramento River and characterized by residential, retail, commercial, and industrial development. The City developed with a strong tie to the Sacramento River and much of the original development is near the waterfront. The City occupies a total of approximately 7.5 square miles and is known as the Gateway to the Delta. **Figure 2-3: Local Vicinity Map** shows the proposed wastewater alignment in relation to the City.

The southwesterly side of the City contains uses that are strongly influenced by past residential development. The residential uses in the westerly portion of the City occupy approximately 415 acres and contains more mature neighborhoods and some of the earliest developed areas. This area is located west of the former Rio Vista Airport, south and west of undeveloped land and generally bound by the Sacramento River on the east. This area includes the uses served by the Beach WWTP and also includes the former Rio Vista Army Base, and river serving uses such as boat launches, a marina, and developing board walk for river access. The Beach WWTP remains in operation and continues to provide wastewater service to this area of the City

While residential uses have historically been concentrated in the westerly portions of the City, more recent residential development has occurred and is planned in the northerly portions of the City. This includes the Trilogy development, which comprises approximately 765 acres bound by Airport Road on the east, Church Road on the south, Hwy 12 on the west and Liberty Island Road on the north. Additional residential development is ongoing to the north and east of this area. These areas are presently served by the Northwest WWTP.

City of Rio Vista General Plan

The City of Rio Vista General Plan is the guiding planning and policy document for the area in which the proposed project would occur. More specifically, the project would occur within the existing boundaries of, or right-of-way of the Beach Drive, South 2nd Street, Bruning Avenue, South/North Front Street, CPN

Pipeline property, the Rio Vista Channel, St. Francis Way, Airport Road, within the Northwest WWTP, and within Summerset Drive, Laurel Place, golf course property, and Marks Road in the Trilogy development. For this reason, the City General Plan and Zoning Code are the most relevant local planning documents related to project review.

The Rio Vista General Plan (RVGP) was adopted in 2001. The Housing Element is currently being updated but is in Draft form and does not update the Land Use Element. The RVGP includes nine land use "districts" (often referred to in general plans as "land use designations") within the Rio Vista planning area. Beach WWTP carries as and is identified within the Wastewater Treatment Plant Land Use District. The CPN Pipeline property is designated as an Industrial Employment District general (I/E G) as well as the property adjacent to the Mobile Home Park through which the force main would be extended to St. Francis Way. The Northwest WWTP also is identified as being within a Wastewater Treatment Plant Land Use District. but is currently being updated to reflect the needs of the growing community. The RVGP notes the wastewater treatment and collection capacity also must be provided in order to continue to support the community and its expansion. Accordingly, the Public Services Section of the RVGP notes, "The current population is served by the existing Beach Drive plant and Trilogy plant (see Setting discussion). Anticipated population growth will require the new Northwest WWTP to be constructed soon. This new plant will be constructed in phases; the first phase likely will have a capacity of 1.0 mgd, approximately half of the projected 2020 population demand for this plant. A second phase is currently proposed to be constructed after 2010 that likely will be the same size as the first phase, with a total planned capacity at buildout of 2.0 mgd. Other phasing options may be considered if shown to be cost effective. The first phase of the plant is expected to be completed in 2003."

FIGURE 2-1: Regional Location Map
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

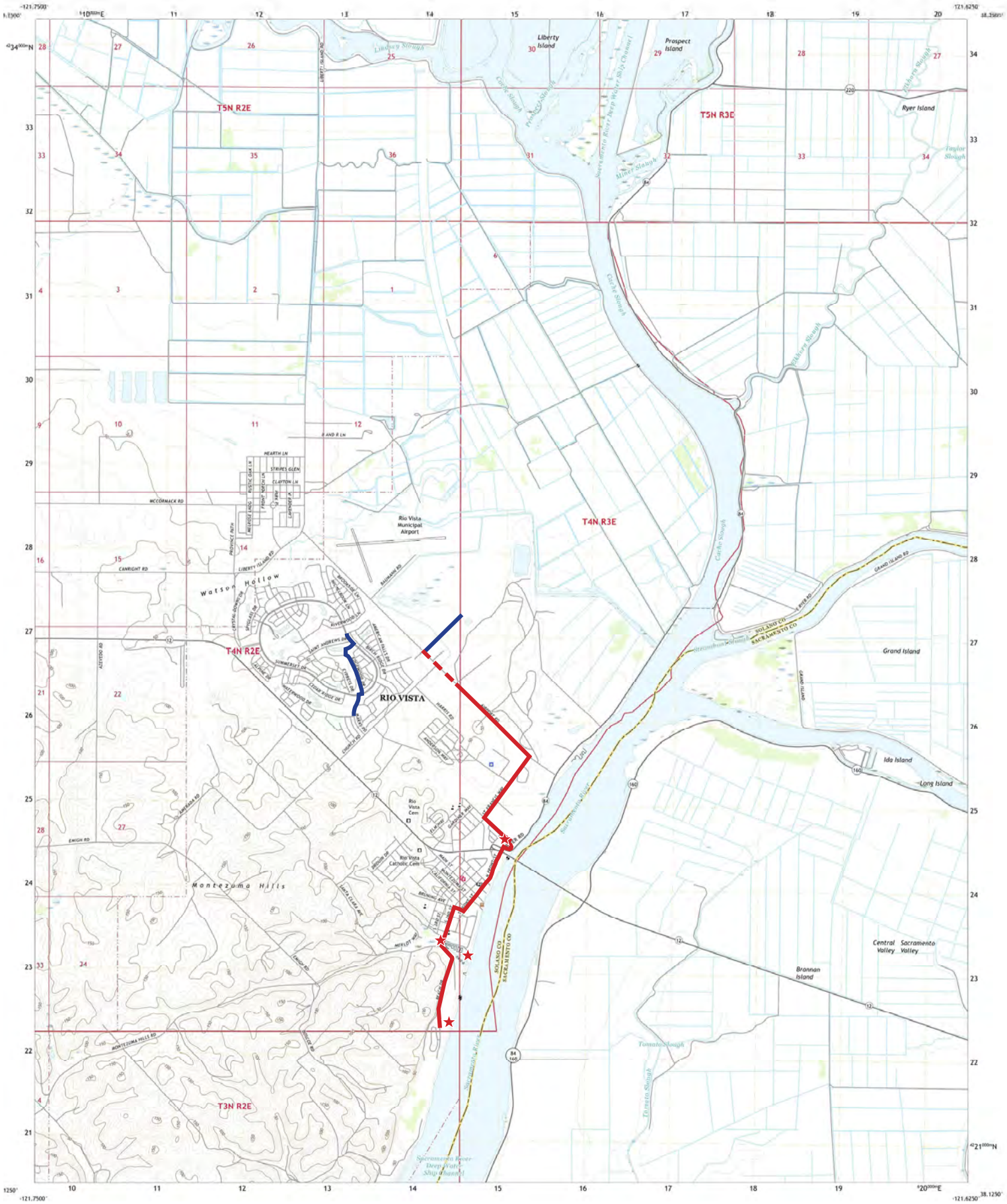

FIGURE 2-2: USGS Topographic Map
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

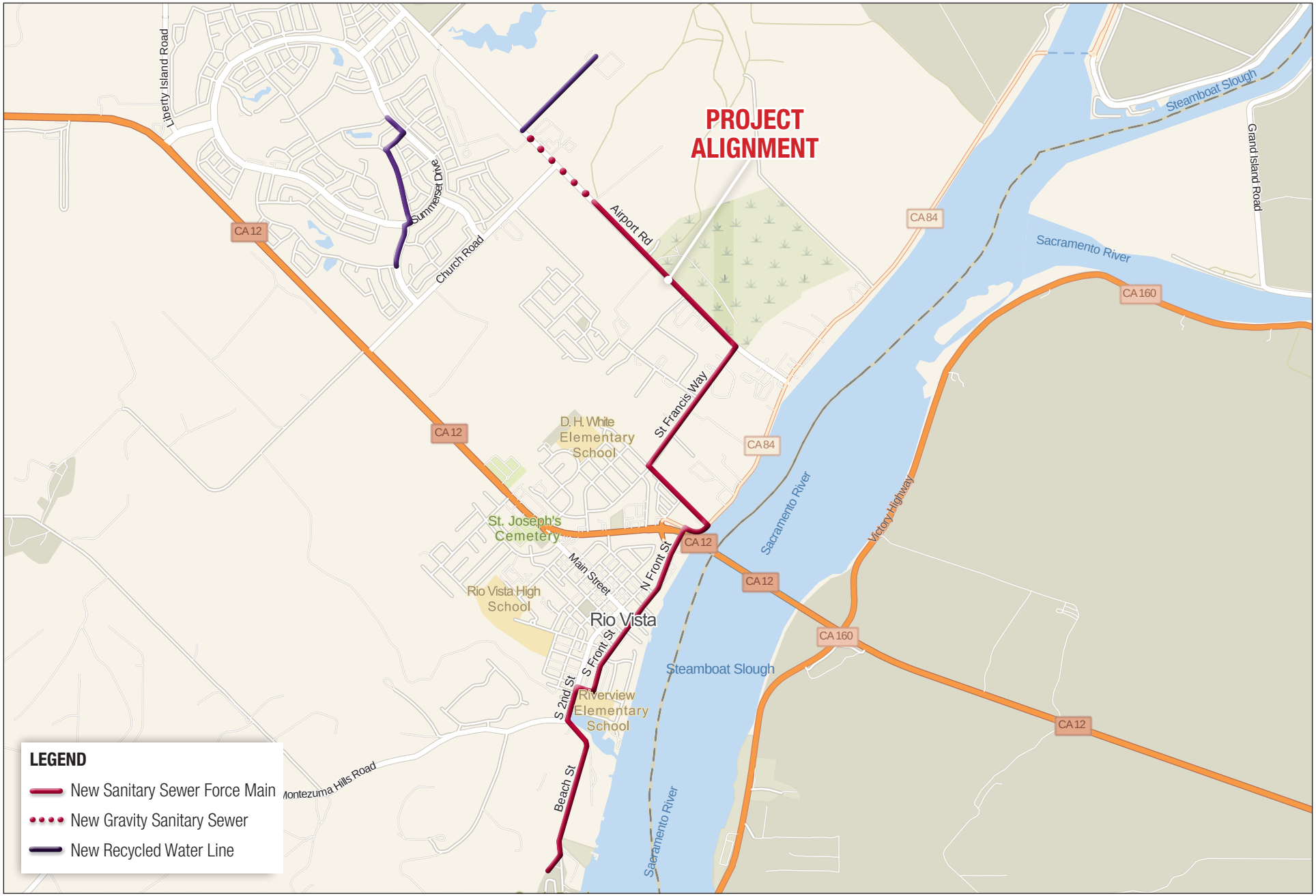

FIGURE 2-3: Local Vicinity Map
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

2.2 Purpose and Need

Purpose

As discussed above, the City's existing wastewater system consists of the Beach WWTP, Northwest WWTP, and associated conveyance and distribution infrastructure. The existing wastewater system is shown in **Figure 2-4: City of Rio Vista Sewer System.** The Beach WWTP opened for operation in 1972 and originally served a population of approximately 3,000 residents. Although an EIR was prepared for the Northwest WWTP in 1992, the Northwest WWTP did not undergo construction until 2005 after completion of the 2003 SEIR. The Northwest WWTP was originally planned to serve development within the north and northwestern portion of the City. However, as the Beach WWTP has reached its operational lifespan of 50 years and has a recent history of Regional Water Quality Control Board (RWQCB) standard water quality violations including exceedances of biological oxygen demand, total dissolved solids, total suspended solids, average weekly effluent limitations, total coliform, and chlorine residual, the City has planned to transfer all wastewater treatment to the more capable Northwest WWTP. Additionally, the Northwest WWTP also has the capability to supply and distribute recycled water. Thus, the proposed project would enable the transfer of wastewater treatment services to the Northwest WWTP and cease all operations at the Beach WWTP.

Need

The proposed project would support clean water initiatives, minimize unpermitted discharges to the Sacramento River and RWQCB water quality standard violations of at the Beach WWTP, and enable wastewater treatment to current standards. Project implementation would enable the City to improve and rehabilitate the existing wastewater service capacities and protect water quality and beneficial uses of the Sacramento River. The City foresaw the need to replace services at the Beach WWTP with those at the Northwest WWTP and this transition of service was discussed in the Environmental Impact Report prepared for the Northwest WWTP; see **Section 2.3: Previous CEQA Analysis**.

The proposed improvements to the wastewater system results in the need to replace elements of the existing aging wastewater collection system to minimize the risk of sanitary sewer overflows from the Beach WWTP, to maintain or improve hydraulic performance, and to maximize the service life potential and recycled water produced by the Northwest WWTP. More specifically the project is needed to do the following:

- Assist the City of Rio Vista to provide its community with adequate and reliable wastewater infrastructure,
- Provide the City with a financing mechanism that allows for the provision of services on a long-term basis,
- Install improvements to the wastewater system to facilitate treatment at the Northwest WWTP
- Install improvements to increase use and availability of recycled water, and
- Reduce or eliminate water quality violations cited by the RWQCB.

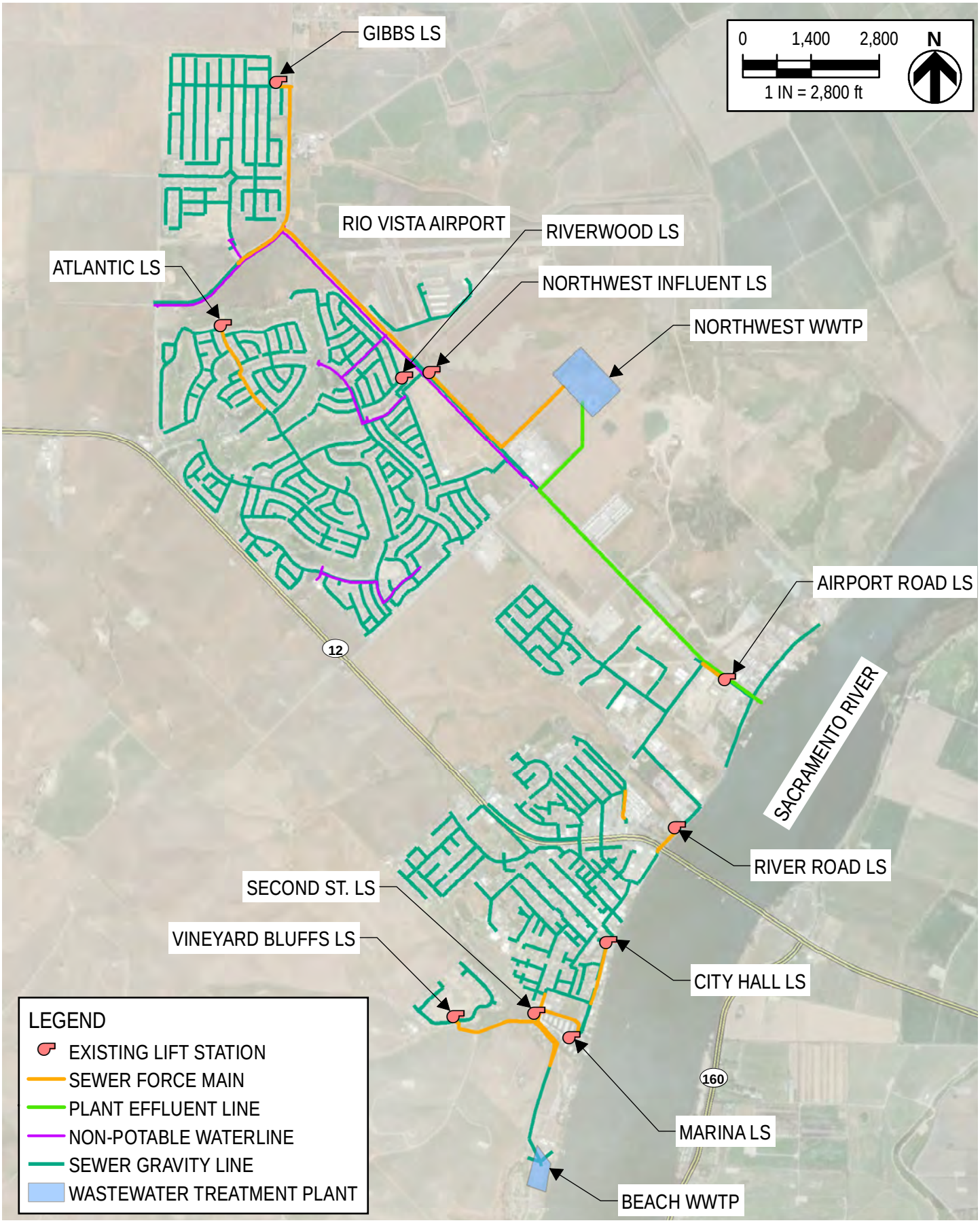

FIGURE 2-4: City of Rio Vista Sewer System
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

2.3 Project Overview

The proposed project would result in the abandonment of the Beach WWTP and the transfer of all wastewater flows to the Northwest WWTP. A technical memorandum was prepared to evaluate the improvements needed to facilitate the transfer of wastewater treatment, including lift stations and installation of new lines. This Memorandum also considers a range of alternatives to the proposed project that also could facilitate the transfer of sewage from the Beach WWTP shed to the Northwest WWTP sewer shed; refer to **Section 6.0: Alternatives**. After evaluation, a preferred alternative, the proposed project, was chosen because it would be the most efficient, cost effective, and minimize potential for impacts to occur.

To accommodate the transfer, the proposed project includes new force mains between 3 and 14 inches (") from the Beach WWTP to the Northwest WWTP and four lift stations (two new and two improved). The lift stations would pump wastewater through the new force mains to the Northwest WWTP. Additional treatment and process improvements would be made to increase the efficiency of processes at the Northwest WWTP. Improvements are consistent with previous planning efforts of the City and consistent with the contemplated improvements disclosed in the 2003 SEIR. The proposed project would not increase the overall capacity beyond what was previously planned. To the extent feasible, the proposed improvements would occur within existing roadways; however, one portion of the alignment would be within private property (CPN Pipeline Company) for which an easement would be obtained or the area would be acquired.

The proposed project includes a new lift station within the existing Beach WWTP that would connect to a new sewer line extended within Beach Drive north to South 2nd Street. From South 2nd Street, the sewer line would extend northerly to Bruning Avenue and then easterly for two blocks to the intersection with South Front Street. Within South Front Street, the new force mains would run north extending under both Hwy 12 and Hwy 84 where it would then enter the CPN Pipeline property (the City would obtain an easement or acquire the area from the property owner to enable wastewater line construction).

Within the CPN Pipeline property, new force main would be installed through previously disturbed/graded areas and then extend north on the northern side the West Wind Mobile Home Park and south of the intermittent stream shown on USGS topographic maps that flows through the main "valley" and bisects the Esperson and Riverwalk properties. The line would continue west to St. Francis Way then be directed north to the intersection with Airport Road. Within Airport Road new line would be extend west to Church Road where it would be tied into an existing sewer stub and ultimately connected to the Northwest WWTP. **Figure 2-5: Location View for Project Improvements** shows the overall project footprint and identifies the location views provided in **Figure 2-6** through **Figure 2-15**.

FIGURE 2-5: Location View for Project Improvements
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

FIGURE 2-6: Location View Section 1
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

FIGURE 2-7: Location View Section 2
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

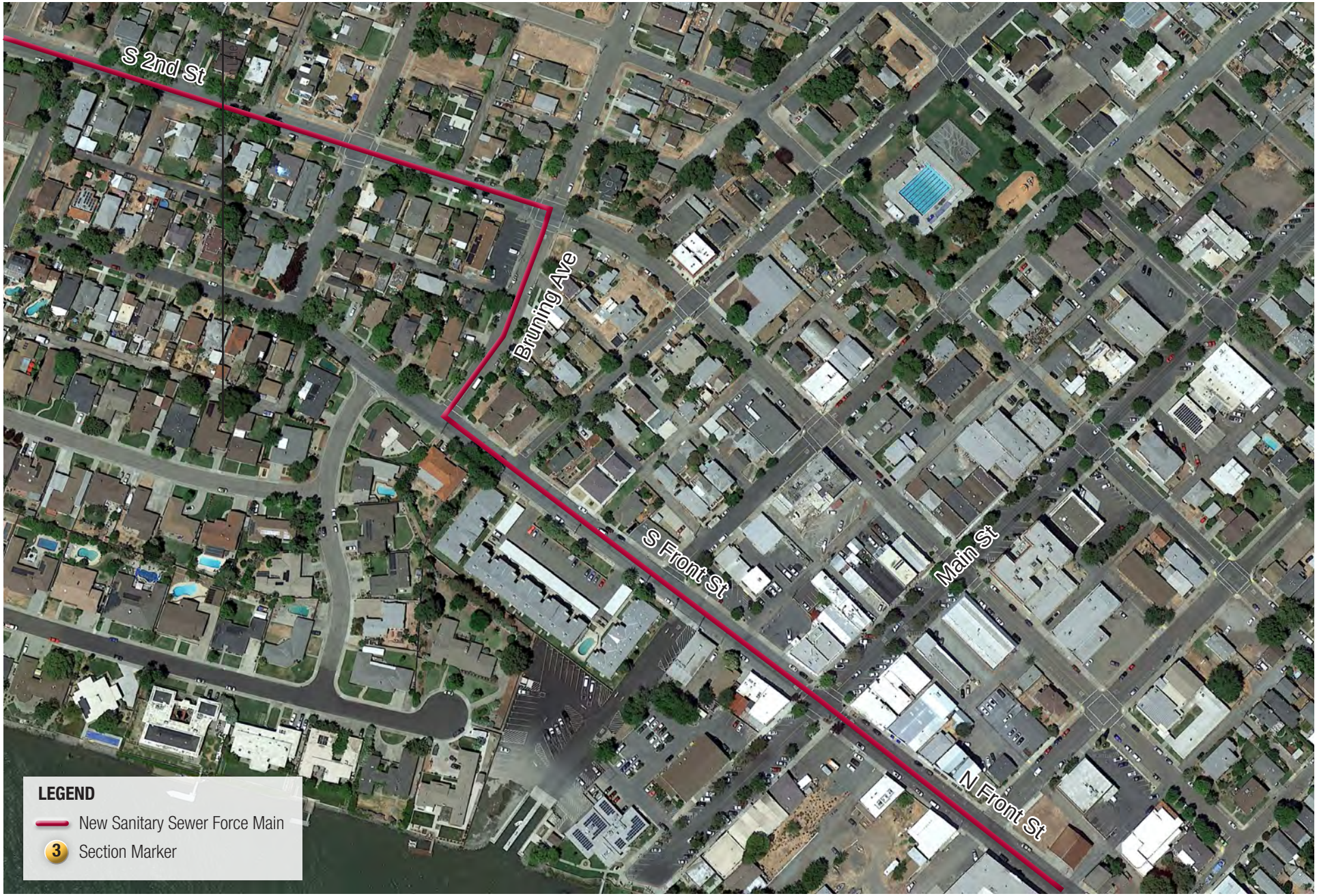

FIGURE 2-8: Location View Section 3
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

FIGURE 2-9: Location View Section 4
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

FIGURE 2-10: Location View Section 5
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

FIGURE 2-11: Location View Section 6
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

FIGURE 2-12: Location View Section 7
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

FIGURE 2-13: Location View Section 8
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

FIGURE 2-14: Location View Section 9
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

FIGURE 2-15: Location View Section 10
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

2.4 Project Elements

Beach Wastewater Treatment Plant Improvements

The Beach WWTP is located on the westerly bank of the Sacramento River and is characterized by wastewater treatment infrastructure including open settlement ponds for dewatering, storage tanks, filters, structures to store chemicals, structures to monitor operations, parking lots, interior access roads (dirt and paved) etc. The Beach WWTP is planned to be abandoned and decommissioned.

Proposed Improvements

No improvements are proposed for the Beach WWTP. The Beach WWTP would be decommissioned and wastewater previously treated at the plant would be pumped to the Northwest WWTP.

Wastewater Line Improvements

Beach Drive Project Segment

Beach Drive is a paved two-lane road that terminates just west of the Beach WWTP at the Sandy Beach County Park. Within the project area, Beach Drive is adjacent to the existing decommissioned Rio Vista Army Depot on the east. Adjacent to Beach Drive on the east there is an approximate 12-foot grassy vegetated swale and an existing but abandoned paved road approximately 18 feet in width. Adjacent to the road, there is an approximate six-foot chain linked and barbed wire fence delineating Army base property. The fence runs the length of the property. There also is an above ground power line that is generally aligned with the fencing. The east side of beach Drive is undeveloped and consists of a grassy shoulder that slopes slightly downward. The powerline does cross the road and appears to provide power to a single large residence on the adjacent property to the west. At the terminus of the Army Base property, Beach Drive bends to the north for a distance of approximately 620 feet. On the easterly side of the roadway (between the project site and Sacramento River) prior to the intersection with South 2nd Street there is a single-family residence home and the Sierra West Boat Works facility. On the westerly side of the street there are single family residential uses.

New 3" sanitary sewer force main (SSFM) in Beach Drive

A new 3" SSFM would be installed from the Beach WWTP along Beach Drive approximately 3,200 feet to the intersection with South 2nd Street. Improvements would replace the existing line that is within existing roadway right-of-way/easement. An open trench would be used to install the new main. This new line would tie into an existing 8" sewer line in 2nd Street approximately 180 feet from Beach Drive to the upgraded 2nd Street Lift Station near Marina Drive. All work would occur in previously disturbed areas.

South 2nd Street Project Segment

Development along the project alignment along South 2nd Street immediately north of Beach Drive consists of an undeveloped boat storage yard on the west and a portion of the Sierra West Boat Works Facility on the east and adjacent to the Sacramento River. Further north on the westerly side of the street the uses consist of single-family residential development that continue to the intersection with Bruning Avenue. The easterly side of South 2nd Street in this location consists mostly of single-family residential uses but adjacent to the intersection (northeast corner) with Marina Drive is the Riverview Middle School. The easterly side of South 2nd Street in this location has wooden power poles with lines occasionally crossing perpendicular to the roadway. South 2nd Street is striped for two-way traffic and on-street parking

is allowed in both directions. Vegetation in this area is characterized by landscaped parkways and ornamental trees between the sidewalks and roadway.

New 14" SSFM in 2nd Street

A new 14" SSFM would be installed from the intersection of Marina Drive and 2nd Street (approximately 250 feet west of the 2nd Street intersection with Montezuma Hills Road). The 14" SSFM in 2nd Street would extend easterly to Bruning Avenue, a distance of approximately 1,350 feet. The new SSFM would be installed using an open trench and would be within existing road right-of-way/easements. All work would occur in previously disturbed areas.

Bruning Avenue Project Segment

The project would include installation of new SSFM within Bruning Avenue for approximately 2 blocks between South 2nd Street on the west and South Front Street on the east. Bruning Avenue intersects South Front Street at a stop controlled "T" intersection. The southerly side of Bruning Street contains a dentist office and single family residential. The northerly side of the street contains single family uses. Wooden power poles are located on the southerly side of the street. The road accommodates two-way traffic and parking on both sides of the roadway is available. Vegetation in this area is characterized by landscaped parkways and ornamental trees between the sidewalks and roadway.

New 14" SSFM in Bruning Avenue

A new 14" SSFM would connect from 2nd Street for a distance of approximately 400 feet from South 2nd Street to South Front Street. Improvements would extend southerly on Bruning Avenue, approximately 415 feet to South Front Street. All work would occur in previously disturbed areas.

South and North Front Street Project Segment

At the intersection of Bruning Avenue and South Front Street and on the easterly side of the street there are two single family residential units. Further north is the Raintree Condominiums, and single-story commercial uses that continue north to the intersection with Logan Street (approximately 1,400 feet away). The westerly side of the street is characterized by similar single family uses, a small worship center, and local commercial uses. There are wooden power poles along the easterly side of the street with a few perpendicular aerial crossings to power adjacent areas. In this location South Front Street is striped for two-way traffic and parallel parking allowed on both sides of the street. [It should be noted that at Main Street (three blocks south of Logan Street), South Front Street becomes North Front Street]. Vegetation along North and South Front Streets is limited to a few ornamental trees and vegetative landscape is largely absent. Immediately adjacent to the roadway are curb and gutter with sidewalk and green spaces are absent.

North of Logan Street, the uses along North Front street transition to industrial and consist of storage, construction yards, and two used car lots. On the easterly side of the North Front Street there are fewer structures and there are previously paved lots now vacant, but views of the Sacramento River are afforded. Wooden power poles line the easterly side of the roadway, The street is paved for two-way traffic with parallel parking allowed along the curb lines.

From this area, the project alignment would continue north to the CPN Pipeline property and would cross under both Hwy 12 and Hwy 84. Hwy 12 is elevated over North Front Street to accommodate access to the bridge over the Sacramento River. North Front Street is at grade with Hwy 84 which continues north along the westerly bank of the Sacramento River. The Caltrans right-of-way extends approximately 300 ft from the south side of Hwy 12 to the north side of Hwy 84. The Hwy 12 encroachment would be crossed utilizing open-trench construction under the highway bridge. Hwy 84 also is planned to be crossed using an open trench but could be crossed utilizing trenchless construction methods. Depending on the soil conditions and other factors, auger bore-and-jack could be feasible. If the soils are unsuitable for auger boring, then microtunneling would be considered.

New 14" SSFM in South and North Front Street

A new 14" SSFM would connect from the intersection of Bruning Street and 2nd Street north to the CPN pipeline property for a distance of approximately 3,100 feet. All work would occur in previously disturbed areas. As discussed, a combination of open trench or jack-and-bore or microtunneling (under Hwy-84) would be used for this segment. All work would occur in previously disturbed areas.

CPN Pipeline Property Project Segment

After the proposed crossing under Hwy 84, the force main alignment would traverse into the CPN Pipeline company property. The line would be routed through an existing undeveloped field, along the property driveway, and then west along the property boundary and to the southerly side of the undeveloped as "Industrial Creek" drainage channel and to the northerly side of the West Wind Mobile Home Park, which is adjacent to the western property line of the CPN Pipeline company property. The proposed alignment would run in an upland area between the mobile home park and drainage channel east to St. Francis Road. The vegetation in this area consists largely of grass and mowed vegetation with the only trees being adjacent to the CPN Pipeline property.

New 14" SSFM in the CPN Pipeline Property to St. Francis Way.

The installation of this 14" SSFM would use approximately 900 feet of the CPN Pipeline property on the easterly side of Hwy 12. Improvements would occur within an undeveloped area characterized by a grass field that is mowed for vegetation and weed control. There are trees along the edge of the property with Hwy 12 and along the northerly side of the roadway. No tree removals or trimming is anticipated. An open trench would be used to install the new main within the property and behind the mobile home park. This area contains minimal hardscape and minimal excavation of paving would be needed.

St. Francis Way Project Segment

Land uses adjacent to the alignment of the proposed force main in St. Francis Way consist of industrial, commercial, and City utilities. This includes a City Corporation yard, former Rio Vista Municipal Airport reuse area on the west and industrial construction and storage yards adjacent on the east. There are powerlines on wooden power poles on the westerly side of the street. Landscaping is sparse. St. Francis Way is stripped for two-way traffic with parking along the curb on the west and parking on the unpaved roadway shoulder on the east.

New 14" SSFM in St. Francis Way.

The new 14" SSFM would replace the existing main and extend approximately 2,900 feet east along St. Francis Way to the intersection with Airport Road. An open trench would be used to install the new main within existing right-of-way/easements in areas that are previously disturbed. All work would occur in previously disturbed areas.

Airport Road Project Segment

At Airport Road the sewer alignment would run northerly to its terminus with the existing sewer stub near Church Road. Airport Road is adjacent to the old Rio Vista Municipal Airport on the west and undeveloped land further to the north. The easterly side of the road is largely undeveloped with the exception of the Astra Sand Pit across from the old airport, a self-storage facility. There are wooden power poles along the westerly side of the street. Airport Road is striped for two-way traffic and has unpaved shoulders on either side of the alignment.

New 14" SSFM and sewer system in Airport Road

The new 14" SSFM would extend approximately 2,900 feet north along Airport Road and at this point transition to a new sewer line for the remaining 2,000 feet to the Airport Road intersection with Church Road. At this point the improvements would tie into existing force main to flow to the Northwest WWTP. An open trench would be used to install the new main within existing roadway right-of-way/easements in areas that are previously disturbed.

Northwest Wastewater Treatment Plant Improvements

The Northwest WWTP would be improved with a new clarification pond to accommodate the increased flows and ensure hourly treatment capacity is not exceeded. The new basin would be constructed adjacent to the north of the existing basin in an undeveloped area consisting of upland ruderal vegetation that is mowed for weed control. The new basin would be approximately 37,000 square feet (sf) or 0.85 acres in size and be capable of temporarily holding approximately 1 million gallons of wastewater. Other improvements to conduct wastewater to the treatment area and a new pump to disperse recycled water would be installed.

Lift and Pump Station Improvements

The project includes four lift stations improvements. Two of the lift stations, the Beach Lift Station and new River Road Lift station would be new, and the Marina lift station and South 2nd Street lift station would be improved.

Beach Lift Station

The new Beach Lift Station would be located just outside the existing Beach WWTP boundary. Improvements would occur within an existing disturbed area immediately adjacent to the plant property and near Beach Drive and areas with hardscape and upland ruderal vegetation.

The new Beach Lift Station would be sized to pump approximately 60 gpm in order to accommodate the current inflows of approximately 30 gpm and account for increases that may occur over time. The lift

station would pump wastewater northerly into the proposed Beach Drive force main. Improvements would occur within an existing disturbed area immediately adjacent to the plant property.

Marina Lift Station

The Upgraded Marina Lift Station would be located near the westerly terminus of Marina Drive near an existing boat launch. This area is characterized by an existing parking lot, Delta Marina Yacht Harbor, and ornamental vegetation include trees in and surrounding the parking lot. This area is in close proximity to the Sacramento River.

The Marina Lift Station would be upgraded to accommodate 1,200 gpm. The improvements would occur within the site of the existing Marina Lift station and would be used to pump wastewater along the existing 1,350-foot SSFM in Marina Drive. No upgrades to this line are proposed. This existing SSFM would tie into the proposed new 14" SSFM in South 2nd Street. All work would occur in previously disturbed areas.

South 2nd Street Lift Station

The upgraded South 2nd Street Lift Station would be located between Beach Drive and Marina Drive on westerly side of South 2nd Street. The existing lift station is enclosed by a chain linked fence and is adjacent to an existing utility line that powers the lift station.

The existing lift station at South 2nd Street just east of Marina Drive would be upgraded to accommodate 205 GPM. This lift station would be tied into the existing SSFM and sewer system and receive flows from the existing Vineyard Bluffs 4" SSFM and existing Vineyard Bluffs 140 GPM lift station within Montezuma Hills Road approximately 2,100 feet to the west near the intersection with Burgundy Way. All work would occur in previously disturbed areas.

River Road Lift Station

The River Road Lift Station would be within the CPN Pipeline property. This property consists of an industrial use and is characterized by areas that have been disturbed, vegetated grassy areas, and landscaped trees within the property.

The new lift station capable of pumping 450 GPM would be installed in the CPN Pipeline property and would replace the River Road lift station within the site. The new lift station would be installed in an area containing grassy upland ruderal vegetation that is mowed for weed control. No trees would be removed or require trimming as part of these improvements. These improvements would allow for the abandonment of the existing River Road Lift Station.

Recycled Water Improvements

New recycled water infrastructure within the Northwest WWTP in addition to new recycled water lines to fully utilize the existing lines within the Trilogy development would be installed. Within the plant improvements would include a 700,000-gallon recycled water tank, a recycled water pump station, chlorination facility, 12" recycled water line and pipeline appurtenances and connections. The improvements would extend off-site along the plant access road to an existing recycled water line in Airport Road. Additional recycled water line would be installed within the Trilogy development to the west to complete the existing recycled network. Additional lines would be installed within Summerset Drive to

Laurel Place, the golf course, on the easterly side of Marks Road and link to existing line in Waterwood Drive and Belvedere Drive. In sum, the new wastewater lines would be approximately 0.5 miles in length.

2.5 Project Construction and Operation

Construction

Overview

The project site is generally flat and would occur within existing roadways, areas with existing wastewater infrastructure, and other areas that have been previously disturbed. Installation of the new force mains and lift stations would require removals of the existing hardscape, minimal grading and removal of underlying materials to reach grade and enable installation of the new sewer lines and equipment. Excavation for the new force mains is anticipated to reach a maximum depth of approximately ten feet. The majority of the excavation is anticipated to be to a depth of approximately six feet deep in a trench approximately three feet wide.

Construction activities would generally include up to approximately 10 construction personnel working on the wastewater collection system and 10 construction personnel working on improvements at the Northwest WWTP; however the exact number would be determined by the contractor and be dependent on the construction schedule and timing of individual improvements. The type of construction activities to make the needed improvements include:

- Site preparation and earthwork (grading, excavation, trenching, and backfill)
- Concrete (forming, replacement, delivery and filling)
- Asphalt (delivery and filling and rolling/smoothing)
- Structural work (assembly, welding, creation of building pads)
- Electrical/instrumentation installation
- Masonry construction
- Installation of mechanical equipment and piping.

Two of the existing lift stations would be replaced with new lift stations. Construction activities would involve removals of the existing utilities (pumps, pipes, etc.) as needed and replaced with new pumps and equipment. Construction outside the existing apron of the lift stations would be minimal and occur in existing disturbed areas. The two new lift stations that would be installed would require minor excavations and removal of existing soils and installation of retaining walls and placement of the new lift station equipment. The depth of excavation is anticipated to be approximately 6 feet and approximately 10 feet wide. It is anticipated that removed materials could be spread on site or at the Northwest WWTP site to avoid off-site disposal. All improvements for the lift stations would occur within previously disturbed areas.

Other equipment would include pavers or concrete trucks and rollers to complete repaving activities In general, construction activities would involve the use of heavy equipment for ground preparation, trenching, staking and flagging, installation of force mains and lift stations. Not all equipment would be required in all project areas but would be deployed as needed. Needed equipment for construction would generally include the following:

- Bull dozers
- Front-end loaders
- Backhoes
- Skidster
- Dump-trucks
- Scrapers
- Excavators
- Concrete trucks
- Jackhammers
- Cranes
- Water trucks
- Compactors
- Pavers
- Forklifts
- Flatbed trucks

Wastewater and Recycled Water Pipelines

The wastewater and recycled water pipelines would be installed in existing roadways, City right-of-way, right-of-way within the CPN property, and undeveloped area adjacent to the West Wind Mobile Home Park. The new pipeline systems would be completely buried, but isolation valves (used to close segments of the pipelines would be installed to enable repair, maintenance, and shut down in case of emergencies.

Open Trench Installation

The pipelines would be installed using an open trenches and conventional cut-and-cover construction techniques. The key steps in this construction process would be.

1. Surface Preparation
2. Trench shoring
3. Shoring
4. Pipeline installation
5. Trench backfilling
6. Surface restoration

Specific tasks related pipeline installation involves the pipeline crew(s) that would be on site or in a given improvement location and would include, depending on the work involved, four to eight workers plus inspector(s). The specific steps in the pipeline installation process are summarized below:

Surface Preparation

Surface preparation involves removing any structures (such as fences), pavement, or vegetation from the surface of the area that would be trenched. Equipment used for this activity would typically include jackhammers, pavement saws, mowers, graders, dozers, loaders, backhoes, excavators, and trucks.

Trench Excavation/Shoring

Trench excavation would include shoring of the sides of the trench to help ensure collapse does not occur. The majority of equipment work for the trench excavation would include use of a backhoe or excavator to dig the linear trench to the given depth. In most locations, such as in streets, trenches would have vertical sidewalls to minimize the excavation volumes and areas of disturbance. Soil excavated from the trenches, if of suitable quality, would be stockpiled alongside the trench or in staging areas for later reuse in backfilling. If the soils are not reusable, the soil would be hauled off site for disposal. Off-site disposal options include use as graded fill at the Northwest WWTP plant, as cover material at a sanitary landfill, or as “clean fill” at other yet-to-be-determined sites, such as construction sites. The City also owns the property at the Rio Vista Airport which may be used for clean fill disposal.

Depending on the depth and soil materials within trenches, shoring would be required to protect workers from trench failure and cave-ins. Trench shoring would typically include use of a shield or trench box;

speed-shores, or sheet piling installed with a pile driver or excavator. Sheet piling is generally used if the shoring must remain in place permanently, or in difficult construction areas. If a V-cut trench is used, shoring may not be required.

Pipeline Installation Methodology

Pipeline trenches, in any given location, would be open for two to three days on average. During construction, vertical wall trenches would be temporarily closed at the end of each workday, either by covering with steel plates or backfill material or by installing fences to restrict access.

Trench Backfill

Based on the requirements of the City of Rio Vista Design Standards & Standard Plans (2015), backfill material would be placed in the trench in layers below, surrounding, and over the pipe to provide support and refill the trench to finished grade. The bottom of the trench would be filled with six inches (“) of drain rock/bedding and six” of pipe bedding (compacted sand) below the pipeline. Above the pipe, fill materials would consist of approximately 18” of initial backfill to surround and cover the pipe, with the remaining fill to reach grade consisting of approved select backfill and finish backfill. All layers of fill would be 90-95% compaction.

Due to the nature of the underlying soils in the vicinity and preciously used for roadway construction, it is anticipated the upper approximately 36”materials removed during excavation would be adequate for reuse as fill. The underlaying 30-36” of materials, however, are not anticipated to be usable as drain rock bedding, pipe bedding, of sand for compaction and are anticipated to require transport off site using dump trucks to a disposal site. Thus, the underlying soil will be reused for backfill to the greatest extent possible; however, it may not have the properties necessary for compaction and stability. Accordingly, it is anticipated that the first 12 inches of materials (drain rock and sand) and 18” of initial backfill will be required to be imported. All backfilled soils, below, surrounding, and above the pipeline would be compacted at least every 6-inches until the trench is filled to the needed grade and to enable repaving. Where paving is not proposed (within the CPN Pipeline Company property and behind the West Wind Mobile Home Park, the trench would be filled to the original grade and revegetated with native plant mix.

Where repaving is needed, new asphalt or concrete pavement would be poured to match the surrounding road type. For asphalt repaving, a temporary asphalt patch material may be installed to allow traffic to use the roadway immediately after construction. A crew would follow the pipe installation crew and prepare the road surface for repaving. Final repaving, if needed, would be done after pipe installations were complete for a whole street or street segment.

Based on the anticipated depth of excavation and needed fill materials, the overall 4.0 miles of new pipeline (including wastewater and recycled water), would require 5,866 cubic yards of imported fill. Individually the wastewater line would require approximately 5,133 cubic yards of fill and the recycled water line would require approximately 733 cubic yards of fill. The upper soils would be backfilled with the excavated materials, with the balance requiring export.

Staging Areas

Staging areas will be required to store pipe, construction equipment, and other construction-related material. Staging areas would be established along pipeline routes where space is available, such as vacant lots, parcel, or parking lots. In some cases, staging areas may be used for the duration of the project construction. In other cases, as pipeline construction moved or changes along the route, the staging area would be moved to minimize hauling distances and avoid disrupting any one area for extended periods. Staging areas would not be located in any areas with sensitive habitat and would be minimized in proximity to sensitive uses.

Northwest WWTP

Construction at the Northwest WWTP would include activities including building and excavation, depending on the specific construction need for the various wastewater treatment processes, structures, buildings, clarification pond and other facilities to be installed. Of particular note, is the new holding/detention pond would be constructed at the Northwest WWTP. Construction of the clarification pond would be to a depth of approximately 10 feet and require the removal of approximately 16,000 cubic yards of soils. The excavation and fill would be designed to balance on site and export is not anticipated. If excess materials are produced and not suitable for backfill or used to construct the berm surrounding the pond, they would be spread on-site or within the vacant land of the adjacent Rio Vista Airport. This would reduce the need to transport material off-site.

Other improvements within the plant would include installation of some new piping, the new wastewater storage tank, pump, and other infrastructure to enable full functionality of the wastewater distribution. These improvements would require typical construction methodologies, minor excavation to create building pads for the pump, tanks, and facilities.

Energy

Additional energy would be needed to fuel construction equipment including diesel fuel and gasoline to power equipment and tools, and for worker trips to and from the project site during construction and for operation of the project.

Solid Waste

The proposed project is not anticipated to generate a substantial amount of solid waste either from construction or operations. The construction contractor would be responsible for removal of construction waste or the construction contractor would execute a contract with a local waste hauling company to ensure removal of waste materials and construction debris from the project site. Recyclable solid waste could be transferred to the Mt. Diablo Resource and Recovery (MDRR) and non-recyclable waste would be transported to the Keller Canyon Landfill. Any concrete or asphalt removed as part of project construction would be recycled to the extent feasible (e.g. crushed for reuse as road base). It is anticipated that the existing sewer lines would be abandoned in place and would not require removal or disposal.

Construction Schedule

Construction of proposed project is anticipated to begin in the end of 2024 last approximately 12-16 months and be completed in the latter half of 2025 or 2026. It is anticipated that approximately 100 to

150 feet of pipeline can be installed per day. Considering the overall length of 21,120 feet this would equate to approximately 140 to 211 working per days depending on daily progress. Improvements at the Northwest WWTP also is anticipated to take approximately one year to complete.

Operation

Discharge Requirements

The adopted Water Quality Control Plan for the Sacramento/San Joaquin Basin (Basin Plan) (Regional Water Quality Control Board [RWQCB] 2019) sets forth guidelines for establishing the acceptability of—and specific limits for— discharges of treated wastewater effluent. The Northwest WWTP, would operate under the current discharge permit that state its effluent limitations (e.g., BOD, TSS, priority pollutants) and receiving water limitations (e.g., temperature, turbidity, pH, dissolved oxygen concentration).

Recycled Water

The Regional Water Board encourages the reclamation and reuse of wastewater, including treated ground water resulting from a cleanup action, where practicable and requires as part of a Report of Waste Discharge an evaluation of reuse and land disposal options as alternative disposal methods. The project would produce adequate volumes and quality of wastewater to be used for irrigation of landscaping within the City. Specifically, the project includes the installation of new recycled water lines to complete the recycled water lines within the Trilogy development. It is anticipated that additional lines could be installed as part of the development of future projects (within the anticipated development footprints) to provide recycled water for irrigation and other needs, thereby reducing the demand for potable water in these areas. All proposed uses would be reviewed by the Regional Water Board prior to implementation. The Northwest WWTP now produces approximately 0.8 mgd of wastewater per day of which approximately 300,000 mgd are used for reclaimed water and not discharged to the Sacramento River. Additional recycled water can be treated with additional chlorine and uses. Depending on the season, more reclaimed water is uses during the summer for irrigation and watering. It also is anticipated that future uses within the City such as parks and golf course, would be able to use this water source reducing the demand for potable water.

Odor and Noise Control Facilities

The City has implemented general plan policies to control odor and noise-producing activities in the proximity of sensitive receptors. In addition, the Northwest WWTP design will have odor and noise control facilities incorporated to reduce the risk of impacting sensitive receptors. The headworks facilities will be contained to reduce odors. This phase of the project would include an odor-scrubbing system.

Staffing

The new pipeline and lift station improvements would not require permanent staffing and repairs and maintenance would be performed by existing City staff or contracted employees depending on the nature of the work. The Northwest WWTP is already operational and is presently staffed by about eight employees. Similarly, the Beach WWTP also is staffed by eight employees. Typical plant operations involve and would continue to involve routing flows; starting, stopping and adjusting pumps, blowers and other equipment; hosing down basins and equipment; reading flow meters and taking water samples for testing; performing laboratory tests and documenting results; and maintaining and repairing equipment. Since

the plant operates 24 hours a day, seven days a week, the staff works in shifts. Because the plant is already operational and the project does not include substantial changes, no additional staff would be required. And no increase in the overall employee numbers is anticipated.

Solid Waste

In addition, with the exception of typical waste materials from employees at the Northwest WWTP, continued operations of the plant would not generate a substantial volume of solid waste. Sewage sludge is generated during the treatment process and would continue to be generated by the Northwest WWTP. The Northwest WWTP currently generates up to approximately 467 dry tons per year of sludge and an additional 467 dry tons per year (accounting or sludge currently produced at the Beach WWTP) are anticipated to be generated after the improvements are made. Thus, there would be no net increase of sludge produced. The material is hauled and would continue to be hauled for land spreading consistent with 40 CFR, Part 503, Regulations and Sewage Sludge Use and Disposal Rule. In concept no additional sludge would be processed as the Beach is already processed at Northwest WWTP.

Chemical Use/Hazardous Materials

The treatment of wastewater requires the use of several types of chemicals used as fuels, flocculants (to make suspended particles adhere to each other), and algaecides. Typical types of chemicals used in the treatment process or to power equipment would include Sodium hypochlorite, Citric acid, Polymer (dry or liquid), Diesel fuel, Natural gas.

The project would be operated in accordance with the City's comprehensive emergency management plan for emergency response to a release or threatened release of any hazardous material used, transported, stored, or handled within the City. In the event of an accidental release, the emergency response plan would provide emergency responders with a protocol for containing and disposing of the unintentional release. In addition, proper notifications to agencies such as Department of Toxic Substances Control (DTVSC), California Water Boards, Solano County Department of Resource Management, Environmental Health Services Division which is the Certified Unified Program Agency (CUPA) for the region.

Energy

Electricity would be the primary form of energy consumed by the lift stations and at the Northwest WWTP. Power would be consumed by pumps, screen rakes, aeration blowers, filters, digesters, and sludge belt presses. Power would be supplied by Pacific Gas and Electric (PG&E). Anticipated energy needs to operate the Northwest WWTP at its full capacity is estimated to be approximately 4.0 million kilowatt-hours per year. Backup generators would be provided for both the influent pump station and at the Northwest WWTP to ensure ongoing operations in the event of a power outage.

Energy consumption by the pumps at the lift stations is considered negligible and would not increase substantially over that which is already consumed. The new Beach Lift Station is a new use and would require approximately 40,113 kWh per year to power the 60-gpm pump. The current energy use of the 2nd Street Lift is not known, so it is assumed the new 205 gpm lift station would require approximately 137,055 kWh per year. The Marina Lift station currently operates using a 1,800 gpm pump that would consume approximately 802,275 kWh per year running at capacity. This lift station, however, would be reduced to a maximum capacity of 1,200 gpm reducing total energy demand to approximately 1,075,048

kWh per year (a reduction of 272,773 kWh). Lastly, the River Road lift station has a current capacity of 320 gpm requiring up to 213, 606 kWh per year, but would be increased to a 450-gpm capacity increasing potential energy demand to approximately 300,853 kWH (an increase of 87,247 kWh per year. Thus, in sum the lift station would have a net energy decrease of approximately 8,358 kWh per year.

2.6 Requested Approvals

The proposed project may require approvals and/or consultation from the following agencies and associated permits or certifications:

- City of Rio Vista
- State Water Resources Control Board
- Central Valley Regional Water Quality Control Board
- Yolo-Solano County Air Quality Management District
- National Pollution Discharge Elimination System – Construction General Permit.
- Caltrans encroachment permit
- U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NOAA Fisheries) consultation
- Clean Water Act Section 401 water quality certification

2.7 Mitigation Measures

Biological Resources

MM BIO-1: If project construction activities occur during the normal blooming cycle (April to July), preconstruction surveys for special status plants found to have the potential to exist on or in the vicinity of the project site shall be conducted. These special status plant species include: San Joaquin spearscale (*Extriplex joaquinana*), wooly rosemallow (*Hibiscus lasiocarpos* var. *occidentalis*), delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), Manson's lilaepsis (*Lilaeopsis masonii*), delta mugwart (*Limosella australis*), Suisun marsh aster (*Symphyotrichum lentum*), and Sanford's arrowhead (*Sagittaria sanfordii*). Surveys shall be conducted by a qualified botanist within one week of project ground disturbing activities. Findings of these surveys should be submitted to the City of Rio Vista. Should any special status plant species be found on-site, appropriate buffers shall be established around the individual and the CDFW shall be contacted for appropriate avoidance and minimization measures. Compliance with these avoidance and minimization measures shall be required.

MM BIO-2: If construction activities are scheduled during the February 1 to August 31 time frame, a qualified biologist shall conduct two surveys for nesting American peregrine falcon (*Falco peregrinus anatum*), Swainson's hawk (*Buteo swainsoni*), and Modesto population song sparrow (*Melospiza melodia*). The surveys shall be conducted for the project site and within ¼ mile of the project site. Surveys shall be conducted no-less-than 14 days prior to the beginning of ground disturbing project construction activities with a final survey conducted within 24 hours prior to ground disturbance. A qualified biologist will map any suspected occupied stick nests and appropriate buffers shall be established. The CDFW

shall be notified and appropriate avoidance and minimization coordinated with the CDFW.

MM BIO-3: If construction activities are scheduled during the February 1 to August 31 time frame, in accordance with guidance set forth in the Staff Report on Burrowing Owl Mitigation, a qualified biologist shall conduct four survey visits. One visit shall at least be between 15 February and 15 April, and a minimum of three site visits, at least three week apart, shall occur between 15 April and 15 July with at least one visit after 15 June for unoccupied burrows or burrow surrogates within 500 feet of the construction site. The third of the four site visits shall be no-less-than 14 days prior to the beginning of project construction, with the fourth survey conducted within 24 hours prior to ground disturbance. Should any burrowing owls be found on-site, appropriate buffers shall be established around the individual and the CDFW shall be contacted for appropriate avoidance and minimization measures. Compliance with these avoidance and minimization measures shall be required.

MM BIO-4: If construction occurs during the normal active bat season (April to October), preconstruction surveys for roosting bats shall be conducted. The surveys shall be conducted by a qualified biologist. Surveys shall be conducted no-less-than 14 days prior to the beginning of ground disturbing project construction activities with a final survey conducted within 24 hours prior to ground disturbance. Findings of these surveys should be submitted to City. Should any bat roosts be found on-site, appropriate buffers shall be established around the roost and the CDFW shall be contacted for appropriate avoidance and minimization measures. Compliance with these avoidance and minimization measures shall be required.

MM BIO-5: If construction occurs during the western bumblebee flying season (March to September) preconstruction surveys shall be conducted. The surveys shall be conducted by a qualified biologist. Surveys shall be conducted no-less-than 14 days prior to the beginning of ground disturbing project construction activities with a final survey conducted within 24 hours prior to ground disturbance. Findings of these surveys should be submitted to City. Should any colony nesting sites be found on-site, appropriate buffers shall be established around any nesting sites, and the CDFW shall be contacted for appropriate avoidance and minimization measures. Compliance with these avoidance and minimization measures shall be required.

Cultural Resources

MM CUL-1: During ground disturbing activities, if any archeological, paleontological or tribal resources (e.g., evidence of past human habitation or fossils) are found, the project applicant and/or its contractor shall cease all work within 50 feet of the discovery and notify the City of Rio Vista Community Development Department, Planning Division immediately. The project applicant and/or its contractor shall retain a qualified archaeologist, paleontologist and Native American representative to evaluate the finds and recommend appropriate resource protection plan for the inadvertently discovered resource(s). The City and the applicant shall consider the recommendations and agree on

implementation of the measure(s) that are feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, or other appropriate measures. (Health and Safety Code Section 7050.5).

MM CUL-2: If human remains either informally interred or associated with a burial (i.e. grave goods) are discovered during construction, the project applicant and/or its contractor shall cease all work within 50 feet of the find and notify the City of Rio Vista Community Development Department, Planning Division and the County Coroner. Notifications shall occur immediately and in according with California Health and Safety Code Section 7050.5. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission and shall follow the procedures outlined in CEQA Guidelines Section 15064.5(d) and (e) regarding treatment and disposition of recovered cultural items. The Commission will designate a Most Likely Descendant (MLD) who will be authorized to provide recommendations for management of the Native American human remains and any associated materials or objects (Public Resourced Code Section 5097.98 and Health and Safety Code Section 7050.5).

Geology and Soils

MM GEO-1: If any paleontological resources are encountered during ground-disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist is able to evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the local or regional Natural History Museum or other appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and fossil recovery may be required to mitigate adverse impacts from project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance will not be required. If the resources are significant, they shall be avoided or recovered such that potential damaging effects are mitigated. Construction in that area shall not resume until approval of the qualified paleontologist and City are given. If the fossil is recovered the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

Hazards and Hazardous Materials

MM HAZ-1: Qualified personnel will be onsite during preparation, grading, and related earthwork activities in the project alignment adjacent to 135 N. Front Street to assist with recognizing potential contamination when encountered during construction activities. If soils emitting signs of contamination, such as odors or discoloration, are encountered, workers will immediately stop work. The potentially contaminated soil will be assessed in the field by qualified personnel and samples will be taken for laboratory testing, if appropriate. Written documentation will be obtained, identifying the location of the

contaminated area, potential contaminants, and potential impacts. If deemed appropriate, applicable agencies will be contacted and consulted as necessary regarding the identified contaminated soils and required soil testing and assessment.

Based on the results of soil testing, if necessary, the excavated soil will be characterized for disposal and then transported to an approved disposal/ recycling facility. Contaminated soil will be covered during transport. If soil generated is characterized as hazardous waste, appropriate documentation of disposal will be maintained in accordance with CCR Title 22 and CFR Title 40.

Hydrology and Water Quality

MM HYD-1: Prior to issuance of any grading permit, the applicant shall submit to the satisfaction of the City Community Development Department, a Storm Water Pollution Prevention Plan (SWPPP) that satisfies the requirements of the National Pollutant Discharge Elimination System (NPDES) and State General Permit for construction. The SWPPP shall incorporate Best Management Practices (BMPs) to control runoff and sedimentation in accordance with all CVRWQCB as well as City requirements. Recommended BMPs for the construction phase may include the following:

- Stockpiling and disposing of demolition debris, concrete, and soil properly;
- Protecting existing storm drain inlets and stabilizing disturbed areas;
- Implementing erosion controls;
- Properly managing construction materials; and
- Managing waste, aggressively controlling litter, and implementing sediment controls.

Transportation

MM TRANS-1: Construction activity would be phased, and traffic would be rerouted during construction. Traffic plans would describe traffic operations in detail during the construction period. Construction would be scheduled to minimize disruption of existing traffic patterns to area residents and businesses. Affected neighborhoods would be provided with appropriate information. Open trench segments would be temporarily covered to allow residents and service vehicles to access driveways and loading areas. Trench segments would be excavated and closed promptly, minimizing the time that trenches are open in front of residence driveways and businesses. Construction vehicles would not be parked in front of access points and/or business parking areas.

- For pipelines, trenchless technologies and/or alternative routes could be used where appropriate to minimize or avoid impacts.
- Temporary measures would be implemented along trails to separate pedestrians and bicyclists from vehicles and to promote safety along the construction routes.

- Materials delivery or removal during peak traffic hours along major arterials would be avoided when possible. Flaggers would be present to direct traffic around the construction site.
- Temporary parking facilities would be provided where possible for businesses that lose parking and access during construction.
- Onsite construction crew parking would be provided wherever possible.
- Construction of a temporary concrete batch plant at a treatment plant site to avoid concrete truck trips could be possible.
- Truck traffic could be reduced during construction through stockpiling excavated earth onsite for use as backfill.

3.0 Environmental Checklist

1. Project Title: Wastewater Plant Consolidation Project

2. Lead Agency: City of Rio Vista
One Main Street
Rio Visa, CA 94571

3. Contact Person: Krystine Ball – Public Works Program Manager, City of Rio Vista

4. Date Prepared: September 2024

5. Study Prepared by: Kimley-Horn
555 Capital Mall, Suite 300
Sacramento, CA 95814

6. Project Location: City of Rio Vista

7. Project Sponsor: City of Rio Vista

8. General Plan: Industrial/Employment Limited (I-E-L)

9. Zoning Business Park (B-P)

10. Project Description: The proposed project would enable the transfer of wastewater treatment services to the Northwest Wastewater Treatment Plant (WWTP) and cease all operations at the Beach WWTP. The proposed project includes new force mains between 3" and 14" from the Beach WWTP to the Northwest WWTP and includes four lift stations (two new and two improved). The lift stations would pump wastewater through the new force mains to the Northwest WWTP. Additional treatment and process improvements would be made at the Northwest WWTP to add to the efficiencies of the existing process. Improvements would be made, to the extent feasible, to existing wastewater lines within existing roadways and previously disturbed right-of-way, urbanized areas, and to minimize alterations to undeveloped areas. The proposed project is needed to enable the City to improve and rehabilitate the existing wastewater service capacities and protect water quality and beneficial uses of the Sacramento River. The project is intended to enable transfer of service from the Beach WWTP and would not increase the overall capacity beyond what was previous planned.

11. Surrounding Land Uses:

The proposed project is located in the City of Rio Vista in Solano County in the State of California. The proposed wastewater line alignment and proposed improvements occur between the Beach Wastewater Treatment Plant (Beach WWTP) located in the southwestern portion of the City at 1000 Beach Drive and the Northwest Wastewater Treatment Plant (Northwest WWTP) located approximately 0.38-mile northwest of Airport Road's intersection with Church Road.

The southwesterly side of the City contains uses that are strongly influenced by past residential development. The residential uses in the westerly portion of the City occupy approximately 415 acres and contains more mature neighborhoods and some of the earliest developed areas. This area is located west of the former Rio Vista Airport, south and west of undeveloped land and generally bound by the Sacramento River on the east. This area includes the uses served by the Beach WWTP and also includes the former Rio Vista Army Base, and river serving uses such as boat launches, a marina, and developing board walk for river access. The Beach WWTP remains in operation and continues to provide wastewater service to this area of the City

While residential uses have historically been concentrated in the westerly portions of the City, more recent residential development has occurred and is planned in the northerly portions of the City. This includes the Trilogy development, which comprises approximately 765 acres bound by Airport Road on the east, Church Road on the south, Hwy 12 on the west and Liberty Island Road on the north. Additional residential development is ongoing to the north and east of this area. These areas are presently served by the Northwest WWTP.

12. Public Comment Period

September 12, 2024 to October 11, 2024

13. Public Agency Approval Needed:

Central Valley Regional Water Quality Control Board (CVRWQCB)
San Joaquin Valley Air Pollution Control District (SCVAPCD)
State Water Resources Control Board (RWQCB)

14. California Native American Tribe Consultation:

On January 31, 2023 the City of Rio Vista, acting as the CEQA Lead Agency informed five tribes including the Cortina Rancheria – Kletsel Dehe Band of Wintun Indians; Guidiville Indian Rancheria; United Auburn Indian Community of the Auburn Rancheria; Confederated Villages of Lisjan; and Yocha Dehe Wintun Nation. Two responses were received; one from Confederated Villages of Lisjan Nation on March 7, 2023 and one from the Yocha Dehe Wintun Nation on March 10, 2023.

Note: The purposed of conducting early consultation as part of the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code Section 21082.3(c) contains provisions specific to confidentiality.

4.0 Environmental Evaluation

Environmental Factors Potentially Affected

The environmental factors checked below are potentially affected by this project, involving at least one mitigation measure as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agricultural and Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology and Soils	☐	Greenhouse Gas Emissions	☒	Hazards and Hazardous Materials
☒	Hydrology and Water Quality	☐	Land Use and Planning	☐	Mineral Resources
☐	Noise	☐	Population and Housing	☐	Public Services
☐	Recreation	☒	Transportation	☒	Tribal Cultural Resources
☐	Utilities and Service Systems	☐	Wildfire	☒	Mandatory Findings of Significance

Determination

On the basis of this evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Krystine Ball — Signature

09/11/2024 — Date

4.1 Aesthetics

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?			**X**	
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?			**X**	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			**X**	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			**X**	

Environmental Setting

The City of Rio Vista is highly urbanized and the proposed improvements would occur within existing built areas, including existing roadway right of way, industrial areas, and an existing wastewater treatment plant. Portions of the project site, however, particularly along Beach Drive and a portion of North Front Street would be within view of the Sacramento River, which is identified as a natural resources in the RVGP. Overall, the visual character of the project area and the surrounding area is typical of an urbanized suburban area consisting of residential neighborhood, commercial and industrial uses, roads, overhead utility lines, trees, and landscaping. Public and distant view are limited due to intervening development and views of the Sacramento River area limited from the project areas.

The RVGP, however, does not specifically designate the Sacramento River or any other area as a scenic vista. The City of Rio Vista contains policies such as 91.C that states, “the City shall enhance the

Sacramento River and its waterfront as a scenic resource consistent with water-oriented recreation," and Policy 9.4B, "New development shall be designed and constructed to preserve hillsides, scenic and trail corridors, streams and streamside vegetation, wetlands, wildlife corridors, and any other areas of special ecological significance." These policies are tied together by the Rio Vista Goals of implementing community vision to preserve Rio Vista's sense of community and small-town character.

Discussion

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact. Segments of Beach Drive and northerly segments of North Front Street are the portions of the project nearest to the Sacramento River. Views of the Sacramento River, from these locations, however, are obstructed and limited by intervening structures and vegetation. Similarly, views of the project site from the Sacramento River also are limited due to the same visual obstructions, and from the perspective of viewing angle because the river is at a lower elevation. All wastewater and recycled water line improvements would be at or below grade. Lift station improvements would replace existing facilities or be located in previously disturbed areas and be consistent with other visual elements and be at a similar scale the surrounding areas. All improvements would occur in previously disturbed areas, would not substantially change any visual elements, and would not result in effects to views of the Sacramento River following the temporary introduction of equipment during construction. Although portions of the aforementioned segments are in proximity to the waterfront, the project would not conflict with the RVGP goal(s) of enhancing the waterfront as a scenic resource. The proposed project would not conflict with this goal as the project would not affect the river or affect views from the river or impair the City's ability to enhance the resource. Thus, the proposed project would not substantially affect or change any scenic vistas and impacts would be less than significant. No mitigation is required.

b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact. The proposed project is not located in proximity to a designated scenic highway. The nearest scenic highway in Solano County is Route 160 that begins on the easterly side of Isleton approximately 5 miles to the east (Caltrans, 2022). A portion of Route 160 located on the easterly side of the Sacramento River approximately one mile to the east is listed as an eligible scenic highway but is not officially designated. There are trees adjacent to the proposed project areas, however as most of the work would occur within the existing right-of-way no tree removal or trimmings are anticipated. The project area does not contain any other scenic resources, including but not limited to rock outcroppings or historic buildings. Thus, the proposed project would not affect any of these resources within a state scenic highway and impacts would be less than significant.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The project site is located within an urbanized environment and the improvements would not conflict with the City of Rio Vista's general plan or zoning. The wastewater and

recycled water line improvements would be installed below grade and would not impact the existing visual character. The lift station improvements would replace existing facilities or be located in previously disturbed areas and be consistent with the surrounding scenic quality and not degrade the existing visual character of the urbanized City surroundings. The Northwest WWTP improvements would be developed adjacent to the existing structures and a new storage basin, some new lines, a tank, and pump for recycled water. All improvements would occur within the existing grounds and approximately 2,000 feet from Airport Road.

While the project would introduce these new structures it would Northwest WWTP and include new be consistent with the existing surrounding Northwest WWTP structures and not conflict with the current general plan or zoning. Overall, the improvements listed fit into the existing visual character and have minimal potential to impact scenic quality or visual context within improvement areas with the City. Further, the project area and City overall are generally flat and views of the horizon from these and other surrounding areas not afforded, Views generally consist of existing structures, landscaped, areas, some natural vegetation and trees in undeveloped areas, utility easement, and a few intermittent longer views in areas with breaks in obstructions. Impacts in this regard would be less than significant and mitigation is not required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant Impact. The wastewater and recycled water line improvements would occur below grade and would not result in any light or glare that could adversely affect day or nighttime views in the area. Improvements to the Northwest WWTP would include new facilities including a new holding/detention pond, piping, storage tank, and pump. Lift station improvements would replace existing facilities or be located in previously disturbed areas and would not require substantial increases in lighting. The lift stations may include low intensity nighttime lighting for security and to ensure safe access at night should maintenance or repairs be needed during those hours. The Northwest WWTP currently includes outdoor lighting for security and to along pedestrian walkways and interior roadways for nighttime movement and new lighting would be for the same purposes. All exterior lighting would be stationary and be of an intensity compatible with existing uses and would be directed and shielded to minimize spillover to adjacent properties and would comply with City of RVMC 17.74.060 – Performance Standards. With the incorporation of the listed lighting standards, changes to the light environment would be minimal.

Further, the exterior of any new structures (pump house and tank) associated with the Northwest WWTP would have glare minimizing coating that would be consistent with the RVMC Section 17.44.060 Performance Standards related to glare. This section states that glare is not allowable in such amounts as to adversely affect the surrounding area or adjoining premises and cannot be a dangerous or objectionable element of a project. The proposed lift station improvements would have minimal exterior lighting that would be installed for. Thus, the proposed project would not create substantial new sources of light or glare and it would not adversely affect day or nighttime views. Impacts would be less than significant.

Cumulative Impacts

The proposed project is located in an area that does not have significant scenic visual or aesthetic resources, is not located in proximity to a scenic highway, would not result in substantial conflicts with the existing visual environment, and would not produce substantial new sources light or glare. Cumulative impacts associated with aesthetic resources are typically associated with a particular project site and its immediate surroundings. The proposed project as well as past, present, and reasonably foreseeable projects within the project area are in the same visual environment. Therefore, while the proposed project and other project would result in minor changes to the visual environment the changes would not be substantial and cumulative impacts would remain less than significant.

4.2 Agriculture and Forestry Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			**X**	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			**X**	

Environmental Setting

Farmlands are mapped by the State of California Department of Conservation (CDOC) under the Farmland Mapping and Monitoring Program (FMMP). Under the FMMP land is delineated into the following eight

categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban or Built-Up Land, Other Land, and Water. The project area is shown as Urban and Built-Up Land and Other Land by the CDOC in the FMMP (CDOC, 2016).

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, would not be applicable to the proposed project. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of preserving agriculture and restricting unnecessary conversion to urban uses. The Williamson Act is a means to restrict the uses of agricultural and open space lands to farming and ranching uses (CDOC, 2022).

Urban and Built Up Land is defined as "land that is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures."

Other Land is defined as, "Land that not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land."

The majority of the area surrounding the project site consists of residences, commercial, industrial, and other urbanized uses. Airport Road is adjacent to areas defined grazing land but because it is paved would itself not be considered grazing land. Grazing land is defined as, "land on which the existing vegetation is suited to the grazing of livestock. This category is used only in California and was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. (CDOC, 2016)." The project site does not contain and is not adjacent to or near any designated farmland or any land under a Williamson Act contract.

Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less than Significant Impact. The CDOC FMMP classifies the project site primarily as "Urban Built-Up Land" which is defined as land on which the existing vegetation is suited to the grazing of livestock. There are portions of the project adjacent to the Airport Road segment within land designated as "Grazing Land." Grazing Land is defined as "land on which the existing vegetation is suited to the grazing of livestock." Because none of the proposed improvements would convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (CDOC, 2016), or affect any agricultural operations, the proposed project would not result in the conversion of an agricultural resource and impacts would be less than significant.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is not adjacent to or near any designated farmland, under agricultural production, nor is it under an active Williamson Act Contract. The project site also is not eligible for a Williamson Act contract. Therefore, the project would not conflict with existing zoning for agriculture use or a Williamson Act contract. No impacts would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The project area does not conflict with any existing zoning or land use designations for forest land. The proposed improvements all take place within previously disturbed areas and the project site does not contain any forest land as defined in Public Resources Code (PRC) Section (§) 12220(g), timberland as defined in PRC § 4526, or timberland zones for timberland production defined by Government Code § 51104(g). The proposed project would have no impact to any forest or timberland.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site does not contain any forest land. No conversion of forest land would result from project implementation and no impacts would occur. Refer to c), above.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Less Than Significant Impact. The proposed project is not located on or adjacent to any area used or designated as farmland, and is not located on or adjacent to any area used or designated as forest or timberland. The proposed project would not affect any area used for these purposes and a less than significant impact would occur. Refer to a) b), and c), above.

Cumulative Impacts

The proposed project is not located on any land used as farmland or an area zoned or designated for use as farmland. The project site areas are all previously disturbed and primarily take place within the City's right-of-way largely including existing roadways. The areas designated as Grazing Land have been previously disturbed and are all contained within existing roadways. The project site does not contain any forest and is not located adjacent to any areas with such resources. Thus, the proposed project would not result in a loss of any of these resources nor would it affect the operational value of any such lands and cumulative loss and impacts would not occur.

4.3 Air Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			**X**	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			**X**	
c) Expose sensitive receptors to substantial pollutant concentrations?			**X**	
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			**X**	

Environmental Setting

This section is based on the Air Quality and Greenhouse Gas Emissions Analysis (Kimley-Horn, 2023) which is provided as Appendix A to this Initial Study.

The proposed project is located within the Sacramento Valley Air Basin (SVAB), which is under the jurisdiction of the Yolo-Solano County Air Quality Management District (YSAQMD). The SVAB is designated nonattainment for State and federal health-based air quality standards for ozone. The SVAB is designated nonattainment for State $PM_{2.5}$. To meet Federal Clean Air Act (CAA) requirements, the YSAQMD has prepared an Air Quality Attainment Plan (AQAP), which was adopted in 1992 and updated in 2003 and would be applicable to the proposed project.

YSAQMD developed advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's emissions. These are outlined in its CEQA Handbook (YSAQMD 2007). The Sacramento Federal Nonattainment Area (SFNA) is a subset of the SVAB and has adopted the Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2017 Ozone Plan). The YSAQMD is one of the air districts in the SFNA. The 2017 Ozone Plan outlines how the region continues to

meet federal progress requirements and demonstrates that the SFNA would meet the 75 parts per billion (ppb) 8-hour ozone NAAQS.[1]

YSAQMD also prepares a triennial report discussing the progress it has made towards improving the air quality and reducing ozone concentrations in its jurisdiction. The 2015 Triennial Assessment was adopted in July 2016; the draft 2018 Triennial Assessment was released in March 2019. YSAQMD's specific CEQA air quality thresholds are presented in *Table 4-1: Thresholds of Significance for Criteria Pollutants of Concern.*

Table 4-1: Thresholds of Significance for Criteria Pollutants of Concern

Pollutant	Threshold of Significance
ROG	10 tons/year
NO_X	10 tons/year
PM_{10}	80 lbs/day
CO	Violation of the CAAQS
Source: Yolo Solano Air Quality Management District 2007.	
CAAQS = California Ambient Air Quality Standards; CO = carbon monoxide; NOX = nitrogen oxide; PM10 = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases. Thresholds apply to construction and operational emissions generated within the YSAQMD. a Thresholds apply to construction and operational emissions generated within the YSAQMD.	

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. YSAQMD developed advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's emissions. These are outlined in its CEQA Handbook (YSAQMD 2007). The Sacramento Federal Nonattainment Area (SFNA) is a subset of the SVAB and has adopted the Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2017 Ozone Plan). The YSAQMD is one of the air districts in the SFNA. The 2017 Ozone Plan outlines how the region continues to meet federal progress requirements and demonstrates that the SFNA would meet the 75 parts per billion (ppb) 8-hour ozone NAAQS.[2]

YSAQMD also prepares a triennial report discussing the progress it has made towards improving the air quality and reducing ozone concentrations in its jurisdiction. The 2015 Triennial Assessment was adopted in July 2016; the draft 2018 Triennial Assessment was released in March 2019. YSAQMD's specific CEQA air quality thresholds are presented below in *Table 4-2: Thresholds of Significance for Criteria Pollutants of Concern*.

[1] Sacramento Metropolitan Air Quality Management District, *Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan*, 2017.

[2] Sacramento Metropolitan Air Quality Management District, *Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan*, 2017.

Table 4-2: Thresholds of Significance for Criteria Pollutants of Concern

Pollutant	Threshold of Significance
ROG	10 tons/year
NO_X	10 tons/year
PM_{10}	80 lbs/day
CO	Violation of the CAAQS
Source: Yolo Solano Air Quality Management District 2007.	
CAAQS = California Ambient Air Quality Standards; CO = carbon monoxide; NOX = nitrogen oxide; PM10 = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases. Thresholds apply to construction and operational emissions generated within the YSAQMD. a Thresholds apply to construction and operational emissions generated within the YSAQMD.	

A project is deemed inconsistent with air quality plans if it results in regional population, employment, or vehicle-miles-traveled (VMT) growth that exceeds estimates used to develop the applicable air quality plans. The air quality plans are based on growth projections from the Sacramento Area Council of Governments (SACOG) and local plans, including the general plans of city and county. Projects that propose development that are consistent with the growth anticipated by SACOG's Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the Cities and Counties general plans would be consistent with YSAQMD's AQAP.

The proposed project involves the installation of new waterlines, lift stations, and a clarification pond at the Northwest WWTP. The project site would constantly move in multiple areas around the City of Rio Vista and would not be concentrated in one area. The proposed project would be constructed in one phase. The anticipated construction duration for the proposed project would be approximately 12 to 16 months. Stationary sources, such as structures and businesses, would comply with YSAQMD rules and regulations and are generally not considered to have a significant air quality impact. The proposed project is not considered a stationary source and would not directly induce growth in the county or result in long-term development that would conflict with the County's general plan growth forecast.

Regarding construction, the proposed project would be subject to Regulation II, Rule 2.8 (Particulate Matter Concentrations), of the YSAQMD. The purpose of Regulation II, Rule 2.8 is to limit the emissions of particulate matter (PM) from any source operation which emits, or may emit, dust fumes, or total suspended PM. As shown in the discussion below, construction and operation of the proposed project would not exceed any established YSAQMD thresholds. Therefore, implementation of the proposed project would not obstruct implementation of an air quality plan and impacts would be less than significant. Compliance with General Plan Policies and applicable state and local law would reduce air quality impacts to a less than significant level. No additional site-specific mitigation measures are required.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact.

Construction Emissions

Project construction activities would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the project area include ozone-precursor pollutants (i.e., reactive organic gases [ROG] and nitrogen oxides [NO_x]) and particulate matter 10 microns in size or less (PM_{10}) and particulate matter 2.5 microns in size or less ($PM_{2.5}$). Construction-generated emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the YSAQMD's thresholds of significance.

Construction results in the temporary generation of emissions during site preparation, site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the appropriate application of water.

The duration of construction activities associated with the project are estimated to last approximately 12 to 16 months. The project's construction-related emissions were calculated using the YSAQMD-approved California Emissions Estimator Model (CalEEMod), version 2020.4.0., which is designed to model emissions for land use development projects, based on typical construction requirements. The exact construction timeline is not known for the project. Therefore, the calculated CalEEMod construction schedule defaults were used for the analysis. This modeling estimated construction for the project to take approximately 11.5 months for the water lines and lift stations and 6 months for the clarification pond at the Northwest WWTP. See Appendix A for additional information regarding the construction assumptions used in this analysis. *Table 4-3: Construction Related Emissions* displays the combined maximum daily emissions that are expected to be generated from the construction of the proposed project in comparison to the daily thresholds established by the YSAQMD.

Short-Term Construction Emissions

Construction-generated emissions are short-term and temporary, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. Temporary emissions from site preparation and excavation, as well as from motor vehicle exhaust associated with construction equipment and the movement of equipment across unpaved surfaces, worker trips, etc., would occur. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities. *Table 4-3* presents construction emissions generated by the proposed project in the YSAQMD in tons per year and pounds per day.

Table 4-3: Construction Related Emissions

Construction Year	Pollutant				
	Reactive Organic Gases (ROG) tons/yr	Nitrogen Oxide (NO_x) tons/yr	Carbon Monoxide (CO) tons/yr	Coarse Particulate Matter (PM_{10}) lbs/day	Particulate Matter ($PM_{2.5}$) tons/yr
2023	0.07	0.66	0.68	15.78	0.04
2024	0.16	1.14	1.32	1.18	0.05
YSAQMD Significance Threshold [1, 2]	*10*	*10*	-	*80*	-
Exceed YSAQMD Threshold?	**No**	**No**	**-**	**No**	**-**

YSAQMD = Yolo Solano Air Quality Management District; CO = carbon monoxide; NO_x = nitrogen oxide; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter; PM_{10} = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases; – = no threshold.

1. In developing these thresholds, YSAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.
2. YSAQMD considers violations of the CO ambient air quality standard significant. Refer to Impact AQ-c.
3. Source: Refer to the CalEEMod outputs provided in Appendix A, *Air Quality and Greenhouse Gas Emissions Analysis.*

As shown in *Table 4-3*, the proposed project would not exceed YSAQMD thresholds. Therefore, emissions associated with construction of the Project are less than significant.

Long-Term Operational Emissions

As mentioned previously, the project would construct new wastewater and recycled water lines, install two new lift stations, update two existing lift stations, and add a clarification pond and improvements at the Northwest WWTP. The project does not propose any new significant sources of air pollutants, would not generate a substantial amount of additional traffic on nearby roadways, and would not generate any additional population growth. Therefore, the operation of the project would not generate significant pollutant emissions and impacts would be less than significant. No mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The State CEQA Guidelines indicate that a potentially significant impact could occur if a project would expose sensitive receptors to substantial pollutant concentrations. There are single-family residential communities to the surrounding different portions of the construction site.

Construction Toxic Air Contaminants

The proposed project would not create a significant hazard to surrounding residents and other sensitive receptors through exposure to substantial pollutant concentrations such as particulate matter during construction activities and/or other toxic air contaminants (TACs).

Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known TACs. Diesel exhaust from construction equipment operating at the site poses a health risk to nearby

sensitive receptors. The closest sensitive receptors to the project site are the mobile home residences to the southwest of the project site. YSAQMD provides guidance for evaluating impacts from TACs in its CEQA Air Quality Handbook document. As noted therein, an incremental cancer risk of greater than 10 cases per million at the Maximally Exposed Individual (MEI) would result in a significant impact.

Project construction would generate diesel particulate matter (DPM) emissions from the use of off-road diesel equipment required for grading and excavation, paving, and other construction activities. For construction activity, DPM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors.

The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. Construction is temporary and would be transient throughout the site (i.e. move from location to location) and would not generate emissions in a fixed location for extended periods of time.

Construction is subject to and would comply with California regulations (e.g., California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Sections 2485 and 2449), which reduce DPM and criteria pollutant emissions from in-use off-road diesel-fueled vehicles and limit the idling of heavy-duty construction equipment to no more than five minutes. These regulations would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Given the temporary and intermittent nature of construction activities likely to occur within specific locations in the project site (i.e., construction is not likely to occur in any one location for an extended time), the dose of DPM of any one receptor is exposed to would be limited. Therefore, impacts related to construction TACs would be less than significant and no mitigation is required.

Operational Toxic Air Contaminants

The project does not include residential dwelling units, additional traffic, or any new stationary sources. The project is not anticipated to generate truck traffic and additional DPM that would impact sensitive receptors. Therefore, operational TAC impacts would be less than significant.

Mobile Sources

The project would not place sensitive receptors within 1,000-feet of a major roadway (mobile TAC source). Additionally, the project would have no effect on existing vehicle distribution and travel speeds. As mentioned previously, the project would construct install additional water lines, lift stations, and improvements at the Northwest WWTP. Therefore, the project would not generate additional traffic in the surrounding area and impacts associated with mobile sources would be less than significant.

Carbon Monoxide Hotspots

The primary mobile-source criteria pollutant of local concern is carbon monoxide (CO). Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport

of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. CO concentration modeling is therefore typically conducted for intersections that are projected to operate at unacceptable levels of service during peak commute hours. As mentioned previously, the project would not generate additional traffic on nearby roadways and would, therefore, not impact nearby intersections. Therefore, the project would not have the potential to create a CO hotspot and impacts would be less than significant.

Compliance with General Plan Policies and applicable state and local law would reduce impacts conflicting with exposing sensitive receptors to a less than significant level. No additional site-specific mitigation measures are required.

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

Less than Significant Impact. The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they can be unpleasant, leading to distress among members of the public and can generate citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose people to objectionable odors would have a significant impact.

Project construction would use a variety of gasoline- or diesel-powered equipment that would emit exhaust fumes. While exhaust fumes, particularly diesel exhaust, may be considered objectionable by some people, construction-generated emissions would occur intermittently throughout the workday and would dissipate rapidly within increasing distance from the source.

According to YSAQMD, land uses associated with odor include wastewater treatment facilities, chemical manufacturing, sanitary landfills, fiberglass manufacturing, transfer stations, painting/coating operations, composting facilities, food processing facilities, petroleum refineries, feed lots/dairy, asphalt batch plants, and rendering plants. The project does include the operation of a clarification pond which is classified as a wastewater facility and is located within one mile of sensitive receptors which would require a full odor analysis under Section 5.5.7 of the YSAQMD CEQA Handbook. The Pond would be located within the existing Northwest WWTP area located more than 2,000 feet away from the closest sensitive receptor. The existing facility is required to adhere to the YSAQMD Regulation 2, Rule 2.5 which states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or persons to the public or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause to have a natural tendency to cause injury or damage to business or property. The existing facilities are not producing significant odors at the closest sensitive receptors. The operation of the clarification pond would not produce a substantial level of odor and would not alter the treatment plant's compliance with Rule 2.5. The other wastewater lines, recycled water lines, and lift stations would not

substantially produce any emissions with odors. Therefore, impacts associated with odor would be less than significant and no mitigation is required.

Compliance with General Plan Policies and applicable state and local law would reduce impacts associated with odors to a less than significant level. No additional site-specific mitigation measures are required.

Cumulative Impacts

As discussed above, the project's construction-related and operational emissions would not have the potential to exceed the YSAQMD significance thresholds for criteria pollutants. As shown in *Table 4-3,* the project's construction would not exceed YSAQMD thresholds and, as mentioned previously, the Project would not generate substantial operational emissions. As a result, air quality emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Compliance with General Plan Policies and applicable state and local law would reduce construction and operational air quality impacts to a less than significant level. No additional site-specific mitigation measures are required.

4.4 Biological Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		**X**		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				**X**
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological				**X**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			**X**	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			**X**	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			**X**	

Environmental Setting

This section is based on the Biological Resources Assessment (Marcus H. Bole & Associates, 2023) which is provided as Appendix B to this Initial Study.

The proposed project is situated at elevations that range from 10 to 30 feet above mean sea level (MSL) along the wastewater pipeline installation route to 40 feet MSL within the Trilogy subdivision. The majority of the excavation for wastewater pipeline installation is within existing paved roadways with a small amount of excavation within upland habitats characterized as non-native grasslands. The majority of the excavation for the recycled pipeline installation within the Trilogy subdivision is within existing roadways with a small amount of excavation within the landscaped features of the subdivisions golf course. Upgrades within the Northwest WWTP are within previously disturbed open areas characterized by ruderal grasses and forbs.

Three urban categories relevant to wildlife are represented in onsite surveys and evaluations conducted during field investigations:

- **Downtown**: Heavily developed downtown areas were represented within the study areas along Beach Street, South 2nd Street, South Front Street, and North Front Street all of which exhibited extremely limited species richness. Street trees and adjacent residential landscaped features were evaluated for nests that would support raptors and other protected avian species. None of the trees within 500 feet either side of the project alignment were found to have nests.

- **Suburban:** Suburban areas with mature vegetation closely approximate the natural environment. The habitats associated within the vicinity of the CPN Pipeline property, the open field adjacent to the West Wind Mobile Home Park, and sparsely populated areas along Saint Francis Way and Airport Road exhibit a limited amounts of mature oak, walnut, and eucalyptus trees interspersed among non-native grassland habitats.

- **Industrial:** Surveys were conducted within the open areas associated with the fenced-in Northwest WWTP. Highly disturbed and graded areas proposed for the construction of a clarification pond were thoroughly evaluated for the seasonal wetland, vernal pools, and protected plant and wildlife species. There was no evidence of sensitive habitats within the

Northwest WWTP. Although outside of the normal blooming cycle for all plant species of concern, there was little evidence that the disturbed habitats would support special status plant species.

Discussion

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. Candidate, sensitive, or special status species are commonly characterized as species that are at potential risk or actual risk to their persistence in a given area or across their range. These species have been identified and assigned a status ranking by governmental agencies such as the California Department of Fish and Wildlife (CDFW), the United States Fish and Wildlife Service (USFWS), and nongovernmental organizations such as the California Native Plant Society (CNPS). The degree to which a species is at risk of extinction is the determining factor in the assignment of a status ranking. Some common threats to a species or population's persistence include habitat loss, degradation, and fragmentation, as well as human conflict and intrusion. For the purposes of this biological review, special status species are defined as the following:

- listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA);
- listed or candidates for listing as threatened or endangered under the California Endangered Species Act (CESA);
- identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- listed as Fully Protected under the California Fish and Game Code;
- considered jointly by CDFW and CNPS to be "rare, threatened, or endangered in California" and assigned one of the following California Rare Plant Ranks (CRPR):
    - CRPR 1A - presumed extinct in California;
    - CRPR 1B - rare, threatened, or endangered in California and elsewhere;
    - CRPR 2A - presumed extirpated in California, but more common elsewhere;
    - CRPR 2B - rare threatened, or endangered in California, more common elsewhere;
    - CRPR 3 - Plants About Which More Information is Needed (review list)

The majority of the area to be excavated for the wastewater pipeline installation is within existing paved roadways with a small amount of excavation within upland habitats characterized as non-native grasslands. The area to be excavated for the recycled water pipeline installation is within existing roadways with a small amount of excavation within the landscaped features of the subdivision golf course. Upgrades within the Northwest WWTP are within previously disturbed open areas characterized by ruderal grasses and forbs. The project site does not contain any aquatic or riparian habitats that would provide habitat for sensitive species that rely on wetlands or waters. Overall, the site is composed of

disturbed urban landscape features (concrete sidewalks, cut & fill materials) and non-native or ruderal grasses and forbs. Neither the project site nor other areas adjacent represent high quality habitat for special status species. Some areas adjacent to the project site do support potential habitat for special status species, but the potential for species to occur is remote.

Special Status Plant Species

Based on an analysis of existing literature, 9-Quad California Natural Diversity Database (CNDDB) occurrences, and United States Fish and Wildlife Service listed species in combination with professional expertise and observations in the field, a list of special-status plant and animal species that have the potential to exist on or in the vicinity of the project site was generated. Twenty-eight special status plant and animal species were identified. Of these 28 species, no individuals or potential habitat were observed for 20 species during field visits. There would be direct or indirect impact to these species. The remaining eight species with potential to occur are discussed in greater detail below.

Northern California black walnut (*Juglans hindsii*) was observed growing in the vicinity of the project site. However, the project does not propose removal of any trees and construction of the project would not result in changes to the existing conditions that would permanently destroy habitat for black walnut trees. Therefore, there would be no direct or indirect impacts to black walnut trees and impacts would be less than significant.

Though no potentially suitable habitat or individuals were observed for any other special status plant species aside from of black walnut trees, field visits for the project were conducted during January of 2023. January is outside of the blooming period for all special status plant species listed as having the potential to exist on or in the vicinity of the project site. The potential exists for the project to directly impact special status plant species that were not observed during the surveys outside of the blooming period. Mitigation Measure BIO-1 requires that a pre-construction survey be conducted for special status plant species prior to ground disturbing project work. With implementation of Mitigation Measure BIO-1, project impacts to special status plant species would be less than significant.

Special Status Wildlife Species

Though no individuals or nests were observed, there is low potential for American peregrine falcon (*Falco peregrinus anatum*), Swainson's hawk (*Buteo swainsoni*), and Modesto population song sparrow (*Melospiza melodia*) to be present in the vicinity of the project site. Though no trees are proposed for removal, project activity and the associated noise could disturb individuals of these species should they be nesting in the vicinity of the project site. This is a potentially significant impact. However, with implementation of Mitigation Measure BIO-2, which requires that a pre-construction survey for nesting birds be conducted prior to project ground disturbing activities and avoidance and minimization measures be taken should any nesting birds be detected, the potential for impacts would be minimized. With implementation of Mitigation Measure BIO-2, project impacts to American peregrine falcon, Swainson's hawk, and Modesto population song sparrow would be less than significant.

No burrowing owl (*Athene cunicularia*) individuals, burrows, burrow surrogates[3], or suitable habitat were observed within or adjacent to the project site. However, burrowing owls have been documented within three miles of the project site and field visits were conducted during the non-breeding winter season. Should burrowing owls be present on or adjacent to the project site during project construction, project activities could result in potentially significant direct impacts to individuals. With implementation of Mitigation Measure BIO-3, which requires pre-construction surveys for burrowing owls be conducted prior to ground disturbing activities and avoidance and minimization measures be taken should any burrowing owls be detected, the risk of direct impacts to burrowing owls would be minimized and impacts would be less than significant.

Though no individuals or nests were observed, there is low potential for western red bat (*Lasiurus blossevilli*) and hoary bat (*Lasiurus cinereus*) to be present in the vicinity of the project site. Though no trees are proposed for removal, project activity and the associated noise could disturb individuals of these species should they be roosting in the vicinity of the project site. This is a potentially significant impact. However, with implementation of Mitigation Measure BIO-4, which requires that a pre-construction survey for bats be conducted prior to project ground disturbing activities and avoidance and minimization measures be taken should any bats be detected, the potential for impacts would be minimized. With implementation of Mitigation Measure BIO-4, project impacts to western red bat and hoary bat would be less than significant.

No western bumblebee (*Bombus occidentalis*) individuals or suitable foraging habitat were observed within or adjacent to the project site. However, western bumble bees have been observed in the project vicinity. Should western bumblebees be present on or adjacent to the project site during project construction, project activities could result in potentially significant direct impacts to individuals. With implementation of Mitigation Measure BIO-5, which requires pre-construction surveys for western bumblebee be conducted prior to ground disturbing activities and avoidance and minimization measures be taken should any western bumblebees be detected, the risk of direct impacts to western bumblebees would be minimized and impacts would be less than significant.

As discussed above, neither the project site nor other areas adjacent represent high quality habitat for special status species. Construction Impacts to those special status species with the potential to occur within or adjacent the project site would be minimized to a less-than-significant level by Mitigation Measures BIO-1 through BIO-5. Once construction is complete, operational activities would occur below ground or indoors. Thus, with mitigation incorporated, neither project construction nor operation would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status. Impacts would be less than significant with mitigation incorporated.

[3] Burrows used by the owls are usually dug by other species termed host burrowers. In California, California ground squirrel (*Spermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*) burrows are frequently used by burrowing owls but they may use dens or holes dug by other fossorial species including badger (*Taxidea taxus*), coyote (*Canis latrans*), and fox.

MM BIO-1: If project construction activities occur during the normal blooming cycle (April to July), preconstruction surveys for special status plants found to have the potential to exist on or in the vicinity of the project site shall be conducted. These special status plant species include: San Joaquin spearscale (*Extriplex joaquinana*), wooly rosemallow (*Hibiscus lasiocarpos* var. *occidentalis*), delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), Manson's lilaepsis (*Lilaeopsis masonii*), delta mugwart (*Limosella australis*), Suisun marsh aster (*Symphyotrichum lentum*), and Sanford's arrowhead (*Sagittaria sanfordii*). Surveys shall be conducted by a qualified botanist within one week of project ground disturbing activities. Findings of these surveys should be submitted to the City of Rio Vista. Should any special status plant species be found on-site, appropriate buffers shall be established around the individual and the CDFW shall be contacted for appropriate avoidance and minimization measures. Compliance with these avoidance and minimization measures shall be required.

MM BIO-2: If construction activities are scheduled during the February 1 to August 31 time frame, a qualified biologist shall conduct two surveys for nesting American peregrine falcon (*Falco peregrinus anatum*), Swainson's hawk (*Buteo swainsoni*), and Modesto population song sparrow (*Melospiza melodia*). The surveys shall be conducted for the project site and within ¼ mile of the project site. Surveys shall be conducted no-less-than 14 days prior to the beginning of ground disturbing project construction activities with a final survey conducted within 24 hours prior to ground disturbance. A qualified biologist will map any suspected occupied stick nests and appropriate buffers shall be established. The CDFW shall be notified and appropriate avoidance and minimization coordinated with the CDFW.

MM BIO-3: If construction activities are scheduled during the February 1 to August 31 time frame, in accordance with guidance set forth in the Staff Report on Burrowing Owl Mitigation, a qualified biologist shall conduct four survey visits. One visit shall at least be between 15 February and 15 April, and a minimum of three site visits, at least three week apart, shall occur between 15 April and 15 July with at least one visit after 15 June for unoccupied burrows or burrow surrogates within 500 feet of the construction site. The third of the four site visits shall be no-less-than 14 days prior to the beginning of project construction, with the fourth survey conducted within 24 hours prior to ground disturbance. Should any burrowing owls be found on-site, appropriate buffers shall be established around the individual and the CDFW shall be contacted for appropriate avoidance and minimization measures. Compliance with these avoidance and minimization measures shall be required.

MM BIO-4: If construction occurs during the normal active bat season (April to October), preconstruction surveys for roosting bats shall be conducted. The surveys shall be conducted by a qualified biologist. Surveys shall be conducted no-less-than 14 days prior to the beginning of ground disturbing project construction activities with a final survey conducted within 24 hours prior to ground disturbance. Findings of these surveys should be submitted to City. Should any bat roosts be found on-site, appropriate buffers shall be established around the roost and the CDFW shall be contacted for appropriate avoidance

and minimization measures. Compliance with these avoidance and minimization measures shall be required.

MM BIO-5: If construction occurs during the western bumblebee flying season (March to September) preconstruction surveys shall be conducted. The surveys shall be conducted by a qualified biologist. Surveys shall be conducted no-less-than 14 days prior to the beginning of ground disturbing project construction activities with a final survey conducted within 24 hours prior to ground disturbance. Findings of these surveys should be submitted to City. Should any colony nesting sites be found on-site, appropriate buffers shall be established around any nesting sites, and the CDFW shall be contacted for appropriate avoidance and minimization measures. Compliance with these avoidance and minimization measures shall be required.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

No Impact. Sensitive habitats include (a) areas of special concern to resource agencies; (b) areas protected under CEQA; (c) areas designated as sensitive natural communities by the CDFW; (d) areas outlined in Section 1600 of the California Fish and Game Code; (e) areas regulated under Section 404 of the CWA; and (f) areas protected under local regulations and policies. The project site is composed of disturbed urban landscape features (concrete sidewalks, cut & fill materials) and non-native or ruderal grasses and forbs. There are no mapped riparian habitat or other sensitive natural communities within or adjacent to the project site. Thus, there would be no impact and mitigation is not required.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological?

No Impact. The project site is composed of disturbed urban landscape features (concrete sidewalks, cut & fill materials) and non-native or ruderal grasses and forbs. Using the Routine On-Site Determination methodology from the *1987 Corps of Engineers Wetlands Delineation Manual* (as supplemented by the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*, dated September 2008), a wetland determination was conducted for the project site. No wetlands or other jurisdictional waters were found to exist on the project site.

According to the United States Department of Agriculture Natural Resources Conservation Service's Web Soil Survey, one soil type dominates the majority of the wastewater pipeline portion of the project site: Tujunga fine sand. The Tujunga series consists of nearly level, excessively drained soils in dredge spoil areas. These soils consist of mixed dredged alluvium. These soils are not classified as "hydric". The soil type associated with the Northwest WWTP is predominately Antioch-San Ysidro complex, 0 to 2 percent slopes. The Antioch-San Ysidro soil series consists of moderately well drained soils on terraces. These soils formed in alluvium from sedimentary sources. The soil type associated with the Trilogy subdivision is predominately Diablo-Ayar clays, 2 to 9 percent slopes. The Diablo-Ayar clays series consists of well drained soils on dissected terraces. None of these soils are classified as hydric, no hydric soils were found within the project site.

As no wetlands or other jurisdictional waters were found to exist on the project site and the on-site soil is not conducive to a flooding or ponding condition that would retain water for sufficient periods of time to result in wetland formation, there would be no impact to state or federally protected wetlands. No mitigation is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact. Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. The project site is composed of disturbed urban landscape features (concrete sidewalks, cut & fill materials) and non-native or ruderal grasses and forbs. In addition, the project site is predominately surrounded by developed urban uses that do not support use of the areas as a migration corridor or nursery sites. There are no aquatic features located within or adjacent to the project site that would support migratory fish. Thus, development of the project would not significantly impact wildlife or fish or their ability to move throughout the area. Therefore, impacts to migratory wildlife and fish would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant Impact. The proposed project would not conflict with the RVMC or Ordinances, nor would it conflict with any of the policies described in the Rio Vista General Plan that protect biological resources. None of the recycled water pipeline alignment is located within a Sensitive Local Resource Area (SLRA) as identified in Figure 10-2 of the RVGP. However, a portion of the wastewater treatment pipeline is located within an SLRA. The SLRAs were established as areas to be preserved as open space. As project work within the SLRA would not introduce new development or aboveground structures, impacts to the SLRA would be less than significant. Further, the project would not require the removal of trees nor conflict with a tree preservation policy or ordinance. The project would not conflict with any local policies or ordinances protecting biological resources; therefore, impacts would be less than significant and no mitigation is required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than Significant Impact. The City of Rio Vista is a voluntary participant in the Draft Solano County Multispecies Habitat Conservation Plan (HCP) and the project site is within the area covered by the HCP. The HCP allows agencies to issue Incidental Take Permits to project applicants for impacts to federal and state listed endangered species within the plan area. The project would not impact federal, or state listed species and would not conflict with provisions of the HCP. Impacts would be less than significant, and mitigation is not required.

Cumulative Impacts

The project site is all previously disturbed and primarily located within the City's right-of-way largely including existing roadways. The project site is composed of disturbed urban landscape features (concrete sidewalks, cut & fill materials) and non-native or ruderal grasses and forbs. With implementation of Mitigation Measures BIO-1 through BIO-5, the project would have less than significant direct or indirect impacts to special status species. As none exist on or adjacent to the project site, the project would have no impact on protected wetlands or migratory wildlife corridors. The project would not conflict with any local policies protecting biological resources nor would it conflict with the adopted habitat conservation plan. Thus, the project would not result in a loss of any biological resources or habitat nor conflict with provisions to protect biological resources or habitat. Cumulative impacts would be less than significant.

4.5 Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?			**X**	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		**X**		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		**X**		

Existing Setting

This section is based on the Cultural Resources Report (SWCA, 2023) which is provided as Appendix C to this Initial Study.

The project area of potential effect (APE) is in the Sacramento-San Joaquin Delta (Delta), formed by the south-flowing Sacramento River as it meets the north-flowing San Joaquin River just south of the city of Sacramento, where the river is joined by smaller tributaries and tidal flows. The rivers' combined freshwater flows through the Carquinez Strait and into San Francisco Bay's northern arm, forming the San Francisco Bay Delta. The Delta has undergone significant transformation after over a century's worth of reclamation. Farmers began building a network of levees to drain and reclaim what was once a marsh. Progressively higher levees were built to keep the surrounding waters out, lands were pumped dry, and the marsh was transformed into productive island farms, most of which are below sea level. Today, the APE falls into the urban/barren category, which is described as developed, built-up land that includes riprap bordering channels. Areas with this habitat type often include non-native/invasive vegetation.

Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?

Less than Significant Impact. Historic resources are standing structures of historic or aesthetic significance. Architectural sites dating from the Spanish Period (1529–1822) through the post-World War II period (1945–1955) are generally considered for protection if they are determined to be historically or

architecturally significant. Sites dating after the post-World War II period may also be considered for protection if they could gain significance in the future. Historic resources are often associated with archaeological deposits of the same age.

According to the Office of Historic Preservation (OHP), there is only one resource (e.g. Delta King – a steamboat), which was listed in 1978 in the National Register of Historic Places (NRHP) in the City of Rio Vista. It is important to note that while the Delta King is listed in the City of Rio Vista, it is has been permanently moored in the City of Sacramento since 1985, approximately 30 miles away. As such the proposed project would have no impacts in this regard (Cal State Parks, 2021).

On January 17, 2023 an in-house records search at the California Historical Resources Information System (CHRIS) to identify known resources and previous cultural resource studies within 0.25 mile of the project alignment. The CHRIS records search identified 10 previously recorded cultural resources within a 0.25-mile radius of the project alignment. However, no previously recorded cultural resources intersect with the project alignment and a review of historic maps and aerial photographs also failed to indicate the presence of historic structures or features. Further, no cultural resources or historic properties were noted on the ground surface during intensive archaeological pedestrian survey. The proposed project would occur within existing roadways, areas with existing wastewater infrastructure, and other areas that have been previously disturbed. Therefore, project implementation would have a less than significant impact to historic resources pursuant to § 15064.5 and no mitigation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant with Mitigation Incorporated. Archaeological resources are places where human activities have measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (the period before written record) or historic (after the introduction of written record). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area.

The archeological record for Solano County, which includes Rio Vista, begins in the prehistoric period which is generally considered the time before 10,000 years ago. From 10,000-6,000 years Before Present (BP) is the Lower Archaic Period. The oldest known archaeological component in this region of central California is from the Los Vaqueros Reservoir area outside of Solano County, in eastern Contra Costa County. The Initial Middle Archaic Period generally dates from 6,000 to 4,500 BP. With the exception of isolated human burials, extensive early Middle Archaic deposits were not known in the San Francisco Bay/Sacramento–San Joaquin Delta (Bay-Delta) region until the Los Vaqueros Reservoir project in 1996 (Solano County, 2008).

Former airport activities and on-going redevelopment have disturbed the immediate ground surface in the project area; however, intact historical/archeological resources may be discovered below the existing surface layer in land subject to ground-disturbing activities. According to the records search conducted by the NWIC, no archaeological resources have been recorded on the project site or immediately surrounding area. However, there is a moderate potential for identifying unrecorded Native American archaeological resources. Therefore, pursuant to Public Resource Code (PRC) Section 21083.2, should any cultural resources be encountered during construction, all work would cease until the find has been evaluated.

Mitigation measures (MM CUL-1 and MM CUL-2) would be implemented to protect any cultural find. Compliance with PRC Section 21083.2 and corresponding mitigation measures below would ensure the project would not cause a substantial adverse change in the significance of an archaeological resource. Impacts would be less than significant in this regard.

MM CUL-1: During ground disturbing activities, if any archeological, paleontological or tribal resources (e.g., evidence of past human habitation or fossils) are found, the project applicant and/or its contractor shall cease all work within 50 feet of the discovery and notify the City of Rio Vista Community Development Department, Planning Division immediately The project applicant and/or its contractor shall retain a qualified archaeologist, or paleontologist, and/or Native American representative as required to evaluate the finds and recommend appropriate resource protection plan for the inadvertently discovered resource(s). The City and the applicant shall consider the recommendations and agree on implementation of the measure(s) that are feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, or other appropriate measures. (Health and Safety Code Section 7050.5).

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant with Mitigation Incorporated. The proposed project would occur within existing roadways, areas with existing wastewater infrastructure, and other areas that have been previously disturbed and there is a low likelihood for discovery of human remains within the project site. Nonetheless, there is the potential for unanticipated and accidental discoveries of human remains during ground-disturbance. If such remains are located, they could be damage or destroyed and the loss and would be considered a significant impact. While the potential is considered very low, mitigation to reduce the potential effects of inadvertent discovery of human remains, MM CUL-2, would be implemented. Implementation of this measure would reduce impacts in this regard to less than significant.

MM CUL-2: If human remains either informally interred or associated with a burial (i.e. grave goods) are discovered during construction, the project applicant and/or its contractor shall cease all work within 50 feet of the find and notify the City of Rio Vista Community Development Department, Planning Division and the County Coroner. Notifications shall occur immediately and in accordance with California Health and Safety Code Section 7050.5. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission and shall follow the procedures outlined in CEQA Guidelines Section 15064.5(d) and (e) regarding treatment and disposition of recovered cultural items. The Commission will designate a Most Likely Descendant (MLD) who will be authorized to provide recommendations for management of the Native American human remains and any associated materials or objects (Public Resourced Code Section 5097.98 and Health and Safety Code Section 7050.5).

Cumulative Impacts

Cumulative impacts to cultural resources are typically considered to be site specific and mitigated on a project-by-project basis. The proposed project would occur within existing roadways, areas with existing

wastewater infrastructure, and other areas that have been previously disturbed and has no designated historic resources. Additionally, because of past disturbances and operations at wastewater facilities, it is thought to have a very low potential of containing historic, cultural, or archaeologically significant resources. Taken in sum with other past, present, and reasonably foreseeable projects, some of which would occur within the same general vicinity and also would undergo separate CEQA review and have mitigation applied, cumulative impacts would be less than significant.

4.6 Energy

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			**X**	
e) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			**X**	

Environmental Setting

California relies on a regional power system composed of a diverse mix of energy sources, that includes petroleum, natural gas, electricity, and alternative fuels. Petroleum products (gasoline, diesel, jet fuel) are consumed almost exclusively by the transportation sector, which is responsible for almost 90 percent of the petroleum consumed in the state (EIA 2020). Although project operations would not use petroleum except for anticipated vehicle trips for maintenance, petroleum products would be used to fuel vehicles and equipment during construction.

Natural gas is consumed by residential and small commercial users but the largest users, approximately 65% are from utilities for electricity generation and industrial consumers (CPUC 2022). The project is not anticipated to consume a large volume of gas except to generate electricity needed to operate the lift stations and uses at treatment plant upon project operations.

In 2002, Senate Bill 1078 established a renewables portfolio standard (RPS) program related to electricity and renewables. Most retail sellers met or exceeded their 29-percent interim RPS target in 2018, including all large investor-owned utilities, which provide electricity to 75 percent of all utility customers. Pacific Gas and Electric Company (PG&E) is the primary electricity supplier for the City

California is in the process of reducing the use of conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many alternative transportation fuels (e.g., biodiesel, hydrogen, electricity). Use of alternative fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, Assembly Bill 32 Scoping Plan).

Currently PG&E provides energy (electricity and gas) to the City of Rio Vista. PG&E generates or buys electricity from hydroelectric, nuclear, renewable, natural gas, and coal facilities. The PG&E 2021 power mix was as follows: 7 percent natural gas, 39 percent nuclear, 50 percent renewables, and 4 percent large

hydroelectric.[4] In 2021, PG&E reported total electricity consumption within its planning area of 104,336.85 million kilowatt-hours (kWh), or gigawatt-hours (GWh), with the majority of usage associated with commercial and industrial land uses.[5] Between 2011 and 2021, total electricity use in Solano County was 35,493 gigawatt hours (GWh), with annual ranges of 3,121 GWh to 3,330 GWh. Non-residential uses (industrial and commercial) make up approximately 67 percent of total usage each year and residential uses the remaining 33 percent. In this same timeframe, total natural gas consumption in Solano County was 2,499 million therms, with annual ranges between approximately 210 to 253 million therms per year. Non-residential uses were in the range of approximately 75 percent of the total annual consumption, while residential use were approximately 25 percent of total annual consumption.

Energy Regulations

The Energy section is primarily based on information, guidance, and analysis protocol provided by the Yolo-Solano Air Quality Management District (YSAQMD). In addition, the section utilizes information obtained from the County of Solano Climate Action Plan[6], and the California Emissions Estimator Model (CalEEMod) version 2020.4.0.

Energy use related to the proposed project would include energy directly consumed for special lighting, ventilation and air conditioning systems. Indirect energy consumption would be associated with the generation of electricity at power plants. Transportation-related energy consumption includes the use of fuels and electricity to power cars, trucks, and distribution facilities. Energy would also be consumed by equipment and vehicles used during project construction and routine maintenance activities.

In order to ensure energy implications are considered in project decisions, Appendix F of CEQA Guidelines requires a discussion of the potential energy impacts of projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The main forms of available energy supply are electricity, natural gas, and oil.

Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact.

Construction

The energy consumption associated with construction of the proposed project includes primarily diesel fuel consumption from on-road hauling trips and off-road construction diesel equipment, and gasoline consumption from on-road worker commute and vendor trips. Temporary electric power for as-necessary

[4] PG&E, 2022, *Exploring Clean Energy Solutions*. https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc_id=Vanity_cleanenergy. Accessed March 1, 2023.

[5] California Energy Commission, Energy Consumption Data Management System. California Energy Consumption Database. Available at: http://ecdms.energy.ca.gov/. Accessed March 1, 2023.

[6] County of Solano. *Solano County Climate Action Plan.* February 2010.

lighting and electronic equipment (such as computers inside temporary construction trailers, and heating, ventilation, and air conditioning) would be powered by a generator. The amount of electricity used during construction would be minimal; typical demand would stem from the use of electrically powered hand tools and several construction trailers by managerial staff during the hours of construction activities. The majority of the energy used during construction would be from petroleum. This analysis relies on the construction equipment list and operational characteristics, as stated in Section 4.3 (Air Quality) and Section 4.8 (Greenhouse Gas Emissions). *Table 4-4: Project Energy Consumption During Construction* quantifies the construction energy consumption are provided for the project, followed by an analysis of impacts based on those quantifications.

Table 4-4: Project Energy Consumption During Construction

Source	Project Construction Usage	Solano County Annual Energy Consumption	Percentage Increase Countywide
Diesel Use	**Gallons**		
On-Road Construction Trips [1]	27,874	55,928,341	0.050%
Off-Road Construction Equipment [2]	3,293		0.006%
Construction Diesel Total	**31,167**		**0.056%**
Gasoline	**Gallons**		
On-Road Construction Trips [1]	2,658	181,426,317	0.002%

1. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod and fleet-average fuel consumption in gallons per mile from EMFAC2021 in Solano County.
2. Off-road mobile source fuel usage based on a fuel usage rate of 0.05 gallons of diesel per horsepower (hp)-hour from USEPA.
Abbreviations:
CalEEMod: California Emission Estimation Model; EMFAC: Emission Factor Model 2021; kWh: kilowatt-hour;
Sources: AWMA, 1992; DOE 2016; USEPA 1996.

In total, construction of the proposed project is anticipated to consume approximately 31,167 gallons of diesel and 2,658 gallons of gasoline. The project's fuel from the entire construction period would increase fuel use in the County by approximately 0.06 percent for diesel and 0.002 percent for gasoline.

There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or state. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest EPA and CARB engine emissions standards. These engines use highly efficient combustion engines to minimize unnecessary fuel consumption.

The CEQA Guideline Appendix G and Appendix F criteria requires the project's effects on local and regional energy supplies and on the requirements for additional capacity to be addressed. A 0.06 percent increase in construction fuel demand is not anticipated to trigger the need for additional capacity. Fuel consumption is based on a conservative construction phasing and conservative estimates for annual construction fuel consumption. Longer phases would result in lower construction intensity and a lower annual fuel consumption, resulting in lower annual demand on energy supplies. Additionally, use of construction fuel would cease once the project is fully developed. As such, project construction would

have a nominal effect on the local and regional energy supplies. Therefore, it is expected that construction fuel consumption associated with the project would not be inefficient, wasteful, or unnecessary. The project would not substantially affect existing energy or fuel supplies, or resources and new capacity would not be required. Impacts would be less than significant in this regard.

Operational

Energy use related to the proposed project would include energy directly consumed from the operation of the wastewater lift stations. Other project components such as the clarification pond and the new SSFMs would not require energy consumption to operate. Quantifications of operational energy consumption are provided for the proposed project in Section 2.4 and listed below in *Table 4-5: Annual Energy Consumption During Operations* below.

Table 4-5: Annual Energy Consumption During Operations

Source	Project Operational Usage	Solano County Annual Energy Consumption	Percentage of Countywide Energy Consumption
Electricity Use	**Megawatt Hour/Year (MWh/year)**		
Beach Lift Station	40.113	3,300,852.690	0.0012%
Marina Lift Station	802.275		0.0243%
South Street Lift Station	137.055		0.0042%
River Road Lift Station	300.853		0.0091%
Total	1,280.296		0.0388%

Notes:
1. The electricity usage is based on project-specific estimates provided in Section 2.4.
Abbreviations: CalEEMod: California Emission Estimation Model; kWh: kilowatt-hour

Operation of uses implemented pursuant to the proposed project would annually consume approximately 1,280 MWh of electricity through the operation of the lift stations which, as mentioned in Section 2.4, is an 8.36 MWh decrease from the existing lift stations electricity usage. As mentioned above, the operation of the SSFMs and the improvements at the Northwest Wastewater Treatment Plant would result in negligible electricity usage. Operation of the project would require the use of diesel and gasoline through employee maintenance trips. However, these trips would not be constant or over long distances. Therefore, the operational trips would not require a substantial amount of diesel or gasoline consumption and would be nominal compared to level of gas consumption in Solano County.

PG&E provides electricity to the project area. The project site is expected to continue to be served by the existing PG&E electrical facilities. Total electricity demand in PG&E's service area is forecast to increase by approximately 12,000 GWh—or 12 billion kWh—between 2016 and 2028. The proposed project's anticipated electricity demand (approximately 1,280 MWh) would be nominal compared to overall

demand in PG&E's service area and would decrease the existing lift stations electricity usage by 8.36 MWh. Therefore, the projected electrical demand would not significantly impact PG&E's level of service.

None of the project energy uses exceed one percent of Solano County use and project operations would not substantially affect existing energy or fuel supplies or resources. The proposed project would comply with applicable energy standards and new capacity would not be required. Impacts would be less than significant in this regard

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impact. Project design and operation would comply with State Energy Efficiency Standards and any efficiency regulations. As discussed above, project development would not cause inefficient, wasteful and unnecessary energy consumption, and impacts would be less than significant. The County of Solano adopted a Climate Action Plan (CAP) in 2011 in order to help reduce energy consumption and GHG emissions to become a more sustainable community and to meet the goals of AB 32. The CAP outlines various measures and strategizes numerous methods on how the County's long-term vision can be achieved. The proposed project would be required to comply with existing regulations, including applicable measures from the CAP, or would be directly affected by the outcomes (vehicle trips and energy consumption would be less carbon intensive due to statewide compliance with future low carbon fuel standard amendments and increasingly stringent Renewable Portfolio Standards). Therefore, the proposed project would comply with existing State energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant in this regard.

Cumulative Impacts

As discussed above, the proposed project would not cause a new energy impact to occur. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor an increase in the severity of a cumulative impact previously disclosed.

4.7 Geology and Soils

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			**X**	
ii) Strong seismic ground shaking?			**X**	
iii) Seismic-related ground failure, including liquefaction?			**X**	
iv) Landslides?				**X**
b) Result in substantial soil erosion or the loss of topsoil?			**X**	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			**X**	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			**X**	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?			**X**	
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		**X**		

Environmental Setting

Regional Geology

The project area is located in the City of Rio vista in the western portion of the Great Valley Geomorphic Province, that is an elongated basin, approximately 430-miles-long, and 50- miles-wide. The Great Valley is bordered to the north by the Cascade and the Klamath Ranges, to the west by the Coast Ranges, to the east by the Sierra Nevada Mountain Range, and to the south by the transverse ranges. The valley formed by tilting of Sierran Block with the western side dropping to form the valley and the eastern side being uplifted to the form the Sierra Nevada Mountain Range. The valley is characterized by a thick sequence of sediments derived from erosion of the adjacent Sierra Nevada Mountain Range to the east and the Coast Range to the west.

Seismicity

The project area is not located within an Alquist-Priolo zone. The California Department of Conservation Zones of Required Investigation mapping does not identify the project site within an Alquist Priolo or fault hazard zone. In addition, the City of Rio Vista General Plan does not identify the City within any special study area (City of Rio Vista, 2002). There are, however, two faults in proximity to the City including the Rio Vista Fault which trends from northwest to southeast and crosses the Sacramento River and is adjacent to Beach Drive in the southerly portions of the City. In addition, there is the Midland Fault approximately 1.25 miles northeast of the Airport Road that runs generally north to south and is located east of the easterly City boundary (CDOC, 2022). The faults are quaternary faults which means they have been recognized at the surface and they have moved in the past 1,600,000 years (1.6 million years). An active fault, for the purposes of the Alquist-Priolo Act, is one that has ruptured in the last 11,000 years (USGS, 2022).

Regionally, northern California is characterized by numerous earthquake faults. The majority of major faults are located west of the project site in and around the Bay area approximately 40-50 miles to the west including the Hayward Fault and San Andreas Fault located approximately 38 miles and 55 miles to

the west, respectively. Movement on these and other faults could result in seismic ground shaking within the City.

Topography

The potential for slope instability within the City is minor due to the relatively flat topography of the area. The topography of the project area is generally level but ranges from 13 to 29 feet amsl.

Project Site Soils

According to the USDA Web Soil Survey, the project area is underlain by seven soil types. These soils are identified here, in order of most predominant to least predominant.

- Tujunga fine sand 0 – 2 percent slopes found in floodplains, with a profile of 0-12 inches fine sand, 12 – 60 inches sand, they are excessively drained and have a negligible runoff class and are not hydric
- Diablo Ayar clays, 2 to 9 percent slopes found in terraces, with a profile 0-30 inches clay, 30-40 inches silty clay, and 40-59 inches bedrock. These soils are well drained and not hydric.
- Antioch-San Yisidro Complex 0 to 2 percent slopes, found in terraces with profile of 0-19 inces loam, 19-60 inches clay, and 60-72 inches loam. These soils are moderately well drained, very high runoff class and are not hydric.
- Diablo-Ayars Clay 9 to 30 percent slopes eroded, found in terraces with profile of 0 to 25 inches clay, 25-40 inches silty clay, and 40 to 59 inches bedrock. These soils are well drained with a high runoff class and are not hydric.
- Valdez silt loam, drained, 0 to 2 percent, MLRA 16 found in floodplains, with profile 0-14 inches silt loam, 14-21 inches very fine sandy loam, 21-49 inches silt loam, 49-79 inches silt loam, the soils are poorly drained and considered hydric.
- Clear Lake Clay, 0 to 2 percent slopes, MLRA 17 – found in basin floors with profile of 0-13 inches clay, 13-60 inches clay. These soils are poorly drained, have a high runoff class and are considered hydric (Note these soils only are show at the intersection of Beach Drive and South 2nd Street and consists of urbanized development).

Paleontological Resources

Significant nonrenewable vertebrate and invertebrate fossils and unique geologic units have been documented throughout California. The fossil yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource. Pleistocene or older (older than 11,000 years) continental sedimentary deposits are considered as having a high paleontological potential while Holocene-age deposits (less than 10,000 years old) are generally considered to have a low paleontological potential because they are geologically immature and are unlikely to have fossilized the remains of organisms. Because the project site is within the Sacramento River basin and is overlain by generally young sediment, it is unlikely that grading and excavation would inadvertently unearth unknown paleontological resources.

Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. Or,

ii) Strong seismic ground shaking?

Less than Significant Impact. According to publicly available information, no faults are known to lie within the project site (City of Rio Vista, 2002 and CDOC, 2022, USGS, 2022). The City of Rio Vista General Plan (RVGP) notes that the Alquist Priolo Special Studies Zone Act focuses on surface fault rupture and not the potential of a particular location to experience seismically induced ground shaking. The City is not included within any special study area (City of Rio Vista, 2002). The CDOC provides mapping of Alquist Priolo zones and fault hazard zones and neither the City nor project site are shown in such an area (CDOC, 2022). There are two quandary faults located in the general area including the Midland Fault Zone, located approximately 1.5 miles northeast the project site, and the Rio Vista Fault, which crosses the Sacramento River and is adjacent to Beach Drive South of the City (USGS, 2021). As both faults are not considered active, not mapped in an Alquist Priolo zone, the likelihood of a surface fault rupture occurring on this site is considered low and less than significant.

The majority of major faults are located west of the project site in and around the Bay area. Movement on these and other faults can result in seismic ground shaking. Given the project's proximity to these faults, the project could be subject to ground shaking should fault movement occur. Seismic ground shaking also may occur from activity on these larger regional faults, notably, the Hayward Fault and San Andreas Fault located approximately 38 miles and 55 miles to the west, respectively.

The proposed project would be required to meet all existing earthquake safe design standards including the current California Building Code (CBC), Chapter 16, Section 1613, Earthquake Loads. Additionally, impacts from seismic ground shaking to the potential Northwest WWTP structures and persons inside would be reduced through compliance with Section 15.04.030 California Codes Adopted to the RVMC. This section of the RVMC requires the project to conform to requirements related to structural design, potential loading from earthquakes, soils and structural designs, and other measures and prescriptions to reduce the effects of strong seismic ground shaking. The proposed project would be required to comply with the International Building Code (IBC) and California Building Code (CBC), City regulations, and other applicable seismic construction standards. The proposed project would also be required to comply with applicable policies in the RVGP related to seismicity, flooding, grading, and drainage to address safety and reduce potential geologic impacts. The RVGP notes that safety related to seismicity, flooding, grading, and drainage are of concern and that all development proposals would be referred to the Building Department, Public Works Department, and City Engineer to address potential geologic impacts.

Compliance with these standard building and plan check criteria, and other applicable sections of the IBC and CBC, would ensure all needed structural designs and other measures would be incorporated to the

proposed project prior to the issuance a building permit. Conformance with all applicable building standards as listed and conformance to the design and review process would ensure impacts associated with ground shaking would be less than significant. No mitigation would be required.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Liquefaction describes the phenomenon where soil loses its supportive strength and becomes incapable of bearing the load of overlaying soils or structures. Liquefaction can occur during an earthquake in saturated where relatively loose, sandy soils located near the ground surface lose their ability to support the overlying structures. The RVGP notes that the potential for liquefaction in the City is not high but depending on subsurface conditions it could occur. Accordingly, if unconsolidated sediments and a high-water table exist, there is the potential for liquefaction at the project site during a strong earthquake or other seismic ground shaking. According to the CDOC Earthquake zones of required investigation maps, the project site and City have not been evaluated for liquefaction potential (CDOC, 2022b).

As discussed in ii) above, the proposed project would be referred to the Building Department, Public Works Department, and City Engineer to ensure project plans meet standards related to seismic hazards. This review also would include an evaluation of liquefaction potential and would ensure appropriate engineering design measures such as soil mixing and recompaction are incorporated to the proposed grading plans. During this process, including plan review, the proposed project would be evaluated to ensure compliance with the CBC in conformance with Section 15.04.030 of the RVMC. Following these procedures and meeting all applicable buildings standards as verified during the design and review process would ensure that all proposed improvements would be constructed in conformance with all applicable design codes. This would reduce potential impacts associated with liquefaction to less than significant and mitigation would not be required.

iv) Landslides?

No Impact. The project area is relatively flat and level and the site elevations range from 13 to 29 feet amsl. The project site is not located adjacent to any area with steep terrain, hillsides, or other area with slopes that would be subject to landslides (CDOC, 2022c). In addition, the project site does not contain any rock outcroppings and there is no potential for the project site to be affected by rockfall from off-site areas. As such, the project site would not expose people or structures to the effects of landslides from either on-site or from off-site locations, impacts would be less than significant and mitigation is not required.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. As discussed above in iv), the topography of the project area is generally flat and has an elevation of change of approximately 16 feet. According to the United States Department of Agriculture (USDA) Websoil Survey mapper, the proposed project, as listed out above, is located on Tujunga fine sand, Diablo Ayar clays, Antioch-San Yisidro Complex, Diablo-Ayars Clay, Valdez silt loam, and Clear Lake Clay.

Minimal grading and removal of underlying materials to reach grade and enable installation of the new sewer lines and equipment would be needed. Grading would also be needed in the construction of the

improvements at the Northwest WWTP for the new holding/detention pond, new piping, pump, and recycled water tank. The grading would result in bare soils and temporary loosening of the soil prior to recompaction, repaving, and revegetation, or installation of improvements. The potential or erosion from the project improvements would be limited due to these factors.

The proposed project would comply with Section 13.20.100 Reduction of Pollutants in Stormwater of the RVMC. This section requires that any person engaged in activities which may result in pollutants entering the storm water conveyance system shall, to the maximum extent practicable, undertake the measures in the code to reduce the risk of non-storm water discharge and/or pollutant discharge. In addition, Section 13.20.100 of the RVMC specifically states that any person or business holding an NPDES general, or individual storm water permit is not exempt from compliance to the local storm water regulations. The proposed project would be required to comply with all such applicable codes as well as the listed standard permitting requirements of the State Water Resources Control Board's (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit. Conformance to these measures would reduce the potential for soil erosion and loss of topsoil during construction. Under the NPDES, a Stormwater Pollution Prevention Plan (SWPPP) would be implemented. The SWPPP would identify potential sources of erosion and/or sedimentation as well as identify and implement Best Management Practices (BMPs) that reduce erosion. Typical BMPs would include sandbags, silt fences, covering stockpiles, retention basins, silt fencing, street sweeping, etc. These measures would reduce the potential for eroded materials to affect downstream receiving waters.

The RVMC requires long-term post construction discharges to prevent pollutants from entering the stormwater conveyance system and to ensure compliance with all applicable, federal, State, and local laws, ordinances, and regulations. Long term controls specifically include source control measures including low impact design (LID) (i.e. bioswales) and hydromodification management, provide for pre-treatment to remove pollutants from stormwater, and prevent polluted stormwater from exiting the site. Conformance to all listed requirements, as applicable, would prevent substantial soil erosion and ensure impacts are less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. The project site is flat with an elevation change of approximately 13 to 29 feet. The project site is not located adjacent to any hillsides or other areas with significant slopes and it is not subject to landslides from on-site areas or adjacent areas with steep slopes.

Lateral spreading typically results when ground shaking moves soil toward an area where soil integrity is weak or unsupported. Lateral spreading typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Lateral spreading is directly associated with areas of liquefaction, which is discussed in iii), above. While the RVGP notes that liquefaction potential in the City is not high, based on other studies in the vicinity, depth to groundwater can be approximated to 24 feet below ground level. Based on this water level and other sedimentary layers potentially occur under the project site, the liquefaction potential is considered to be moderate. Through conformance to all city and State building standards as verified by the City, impacts in this regard would be less than significant.

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur (and is greatly accelerated) as a result of human activities. Common causes of land subsidence from human activity include pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils. The project would not pump any water, oil, and/or gas from underground reservoirs. In addition, the project site and surrounding areas have not been used for underground mines and there are no mines in the vicinity. These features minimize the likelihood of land subsidence and impacts in this regard would be less than significant.

Collapse can occur if near-surface soils vary in composition both vertically and laterally. Strong ground shaking from earthquakes can cause non-uniform compaction of the soil strata, resulting in movement of the near-surface soils and collapse. The proposed project would be required to conform with the requirements set forth in the City of the RVMC as detailed in the above sections and all pertinent portions of the CBC. This would include approval of grading plans, which would consider existing soils, existing grades, depth to groundwater, and the potential for the site to experience instability. In addition, adherence to all applicable regulations and conformance to applicable building codes added to the proposed project would ensure impacts would be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than Significant Impact. Expansive soils generally are associated with silt and clay soils that are subject to shrinking and swelling due to the large pour volume that are subject to large changes in moisture content during dry and wet periods. The shrinking and swelling of soils can cause damage or failure of foundations, utilities, and pavements. As listed above the project area contains both expansive and not expansive soils, and overall would have a low to moderate potential for expansive soils to occur where the project improvements would take place. Additionally, the project would only require minimal grading and would entirely take place on previously disturbed land. The grading plan would be evaluated by the City Engineer as part of the design and review process prior to project construction to ensure project plans meet standards related to seismic hazards. This would ensure expansive soils are not present, or if they are, proper soil mixing, and compaction would be undertaken to reduce potential effects and impacts in this regard would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Less than Significant Impact. The project improvements would occur within existing roadways, areas with existing wastewater infrastructure, and other areas that have been previously disturbed. Installation of the new force mains and lift stations would require removals of the existing hardscape, minimal grading and removal of underlying materials to reach grade and enable installation of the new sewer lines and equipment. The proposed project involves consolidating wastewater treatment at the existing Northwest WWTP and does not require, nor does it propose use of a septic tanks or alternative wastewater disposal system. Therefore, no impacts would occur in this regard.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation. Paleontological resources are typically found in geologic strata that was deposited during the Pleistocene Epoch which includes the time between 2.6 million years ago until approximately 11,700 years ago. The Holocene Epoch began about 11,700 years ago and consists of younger sedimentary deposits and fossils that are considered less likely to be found. Because the project area is within the Sacramento River basin and is overlain by generally young sediment, it is unlikely that grading and excavation would inadvertently unearth unknown paleontological resources.

Nonetheless, there is a possibility that future ground-disturbing activities could uncover and cause damage to, or the destruction of, previously undiscovered paleontological resources or unique geologic features. Implementation of MM GEO-1 would reduce potential impacts to a less-than significant level. MM-GEO-1 would require notification of a qualified paleontologist if during initial site disturbance and excavation activities paleontological resources are uncovered. As part of the mitigation, a resource recovery plan would be implemented, and this would reduce impacts to less-than-significant.

MM GEO-1: If any paleontological resources are encountered during ground-disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist is able to evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the local or regional Natural History Museum or other appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and fossil recovery may be required to mitigate adverse impacts from project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance will not be required. If the resources are significant, they shall be avoided or recovered such that potential damaging effects are mitigated. Construction in that area shall not resume until approval of the qualified paleontologist and City are given. If the fossil is recovered the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

Cumulative Impacts

Geology and soil-related impacts are generally site-specific and are determined by a particular on-sites soil characteristics, proximity to faults, topography, and proposed land uses. Development projects are analyzed on an individual basis and must comply with established requirements of the applicable jurisdiction's development standards and the CBC as they pertain to protection against known geologic hazards and potential geologic and soil-related impacts.

Cumulative effects related to geology resulting from the implementation of future development of the proposed project as well as surrounding areas could expose more persons and property to potential

impacts due to seismic activity. Long-term impacts related to geology include the exposure of people to the potential for seismically induced ground shaking. Implementation of other cumulative projects would incrementally increase the number of people and structures subject to a seismic event. Seismic and geologic significance is considered on a project-by-project basis through the preparation of design-level geotechnical studies. The potential for any project to be affected by or any project to exacerbate and existing geotechnical hazard would be minimized or not occur through strict engineering guidelines as they pertain to protection against known geologic hazards and potential geologic and soil-related impacts.

Development the proposed project as well as all past, present, and future projects would be required to be constructed in accordance with the latest edition of the CBC and to adhere to all current earthquake construction standards, including those relating to soil characteristics set forth by the City. Therefore, no elements of the proposed would contribute to any cumulatively considerable geologic and/or soils impacts. Therefore, cumulative effects of increased seismic risk would be less than significant.

4.8 Greenhouse Gas Emissions

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

Environmental Setting

This section is based on the Air Quality and Greenhouse Gas Emissions Analysis (Kimley-Horn, 2023) which is provided as Appendix A to this Initial Study.

Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns and precipitation. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), as well as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These "greenhouse" gases (GHGs) allow solar radiation (sunlight) into the Earth's atmosphere but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by both natural processes and human activities. Concentrations of GHG have increased in the atmosphere since the industrial revolution. Human activities that generate GHG emissions include combustion of fossil fuels (CO_2 and N_2O); natural gas generated from landfills, fermentation of manure and cattle farming (CH_4); and industrial processes such as nylon and nitric acid production (N_2O).

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the "cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas." The reference gas for GWP is CO_2; therefore, CO_2 has a GWP factor of 1. The other main GHGs that have been attributed to human activity include CH_4, which has a GWP factor of 28, and N_2O, which has a GWP factor of 265. When accounting for GHGs, all types of GHG emissions are expressed in terms of CO_2 equivalents (CO_2e) and are typically quantified in metric tons (MT) or million metric tons (MMT).

The Greenhouse Gas (GHG) Emissions section is primarily based on information, guidance, and analysis protocol provided by the Yolo-Solano Air Quality Management District (YSAQMD). In addition, the section

utilizes information obtained from the County of Solano Climate Action Plan[7], and the California Emissions Estimator Model (CalEEMod) version 2020.4.0.

The proposed project's GHG emissions would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. Long-term regional emissions would occur from routine maintenance and vehicular trips and indirect source emissions, such as electricity usage for pumps.

Addressing GHG generation impacts requires an agency to make a determination as to what constitutes a significant impact. The CEQA Guidelines specifically allow lead agencies to determine thresholds of significance that illustrate the extent of an impact and are a basis from which to apply mitigation measures. This means that each agency is left to determine if a project's GHG emissions would have a significant impact on the environment. The guidelines direct that agencies are to use "careful judgment" and "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" the development's GHG emissions (14 CCR Section 15064.4[a]). Determining a threshold of significance for climate change impacts poses a special difficulty for lead agencies. Much of the science in this area is new and is evolving constantly. At the same time, neither the State nor local agencies are specialized in this area, and there are currently no local, regional, or state thresholds for determining whether a residential development has a significant impact on climate change. The CEQA Amendments do not prescribe specific significance thresholds but instead leave considerable discretion to lead agencies to develop appropriate thresholds to apply to projects within their jurisdiction.

Assembly Bill (AB) 32 is a legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020. In adopting AB 32, the legislature determined the necessary GHG reductions for the State to sufficiently offset its contribution to cumulative climate change to reach 1990 levels. AB 32 is the only legally mandated requirement for the reduction of GHGs. As such, compliance with AB 32 is the adopted basis on which the agency can base its significance threshold for evaluating GHG impacts.

Senate Bill 32 (SB 32), signed into law in September 2016, codifies a GHG reduction target of 40 percent below 1990 levels by 2030 and authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030 and to adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions. With SB 32, the California Legislature passed companion legislation AB 197, which provided additional direction for developing an updated Scoping Plan. CARB released the second update to the Scoping Plan to reflect the 2030 target set by SB 32 in November 2017.

Additionally, signed into Law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

Various local, regional, State and federal agencies share the responsibility for air quality management in Yolo County. The YSAQMD operates at the local level and is tasked with enforcing the implementation of federal and State programs and regulations. The YSAQMD works jointly with the USEPA, CARB, SACOG, other air districts in the region, county and city transportation and planning departments, and various non-governmental organizations to work towards improving global climate change through a variety of programs. Programs include the adoption of regulations, policies and guidance, extensive education and public outreach programs, as well as emission reducing incentive programs.

[7] County of Solano. *Solano County Climate Action Plan.* February 2010.

Nearly all development projects in the region have the potential to generate air pollutants that may increase global climate change. Therefore, for most projects, evaluation of air quality impacts is required to comply with CEQA. The YSAQMD has not adopted thresholds of significance for GHG emissions. In absence of thresholds of significance, the YSAQMD is currently recommending GHG analysis consistent with Sacramento Metropolitan Air Quality Management District (SMAQMD) approach.

Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact.

Short-Term Construction Greenhouse Gas Emissions

Construction of the proposed project would result in direct emissions of CO_2, N_2O, and CH_4 from the operation of construction equipment and the transport of materials and construction workers to and from the project site.

The electricity provider for the City of Rio Vista, Pacific Gas and Electric Company (PG&E), is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020, which would have the effect of reducing GHG emissions generated during energy production. As of 2021 (latest available), Pacific Gas and Electric's (PG&E) power mix was at 50 percent renewable energy[8] and shall be required to achieve the 60 percent renewable energy goal by 2030 established by SB 100.

The proposed project would result in direct GHG emissions from construction related activities. Total GHG emissions generated during construction are presented in *Table 4-6: Construction Greenhouse Gas Emissions.* The CalEEMod outputs are contained within the Appendix A.

Table 4-6: Construction Greenhouse Gas Emissions

Construction Year and Season	CO_2e Emissions, metric tons/year
Total (2023, 2024)	333.30
Emissions amortized over 30 years	11.11
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.	

As shown in *Table 4-6***,** project construction-related activities would generate approximately 333.3 $MTCO_2e$ of GHG emissions over the course of construction. One-time, short-term construction GHG emissions are typically summed and amortized over the project's lifetime (assumed to be 30 years).[9] It is reasonable to look at a 30-year time frame for buildings since this is a typical interval before a new building

[8] PG&E, 2022, *Exploring Clean Energy Solutions*. https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc_id=Vanity_cleanenergy.

[9] The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13,* August 26, 2009).

requires the first major renovation.[10] The amortized project emissions would be approximately 11 $MTCO_2e$ per year. Once construction is complete, the generation of construction related GHG emissions would cease.

YSAQMD does not have a threshold for construction GHG emissions, which are one-time, short-term emissions and therefore would not significantly contribute to long-term cumulative GHG emissions impacts of the proposed project. In absence of thresholds of significance, the YSAQMD is currently recommending GHG analysis consistent with SMAQMD approach. Emissions from construction are below the SMAQMD construction phase threshold of 1,100 $MTCO_2e$/year. Therefore, project construction GHG impacts are less than significant.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions occur over the life of a project. The majority of GHG emissions associated with the operation of the would be the lift stations which produce GHG emissions due to their use of off-site electricity generation. Minor operational GHG emissions would also result from other sources, such as the energy required to convey water to, and wastewater from the project. Operation of the project would not generate any mobile trips, produce waste, or require water usage to operate. Total GHG emissions associated with the proposed project are summarized in *Table 4-7: Project Greenhouse Gas Emissions*. As shown in *Table 4-7*, the project would generate approximately 130.76 $MTCO_2e$ annually from both construction and operations.

Table 4-7: Project Greenhouse Gas Emissions

Emissions Source	$MTCO_2e$[1] per Year
Construction (amortized over 30 years)	11.11
Area	0.001
Energy	119.65
Mobile	0.00
Stationary	0.00
Waste	0.00
Water	0.00
Total Annual Project GHG Emissions[2]	**130.76**
Threshold[3]	1,100
Exceed Threshold?	***No***

Note:
[1]. Emissions were calculated using CalEEMod version 2020.4.0.
[2]Total values are from CalEEMod and may not add up due to rounding.
[3] YSAQMD does not have a GHG operational threshold, therefore SMAQMD threshold of 1,100 $MTCO_2e$ was utilized.
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.

[10] International Energy Agency, *Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings*, March 2008.

Table 4-7 shows that the proposed project would result in approximately 130.76 $MTCO_2e$ per year from amortized construction, area, energy, mobile, waste, and water usage. YSAQMD does not have a GHG threshold, therefore the neighboring SMAQMD threshold of 1,100 $MTCO_2e$ was utilized. The proposed project would not exceed the numeric threshold of 1,100 $MTCO_2e$. Thus, the proposed project would have a less than significant impact with respect to GHG emissions. In addition, with continued implementation of various statewide measures, the proposed project's operational energy source emissions (approximately 92 percent of total project emissions) would continue to decline in the future. GHG operational emissions would be less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. In 2011, the County of Solano adopted its Climate Action Plan (CAP). The CAP provides additional guidance for the County's ongoing efforts to reduce GHG emissions. The CAP contains policies/goals related to agriculture, energy, transportation/land use, waste, and water.

Goals in the section on energy focus on increasing energy efficiency and increasing the usage of renewable sources. Actions include implementing green building ordinances and programs, community outreach, renewable energy policies, and partnerships with local energy producers.

The CAP identifies the County's emissions at 960,000 $MTCO_2e$ per year. The CAP establishes a communitywide emissions reduction goal of 20 percent below 2005 levels by 2020. This goal is more aggressive than the State's reduction goal. The CAP identifies numerous GHG reduction measures in the agriculture, transportation and land use, energy use, water use, and solid waste sectors.

The proposed project would help implement the goals set forth in the CAP improving energy efficiency of the County's infrastructure operations. As mentioned previously, the project would not generate substantial GHG emissions and would remain consistent with the GHG emissions reduction goals and strategies established by the CAP. Furthermore, the project would not interfere with the State's goals of 40 percent GHG emissions reduction below 1990 levels by 2030 as noted in SB 32, an 80 percent reduction in below 1990 levels by 2050 as stated in EO S-3-05, and the implementation of the goals and policies listed in SACOG's MTP/SCS. Therefore, the proposed project would be consistent with all applicable plans and policies and would have a less than significant impact.

Cumulative Impacts

As discussed above, the proposed project would not cause a new greenhouse gas impact to occur. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor an increase in the severity of a cumulative impact previously disclosed.

4.9 Hazards and Hazardous Materials

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			**X**	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			**X**	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			**X**	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			**X**	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?			**X**	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

Environmental Setting

This section is based on the Phase I Environmental Site Assessment (ESA) (Kimley-Horn, 2023) which is provided as Appendix D to this Initial Study.

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code, Section 25501 as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment."

A hazardous material is defined in Title 22, Section 662601.10, of the California Code of Regulations (CCR) as follows:

> "A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, 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. The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies (CCR 2019)."

The project alignment and lift station improvements would occur largely within existing roadways surrounded by urbanized development characterized by residential, commercial, industrial, recreations,

and existing utility infrastructure. A small segment of new SSFM, approximately 1,400 feet, would be installed within an undeveloped area within the CPN Pipeline company property and in an upland area between the West Wind Mobile Home Park and a lined drainage channel.

Based on the historical use of the project and surrounding areas, it is possible that environmentally persistent pesticides and/or nutrients, or other materials have been used and may be present in soil or groundwater. However, there are no indications of these types of activities or evidence of on-site agricultural chemical mixing, large quantity storage or materials processing located on the site or surrounding areas.

The results of the Phase I ESA identified one recognized environmental condition along the proposed project alignment. The Gordon Hanson Co. located at 135 N. Front Street is the subject of an open site assessment case with the State Water Resource Control Board (SWRCB). According to the readily available documents, significant petroleum hydrocarbon contaminated soil was found to be present during removal of USTS in 2002, and the documentation suggests contamination resulting from the LUSTs have impacted soils within Front Street, which is a portion of the proposed alignment. Therefore, the Gordon Hanson Co. is a REC associated with the proposed alignment.

Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. Hazardous materials are listed by federal, State, or local agencies, based on the materials characteristics and its potential to cause harm or damage. A hazardous material is defined by the California Code of Regulation (CCR) 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 (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10). Hazardous materials are commonly used in commercial and industrial applications and, to a limited extent, in residential areas.

Both the US Environmental Protection Agency (EPA) and the US Department of Transportation (DOT) regulate the transport of hazardous waste and material, including transport via roadways and highways. The EPA administers permitting, tracking, reporting, and operational requirements established by the Resource Conservation and Recovery Act (RCRA). The DOT regulates the transportation of hazardous materials through implementation of the Hazardous Materials Transportation Act (HMTA). The HMTA administers container design and labeling, and driver training requirements. These established regulations are intended to track and manage the safe interstate transportation of hazardous materials and waste. Additionally, state and local agencies, enforce the application of these acts and provide coordination of safety and mitigation responses in the case that accidents involving hazardous materials occur.

The proposed project would enable the transfer of wastewater treatment services to the Northwest WWTP and cease all operations at the Beach WWTP. The proposed project would support clean water initiatives, minimize unpermitted discharges to the Sacramento River and RWQCB water quality standard violations of at the Beach WWTP, and enable wastewater treatment to current standards. Project

implementation would improve wastewater treatment facilities within the City and reduce the potential for hazards associated with release of hazardous materials by ceasing operations at the Beach WWTP which has a history of violations.

Construction of the Project would involve the use of a limited amount of hazardous materials during construction; primarily in the form of oil and diesel fuel to power vehicles and equipment necessary for construction. . With appropriate handling and disposal practices, there is relatively little potential for an accidental release of hazardous materials during construction, and the likelihood is small that workers and the public would be exposed to health hazards. Storage and handling of materials during construction would employ BMPs and would be subject to the project's SWPPP provisions. All materials would be stored in safe containers designed specifically for the purpose and would be used in a responsible manner.

Pipeline and pump station operations would not require storage and regular use of hazardous materials. The Northwest WWTF, however, would require use of potentially hazardous materials during the treatment process. Small amounts of fuels and other similar materials could also be used and stored on-site. Access to chemicals would be controlled to ensure safety. All transport, use, and storage of materials needed for project operations also would comply with all applicable State and federal regulations. This would include cleaning spills immediately, control and containment, storage in accordance with manufacturers recommendation, and proper disposal of unused materials at approved facilities (if needed). Compliance with applicable hazardous material regulations, building codes and rapid reporting and response by local agencies, if a spill were to occur, would ensure no significant hazard to the public or the environment are created through the routine transport use, or disposal of hazardous materials. Accordingly, reasonably foreseeable upset and accident conditions would not be expected to result in a significant hazard to the public or the environment. Thus, impacts would be a less than significant impact.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. As discussed in a) above, construction of the proposed project would include the use of fuels for equipment operation and could require minor maintenance of construction equipment on-site. This could lead to minor fuel, oil, and lubricant spills. The use and handling of hazardous materials during construction would occur in accordance with applicable federal, State, and local laws, including California Occupational Health and Safety Administration (Cal/OSHA) requirements. All construction activities would be subject to the National Pollution Discharge Elimination System (NPDES) permit process that would require the preparation of a SWPPP and would require approval by the Regional Water Quality Control Board (RWQCB). Conformance to applicable requirements would reduce impacts to less than significant in this regard.

The operation and maintenance of the proposed project would involve the transport, use, and disposal of minor amounts of potentially hazardous materials. As discussed in a) above, the project would not include the use of any acutely hazardous materials, and all other materials such as cleaners, solvents, fuels, fertilizers, pesticides, and herbicides used on site would be subject to the enforcement of hazardous material regulations, and conformance to building codes and applicable agency requirements. This would

reduce the projects potential to result in hazardous materials incidents from transportation, use, and disposal. Thus, health hazards in this regard would be less than significant impact.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact. Project improvements would occur within existing roadways and within the Northwest WWTP facility. Riverview Middle School at 525 2nd Street is located along the proposed pipeline alignment and Rio Vista High School located at 410 South 4th Street is approximately 0.14-mile west of the proposed alignment at the intersection of 2nd Steet and Gertrude Avenue. Construction of the proposed project would not include the use of any acutely hazardous materials and would be use common construction methodologies that would not result in or present a significant hazard to any nearby uses. Upon completion of construction, roadways would be returned to their existing condition and pipelines would not require use of any acutely hazardous materials and the project would not pose a significant health risk to this nearby school or any other use. Thus, impacts would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant with Mitigation Incorporated. Appendix D Table 5.3-1 lists the facility listings identified on federal and state/tribal databases within the ASTM-required search distances from the proposed project alignment. The proposed pipelines are predominantly proposed to be located within public roadways, although a small portion of the alignment would run through private property (CPN Pipeline Company). Based on the results of the Phase I ESA, proposed pipeline alignment would occur proximate to five cleanup cases, identified in *Table 4-8: Summary of Listed Facilitie*s.

Table 4-8: Summary of Listed Facilities

Facility Name and Location	Estimated Distance / Direction/Gradient	Is a REC, CREC, or HREC?
City of Rio Vista 933 Airport Road Rio Vista, CA 94571	33 ft/adjacent to the south of the Site in Zone 2	No
Rio Vista Army Reserve Training Area 900 Beach Drive Rio Vista, CA 94571	29 ft./adjacent to the east of the Site in Zone 3	No
The Gordon Hanson Co. 135 N. Front Street Rio Vista, CA 94571	81 ft./adjacent to the southeast of the Site in Zone 3	Yes
Chevron – Rio Vista 33 N. Front Street Rio Vista, CA 94571	82 ft./adjacent to the southeast of the Site in Zone 3	No
Northwest WWTF 3000 Airport Road Rio Vista, CA 94571	22 ft./adjacent to the northeast of the Site in Zone 1	No

The City of Rio Vista facility at 933 Airport Road is listed on the Geotracker as an open site assessment case as of March 1, 2019. According to a letter from the Central Valley Regional Water Quality Control Board (RWQCB) dated June 20, 2019, this site was part of the former Rio Vista Airport in the 1980's. An aerial pesticide applicator operated on this property until about 1994. There is no evidence to suggest impacts from the pesticides encroach within the subject property, therefore impacts associated with construction of the proposed project in the vicinity of this facility would be less than significant.

Rio Vista Army Reserve Training Area located at 900 Beach Drive is listed on the Geotracker and Envirostor websites as a case closed site and certified as of June 30, 2003. There are several cases associated with this facility and all are closed and certified with the State. Given that the facility has been remediated and certified by the State, therefore impacts associated with construction of the proposed project in the vicinity of this facility would be less than significant.

The Gordon Hanson Co. located at 135 N. Front Street is listed on the Geotracker website as an open site assessment case as of May 15, 2017. Three USTs, dispensers and infrastructure associated with a former gas station were discovered in 2000 on the site. Significant petroleum hydrocarbon contaminated soil was found to be present during the USTs removal in 2002. Site investigation and sampling has been on-going as recently as October 2022. As noted above, the Report of Soil and Soil Gas Sampling Investigation – Gordon Hanson Site indicates contamination resulting from the LUSTs have impacted soils within Front Street, which is a portion of the subject property. Accordingly, this facility would be a REC for the proposed project. Therefore, the proposed project would implement Mitigation Measure HAZ-1 for construction activities within the N. Front Street segment of the proposed alignment which would reduce potential impacts to less than significant.

Chevron – Rio Vista located at 33 N. Front Street is listed on the Geotracker website as an open verification monitoring case as of July 5, 2018. According to Geotracker, Standard Oil Company (now Chevron) operated a petroleum product distribution facility at the site from the early 1920's until 1974. Site investigation and sampling has been on-going as recently as January 2022. The Semi-Annual Status Report, Second Half 2022 dated October 31, 2022, and prepared by Arcadis (Appendix J) suggests the petroleum hydrocarbon plume associated with the former Chevron facility is concentrated in the western portion of the property, and does not encroach on the subject property. Therefore impacts associated with construction of the proposed project in the vicinity of this facility would be less than significant.

Northwest Wastewater Treatment Facility (WWTF) located at 3000 Airport Road is listed on the Geotracker website as an active case. According to a letter dated July 9, 2020, this facility is identified as a publicly owned treatment works that is a potential received of per-and polyfluoroalkyl substances (PFAS) and thereby a potential discharger to the environment. Order WQ-2020-0015-DWQ requires the City of Rio Vista to submit technical reports and analytical data electronically via Geotracker to investigate PFAS. There is limited information regarding PFAS data on this site; however, there are no violations listed in EDR or Geotracker for this facility. Therefore, impacts associated with construction of the proposed project would be less than significant.

MM HAZ-1: Qualified personnel will be onsite during preparation, grading, and related earthwork activities in the project alignment adjacent to 135 N. Front Street to assist with recognizing potential contamination when encountered during construction activities. If soils emitting signs of contamination, such as odors or discoloration, are encountered, workers will immediately stop work. The potentially contaminated soil will be assessed in the field by qualified personnel and samples will be taken for laboratory testing, if

appropriate. Written documentation will be obtained, identifying the location of the contaminated area, potential contaminants, and potential impacts. If deemed appropriate, applicable agencies will be contacted and consulted as necessary regarding the identified contaminated soils and required soil testing and assessment.

Based on the results of soil testing, if necessary, the excavated soil will be characterized for disposal and then transported to an approved disposal/ recycling facility. Contaminated soil will be covered during transport. If soil generated is characterized as hazardous waste, appropriate documentation of disposal will be maintained in accordance with CCR Title 22 and CFR Title 40.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than Significant Impact. The alignment of the proposed pipeline within Airport Road is located adjacent to the Rio Vista Municipal Airport. However, proposed improvements would occur within existing roadways and would not result in construction of habitable structures. Therefore, the proposed project does not have the potential to impede or interfere with any airport operations. Construction of the proposed project would result in exposure of workers to airport noise, however, impacts would be temporary and intermittent. Therefore, the proposed project would not result in a safety hazard or result in exposure of any workers or employees to excessive noise from airport operations. Impacts would be less than significant, and mitigation is not required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The City maintains a comprehensive Emergency Management Plan, which addresses interagency coordination, emergency functions, continuity of government responsibility, and public awareness. In addition, the plan provides for the operation of emergency services, defines transportation alternatives and City evacuation procedures approved by the State Office of Emergency Services (OES). As part of the project, a Traffic Control Plan would be developed. Specifically, police, fire, and other emergency service providers, as well as property owners and administrators of surrounding sensitive land uses, would be notified of the timing, location, and duration of the construction activities and the location of detours and lane closures.

The City and/or its construction contractors shall prepare and implement a traffic control plan for construction activities that may affect road rights-of-way, to facilitate travel of emergency vehicles on affected roadways. The traffic control plan shall follow applicable City standards and shall be approved and signed by a professional engineer. Measures typically used in traffic control plans include advertising of planned lane closures, warning signage, a flag person to direct traffic flows when needed, and methods to ensure continued access by emergency vehicles. During project construction, access to the existing surrounding land uses shall be maintained at all times, with detours used as necessary during road closures. The traffic control plan shall be submitted to the City of Rio Vista Public Works Department for review and approval before the approval of improvement plans

Traffic Control Plan implementation would ensure that potential emergency vehicle access impacts during construction would be minimized and would be less than significant. Further, while construction of the proposed project would occur over approximately 12-16 months, it is anticipated that approximately 100 to 150 feet of pipeline can be installed per day. Accordingly, construction within each roadway segments would only occur over a few days to weeks, after which roadways would be returned to existing conditions. Construction activities at the Northwest WWTP would occur within the existing property boundary and would not require closure of roadways, aside from pipeline installations noted above. During operations, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The project site is not located in an area identified as having a high potential for wildland fire. The proposed wastewater and recycled water line alignments occur primarily within existing roadways. The alignment and Northwest WWTP are surrounded by a mix of land uses, including vegetated undeveloped areas, residential developments, and industrial structures. The California Department of Forestry and Fire Protection (CalFire) Draft Fire Hazard Severity Zones in Local Responsibility Areas shows the portions of the proposed project are within an un-zoned local responsibility area (LRA). Due to the existing site conditions and relative urbanized nature of surrounding areas, the proposed project would not expose people or structures to a substantial risk from wildland fires. No impacts would occur and mitigation is not required (CalFire 2007).

Cumulative Impacts

The proposed project would not include the use of any acutely hazardous materials and all other potentially hazardous materials, such as cleaners, solvents, and fuels, would be stored and used by the project in accordance with all applicable safe handling requirements. All potentially hazardous materials are common use items and do not represent a substantial hazardous materials risk. All project related construction would be conducted in accordance with applicable standards and safe handling procedures. Other projects would occur in the vicinity of the project site as part of the reuse and redevelopment efforts regarding the former airport. These projects would also have to conform with applicable safe handling requirements for hazardous and potentially hazardous materials. These projects would occur within the interior of the redevelopment area and would be the same general distance from the new airport as the project site. These projects would also conform to applicable standards related to the new airport and the City's Emergency Management Plan and also would undergo the planning and review process prior to any approval by the City. Therefore, taken in conjunction with past, present, and reasonably foreseeable projects, the proposed project would not make a cumulatively considerable contribution to hazards and hazardous material impacts. Impacts would be less than significant.

4.10 Hydrology and Water Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		**X**		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			**X**	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:		**X**		
i. Result in substantial erosion or siltation on- or off-site?		**X**		
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			**X**	
iii. 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?			**X**	
iv. Impede or redirect flood flows?			**X**	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Environmental Setting

The project improvements would occur within the Solano Subbasin, which is in the southwestern portion of the Sacramento Basin and the northern portion of the Sacramento-San Joaquin Delta. The elevation of the basin varies from 120 feet to sea level at its outlet. The Solano subbasin boundaries are defined by; Putah Creek on the north, the Sacramento River on the East (from Sacramento to Walnut Grove), the North Mokelumne River on the southeast (from Walnut Grove to the San Joaquin River), and the San Joaquin River on the South (from the North Mokelumne River to the Sacramento River. Primary waterways in and bordering the basin include the Sacramento, Mokelumne and San Joaquin Rivers, the Sacramento River Deep Water Ship Channel, and Putah Creek (Waterboards, 2004). Annual precipitation in the basin ranges from approximately 23 inches in the western portion of the subbasin to 16 inches in the eastern portion of the basin (Waterboards, 2004).

Surface Water

The Sacramento River is located east of the project site and with the exception of the northeasterly portion of the Beach Drive Segment, westerly portion of the South 2nd Street segment, and Marina lift station improvements, which are as close as 50-60 feet from the river, the balance of the alignment is greater than 100 feet from the Sacramento River, with the majority being greater than 500 feet and the Northwest WWTP being 1.3 miles from the banks of the river. The Sacramento River Basin drains a large area between the Sierra Nevada and Cascade Range to the east and the Coast Range and Klamath Mountains to the west. Source waters start in northern California from the Upper Sacramento, McCloud, and Pit rivers, which join at Lake Shasta approximately 180 miles to the north. From Lake Shasta, the Sacramento River flows south and west where it receives additional flows from numerous small and moderate-sized tributaries including the American River. The mouth of the Sacramento River is at Suisun Bay near Antioch, approximately 8 miles to the southwest. At this point it combines with the San Joaquin River and ultimately flows to the San Francisco Bay and into the Pacific Ocean.

Waterflows from Rio Vista to the Sacramento River are via interior drainages and surfaces flows to existing stormwater drainage facilities. There are two main drainages within the City. These two drainages have been heavily modified from their original form, flow regimes, and vegetative composition due to

development and past agricultural uses. This includes the intermittent stream shown on USGS topographic maps known as "Industrial Creek" that flows through the main "valley" and bisects the Esperson and Riverwalk properties. The Watson stream basin flows through the Brann and Gibbs properties northwest of the project site and stormwater flows along the westerly side of the business park reuse area adjacent to the easterly side of St. Francis Way (City of Rio Vista, 2002).

Groundwater

The City uses groundwater from the Solano Sub-basin as its primary water source. There is no groundwater management plan adopted for the basin (City of Rio Vista, 2020). On January 1, 2015, the Sustainable Groundwater Management Act was adopted. This act requires that a Groundwater Sustainability Agency (GSA) must be formed and the GSA is to develop, implement and enforce a groundwater sustainability plan. The first Subbasin Annual Report was submitted on April 1, 2022 to the Department of Water Resources. The report describes the subbasin setting and groundwater conditions, as well as monitoring activities. View the Solano County and Subbasin Groundwater Sustainability Annual Report – Water Year 2021. In addition, the SGMA establishes a robust framework for the sustainable management of groundwater resources in California. SGMA requires Groundwater Sustainability Agencies (GSAs) to develop, implement, and enforce a Groundwater Sustainability Plan (GSP) for groundwater basins or subbasins that are medium or high priority.

Overall the Solano Subbasin is a medium priority subbasin, subject to SGMA. A group of GSAs in the Solano Subbasin formed the Solano Subbasin GSA Collaborative to develop a GSP and sustainably manage the Solano Subbasin. The GSP was submitted to the California Department of Water Resources on Jan. 31, 2022.

According to the SGMA, the nearest groundwater level hydrograph from a location approximately one mile to the west had groundwater depth of less than 10 feet. Other groundwater monitoring and related hydrographs in proximity to the Sacramento River, similar to the City, reflect consistent groundwater levels of approximately 10 feet below the ground surface (bgs) (SGMA, 2022).

Regulatory Setting

The responsibility of protecting the quality of surface and groundwater of this region is that of the Central Valley Regional Water Quality Control Board (CVRWQB). To support its objective, the CVRWQB maintains a Basin Plan which contains water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives. In part, this is achieved through the antidegradation policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. In part, this policy states, "Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State."

Urban runoff and other non-point source discharges are regulated by the 1972 federal Clean Water Act, and through the National Pollutant Discharge Elimination System (NPDES) permit program established by the US Environmental Protection Agency (EPA). Specifically related to construction stormwater, the Construction Stormwater General permit relates to projects that disturb more than one acre of soils. These projects are required to obtain coverage under the General Permit for Storm Water Discharges

Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, and ground disturbance activities, such as stockpiling, or excavation. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

Clean Water Act Section 404 Permit and the Section 401 permit are involved if a project would discharge dredged or fill material in navigable waters or wetlands. The 404 permit is issued through the United States Army Corps of Engineers (USACE) and would be reviewed by the CVRWQB to ensure that discharge would not violate water quality standards.

Other water quality issues managed by the CVRWQCB, include Waste Discharge permits to the land. These issues include wastewater discharged by on-site wastewater treatment systems such as septic systems and leach fields. Specific to cannabis, irrigation runoff, water treatment effluent, cleaning agents, and wash waters are of particular concern if the discharges of these wastewaters are discharged to an on-site wastewater system. Such systems must obtain separate regulatory authorization, such as waste discharge requirements (WDRs), a conditional waiver of WDRs, or other permit mechanism, prior to discharge.

The CVRWQCB regulates projects that could require dewatering, and if the water would be discharged to land. In such an instance, coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the CVRWQB Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085 would be required.

Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant with Mitigation Incorporated.

Construction Discharges

During project construction, excavation and grading activities would result in exposure of soil to runoff, potentially causing entrainment of sediment in the runoff. Soil stockpiles and excavation within roadway ROWs along the project alignment would be exposed to runoff and, if not managed properly, the runoff could cause increased sedimentation in sewers outside of the project alignment. The accumulation of sediment could result in blockage of flows, potentially resulting in increased localized ponding or flooding. The potential for these impacts to occur would be minimized through project compliance with the waste discharge requirements of the CVRWQCB's NPDES General Permit which, through the implementation of a SWPPP with BMPs such as stabilization of construction entrances and disturbed areas, use of straw wattles, use of sediment filters, stockpiling and disposing of demolition debris, concrete, and soil properly; and protecting existing storm drain inlets, that would minimize the potential for runoff to reach downstream receiving waters. The SWPPP for the project would be required to and would include site map(s) showing the construction perimeter, existing and proposed buildings, storm water collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and a visual monitoring program. This program and its implementation for erosion control would be verified by the City.

In addition, the City's Stormwater Management Ordinance contained in Title 132, Chapter 13.20 – Storm Water Management of the RVMC is consistent with these requirements. The proposed project would be required to show consistency with all permitting conditions listed in Section 13.20.030 – Authority to Condition or Deny of the RVMC. This section of the RVMC states that the director can condition or deny any discharge and stipulates that all permits issued under this authority must comply with the provisions of this ordinance and/or variances authorized by the City Council.

Preparation, implementation, and participation with both the NPDES General Permit and the General Construction Permit (SWPPP and BMPs) as well as following City requirements, would reduce the potential for project grading and construction to have a substantial effect on water quality. In addition, the project would be required to implement MM-HYD-1, which would require the preparation and use of a Construction Water Quality Control Plan. As a result, short-term construction impacts associated with water quality standards and wastewater discharge requirements would be less than significant.

Operational Discharges

The proposed project would result in a minor increase in impervious surfaces within the project area through construction of building pads and necessary infrastructure for two new lift stations. Most of the Project includes installation of 3" to 14" force mains that would be within existing roadways. The SSFM would be buried underground and would not result in new or increased impervious surfaces along the alignment. The SSFM and lift stations would be mostly located below ground level and are not expected to pose a substantial risk of rupture or leakage in a manner that could impact water quality. Risk of leak or rupture would be minimized and reduced to acceptable levels through proper design and construction practices and through normal maintenance and surveillance of the facilities. Further, storm drainage systems within existing roadways would be maintained through project construction and would continue to accommodate flows following construction completion.

Additionally, operation of recycled water infrastructure and new recycled water lines proposed by the project would occur in compliance with the SWRCB General Waste Discharge Requirements (WDRs) for Landscape Irrigation Uses of Municipal Recycled Water (Recycled Water General Permit) (Order No. 2009-0006-DWQ) and/or similar provisions to ensure the protection of surface and groundwater quality. With implementation of the permit condition measures, potential recycled water irrigation-related impacts to water quality would be less than significant and no mitigation is required.

It should be noted that a part of the intent of the proposed project is to eliminate the water quality violations that are occurring from the Beach WWTP. This is consistent with past planning efforts and City considerations as well as regional and state level water quality goals. Ceasing operations of the Beach WWTP and transferring services to the Northwest WWTP is consistent with these efforts and it would result in a short and long-term improvement in water quality. Thus, conformance to applicable water quality regulations, as verified by the City and regulatory agencies, would ensure impacts in this regard are less than significant.

MM HYD-1: Prior to issuance of any grading permit, the City shall prepare a Storm Water Pollution Prevention Plan (SWPPP) that satisfies the requirements of the National Pollutant Discharge Elimination System (NPDES) and State General Permit for construction. The SWPPP shall incorporate Best Management Practices (BMPs) to control runoff and

sedimentation in accordance with all CVRWQCB as well as City requirements. Recommended BMPs for the construction phase may include the following:

- Stockpiling and disposing of demolition debris, concrete, and soil properly;
- Protecting existing storm drain inlets and stabilizing disturbed areas;
- Implementing erosion controls;
- Properly managing construction materials; and
- Managing waste, aggressively controlling litter, and implementing sediment controls.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. The City developed and adopted their first Urban Water Management Plan (UWMP) in 2010. The City has updated the plan and the 2020 Draft Urban Water Management Plan is available. For that reason and to have the most current information available for the purposes of this document, the 2020 UWMP is used as a reference. The City has a total of 10 water wells, but water is only supplied using 6 active groundwater wells and 2 storage tanks. Water is pumped from the Solano sub-basin which lies in the southwestern portion of the Sacramento Basin and the northern portion of the Sacramento-San Joaquin Delta. Primary waterways in and bordering the basin include the Sacramento, Mokelumne, and San Joaquin Rivers, the Sacramento River Deep Water Ship Channel, and Putah Creek. As of 2020, the City had approximately 4,225 acres of land within its water service boundary. Of the 4,225 acres, approximately 2,213 acres (52 percent) have been developed (City of Rio Vista, 2020). It should be noted that not all developed land contains impervious surfaces. Much of this area would contain landscaping and other pervious areas that facilitate infiltration.

Implementation of the proposed project would result in a minimal increase in impervious surfaces from construction of two new lift stations, and improvements at the Northwest WWTP. Other new lines within the Industrial Creek area and golf course within the Trilogy development would be replaced with excavated soils and revegetated with native seed mix. All other project facilities would be constructed in existing street ROWs and would not impact the quantity of impervious surfaces throughout the City. Therefore, the project would not substantially decrease the potential for groundwater recharge, impacts would be less than significant mitigation would not be required.

Water use in the City has been relatively consistent between (2016 – 2020) but shows a slight decrease in 2020. In 2016 the City used approximately 2,007-acre feet (af), in 2017 used 2,117 af, in 2018 used 2,083 af, in 2019 2,129 af, and most recently, in 2020 used 2,025 af from the wells. The basin and wells are not adjudicated and as of 2025, would have a total water supply quantification of 3,052 sf/yr. Rio Vista does not import, or export surface water supplies at this time, and it anticipates current and future uses will be supplied by existing sources (City of Rio Vista, 2020). Thus, the project would not result in a substantial operational increase in water demand, would decrease the use of potable water through increased recycled water provision, and impacts would be less than significant. No mitigation would be required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site?

Less than Significant with Mitigation Incorporated. The proposed SSFMs and recycled water mains would be constructed in existing roadways and would not alter drainage patterns. Two of the proposed lift stations would be improved within their existing locations, and two new lift stations would be constructed in previously disturbed areas. These improvements would not result in substantial disturbance and any adjacent areas would be returned to existing conditions following construction. The increase in impermeable surfaces would be small and would not significantly increase runoff in a manner which would result in substantial erosion or siltation.

Construction of the new clarification pond at the Northwest WWTP would require grading and excavation in a flat area with upland ruderal vegetation and would have an area of disturbance of up to approximately 1 acre. The surrounding area is flat and consists of an existing clarification pond to the west, hardscape and other wastewater facilities to the north, and flat undeveloped areas also with upland ruderal vegetation to the east and south. There are no watercourses or drainages within or surrounding this area.

As discussed in a) above, construction activities associated with these and other project elements as well as other improvements within the Northwest WWTP would comply with all applicable NPDES permitting procedures and implement a SWPPP with BMPs verified by the City as required by MM HYD-1. These measures would reduce impacts associated with erosion and/or siltation. The clarification pond and other improvements in the Northwest WWTP would be designed and graded such that all runoff from storm events would be captured in the pond, infiltrate the unpaved surrounding area, or enter the on-site stormwater drainage infrastructure. Thus, the proposed project would not result in substantial erosion or siltation on or off the site. Impacts would be less than significant and additional mitigation is not required.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less than Significant Impact. A majority of project components including SSFMs, lift stations, and recycled water mains would be constructed within existing roadways and be located underground. These improvements would result in a substantial increase of impervious surfaces or increase rates of surface runoff within the project area.

Grading would be required to install the proposed improvements. Installation of the new wastewater and recycled water lines, new lift station and lift station improvements would require minimal removals over a linear footprint and not result in the substantial volumes of bare soils. Excavated trenches would be quickly backfilled and new hardscape would be installed. For installations in areas with no hardscape, trenches would be refilled after the new lines are installed and native plant mix and ground coverings to minimize erosion would be used. The footprint of lift stations would be minor and result in a nominal increase in impervious surfaces and would not increase the rate or amount of surface runoff. None of these improvements would result in on-site or off-site flooding. Improvements at the Northwest WWTP include a new clarification pond, recycled water infrastructure, pump equipment, and storage tank

Improvements at the Northwest WWTP would convert approximately 0.85-acres of unimproved vegetated areas to accommodate a new clarification pond. The area surrounding the pond would remain pervious, would be revegetated if disturbed during construction, and would continue to support infiltration during and after rain events. Other infrastructure improvements would largely occur in areas with existing hardscape and would not substantially any of the existing drainage patterns. In addition, the BMPs associated with the SWPPP would be used during construction and would keep runoff on-site during rain events and prevent flooding onsite and offsite. Thus, construction of the project would not substantially alter the existing drainage patterns or impact existing stormwater drainage facilities in a manner that could substantially increase the rate or amount of surface runoff resulting in flooding. Impacts would be less than significant, and additional mitigation is not required.

iii) 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?

Less than Significant Impact. As required by MM HYD-1 provided above, the BMPs (e.g. use of silt fences, straw wattles, and hay bales to impede and slow potential runoff) required by the SWPPP would prevent sources of polluted runoff during project construction. These measures would facilitate infiltration and help filter pollutants from entering receiving waters. While the project would result in slight increase of impervious surfaces for construction of elements within the Northwest WWTP, the surrounding areas are flat and are largely surrounded by vegetated pervious soils which would facilitate infiltration. The balance of flows would be accommodated by existing drainage facilities. Thus, the project would not exceed the capacity of existing stormwater drainage facilities resulting in substantial increases in polluted runoff during construction. Impacts would be less than significant, and mitigation is not required.

iv) Impede or redirect flood flows?

Less than Significant Impact. As discussed in i), ii), and iii) above, construction and operational activities would result in minor increase of impervious surfaces within the project area. No project elements are located within waterbodies, rivers, or streams. A majority of the project area is located within Zone "X" which is an area of minimal flood hazard; however, approximately 250 feet of the project alignment at the Beach Drive and South Second Street intersection, is identified as being in both in a Zone AO –(Base flood elevation of 1' foot), and Zone AE as a regulatory Floodway (FEMA panel 06095C0539E dated 05/04/2009). In addition, the project alignment between the drainage channel and West Wind Mobilehome Park would be adjacent to a FEMA designated AE Zone that crosses St. Francis Way and approximately 100 feet of the new SSFM at the juncture with St. Francis Way would be within an AO zone but outside the AE Zone (FEMA panel 06095C0541E and 06095C0537E dated of 05/04/2009).

All proposed improvements within a designated flood zone would be located within existing roadways and underground. Construction in these areas would be temporary, occurring over a matter of days, and neither this nor operation would have the potential to affect, impede, or redirect flood flows. These areas do not include any above ground structures that would impede or redirect flood flows. Once improvements are made, the ground and roadway surfaces would be returned to their existing condition. Further, the proposed project would be required to comply with the NPDES permitting requirements as

well all City MS4 permitting prior to approval of any grading or construction permits. Therefore, impacts would be less than significant, and mitigation is not required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than Significant Impact. Refer to C I, above. A vast majority of the proposed project would be located within Flood Zone "X" which is an area of minimal flood hazard. As discussed above, portions of the SSFM approximately 100 and 250 feet, respectively, would be near the intersection of Beach Drive and South Second Street and within St. Francis Way. These areas are designated as Special Flood Hazard Area (either Zone AO and Zone AE). In addition, the project alignment the drainage channel and West Wind Mobilehome Park would be adjacent to a FEMA designated AE Zone.

However, these segments of the project include installation of new sewer line to replace existing underground sewer. Upon replacements, the new lines would be buried and the ground surface returned to existing contours. There are no above ground structures or facilities that would be located in these areas. This, element of the project does not have the potential to redirect and flood flows, would not modify any existing flood zone, and would not result in any additional exposure of people or structures to pollutants from inundation due to flooding. Impacts in this regard would be less than significant.

The proposed project is not located near an ocean and is not at risk of tsunami. It is not near an enclosed body of water such as a lake or inland sea and would not be susceptible to seiche. Impacts would be less than significant in this regard, and mitigation is not required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. The City uses groundwater from the Solano Sub-basin as its primary water source. There is no groundwater management plan adopted for the basin (City of Rio Vista, 2020). On January 1, 2015, the Sustainable Groundwater Management Act was adopted. This act requires that a Groundwater Sustainability Agency (GSA) must be formed and the GSA is to develop, implement and enforce a groundwater sustainability plan. To develop a Groundwater Sustainability Plan (GSP) for the Solano Subbasin, a group of GSAs formed the Solano Subbasin GSA Collaborative to submit a plan to the California Department of Water Resources by January 21, 2022. The plan has not yet been submitted or adopted, so there is currently no groundwater management plan for the basin.

The 2020 UWMP, notes that groundwater levels in the sub-basin are impacted by periods of drought due to increased groundwater pumping and less surface water recharge. The UWMP further notes the sub-basin does recover quickly in "wet" years and historical trends indicate that water levels in the sub-basin are not in decline.

The proposed project would result in a minor increase in impervious surfaces for construction of lift stations and a new clarification pond at the Northwest WWTP. The proposed project would predominantly include installation of SSFMs and recycled water pipelines within existing roadways and would not introduce new impervious areas with the potential to reduce infiltration. The proposed project also includes installation of new recycled water pipeline and infrastructure at the Northwest WWTP that would increase recycled water capacity. This would reduce the reliance on use of potable water from groundwater sources. Therefore, the proposed project would not conflict with or obstruct

implementation of a water quality control plan or sustainable groundwater management plan. Thus, while the proposed project would use a small volume of water for construction and operational maintenance, it would not conflict or obstruct a groundwater management plan. Impacts would be less than significant, and mitigation is not required.

Cumulative Impacts

Cumulative impacts to hydrology and water quality could occur as new development, redevelopment, and existing uses occur within the watershed. Although growth in the City is has been slow and has not added to substantial urbanization, new development and redevelopment projects would result in some increases in impervious surfaces. This could generate increased runoff and reduce infiltration capacity from the affected project sites. Future developments in the watershed would be required to comply with the SWRCB and CVRWQB. Depending on the size of future projects, they would be required to obtain and comply with all required water quality permits, develop Water Quality Control Plan as needed, prepare and implement SWPPPS, and implement BMPs, including LID BMPs to minimize runoff, erosion, and storm water pollution such as the project would implement. For projects outside Rio Vista but within the basin, they also would be required to comply with applicable the County and City codes of those jurisdictions. As part of these requirements, projects would be anticipated to implement and maintain source controls, and treatment measures to minimize polluted discharge and prevent increases in runoff flows that could substantially decrease water quality. As discussed above, the proposed project would not result in impacts to hydrology and water quality and would reduce the demand for potable water. Therefore, taken in conjunction with past, present, and reasonably foreseeable projects, the proposed project would not result in substantial increases in storm water pollution, increased potential for flooding or subsequent effects, substantially alter any drainage patters, or deplete ground water. With compliance with State and local mandates, cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

4.11 Land Use and Planning

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?			**X**	
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			**X**	

Environmental Setting

The project area is highly urbanized with suburban uses including residential, commercial and industrial uses. The majority of the project would occur within exiting roadways with minor improvements occurring within previously disturbed but undeveloped properties. More specifically, the project would occupy in a linear alignment approximately 4.0 miles in length within Beach Drive, South 2nd Street, Bruning Avenue, South/North Front Street, CPN Pipeline property, the Rio Vista Channel, St. Francis Way, and Airport Road, and recycled water line installed within Summerset Drive, Laurel Place, Marks Road, and areas of the golf course within the Trilogy development, as well as, four locations used for lift station (adjacent to the Beach WWTP, Marina Drive, South 2nd Street, and the CPN pipeline company property, and improvements within the existing footprint of the Northwest WWTP. All areas proposed for improvements have been previously disturbed.

The Rio Vista General Plan identified the Beach WWTP and Northwest WWTP within the Wastewater Treatment Plan Land Use District. The CPN Pipeline property is designated as an Industrial Employment District general (I/E G) as well as the property adjacent to the Mobile Home Park through which the wastewater line would be extended to St. Francis Way. The I/E (G) designated area is generally located in proximity to existing manufacturing-zoned lands west of River Road to St. Francis Rd. and north of Airport Road east of Church Road. Uses are intended to generate employment with intensive industrial, service, research and development, and manufacturing from natural resources (raw materials), extraction, outdoor storage intensive industrial, service, research & development, and manufacturing.

The RVGP notes the wastewater treatment and collection capacity also must be provided in order to continue to support the community and its expansion. At the time the RVGP was written, the City noted that there were two small wastewater treatment plants (Beach WWTP and a plant to serve the Trilogy development) and that another plant is needed if growth is to continue. Accordingly, the Public Services Section of the General Plan notes, “The current population is served by the existing Beach Drive plant and

Trilogy plant (see Setting discussion). Anticipated population growth will require the new Northwest WWTP to be constructed soon. This new plant will be constructed in phases; the first phase likely will have a capacity of 1.0 mgd, approximately half of the projected 2020 population demand for this plant. A second phase is currently proposed to be constructed after 2010 that likely will be the same size as the first phase, with a total planned capacity at buildout of 2.0 mgd. Other phasing options may be considered if shown to be cost effective. The first phase of the plant is expected to be completed in 2003."

Discussion

a) Physically divide an established community?

Less than Significant Impact. The proposed project would not result in the physical division of a community. The project involved improvements that are largely underground and would not, except temporarily during construction, impede any travel to locations within the City. All improvements at the Northwest WWTP would be within that site, and its existing footprint. None of the improvements would result in physical division. The project does include improvements to the recycled water system within the Trilogy development. This work would start with the installation of a new 14" line on the westerly side of Airport Road via the driveway to the Northwest WWTP. This would tie into an existing recycled water line that links to the Trilogy development. With Trilogy, lines would be installed within Summerset Drive, Laurel Place, Marks Road, and areas of the golf course. All improvements would be underground and within the existing right-of-way and none would not create a physical divide of the residential community and none would result in a substantial or permanently affect or impede travel in or between these areas. Therefore, the proposed project would not result in the physical division of an established community, impacts would be less than significant, and mitigation is not required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. The project area is highly urbanized with suburban uses including residential, commercial and industrial uses. The majority of the project would occur within exiting roadways with minor improvements occurring within previously disturbed but undeveloped properties. More specifically, the project occupies approximately 4.0 miles of linear improvements including an area adjacent to the Beach WWTP, Beach Drive, South 2nd Street, Bruning Avenue, South/North Front Street, CPN Pipeline property (APNs), the margins of the Rio Vista Industrial channel, St. Francis Way, Airport Road, within the Northwest WWTP, and recycled water line within the Trilogy development.

The RVGP identified the Beach WWTP and Northwest WWTP as within the Wastewater Treatment Plan Land Use District. The proposed improvements would not conflict with the existing uses of the land in these areas. The CPN Pipeline property is designated as an Industrial Employment District general (I/E G) as well as the property adjacent to the Mobile Home Park through which the wastewater line would be extended to St. Francis Way. The I/E (G) designated area is generally located in proximity to existing manufacturing-zoned lands west of River Road to St. Francis Rd. and north of Airport Road east of Church Road. Uses are intended to generate employment with intensive industrial, service, research and development, and manufacturing from natural resources (raw materials), extraction, outdoor storage intensive industrial, service, research & development, and manufacturing. The project would align with this land use designation as the project would support industrial support uses. As most of the project

would take place within the City's right-of-way there would be no conflict with the proposed project in these areas. The City would obtain a portion of the CPN Pipeline Co. property and encroachment permits from Caltrans for crossing Hwy-84 and Hwy-12 for which all needed studies and engineering plans would be provided. It should be noted that potential impacts to environmental resources within those alignments are considered in this document. None of the improvements would result in substantial impacts the existing land uses.

It should be noted that the project is consistent with past planning efforts and City considerations to cease operations of the Beach WWTP and transfer services to the Northwest WWTP. Further, continuing water quality violation from continued operation of the Beach WWTP would stop after its operation is abandoning and would improve water quality. Therefore, the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The project would support local, regional, and state goals and regulations aimed at improving water quality. Impacts in this regard are less than significant and additional mitigation is not required.

Cumulative Impacts

The proposed project is consistent with all applicable land use planning and regulatory documents. In addition, due the location of proposed improvements, which will be primarily below grade and within the existing right-of-way and would not conflict with any City planning or policy documents aimed at reducing or preventing environmental impacts. The proposed project, taken in conjunction with other past, present, and reasonably foreseeable projects also would not physically divide an established community by blocking or alter any existing travel way that links existing neighborhoods. All other projects would require City and agency review to ensure consistency with applicable plans, policies, and regulations, prior to approval. Similarly, other projects in the vicinity and located in the former airport site, also would not make a cumulative contribution to the physical division of an established community. Therefore, cumulative impacts of the proposed project would be less than significant, and mitigation is not required.

4.12 Mineral Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			**X**	
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			**X**	

Environmental Setting

The state-mandated Surface Mining and Reclamation Act (SMARA) of 1975 requires the identification and classification of mineral resources in areas within the state subject to urban development or other irreversible land uses that could otherwise prevent the extraction of mineral resources. These designations Per the CDOC, neither the City nor surrounding areas are noted as mineral resource zones categorize land as Mineral Resource Zones (MRZ-1 through MRZ-4) depending on their likelihood or known ability to provide mineral resources (CDOC, 2015).

According to the CalGem website, there are four idle gas wells within the CPN Property. Although the SSFM in this area of the project would be routed around the well-site and it would not interfere with or obstruct operations, the four wells are listed as follows:

- Well 89 is an idle dry gas well, operated by the California Resources Production Corporation.
- Well 17 is an idle dry gas well, operated by the California Resources Production Corporation.
- Well 200 is an idle dry gas well, operated by the California Resources Production Corporation.
- Well 107 is an idle dry gas well, operated by the California Resources Production Corporation.

Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less than Significant Impact. There is no history of mineral extraction, with the except of oil/gas wells, located within the proposed project improvement areas. Per the CDOC, neither the City nor surrounding areas are noted as mineral resource zones (CDOC, 2015). Per the Geologic Energy Management Division [CalGEM, formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR)], there are no active,

inactive, or capped oil wells located within the project improvement areas. There are four dry idle gas wells, as outlined above that are located on the CPN Property. However, all of the proposed SSFM and lift station improvements would be routed or located safe distance from the wells and would not impact the ability of CPN to resume their operation. Accordingly, the project would not result in the loss of availability of a known mineral resource and impacts would not occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Less than Significant Impact. As discussed above, the proposed project would not affect the ability of any person or entity to use or extract mineral resources. As stated above, per the CDOC, neither the City nor surrounding areas are noted as mineral resource zones (CDOC, 2015). The project would be located in proximity to four idle dry gas wells, but would not conflict with resumption of withdrawals should that be needed, or conflict any resource recovery plan. Impacts would be less than significant and no mitigation is required (CDOC, 2021).

Cumulative Impacts

As discussed above, the proposed project and surrounding area is not designated for mineral extraction and is consistent with City planning and development goals. Thus, the proposed project would not make a substantial contribution in consideration of other past, present, and reasonably foreseeable projects in the vicinity related to conflicts with any area designated for mineral extraction, any plans related to mineral extraction, or reduce the availability or access to a known mineral resource. Therefore, cumulative impacts would be less than significant.

4.13 Noise

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			**X**	
b) Generation of excessive groundborne vibration or groundborne noise levels?			**X**	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			**X**	

Environmental Setting

This section is based on the Acoustical Analysis (Kimley-Horn, 2023) which is provided as Appendix E to this Initial Study.

Fundamentals of Sound and Environmental Noise

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations which make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Because the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound because of its potential to disrupt sleep, to interfere with speech communication, and to damage hearing. A typical noise environment consists of a base of steady “background” noise that is the sum of many distant and indistinguishable noise sources.

Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway.

Addition of Decibels

Because decibels are logarithmic units, sound levels cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB.

Sound Propagation and Attenuation

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as roadway noise, depending on ground surface characteristics. No excess attenuation is assumed for hard surfaces like a parking lot or body of water. Soft surfaces, such soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed.

Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined below.

- Leq, the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- Ldn, the Day-Night Average Level, is a 24-hour average Leq with a 10 dBA “weighting” added to noise during the hours of 10:00 PM to 7:00 AM to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour Leq would result in a measurement of 66.4 dBA Ldn.

- CNEL, the Community Noise Equivalent Level, is a 24-hour average Leq with a 5 dBA "weighting" during the hours of 7:00 PM to 10:00 PM and a 10 dBA "weighting" added to noise during the hours of 10:00 PM to 7:00 AM to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour Leq would result in a measurement of 66.7 dBA CNEL.
- Lmin is the minimum instantaneous noise level experienced during a given period of time.
- Lmax is the maximum instantaneous noise level experienced during a given period of time.
- Percentile Noise Level (Ln) is the noise level exceeded for a given percentage of the measurement time. For example, L10 is the noise level exceeded for 10 percent of the measurement duration, and L50 is the noise level exceeded for 50 percent of the measurement duration.

Sensitive Receptors

There are existing noise sensitive land uses in the immediate project vicinity. The nearest sensitive is the West Wind Mobile home park located 15 feet away from the project site. Other nearby receptors are various residential uses, churches, and a school located approximately 40 feet away from the project site, see *Table 4-9: Nearby Sensitive Receptors* below.

Table 4-9: Nearby Sensitive Receptors

Sensitive Receptors	Distance from Project Site
Wastewater Lines, Recycled Water Line, and Lift Station	
Residences	15 feet
Churches	40 feet
Riverview Middle School	40 feet
Northwest Wastewater Treatment Plant	
Residences	>2,000 feet

The City of Rio Vista General Plan identifies an exterior noise standard of 65 dBA L_{dn} for residential land uses. Noise mitigation measures are required for projects that would result in a substantial increase (i.e., 3 dBA, or greater) in ambient noise levels that would exceed the City's exterior noise level of 65 dBA L_{dn} for residential land uses. The City also limits typical construction activities to between the hours of 7:00 AM and 7:00 PM Monday through Friday. Construction is not allowed on weekends. Project construction would be required to comply with these hours.

The City's Noise Ordinance (Title 17, Noise Control, Chapter 17.52) identifies prohibitions and noise standards intended to protect citizens from unnecessary and unusually loud noises that could adversely affect the peace, health, and safety of community residents. For noise sources affecting residential districts, noise levels may not exceed 50 dBA L_{eq}.

Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact.

Construction

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g. land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Project construction would occur directly adjacent to commercial uses, residential uses, schools, and churches. Noise impacts for mobile construction equipment are typically assessed as emanating from the center of the equipment activity or construction site. For the proposed project, this center point would be approximately 25 feet from the nearest sensitive receptor property line to the roadway centerline. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources, such as industrial machinery.

Construction activities associated with development of the proposed project would include site preparation, minor grading, paving, construction of the SSFMs, lift stations, and Northwest Treatment Plant additions, and architectural coating. Such activities would require graders, scrapers, and tractors during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, tractors, and welders during building construction; pavers, rollers, mixers, tractors, and paving equipment during paving; and air compressors during architectural coating. Grading and excavation phases of project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time. Equipment typically used during this stage includes heavy-duty trucks, backhoes, bulldozers, excavators, and front-end loaders. Operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three to four minutes at lower power settings. Other primary sources of noise would be shorter-duration incidents, such as dropping large pieces of equipment or the hydraulic movement of machinery lifts, which would last less than one minute. No pile-driving would be required during construction. Project construction would not use large heavy-duty pieces of construction equipment such as a cranes, pile-driving, or scrapers, and noise levels would be less intense than typical construction projects. Since the project is installing new water lines and lift stations, equipment would move in a linear fashion as opposed to operating adjacent to any one sensitive receptor for an extended period of time. The loudest equipment (used during demolition phase) would produce a noise level of 94 dBA at 25 feet. The other construction phases would utilize equipment that would produce a lower level of noise.

The City of Rio Vista does not have construction noise standards. However, as stated in Section 17.52.060 of the City municipal code, public construction project or the maintenance or repair of public property is exempt from the noise limits listed in Section 17.52.050 of the municipal code. The project would be

classified as a public project would, therefore, be exempt from the City's noise standards. Therefore, the project's construction noise would result in a less than significant and no mitigation is required.

Operational

Project operations, including new water lines and lift stations, would occur below ground and would not produce noise levels that impact sensitive receptors. The operation of the clarification pond and Northwest WWTP would be more than 2,000 feet away from the nearest sensitive receptor. No significant noise sources are predicted or planned for these uses. Operation of the project would not generate a substantial amount of traffic and would, therefore, not generate additional traffic noise on the surrounding roadways. As a result, operational impacts would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact.

Construction

Increases in groundborne vibration levels from the proposed project would be associated with short-term construction-related activities. Project construction would require the use of off-road equipment, such as tractors, concrete mixers, and haul trucks. The proposed project is not expected to use major groundborne vibration–generating construction equipment, such as pile drivers. The nearest off-site sensitive structures are the homes on the eastern edge of the West Wind Mobile Home Park located 15 feet to the west of a section of the new SSFM. The ground beside the homes is undisturbed and would not require substantial demolition or site preparation. Therefore, the use of large vibration generating equipment listed in *Table 4-10: Typical Construction Equipment Vibration Levels* would not be required, and vibration levels would be less than significant at these receptors. Beside the mobile homes located in the West Wind Mobile Home Park, the closest sensitive receptors that would be near vibration-generating equipment are located 40 feet away from the new SSFMs on 2nd Street, Bruning Avenue, and Front Street, and residences near the new recycled water lines on Summerset Drive, Laurel Place, and Edgewood Drive. The closest off-site structure that would be located near vibration-generating equipment would be commercial uses located 15 feet from construction that would occur on North Front Street. As shown in *Table 4-10*, vibration levels at the nearest on- and off-site structures (15 feet for non-residential structures and 25 feet for residential structures) would not exceed the minimum recommended criteria for structural damage (0.20 in/sec ppv).

Table 4-10: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity At 15 feet (in/sec)	Peak Particle Velocity At 25 feet (in/sec)
Large Bulldozer	0.1915	0.089
Loaded Trucks	0.1635	0.076
Rock Breaker	0.1269	0.059
Jackhammer	0.0753	0.035
Small Bulldozer/Tractors	0.0065	0.003

1. Calculated using the following formula: PPVequip = PPVref x (25/D)1.5, where: PPVequip = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPVref = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, 2018; D = the distance from the equipment to the receiver.
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

Furthermore, as mentioned above, construction would move in a linear fashion and would not occur adjacent to any one receptor for an extended period of time. As a result, this impact would be less than significant.

Operation

Project operations do not include any equipment or facilities that would generate significant groundborne vibration. The lift stations would generate groundborne vibration. However, the stations would be located underground, and any vibration generated would dissipate quickly due to the surrounding earth/soils. Furthermore, the lift stations are located 120 feet away from the closest sensitive receptor and the vibration would not reach levels that cause human annoyance. Therefore, vibration impacts associated with project operation would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant Impact. Sections of the proposed project are within two miles of the Rio Vista Municipal Airport. However, the project does not include any new permanent residences or places of work that are sensitive to aircraft noise. The proposed project would not be within the direct flight path of aircraft. Therefore, the proposed project would have a less than significant impact.

Cumulative Impacts

As discussed above, the proposed project would not cause a new noise impact to occur, nor an increase in the severity of a noise impact. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor an increase in the severity of a cumulative impact previously disclosed. Compliance with General Plan Policies and applicable state and local law would reduce impacts to a less than significant level. No additional site-specific mitigation measures are required.

4.14 Population and Housing

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			**X**	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				**X**

Environmental Setting

The City occupies a total of approximately 7.5 square miles and is known as the Gateway to the Delta. According to the California Department of Finance (CDOF), the City had a total population of 9,925 in January of 2022. This was a reduction of approximately 36 people from 2021. Solano County had a total population of 449,964 in 2021 and lost approximately 2,723 people for a population of 447,241 as of January 2022 (CDOF, 2022).

Within the City, there are 3,007 housing units, of which 2,873 are occupied. The City's housing units are primarily single-family detached homes. Currently developers are working with the City to build between 6,000 and 8,000 houses over the next 15 years (City of Rio Vista, 2022).

Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact. The project does not include the construction of any housing, new businesses, or roads that would directly or indirect induce substantial unplanned population growth. The RVGP notes the wastewater treatment and collection capacity must be provided in order to continue to support the community and its expansion. At the time the RVGP was written, the City had two small wastewater treatment plants the Beach WWTP and plant that served just the Trilogy development. The RVGP noted that another plant was needed if growth is to continue.

This is consistent with specific language in the Public Services Section of the RVGP which states, "The current population is served by the existing Beach Drive plant and Trilogy plant. Anticipated population growth will require the new Northwest WWTP to be constructed soon."

The 2003 Northwest WWTP Supplemental EIR was drafted consistent with the above and the City's contemplation of the need for closure of the Beach WWTP and expansion of the Northwest WWTP to serve existing and planned demand. Thus, the proposed project would not induce unplanned population growth as a need for greater capacity has previously been identified and the project itself would not result in an increased capacity such that substantial growth in population would result. The new pipeline and lift station improvements would not require permanent staffing and repairs and maintenance would be performed by existing City staff or contracted employees depending on the nature of the work. The Northwest WWTP is already operational and is presently staffed by about eight employees. Because the plant is already operational and the project does not include substantial changes, no additional staff resulting in population increases would occur. Therefore, impacts would be less than significant and mitigation is not required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project areas are previously disturbed, occur within existing right-of-way and roadways and would not require or result in the demolition of any housing. The project does not propose changes to any land use designation and would not affect plans for an area proposed for residential uses. Therefore, the proposed project would not displace any residents and replacement housing would not be required. Impacts would be less than significant and mitigation is not required.

Cumulative Impacts

The proposed project is consistent with the intent of RVGP and zoning ordinance for the needed Northwest WWTP improvements. The proposed project does not include any residential units that would result in population growth and does not include extension of services or utilities that would encourage other development in off-site areas that is not already planned for or approved. In addition, the proposed project is anticipated to employ local residents and residents in the surrounding region within reasonable commute distance. Thus, taken in sum with other past, present, and reasonably foreseeable projects, the proposed project would not make a cumulative contribution to population or housing growth resulting in environmental impacts. Impacts would be less than significant and no mitigation is required.

4.15 Public Services

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?			**X**	
ii) Police protection?			**X**	
iii) Schools?			**X**	
iv) Parks?			**X**	
v) Other public facilities?			**X**	

Environmental Setting

Fire Protection

The Rio Vista Fire Department (RVFD) provides fire protection and emergency response services for, but not limited to, structural fires, wildland fires, limited hazardous materials events, vehicle extrication, and technical rescue to the City and Delta Fire Protection District. RVFD. The RVFD also provides Automatic Aid to the City of Isleton, and River Delta Fire Protection District, and are participant in the Solano County Mutual Aid Agreement (City of Rio Vista Fire Department, 2021a).

The RVFD fire station is located at 350 Main Street and is staffed daily with 5 personnel, including 1 Fire Captain, 2 Engineers, 1 Firefighter Paramedic and 1 Intern-Firefighter (City of Rio Vista Fire Department, 2021b). In 2020 the department added one new full-time Fire Engineer/Paramedic, which enabled

operation of two apparatus' part time. Staffing is augmented with the utilization of either Volunteer or Reserve Firefighters. The department apparatus includes: four Engines (55, 56, 355, and 255) one Truck (55 – ladder truck), one Water Tender, two chief vehicles, and one boat (City of Rio Vista Fire Department, 2021).

Law Enforcement

Law enforcement services are provided through contract with the Solano County Sheriff's Office but provides services as the Rio Vista Police Department (RVPD). The nearest station is located at 50 Poppy House Road within the former Rio Vista Municipal airport business park. The RVPD participates in numerous community outreach programs and events and provides law enforcement services through patrol and field services, traffic enforcement, and additional services such as responding to requests for extra patrol, use of a radar trailer, making community presentation (City of Rio Vista, 2022).

Schools

The proposed project is within the River Delta Unified School District (RDUSD). There are five schools in the City of Rio Vista including D.H. White Elementary School, Riverview Middle School, Rio Vista High School, one alternative school River Delta High/Elementary, and one adult education facility, Wind River High (RDUSD, 2022).

Parks

The City has ten parks including, Bruning Park (1.5 acres), Crescent Park (0.25 acres), Drouin Park (1.1 acres), Egbert Field Park (5 acres), Homecoming Park (1 acre), Memorial Park (1.5 acres), Val de Flores Park (3.0 acres), Waterfront Promenade Boat Launch and Picnic Area, and two other recreation facilities including a basketball court and a small skateboard facility (Rio Vista Parks Department, 2022).

Other Public Facilities

Other public facilities generally refer to libraries, community services, and government operations. Library services to the City are provided by the Solano County Library which maintains the Rio Vista Library at 44 South Second Street in the City of Rio Vista. The library provides a selection of book, a meeting room, 14 public access computers with two reservation computers (all are customizable for dexterity, hearing, and visual needs), a public printer, a scanner, Wi-Fi, a self-service photocopier, and a microfilm/fiche reader. Other governmental services for resident needs and community services as well as the overall City governmental operations are located at City Hall at One Main Street.

Discussion

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?

Less than Significant Impact. Emergency access within the project area could be affected during project construction. While the lift stations and improvements at the Northwest WWTP would be outside of roadways that enable emergency access, some of the SSFM and recycled water line installation would occur within existing roadways. Temporary lane closures and construction-related traffic could delay or obstruct the movement of emergency vehicles. However, prior to construction, emergency service providers, including RVFD, would be notified of construction activities and detours, if needed, would be planned to ensure that emergency access and traffic flow in both directions would be maintained at all times during construction. The City would provide notice of construction activities that would affect access to emergency facilities and any disruptions in access would be short-term.

Project operations would not generate significant employment or include a residential component that would directly increase the residential population resulting in an increased demand for public services. Construction of new or altered facilities to maintain acceptable service ratios, response times, or other public facility performance objectives would not be required. The proposed project would provide necessary improvements to the City's wastewater conveyance and treatment facilities, and would not expand infrastructure in a manner that would generate unplanned population growth. Impacts would be less than significant, and mitigation is not required.

ii. Police protection?

Less than Significant Impact. As discussed in i), above, impacts to emergency service response from temporary lane closures and the potential for reduced access would be minimized through notifications and coordination with local emergency service providers. The proposed project would not result in a substantial increase in the local population, add additional roadways, or result in construction that is anticipated to result in a significant increase in call volume that would require new police facilities or stations to be constructed. The proposed project would not require construction of new facilities to maintain acceptable service ratios, response times, or other performance metrics. If new law enforcement personnel would be required, it is anticipated they would operate out of the existing facility.

Neither project construction nor operations would result in impacts to emergency services. While construction would temporarily impact area traffic patterns, necessary detours and timing of construction within roadways would be coordinated with emergency service providers to ensure that emergency access and traffic flow in both directions would be maintained at all times during construction. For these reasons, a less than significant impact would occur concerning police protection services, and no mitigation would be required.

iii. Schools?

Less than Significant Impact. The proposed project is an infrastructure improvement project and would not directly result in population increase or generate new students through the creation of jobs or residential development. While project construction would result in temporary construction-related jobs within the City, due to the existing unemployment rate and existing workforce within the City and surrounding communities, employees are anticipated to come from the local and regional existing population base. Accordingly, the proposed project would not result in a substantial addition to the population creating a significant increased demand such that new RDUSD schools or expansion of existing facilities would be needed. Thus, because the construction of new school facilities resulting in impacts on

the environment would not be required impacts would be less than significant in this regard. No mitigation is required.

iv. Parks?

Less than Significant Impact. The proposed project is an infrastructure improvement project that would not directly result in population growth through creation of jobs or residential development. As discussed above, the proposed project is anticipated to employ the temporary construction workers from within the City, region, and surrounding communities. These workers would already be using existing recreational resources within the City and within their nearby locations. The proposed project is not anticipated to result in a substantial increase in population such that a significant increased demand for parks leading to construction of new parks would occur. The proposed project would not increase demand for parks such that unanticipated environmental impacts would occur. Thus, impacts would be less than significant, and mitigation is not required.

v. Other public facilities?

Less than Significant Impact. The proposed project would result in the demand for temporary construction-related employees. As discussed above, the majority of these workers are anticipated to come from existing residents within the City or from the surrounding communities or residents in the region. These people would be using municipal services, as needed, within the City or within from their local providers. The proposed project is not anticipated to result in an increased demand such that new facilities would be needed, resulting in an impact on the environment. Impacts would be less than significant, and mitigation is not required.

Cumulative Impacts

As described above, the proposed project is an infrastructure improvement project and would not result in population growth within the City. The proposed project would be served by RVFD and RVPD and would not result in substantial growth such that a new and unplanned facilities would be needed. Similarly, the proposed project would be adequately served by existing parks and public services. In addition, any future facilities that may be proposed and developed as part of future growth of the City, would undergo separate CEQA review. It is anticipated that impacts from these types and sizes of facilities, the same as the proposed project, Therefore, taken in sum with past, present, and reasonably foreseeable projects, the proposed project would not make a cumulative contribution to increase demand for public services such that new and unplanned facilities would be needed. Thus, the proposed project would not make a significant cumulative contribution to impacts in this regard.

4.16 Recreation

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			**X**	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

Environmental Setting

The Rio Vista Parks Department maintains seven park facilities, total of approximately 13 acres, and includes Bruning Park, Drouin Park, Homecoming park, Val de Flores Park, Crescent Park, Egbert Field Park, Memorial Park. In addition, the City maintains the Waterfront Promenade, a Skateboard/Dog Park, a Basketball Court and Boat Launch with Picnic Area. In addition, the boat launch provides direct access to the Sacramento River and hundreds of acres of waterway available for recreation., the City's provides approximately 1.3 acres of parkland per thousand resident. The proposed project would result in improvements near to or adjacent to the boat launch and Egbert Field Park (5 acres), (Rio Vista Parks Department, 2022).

Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than Significant Impact. As discussed above, the proposed project is an infrastructure improvement project does not include a residential or commercial component and, consequently, would not directly result in a substantial increase in residential or employee populations in the project area. As discussed in the Population and Housing and Public Service Sections, the proposed project would require new full-time employees that would come from the City or surrounding regional areas who are presumed to already be using recreational resources within those locales. Therefore, the project would not directly result in a

significant increase in the use of local parks or substantial physical deterioration of park facilities. These impacts would be less than significant, and mitigation is not required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed project would not develop any recreational facilities and would not require the expansion of, or construction of new recreational facilities that could have an adverse effect on the environment. No impact would occur, and mitigation is not required.

Cumulative Impacts

The proposed project does not include any residential units that would result in population growth that would result in a substantial increased demand on existing City recreational resources. In addition, the proposed project is anticipated to employ local residents and residents in the surrounding County areas and not induce population growth such that a deterioration of, or demand for new parks would be needed. Thus, taken in sum with other past, present, and reasonably foreseeable projects, the proposed project would not make a cumulative contribution to population or housing growth. Impacts would be less than significant.

4.17 Transportation

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			**X**	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			**X**	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			**X**	
d) Result in inadequate emergency access?		**X**		

Environmental Setting

Regional Access

Three highways are located within or pass through the City, Hwy-12 (which provides connectivity to the easterly side of the Sacramento River), and Hwy 160, which connects to Interstate 80 (I-80) on to the northwest and Hwy 113 that connects to Interstate-5 (I-5) to the northeast. Interstate 80 (I-80) is located approximately 28 miles northwest of the City and provides east-west access. I-5 is located approximately 24 miles east of the City, is accessed via Hwy-160, and provides north-south connectivity throughout the State. Hwy 12 connects to Hwy 160 on the opposite side of the Sacramento River, which provides access to Antioch to the southwest and the southerly portions of the Bay Area.

Transit

Transit in Rio Vista consists of an on-demand bus system, Rio Vista Delta Breeze, which offers deviated fixed route bus service between Rio Vista, Isleton, Fairfield, Suisun City, Pittsburg / Bay Point BART Station and Antioch with connections to Lodi (City of Rio Vista, 2022d).

Discussion

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact. Project construction would result in a minor increase in vehicle traffic in the City due to new trips for construction workers traveling to the area and trucks hauling construction materials and equipment. In addition, heavy trucks would be used to haul excavated soil. Conveyance system construction under each project phase would involve installation of below-ground pipelines within existing right of way. As a result, temporary traffic impacts would be expected within the vicinity of active construction within the project area during periods of installation of the SSFM and recycled water lines within the Trilogy development. Temporary impacts to the circulation system would result as portions of streets would be closed due to surface removals, excavations, and presence of construction equipment. However, the project construction contractor would provide for traffic control and would coordinate all road work with emergency service providers and the City Public Works Department. To the extent feasible, construction would be planned to maintain access and flow of traffic throughout the construction phases. Accordingly, changes in traffic flow and roadway access would be temporary and alternative routes would be available for use by school buses, personal vehicles, bicycles, and pedestrians. While the project would, as discussed, result in temporary changes to traffic flows, it would not result in substantial conflicts with any plan or policy related to circulation. Thus, construction traffic impacts would be less than significant in this regard and additional mitigation is not required.

At buildout, the project would not require additional employees that would generate a substantial number of trips within the City that would result in impacts to traffic or circulation patters. It is possible that a nominal increase in trips associated with maintenance of the conveyance system and wastewater treatment facility would occur. However, this would not result in impacts to the City's existing circulation system and the associated traffic impacts would be considered negligible.

Therefore, the proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, and would not conflict with any existing or development/extension of any transit route, roadway, or bicycle and pedestrian facility. Impacts would be less than significant, and mitigation is not required.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant Impact. In accordance with the requirements of Senate Bill (SB) 743, CEQA Guidelines section 15064.3, subdivision (b) was updated and subsequently adopted in December 2018 by the California Natural Resources Agency (CNRA). SB 743 was codified in Public Resources Code section 21099 and required changes to the guidelines implementing CEQA (CEQA Guidelines) (Cal. Code Regs., Title 14, Div. 6, Ch. 3, § 15000 et seq.) regarding the analysis of transportation impacts. SB 743 shifted to focus of determining the significance of transportation impacts to focus from vehicle congestion and delay to the use of vehicle miles travelled (VMT) to or from a development as stated in the Governor's Office of Planning and Research (OPR) Technical Advisory (2018).

The newly adopted guidance provides that a lead agency may elect to be governed by the provisions of this section immediately. On July 1, 2020, the provisions of this section became applicable statewide. The

City has not yet formally adopted its updated transportation significance thresholds or its updated transportation impact analysis procedures. Section 15064.3(b)(3) provides, "that if existing models or methods are not available to estimate the VMT for a particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate".

The proposed project is limited to improvements to the City's wastewater and recycled water conveyance and treatment system, and as such the project would not significantly impact VMT. As discussed within Section 2.0, the project would require pipeline installation within roadways throughout the project area. As such, construction activities in the streets and project segments would be temporary and only interrupted during certain stages of project construction. In addition, traffic would be redirected to alternative routes which would, as feasible, follow the shortest and/or most efficient open path of travel, but the use of alternative routes may temporarily result in a slight increase of VMT for community residents. However, the increase in VMT would be temporary in duration, minimal in scale, and is considered a less than significant impact. During operation, all improvements would be underground or outside of the roadways and would not negatively impact the existing vehicle roadway network or VMT. Thus, the project would have a less than significant impact in this regard and no mitigation is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact. The proposed project does not include any off-site changes to any existing roadways and it would not result in the construction of or installation of any roadway with sharp curves or dangerous intersections. The proposed project involves installation of pipelines within roadways, within all other improvements occurring outside of roads. The project would replace all removals within the roadways and return the site to the existing grade and configuration. Thus, the proposed project would not increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use. Lastly, construction within roadways would occur in conformance to all applicable rules and regulations related to roadway design and construction. The project would have a less-than-significant impact in this regard.

d) Result in inadequate emergency access?

Less than Significant with Mitigation Incorporated. The project would replace an existing wastewater pipeline and install a new recycled water pipeline within some existing roadways. All improvements within the roadways segments would be short-term and no modifications to roadway features are proposed as part of the project. The construction contractor would provide for traffic control during construction and would coordinate with emergency service providers for access and if detours would be needed and ensure emergency access is maintained. After construction is completed, all roadways would be returned to their existing alignment and configuration. Thus, the proposed project would not result in any short or long-term adverse impacts on emergency access or services.

As discussed above, temporary traffic disruption may occur during project construction. Emergency evacuation routes within the City include SR-12, Hwy-84, and Airport Road. Project construction and

operation would not result in a substantial interruption of SR-12, HWY-84, or Airport Road. Although individual lanes may be closed while trenching and excavation occurs, it is anticipated that pipeline installation would be staggered (completed first in one lane before being initiated in the other) so that traffic, although temporarily effected, would continue to flow. If required, alternate routes would be made available necessary over the short-term construction phase, and emergency service providers would be informed of the project construction timeline. The construction contractor would work with emergency service providers and appropriate measures for emergency access would be established prior to any emergency. The project would include MM TRANS-1 which details requirements of an emergency access plan. With implementation of the MM TRANS-1, impacts would be less than significant.

MM TRANS-1: Construction activity would be phased, and traffic would be rerouted during construction. Traffic plans would describe traffic operations in detail during the construction period. Construction would be scheduled to minimize disruption of existing traffic patterns to area residents and businesses. Affected neighborhoods would be provided with appropriate information. Open trench segments would be temporarily covered to allow residents and service vehicles to access driveways and loading areas. Trench segments would be excavated and closed promptly, minimizing the time that trenches are open in front of residence driveways and businesses. Construction vehicles would not be parked in front of access points and/or business parking areas.

- For pipelines, trenchless technologies and/or alternative routes could be used where appropriate to minimize or avoid impacts.
- Temporary measures would be implemented along trails to separate pedestrians and bicyclists from vehicles and to promote safety along the construction routes.
- Materials delivery or removal during peak traffic hours along major arterials would be avoided when possible. Flaggers would be present to direct traffic around the construction site.
- Temporary parking facilities would be provided where possible for businesses that lose parking and access during construction.
- Onsite construction crew parking would be provided wherever possible.
- Construction of a temporary concrete batch plant at a treatment plant site to avoid concrete truck trips could be possible.
- Truck traffic could be reduced during construction through stockpiling excavated earth onsite for use as backfill.

Cumulative Impacts

The proposed project would not substantially increase traffic volumes and would not impede an emergency evacuation plans. Due to the nature of the project the majority of workers are anticipated to come from the City or immediately surrounding region and it would not generate a substantial number of

new VMT. The proposed project also would not conflict with any codes related to emergency access and the project provides access points and needed circulation for emergency vehicles. Thus, taken in conjunction with past, present, and reasonably foreseeable projects, impacts would be less than significant. In addition, all other projects also would undergo a similar CEQA review, which would include an evaluation of transportation impacts, and the proposed projects contribution to cumulative traffic impacts) area addressed through project design and mitigation is not required.

4.18 Tribal Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?		**X**		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		**X**		

Environmental Setting

This section is based on the Cultural Resources Report (SWCA, 2023) which is provided as Appendix C to this Initial Study. The Cultural Resources Report prepared for the proposed project included a request for a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search. The NAHC search indicated that the Sacred Lands File search was negative for the presence of Native American cultural resources in the project vicinity.

Under PRC section 21080.3.1 and 21082.3, the City must consult with tribes traditionally and culturally affiliated with the project area that have requested formal notification and responded with a request for consultation. The parties must consult in good faith. Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource when one is present or when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed on during the consultation process must be recommended for inclusion in the environmental document.

On January 31, 2023, the City of Rio Vista sent notification letters that the project was being addressed under CEQA, as required by PRC 21080.3.1, to the Native American tribes that had previously requested such notifications. Notifications were sent to the Confederated Villages of Lisjan, Cortina Rancheria, Guidville Indian Reservation, United Auburn Indian Community (UAIC), and Yocha Dehe Wintun Nation.

Two responses were received: one from Confederated Villages of Lisjan Nation on March 7, 2023 and one from the Yocha Dehe Wintun Nation on March 10, 2023. Yocha Dehe Wintun Nation indicated the project site is within their aboriginal territories and requested formal consultation.

Discussion

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than Significant with Mitigation Incorporated. In compliance with PRC Section 21080.3.1(b), the City of Rio Vista provided formal notification to California Native American tribal representatives who previously requested notification from the City regarding projects within the geographic area traditionally and culturally affiliated with their tribe. Native American groups may have knowledge about cultural resources in the area and may have concerns about adverse effects from development on tribal cultural resources as defined in PRC Section 21074. The City of Rio Vista contacted the following tribal representatives via mailed correspondence on January 31, 2023, listed below.

- Kletsel Dehe Band of Wintun Indians, Charlie Wright
- Confederated Villages of Lisjan, Corrina Gould
- Guidiville Indian Rancheria, Merlene Sanchez
- United Auburn Indian Community, Gene Whitehouse
- Yocha Dehe Wintun Nation, Anthony Roberts

As noted above two responses were received, one from Confederated Villages of Lisjan Nation on March 7, 2023 and one from the Yocha Dehe Wintun Nation on March 10, 2023.

The correspondence from the Confederate Villages of Lisjan Nation included a request for additional information regarding the proposed project site and Sacred Lands File search. The City provided this information via email on June 13, 2024 with the Cultural Resources Report, negative SLF search results, and the proposed mitigation measures. Based on the additional information provided, the Confederated Villages of Lisjan Nation did not request formal consultation but noted that their tribal people had a presence in the area and requested that the Tribe be contacted of any findings.

The correspondence from the Yocha Dehe Wintun Nation indicated the project site is within their aboriginal territories and they have a cultural interest and authority within the area. Accordingly, the tribe requested formal consultation. The City responded to the Tribe via email on June 13, 2024 with the Cultural Resources Report, negative SLF search result, proposed mitigation measures, and requested the tribes availability for a virtual meeting. The Tribe did not respond to the email and the City followed up with a phone call on August 5, 2024. The call was not answered and to date no response has been received via email or phone call. Thus, at the time of publication of this report, the Yocha Dehe Wintun Nation has not responded to the City's attempt to schedule a meeting for consultation.

As noted above, the proposed wastewater and recycled water lines are located within existing roadways and/or previously disturbed areas. However, the potential exists for project implementation to affect previously unidentified tribal cultural resources. Compliance with PRC Section 21083.2 and corresponding mitigation measures identified in Section 4.5, Cultural Resources (MM CUL-1 and MM CUL-2) would ensure the project would not cause a substantial adverse change in the significance of a tribal cultural resource. Impacts would be less than significant with mitigation.

Cumulative Impact

Cumulative impacts to tribal cultural resources are typically considered to be site specific and mitigated on a project-by-project basis. The proposed project would occur within existing roadways, areas with existing wastewater infrastructure, and other areas that have been previously disturbed and has no known tribal cultural resources. Additionally, because of past disturbances and operations at wastewater facilities, it is thought to have a very low potential of containing cultural or archaeologically significant resources. Taken in sum with other past, present, and reasonably foreseeable projects, some of which would occur within the same general vicinity and also would undergo separate CEQA review and have mitigation applied, cumulative impacts would be less than significant.

4.19 Utilities and Service Systems

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			**X**	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			**X**	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			**X**	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			**X**	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			**X**	

Environmental Setting

Wastewater

The City currently operations two wastewater treatment facilities including the Beach WWTP and the Northwest WWTP. The Beach WWTP is near the westerly terminus of Beach Drive and the Northwest

WWTP is located in the northwestern part of the City near the intersection of Airport Road and Church Road. Wastewater is conducted through an underground sewer system to the plants by approximately 41 miles of collections lines and is conducted by gravity flow and a series of pumps and lift stations.

The Beach WWTP has a treatment capacity of 0.65 million gallons per day (mgd) and uses bar screening and grit removal, two primary clarifiers, two activated sludge reactors, two secondary clarifiers, and chlorination / de-chlorination for disinfection of wastewater. Sludge is dewatered by belt filter press dewatering followed by solar greenhouse drying to Class A bio-solids quality. Wastewater effluent is discharged through an outfall at Discharge Point No. 001, approximately 77 feet offshore in the Sacramento River.

The Northwest WWTP has a 1 mgd design treatment system and treats wastewater using fine screenings, followed by activated sludge treatment via anoxic and aerobic basins. It also uses membrane biological reactors (MBR) which separate the liquid from the solids. The effluent from the MRBs is disinfected using ultraviolet light. The sludge is dewatered by belt filter press dewatering followed by solar greenhouse drying to Class A bio-solids quality. Wastewater effluent is pumped via approximately a 2-miles via an underground pipeline and discharged through an outfall at Discharge Point No. 001, approximately 200 feet offshore into the Sacramento River.

Water

The City gets its potable water from the Solano sub-basin. The Solano sub-basin is bound by the Sacramento River on the east, Putah Creek on the north, and the North Mokelumne and San Joaquin rivers on the south and southeast. The western edge of the basin is defined by the hydrologic divide between the Sacramento River and the San Francisco Bay drainages. The Solano sub-basin is not considered "Critically over drafted basin/subbasin." Wells in the upper alluvium of the sub-basin can provide substantial yields when situated near the Sacramento River; otherwise, these shallower wells can be relatively low yielding. Ground water monitoring indicates the water within the basin is very stable and not declining.

Water is provided to the City using a total of 10 wells, but water is supplied via 6 active groundwater wells and 2 storage tanks.. As of 2020, the City had approximately 4,225 acres of land within its water service boundary. Of the 4,225 acres, were approximately 2,213 acres (52 percent) was developed at that time (City of Rio Vista, 2020). The City has used a relatively consistent volume of water with a recent slight decrease between the years (2016 – 2020). In 2016 the City used approximately 2,007-acre feet per year (af), in 2017 used 2,117 af, in 2018 used 2,083 af, in 2019 2,129 af, and most recently, in 2020 used 2,025 af from the wells. This is a five-year average of approximately 2,072 af/year.

Stormwater System

The City's storm drainage system comprises multiple networks of inlets, pipes, and basins that flow to the Sacramento River or to terminal (retention) basins. The City's system has been designed to accommodate the existing land uses and development that have occurred in the City. The project alignment and uses would be within existing roadways that have existing stormwater drainage facilities

Solid Waste

Waste generated from construction of the project improvements and future operations would be transported to the Mt. Diablo Resource Recover (MDRR) for recycling or the Keller Canyon Landfill (KCLF) near Pittsburg. The KCLF is currently permitted to receive 3,500 tons per day (tpd) with a permitted capacity of 75,018,280 cubic yard, and remaining capacity of 63,408,410 cubic yards and a cease operation date of 12/31/2050 (CalRecycle, 2022).

Natural Gas and Electricity

The City of Rio Vista is served by Pacific Gas & Electric (PG&E) company for energy and natural gas needed. PG&E is the responsible agency to develop and conduct electricity-related programs for the region and would serve the proposed project through these resources.

Discussion

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact.

Water

See Threshold b) below, the proposed project includes improvements to the existing wastewater treatment system and does not include any uses, such as residential, commercial, industrial, or those with substantial landscaping or grass fields that result in substantial increases in demand for potable water. The project includes a recycled water component that would enhance the city's ability to supply recycled water to existing as well as proposed development for uses such as landscaping and watering fields. The demand for potable water as a result of project implementation would be marginal if any, and more than offset by the supply of recycled water. Thus, impacts in this regard are less than significant and mitigation is not required.

Wastewater Treatment

The proposed project would install new 3" SSFMs from the Beach WWTP to South 2nd Street and new 14" SSFM in South 2nd Street to the Northwest WWTP. The project also would install four lift stations (two new and two improved) along the SSFM alignment. The Northwest WWTP would be improved with a new clarification pond to accommodate increased flows redirected from the Beach WWTP as well as new facilities to handle recycled water and to pump to new recycled water lines within the Trilogy development to the west. The proposed improvements are consistent with those considered in the 2003 Northwest WWTP SEIR and would not expand treatment capacity beyond what was previously contemplated. Further, as discussed within Section 2.0 – Project Description, above the proposed improvements would achieve the previously adopted objectives of the Northwest WWTP SEIR to provide sufficient wastewater treatment capacity to accommodate future planned development within the City and accommodate production of recycled water to meet future demand. In addition, the project involved abandonment of the Beach WWTP, which is anticipated to substantially reduce ongoing discharge violations. Accordingly, the project would have a beneficial rather than an adverse effect on wastewater

treatment and treatment capacity. Impacts in this regard would be less than significant and no mitigation would be required.

Stormwater Drainage

Storm drainage facilities would be provided by the City of Rio Vista. Proposed construction and operation would not require the construction of stormwater drainage facilities or expansion of existing facilities, other than minor improvements to drainage facilities on and near the Northwest WWTP site during grading. Similarly, existing stormwater drainage facilities along roadways affected by pipeline construction would not be altered under any project phase. Pipeline construction would require some alterations to drainage flows within the roadways, but these alterations would be minor and temporary. Project implementation would not permanently alter drainage flows and stormwater infrastructure would be restored upon completion of construction activities. Further, the proposed project would be required to comply with all State, regional, and local regulations pertaining to stormwater management. The project would comply with City regulations pertaining to site drainage and stormwater runoff, including requirements imposed by the NPDES General Construction Permit and Rio Vista Municipal Code. Therefore, impacts concerning stormwater drainage would be less than significant impact, and no mitigation would be required.

Electric Power, Natural Gas, and Telecommunications

Electric power and natural gas are provided to the City by PG&E and telecommunications services are primarily provided by a range of providers including AT&T and Comcast. Project construction would occur predominantly within existing street ROWs and would not impact facilities required to provide electric power, natural gas, or telecommunications facilities. Further, project operations would not result in the need for new or expanded facilities in the area. For these reasons, no impact would occur concerning electric power, natural gas, or telecommunications facilities, and no mitigation is required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact. Construction of the proposed project would require a relatively small volume of water to be used during project construction. Water would be used to prevent dust from becoming airborne, cleaning construction equipment, mixing concrete, compaction of fill materials, and to meet other construction-related needs. Water use during construction would be short-term in nature, occurring over the approximately one-year construction timeline and would cease upon completion of construction. Construction activities would not require additional potable water treatment facilities or installation of new water lines, new supplies, or new entitlements. Therefore, no significant impacts would occur during construction and mitigation would not be required.

Once operational, the project would treat a buildout wastewater flow considered by the 2003 Northwest WWTP SEIR to meet planned growth and treatment demand in the City. Upon completion, the project would supply recycled water, resulting in beneficial improvements to the City's water supply. Beyond restroom and laboratory processes, no potable water would be used for the treatment process at the Northwest WWTP. Therefore, the project's operational impacts on water use would be less than significant and would help to conserve water by increasing the supply and availability of recycled water through expansion of the supple and extension of distribution network. It is further noted and as

described in the UWMP, the District anticipates having adequate water supply to meet the City's projected demands through year 2045.

The UWMP methodology was partly based on the population and housing projections for the City and to help project future water demands within the service area. *Table 4-11: Normal Water Year Supply and Use* provides projected water use in five-year increments from 2025 to 2045 for normal water years. In all years the projected supply was greater than the project demand.

Table 4-11: Normal Water Year Supply and Use

	2025*	2030*	2035*	2040*	2045*
Supply					
Potable	3,052	3,358	3,694	4,064	4,120
Reclaimed	62	142	236	330	424
Total:	3,114	3,500	3,930	4,394	4,544
Demand	2,450	2,769	3,126	3,509	3,647
Difference:	**664**	**731**	**804**	**885**	**897**
*acre feet per year					

The UWMP also evaluated single dry year and multiple dry year water supply compared to water demand. For the single dry year from years 2025 to 2045. Supply and demand for these years was anticipated to be the same and would be as follows: 2,228 af for 2025; 2,451 af in 2030; 2,696 for 2035; and 2,966 for 2040, and 3,007 for 2045. For multiple dry years from the first two third dry year are shown in *Table 4-12: Multiple Dry Year Water Supply and Use***.** The City projection shows that the City's water supply will be able to handle demand during a multiple dry year period.

Table 4-12: Multiple Dry Year Water Supply and Use

		2025	2030	2035	2040	2045
First Year	**Supply Total**	2,388	2,627	2,890	3,179	3,223
	Demand Totals	2,388	2,627	2,890	3,179	3,223
	Difference	0	0	0	0	0
Second Year	**Supply Total**	2,301	2,532	2,785	3,064	3,106
	Demand Totals	2,301	2,532	2,785	3,064	3,106
	Difference	0	0	0	0	0
Third Year	**Supply Total**	2,228	2,451	2,696	3,064	3,106
	Demand Totals	2,228	2,451	2,696	3,064	3,106
	Difference	0	0	0	0	0

Thus, because the project would not increase demand for potable water, and would provide additional recycled water, the proposed project would not affect the City's ability to provide water in dry or multiple dry years. Impacts would be less than significant and mitigation is not required.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact. The proposed project would provide additional wastewater treatment capacity in the City to meet existing demand and planned growth within the service area. The project does not include new residential, industrial, commercial development, or other uses that would substantially increase the amount of wastewater generated in the project area. In addition, the existing conveyance system aside from the project improvements are sized to meet estimated wastewater flow generation at buildout based on the development levels. Therefore, the project would have a beneficial rather than an adverse effect on wastewater treatment capacity in the project area. For these reasons, impacts concerning wastewater treatment capacity would be less than significant and no mitigation would be required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. The City of Rio Vista is serviced by the Keller Canyon Landfill which has a permitted capacity of 75,018,280 cubic yard, and remaining capacity of 63,408,410 cubic yards and a cease operation date of 12/31/2050 (CalRecycle, 2021). No significant structure demolition is proposed during project construction and some recycling of construction debris (e.g., used asphalt) would likely occur in accordance with City policy. Therefore, the project's construction-related impacts on existing landfill capacity would be minor and incremental. Project operation would not produce solid waste, as the purpose of the project is to convey wastewater underground from domestic sources to a wastewater treatment facility. A less than significant impact would occur and no mitigation would be required.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. The proposed project would comply with all federal, state, and local statues and regulations related to solid waste. Implementation of the proposed project would not result in the generation of solid waste on the site and would not increase the demand for solid waste disposal. The project would result in a less than significant impact concerning solid waste reduction, and no mitigation is required.

Cumulative Impacts

Water

Current water supply exceeds current yearly water demand within the City and projected water demand. The UWMP considers the general plan and uses that are planned for as part of buildout of the City. This considered past, present, and reasonably foreseeable projects. As noted in the UWMP, there are adequate water supplies in single year and multiple dry year conditions. While the population in the City is anticipated to continue to increase, population growth is not anticipated to substantially increase. Therefore, the City anticipates water supply will continue to keep pace with growth. In addition, the City maintains water efficiency measures that reduced per-capita water usage and more stringent water restrictions could be imposed on all city areas should need arise. Because there is adequate water supply

and treatment capacity to serve projected demand under present per capita demand rates, the project would not require new water supply contracts to be secured or new entitlements. Lastly, the proposed project would not result in increased demand for water resources and would not result in a cumulatively considerable impact.

Wastewater

The proposed project involves improvements to facilitate transferring wastewater treatment from the Beach WWTP to the Northwest WWTP. Improvements would reduce discharge and water quality violations and increase the volumes of and availability of recycled water. The project itself would not result in increased demand for wastewater services necessitating increased capacity beyond that already planned. Thus, the proposed project taken in conjunction with past, present, and reasonably foreseeable projects not necessitate additional construction of wastewater treatment facilities and impacts would be less than significant.

Solid Waste

The proposed project in conjunction with past, present and likely foreseeable future projects in the vicinity would use the KCLF. The landfill has substantial capacity and is expected to serve projected demand through the lifecycle of the landfill. In addition, all other projects considered on a cumulative basis also would be required to undergo site specific environmental and CEQA review. In addition, through the planning process, all other projects would be required to comply with waste reduction strategies both for construction and during operation of the project. It is anticipated that impacts would be reduced to less than significant and would be less than cumulatively considerable.

4.20 Wildfire

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			**X**	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				**X**
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				**X**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				**X**

Environmental Setting

The potential for wildfire and the severity of impacts from a wildfire are related to numerous variables including fuel loading (amount of vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents), and topography (degree of slope). According to the California Department of Forestry and Fire Protection (CalFire), the City is not located in a State Responsibility Area (SRA) or lands classified as Very High Fire Hazard Severity Zone (VHFHSZ), but is located in a Local Responsibility Area (LRA).

Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The City's maintains the Comprehensive Emergency Management Plan (CEMP) which provides direction for responding to disastrous occurrences, including wildfire, in Rio Vista. The plan meets the requirements of Solano County's policies on Emergency Response and Planning, the Standardized Emergency Management System (SEMS) Operations Area Response, defines the primary and support roles of City agencies and departments in after-incident damage assessment and reporting requirements. The CEMP addresses interagency coordination and provides for the operation of police, fire, and health services, as well as transportation alternatives in the event of a multi-hazard emergency.

Primary emergency evacuation routes within the City include Highway 12, Route 84, and Airport Road. Improvements are not proposed along Highway 12 or Highway 84 and construction activities would not be expected to impact the flow of traffic on these roadways. However, as discussed within Section 2.0, Project Description, wastewater system improvements are proposed along Airport Road. Construction of the Airport Road Project Segment could result in temporary lane closures and construction-related traffic that could impact the movement of emergency vehicles.

Prior to commencement of construction activities, emergency service providers would be notified of any potential interruption of access due to construction activities. As necessary, detours would be provided along rights-of-way to maintain the flow of traffic within the City. Once construction is completed, project operations would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As such, the project would have a less than significant impact on an emergency response plan or emergency evacuation plan and mitigation is not required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The proposed project includes improvements to the City's wastewater conveyance and treatment system. The proposed improvements would not involve occupants. Therefore, the proposed project would not exacerbate wildfire risk within the project area or expose additional occupants to pollutant concentrations from wildfires. No impact would occur concerning exacerbation of wildfire risks and no mitigation is required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant Impact. The proposed project would not require installation of roadway infrastructure but would include construction of wastewater conveyance system facilities within existing roadways throughout the City. Accordingly, project construction would result in temporary road closures, detours, and construction-related traffic. Temporary impacts would be managed to maintain emergency access and traffic flow throughout construction. Project implementation would not result in impacts to fuel breaks, emergency water sources, or additional utilities throughout the City. A less than significant impact would occur, and no mitigation would be required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The proposed project is not located within a VHFHSZ. The project would not result in impacts to drainage patterns, stormwater management infrastructure, or groundwater recharge, as a majority of proposed improvements would be within existing roadways. Project construction would not exacerbate potential hazards associated with downstream flooding or landslides. No impact would occur, and no -mitigation would be required.

Cumulative Impacts

The proposed project, in conjunction with past, present and reasonably foreseeable projects within the former Rio Vista Airport reuse area and immediately surrounding area would not make a cumulative contribution to any impacts associated with wildfire. The proposed project and all other projects planned within the City would be subject to plan review and approval which would ensure there are no conflicts with emergency and evacuation planning efforts. In addition, because the City is not in an area prone to wildfires, is relatively flat, potential wildfire impacts are remote and secondary effects such as downstream flooding, landslides, or drainage changes are similarly remote. Therefore, cumulative impacts would be less than significant.

4.21 Mandatory Findings of Significance

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Does the project:				
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		**X**		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			**X**	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			**X**	

a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact with Mitigation Incorporated. As discussed in Sections 4.1 through 4.20, the proposed project would not degrade the quality of the environment with the implementation of identified

mitigation measures. As discussed in Section 4.4, Biological Resources, the proposed project would not have a significant impact on sensitive habitat or species following implementation of Mitigation Measures BIO-1 through BIO-5.

As identified in Section 4.5, Cultural Resources, the proposed project would not have a significant impact on historic, cultural, or tribal cultural resources located on the project site following compliance with implementation of Mitigation Measures CUL-1 through CUL-2. The proposed project would result in a less than significant impact on cultural resources.

As described in the environmental topic sections of this Initial Study, impacts were found to be less than significant, and the proposed project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant Impact. As described in the impact analyses in Sections 4.1 through 4.20, any potentially significant impacts of the proposed project would be reduced to less-than significant following through the design of the project and incorporation of mitigation measures when needed. All planned projects in the vicinity of the proposed project would be subject to review in separate environmental documentation and would be required to conform to the RVGP, Zoning Ordinance, and would be required to mitigate for project-specific impacts, and/or provide appropriate engineering to ensure the development meets are applicable federal, State and local regulations and codes. As currently designed, and with compliance of the recommended mitigation measures, the proposed project would not make a substantial contribution to a cumulative impact.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact. Consistent with Section 15065(a)(4) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the proposed project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include construction impacts related to air quality and noise. However, as discussed, these would be less than significant. No other direct or indirect adverse effects on human beings have been identified.

5.0 CEQA Plus Documentation

The City is seeking funding for the proposed project under the SWRCB's CWSRF Program, which is partially funded through the federal government. Because of the federal nexus through funding, projects seeking funding through the CWSRF Program are subject to federal laws and regulations (e.g., federal "cross-cutters"). Under the CWSRF Program, SWRCB uses a project's CEQA document along with federal cross-cutting documentation in place of a NEPA document; this document is termed a "CEQA-Plus" document. This section addresses the Project's compliance with federal laws and regulations to satisfy the CEQA-Plus requirements.

5.1 Clean Air Act

The proposed project is located within the Sacramento Valley Air Basin (SVAB), which is under the jurisdiction of the Yolo-Solano County Air Quality Management District (YSAQMD). The SVAB is designated nonattainment for State and federal health-based air quality standards for ozone. The SVAB is designated nonattainment for State $PM_{2.5}$. To meet Federal Clean Air Act (CAA) requirements, the YSAQMD has prepared an Air Quality Attainment Plan (AQAP), which was adopted in 1992 and updated in 2003 and would be applicable to the proposed project.

A project is deemed inconsistent with air quality plans if it results in regional population, employment, or vehicle-miles-traveled (VMT) growth that exceeds estimates used to develop the applicable air quality plans. The air quality plans are based on growth projections from the Sacramento Area Council of Governments (SACOG) and local plans, including the general plans of city and county. Projects that propose development that are consistent with the growth anticipated by SACOG's MTP/SCS and the Cities and Counties general plans would be consistent with YSAQMD's AQAP.

The proposed project involves the installation of new waterlines, lift stations, and a clarification pond at the Northwest WWTP. The project site would constantly move in multiple areas around the City of Rio Vista and would not be concentrated in one area. The proposed project would be constructed in one phase. The anticipated construction duration for the proposed project would be approximately 12 to 16 months. Stationary sources, such as structures and businesses, would comply with YSAQMD rules and regulations and are generally not considered to have a significant air quality impact. The proposed project is not considered a stationary source and would not directly induce growth in the county or result in long-term development that would conflict with the County's general plan growth forecast.

As discussed in Section 4.3, Air Quality, construction and operation of the proposed project would not exceed any established YSAQMD thresholds. Therefore, implementation of the proposed project would be consistent with the Clean Air Act and relevant air quality management programs and policies.

5.2 Coastal Barriers Resources Act

The Coastal Barrier Resources Act of 1982 designated various undeveloped coastal barriers for inclusion in the Coastal Barrier Resources System (System). Areas so designated were made ineligible for direct or indirect federal financial assistance that might support development, including flood insurance, except for emergency life-saving activities. Exceptions for certain activities, such as fish and wildlife research, are provided, and National Wildlife Refuges and other, otherwise protected areas are excluded from the

System. The System includes relatively undeveloped coastal barriers along the Atlantic and Gulf coasts, as well as the Great Lakes and Puerto Rico and the Virgin Islands.

The Project is located within City of Rio Vista and is not within the System. The project site is in the State of California and the System encompasses areas within the Gulf Coast, Atlantic Ocean, and the Great Lakes but not the Pacific Coast. Therefore, compliance with this Act is not applicable to the project.

5.3 Coastal Zone Management Act

The Coastal Zone Management Act (PL 92-583), administered by National Oceanic and Atmospheric Administration Fisheries Service's (NOAA Fisheries) Office of Ocean and Coastal Resource Management, provides for management of the nation's coastal resources, including the Great Lakes, Atlantic Ocean, and the Great Lakes but not the Pacific Coast. The Act seeks to balance economic development with environmental conservation. It designated various undeveloped coastal barriers for inclusion in the Coastal Barrier Resources System (System). Areas so designated were made ineligible for direct or indirect federal financial assistance that might support development, including flood insurance, except for emergency life-saving activities. In addition, the Act outlines two national programs, the National Coastal Zone Management Program and the National Estuarine Research Reserve System. Exceptions for certain activities, such as fish and wildlife research, are provided, and National Wildlife Refuges and other, otherwise protected areas are excluded from the System.

The project site is in the City of Rio Vista which is approximately 50 miles from the nearest shoreline of the Pacific Ocean and approximately 10 miles from the nearest tidally influenced areas. Thus, the project is outside any area subject to the System and compliance with this Act is not applicable.

5.4 Endangered Species Act

The federal ESA (16 USC 1531 et seq.) and subsequent amendments establish legal requirements for the conservation of endangered and threatened species and the ecosystems upon which they depend. Pursuant to the federal Endangered Species Act (ESA) (PL 93-205), the U.S. Fish and Wildlife Service (USFWS), NOAA Fisheries have regulatory authority over federally listed species, and by the National Marine Fisheries Service (NMFS) for marine species and anadromous fish.

Under ESA, a permit to "take" a listed species is required for any federal action that may harm an individual of that species. Take is defined under ESA Section 9 as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Under federal regulation, take is further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. In addition, under the federal ESA, the USFWS or NMFS may designate critical habitat for listed species. Section 7 of the federal ESA requires federal agencies to consult with USFWS or NMFS to ensure that their actions are not likely to jeopardize listed threatened or endangered species, or cause destruction or adverse modification of critical habitat. Section 10 of the ESA requires similar consultation for non-federal applicants.

As described in Section 4.4 above, based on an analysis of existing literature, 9-Quad California Natural Diversity Database (CNDDB) occurrences, and United States Fish and Wildlife Service listed species in combination with professional expertise and observations in the field, a list of special-status plant and

animal species that have the potential to on or in the vicinity of the project site was generated. Thirteen species listed as candidate, threatened, or endangered under the Federal Endangered Species Act (FESA) were identified. Of these 13 species, no individuals or potential habitat was observed for 11 species during field visits. Though no individuals or nests were observed, there is low potential for American peregrine falcon (*Falco peregrinus anatum*) and Swainson's hawk (*Buteo swainsoni*) to be present in the vicinity of the project. With adherence to a project mitigation measure requiring pre-construction surveys for nesting birds should project construction occur during the nesting season, no effects are anticipated to these two species. No direct effects to individuals or indirect effects due to habitat modification are anticipated as a result of the project.

The proposed project has potential to impact nesting birds that are protected under the federal ESA. Nests in close proximity to work areas may be disturbed. Due to the potential for protected species to occur within the Project area, Mitigation Measures BIO-1 and BIO-2 require pre-construction nesting surveys and protection measures should any species be located. These measures shall be incorporated to the project to reduce the potential impacts to nesting ESA-protected birds to less than significant. With mitigation incorporated, the proposed project would not have the potential to violate the ESA.

5.5 Environmental Justice

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Environmental Justice evaluations are a factor to be considered when performing NEPA environmental impact analyses in advance of RD proposed funding. The Executive Order charges all federal agencies with making the achievement of environmental justice part of its mission by "identifying and addressing as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations."

As defined by USDA Departmental Regulation 5600-002, minority groups include "individuals who are Black; Hispanic or Latino; Asian American; American Indian and Alaskan Native; Native Hawaiian and other Pacific Islander". Minority populations are identifiable groups of individuals who will be affected by a proposed USDA program, policy, or activity via geographical proximity. These populations can also be geographically dispersed or transient individuals such as migrant workers or Native Americans. As defined by USDA Departmental Regulation 5600-002, a low-income person is an individual whose median household income is equal or below the Department of Health and Human Services poverty guidelines. Specifically, low-income populations include any identifiable population of low-income peoples living in geographic proximity to or geographically dispersed and transient people who are impacted by USDA programs, policies, and actions. According to the USDA, a population is considered a minority or low-income community if:

1. the percentage of minority and/or low-income populations exceeds the overall city or county population average by 10 percent, and
2. the percent minority and/or low-income population exceeds the total block group population by 50 percent or more.

This environmental justice analysis considers whether any low-income or minority community would experience disproportionally high adverse human health or environmental effects that:

- is predominately borne by a minority population and/or a low-income population; or
- will be suffered by the minority population and/or low-income population and is appreciable more severe or greater in magnitude than adverse effects that will be suffered by the non-minority population and/or low-income population

Because impacts are expected to be localized in nature, United States (U.S) Census blocks within 100 feet of the proposed alignment were considered for the environmental justice analysis (EJ Analysis). The alignment analysis considers two sections independently, as the alignment is noncontiguous and extends along two different roadways in Rio Vista. See Appendix G, Environmental Justice Supporting Documents which shows the two alignments and the corresponding EJ Screen 2.0 Environmental Justice Indices Data. The first alignment includes all Census Blocks adjacent to the proposed alignment on Beach Road, South Front Street, and River Road as shown in the Appendix G, Figure 1.

The second alignment includes all Census Blocks adjacent to or within the proposed alignment on Airport Road, Edgewood Drive, and Summerset Drive as shown in Appendix G, Figure 2. Due to the low population and rural characteristics of Census Blocks within the proposed alignment area, there was insufficient census demographic data to perform the analysis at the Census Block level. Many of these Census Blocks do not contain residential communities and contain industrial and commercial uses. As a result, the analysis was performed at the Census Tract level. The proposed alignment runs through Census Tracts 2535.02 and 2535.01.

The following factors were considered when identifying potential environmental justice communities within the proposed alignment's immediate and surrounding vicinity: median household income (MHI), the percent of population living under the poverty line, minority population percentage, linguistic isolation percentage, and pollution burden. Information on demographics, income, and poverty status were obtained for the City of Rio Vista and Solano County from the United States Census Bureau 2020 Data.

Additional data used to confirm census data for the alignment area includes the United States Environmental Protection Agency's (U.S. EPA's) EJScreen 2.0 Environmental Justice Indices Data. EJScreen 2.0 data compares a census tract's demographic and environmental hazards data to nationwide data to provide a percentile ranking for each characteristic. These percentiles are defined as a percent of the US population which has an equal or lower value of potential for exposure, risk, or pollution burden. The following EJScreen 2.0 indices were used in the analysis, see Appendix G, Figures 3 through 23:

- Particulate Matter 2.5 ($PM_{2.5}$),
- Ozone,
- Air Toxics Cancer Risk,
- Air Toxics Risk Health Indicator,
- Demographic Index Scores,
- less than high school education percentiles,
- linguistically isolated population percentiles,
- low Income percentiles, and
- unemployment rates.

A Census Tract is considered a potential disadvantaged community if the EJScreen EJ indices risk rankings are higher than the 80th percentile. For more details on the proposed alignment area's EJScreen 2.0 scores, please see Appendix G, Figure 1 and 2.

As of 2021, the MHIs of Census Tract 2535.01 and 2535.02 was $70,591 per year and $75,625 per year, respectively, which was below the State of California's 2021 MHI of $84,097 per year and Solano Counties MHI of $89,648 per year. According to EJScreen 2.0, Census Tract 2535.02 contains low-income levels ranking between the 90th to 95th percentile (Appendix G, Figure 17). Block groups in Census Tract 2535.02 extending southwest of Marina Drive along Beach Drive have low-income rankings between the 90th and 95th percentile, while block groups to the northeast and east of Marina Drive and Beach Drive have low-income rankings between the 50th and 60th percentile. Census Tract 2535.01 has EJScreen 2.0 low-income levels ranking between the 50th and 60th percentile (Appendix G, Figure 18). Given that both census tracts along the proposed alignment include larger percentage of populations below the MHI for Solano County and the State of California by more than 10 percent, and EJScreen 2.0 low-income percentile rankings are greater than the 80th percentile for Census Tract 2535.02, a low-income community is present within the Census tracts along the proposed alignment.

Approximately 32 percent of the population of Tract 2535.02 identifies as a person of color (POC). The largest POC group of this tract is Hispanic, making up 23 percent of the tract's POC population, see Appendix G, Figure 21. Approximately 35 percent of tract 2535.01 identifies as a POC. The largest POC group of this tract would be Hispanic, making up 15 percent of the tract's POC population, see Appendix G, Figure 22. County wide, 62 percent of the population identifies as POC with the largest POC group being Hispanic, being 47 percent of the county's POC population. Statewide, 63 percent of California's population identifies as POC. The two census tracts potentially impacted by the proposed project contain lower percentages of POC and minority groups than that of Solano County and the State of California. According to EJScreen 2.0, there are no census block groups with POC percentile rankings greater than 70 percent along the proposed alignment. Given the Census Tracts along the proposed alignment contain POC population percentages less than that of Solano County and the State of California, a predominantly minority community is unlikely to be present in these Census Tracts.

To identify levels of pollution burden with the proposed alignments area and its surrounding communities, EJScreen 2.0 pollutant indices ozone and $PM_{2.5}$ pollution burden were used. Pollutant exposure levels are provided in terms of percentiles. Census Block groups in Tract 2535.02 extending southwest of Marina Drive along Beach Drive have EJScreen 2.0 Ozone ratings between the 80th and 90th percentile and $PM_{2.5}$ ratings between the 90th and 95th percentile (See Appendix G, Figure 5 and 3 respectively). All other block groups within the proposed alignment area have ozone and $PM_{2.5}$ percentile ratings less than 80 percent. Census Tract 2535.01 has ozone and $PM_{2.5}$ ratings less than 80 percent (See Appendix G, Figure 6 and 4 respectively). Given that Census Tract 2535.02 does contain census blocks with pollution burden greater than or equal to the 80th percentile, the potential for this Tract's communities to be exposed to higher levels of PM2.5 and ozone pollution burden.

Based on the data above, the proposed alignment could impact a low-income community with high pollution burden; however, the proposed alignment would not affect a minority community. Therefore, this environmental justice analysis must consider the potential for a low-income community to be present within the alignment area and determine if the project results in environmental effects.

Temporary construction impacts associated with the proposed alignment would occur adjacent to the proposed alignment area. Nearby residences and Census Block groups could be subject to proposed

alignment construction-related impacts, such as increased noise and traffic. However, as discussed in the Water and Wastewater Section #.# above, related impacts would be short-term, and localized in nature. In addition, the operation of the new alignment would not affect residences in the surrounding neighborhoods. As discussed in the Air Quality and Greenhouse Gas section, construction and operation of the proposed alignment would not result in significant impacts from air quality and greenhouse gas emissions within the alignment's vicinity, therefore the proposed alignment would not increase the pollution burden and have adverse effects on its adjacent communities. Therefore, construction and operation of the proposed alignment would not have a disproportionately high and adverse effect on the low-income populations along the proposed alignment area.

5.6 Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) of 1981 (Public Law 97-98 is intended to minimize the contribution of federal programs to the unnecessary and irreversible conversion of farmland to nonagricultural uses by ensuring that federal programs are administered in a manner compatible with state government, local government, and private programs designed to protect farmland. It does not authorize the federal government to regulate the use of private land or lands not under federal jurisdiction, or in any way affect the rights of property owners. Under the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland; however, it cannot be open water or urban built-up land. The proposed project would not impact any of the following categories:

- prime farmland - the highest quality land for food and fiber production having the best chemical and physical characteristics for producing;
- unique farmland - land capable of yielding high value crops such as citrus fruits, olives; and
- farmlands designated as important by state and local governments, with the approval of the Secretary of Agriculture.

As discussed in Section 3.2, "Agricultural Resources," of this Initial Study, the project facilities would be located within a developed residential neighborhood, which is designated as Urban and Built-up Land and Other Land pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation. Because the project is located entirely within the built-out urban environment of the community and no farmland occurs in the Project area, the FPPA does not apply to the project.

5.7 Floodplain Management

EO 13690, "The Federal Flood Risk Management Standard" (January 30, 2015) revises EO 11988, "Floodplain Management" (May 24, 1977), and directs federal agencies to take the appropriate actions to reduce risk to federal investments, specifically to "update their flood-risk reduction standards." The goal of this directive is to improve the resilience of communities and federal assets against the impacts of flooding and recognizes the risks and losses due to climate change and other threats.

To help meet these requirements, the Federal Emergency Management Agency's (FEMA) issues Flood Insurance Rate Maps (FIRMs) that are used to determine if properties are located within Special Flood Hazard Areas. As explained in Section 4.10, Hydrology and Water Quality, of this Initial Study, two short segments of the underground sewer alignment would be within Special Flood Hazard Areas.

As shown on FEMA panel 06095C0539E with an effective date of 05/04/2009, the project alignment at the Beach Drive and South Second Street intersection, a distance of approximately 250 feet, is identified as being in both in a Zone AO –(Base flood elevation of 1' foot), and Zone AE as a regulatory Floodway.

In addition, the project alignment along the drainage channel and West Wind Mobilehome Park would be adjacent to a FEMA designated AE Zone that crosses St. Francis Way on flood panels 06095C0541E and 06095C0537E both with an effective date of 05/04/2009. Approximately 100 feet of the new sewer alignment within St. Francis Way would be within an AO zone. The alignment adjacent to the channel would be on the margins but appears outside the AE Zone.

As discussed in Section 4.10 Hydrology and water Quality, these segments of the project include installation of new sewer line to replace existing underground sewer. Upon replacements, the new lines would be buried and the ground surface returned to existing contours. There are no above ground structures or facilities that would be located in these areas. There are no habitable structures that would be constructed as part of the project. This, the project does not have the potential to redirect and flood flows, would not modify any existing flood zone, and the project would not result in any additional exposure of people or structures to risk of flooding. Thus, the project would have no impact related to a 100-year flood hazard area or risk of flooding.

5.8 National Historic Preservation Act

Federal protection of resources is legislated by (a) the National Historic Preservation Act (NHPA) of 1966 as amended by 16 U.S. Code 470, (b) the Archaeological Resource Protection Act of 1979, and (c) the Advisory Council on Historical Preservation. Accordingly, the NHPA sets forth the responsibilities that federal agencies must meet in regard to cultural resources, especially in regard to Section 106 as set forth in the regulations (36 CFR Part 800). These laws and organizations maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Federal and federally-sponsored programs and projects are reviewed pursuant to Section 106 of the NHPA. Section 106 of the NHPA requires federal agencies to consider the effects of proposed federal undertakings on historic properties. NHPA requires federal agencies to initiate consultation with the State Historic Preservation Officer as part of the Section 106 review process.

Federal agencies must conduct the necessary studies and consultations to identify cultural resources that may be affected by an undertaking, evaluate cultural resources that may be affected to determine if they are eligible for the NRHP (that is, whether identified resources constitute historic properties), and assess whether such historic properties would be adversely affected. Historic properties are resources listed on or eligible for listing on the NRHP (36 CFR 800.16[l][1]). A property may be listed in the NRHP if it meets criteria provided in the NRHP regulations (36 CFR 60.4). Typically, such properties must also be 50 years or older (36 CFR 60.4[d]). The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, or association and:

(A) That are associated with events that have made a significant contribution to the broad patterns of our history; or

(B) That are associated with the lives of persons significant in our past; or

(C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or That have yielded, or may be likely to yield, information important in prehistory or history. Section 106 defines an adverse effect as an effect that alters, directly or indirectly, the qualities that make a resource eligible for listing in the NRHP (36 CFR 800.5[a][1]).

Consideration must be given to the property's location, design, setting, materials, workmanship, feeling, and association, to the extent that these qualities contribute to the integrity and significance of the resource. Adverse effects may be direct and reasonably foreseeable or may be more remote in time or distance (36 CFR 8010.5[a][1]).

As discussed in Section 4.5 (Cultural Resources), the Cultural Resources Inventory and Evaluation Report completed by SWCA (2022), analyzed the APE based on the provisions for the treatment of cultural resources contained within Section 106 of the NHPA. A record search was conducted in order to determine the potential for the project to adversely affect cultural resources eligible for listing on the NRHP. As part of this process, the horizontal APE consists of all areas where activities associated with the project would result in ground disturbance and subject to environmental review under NEPA. This includes areas proposed for the proposed sewer pipeline, manholes, Northwest WWTP improvements, recycled water line, and other elements described in the official project description. The horizontal APE represents the survey coverage area. It measures approximately 3.5 mile.

The vertical APE is described as the maximum depth below the surface to which excavations for project foundations and facilities will extend. Therefore, the vertical APE includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the project, depending on how deep the existing wastewater pipes are currently located. This study assumes trenching will not exceed 6 feet below surface. A review of geologic and soils maps was necessary to determine the potential for buried archaeological sites that cannot be seen on the surface.

The vertical APE is described also as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. For the current project, the above-surface vertical APE is limited to existing lift stations, the two proposed lift stations, and new facilities at the Northwest WWTP.

The Cultural Resources Report (Appendix C) prepared for the project that included an evaluation of properties and locations that could qualify for protections under Section 106. For the purposes of compliance for NHPA Section 106, the Cultural Report found that there are no historic properties affected. The project does not include any new structures, or modifications to any existing structures. With the exception of the improvements to the lift stations and installation of two new lift stations, and the improvements at the Northwest WWTP, none of the project elements would occur above ground. None of these or any other project components have the potential to affect the context in which any existing culturally significant resources exist.

5.9 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) (Public Law 104-267) passed in 1976 in response to growing concern about the status of United States fisheries. The Act was amended

by the Sustainable Fisheries Act of 1996 (Public Law 104-297) and the Magnuson- Stevens Fishery Conservation and Management Reauthorization Act in 2007. The MSA, as amended, governs marine fisheries management in U.S. federal waters out to 200 nautical miles from shore and encourages "long-term biological and economic sustainability of our nation's marine fisheries." The goals of the MSA are to prevent overfishing, to rebuild overfished stocks, to increase long-term economic and social benefits, and to ensure a safe and sustainable supply of seafood. The act is in place to protect our natural resources, to maximize the possible use of these resources, and to make sure the use of marine resources is done in a safe manner. Amendments to the 1996 MSA require the identification of Essential Fish Habitat (EFH) for federally managed species and the implementation of measures to conserve and enhance this habitat. Any project requiring federal authorization is required to complete and submit an EFH Assessment with the application and either show that no significant impacts to the essential habitat of managed species are expected or identify mitigations to reduce those impacts. Under the MSA, Congress defined EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC § 1802(10)). The EFH provisions of the MSA offer resource managers a means to heighten consideration of fish habitat in resource management. Pursuant to section 305(b)(2), federal agencies shall consult with the NMFS regarding any action they authorize, fund, or undertake that might adversely affect EFH. The project is approximately 50 miles inland and would not affect any fisheries or EFH. The MSA does not apply to the project.

5.10 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. Section 703, et seq.), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all birds native to the United States.

As discussed in Section 3.4, "Biological Resources," of this Initial Study, the project site is predominantly within existing roadways and urbanized areas but would be located adjacent to areas that provide potential nesting habitat for burrowing owl (*Athene cunicularia)*, American peregrine falcon (*Falco peregrinus anatum),* Swainson's hawk (*Buteo swainsoni)*, song sparrow (*Melospiza melodia*), and California clapper rail (*Rallus longirostris obsoletus*), common raptors, and other common nesting birds.

Ground-disturbance and other work activities during the nesting season for these species (approximately February 1 to August 31) could result in nest abandonment and the mortality of eggs and chicks. However, implementation of Mitigation Measures BIO-2 and BIO-3 would prevent take of MBTA species by requiring preconstruction surveys, establishment of buffer/non-disturbance areas around active nests, would be implemented and prevent nest abandonment and loss of eggs or young.

5.11 Protection of Wetlands

The purpose of EO 11990 (May 24, 1977) is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." To meet these objectives, EO 11990 requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. EO 11990 applies to:

acquisition, management, and disposition of federal lands and facilities construction and improvement projects which are undertaken, financed, or assisted by federal agencies; and federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

As described in Section 4.4 (Biological Resources), the project is in an urbanized environment but USFWS National Wetland Inventory (NWI) shows a portion of South 2nd Street as being within an area designated as Riverine, tidal, unconsolidated bottom, permanently flooded tidal, excavated (R1UBVx). This mapped areas, however, extends westerly beyond the boundaries of the adjacent marina and outside any area that contains permanently standing water. The mapped area includes portions of South 2nd Street that contains permanent hardscape and does not possess any wetland indicators (soils, plant species, or saturation).

There are no other areas mapped as wetlands including the drainage area adjacent to the West Wind Mobile Home Park. Thus, although the South 2nd Street is shown as a wetland, the project site does not contain any areas with wetland features within the project site. As such, the project will not significantly impact protected wetlands.

5.12 Fish and Wildlife Conservation Act

The Fish and Wildlife Conservation Act of 1980 (16 USC 2901 et seq.) encourages federal agencies to conserve and promote conservation of non-game fish and wildlife species and their habitats. In addition, the Fish and Wildlife Conservation Act (16 USC 661 et seq.) requires federal agencies undertaking projects affecting water resources to consult with the USFWS and the state agency responsible for fish and wildlife resources whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water will otherwise be controlled or modified for any purpose whatsoever, including navigation and drainages. The 1988 amendment (Public Law 100-653, Title VIII) to the Fish and Wildlife Conservation Act requires the Secretary of the Interior, through the USFWS, to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973."

The project would not affect or modify any stream or water body; therefore, compliance with this Act is not applicable.

5.13 Safe Drinking Water Act, Sole Source Aquifer Protection

The Safe Drinking Water Act of 1974 (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources.

The SDWA authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. Under the SDWA, EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids. The project is located in the City of Rio Vista, California and is not within or adjacent to a sole source aquifer. The nearest Sole Source Aquifer is the Santa Margarita Aquifer approximately 80 miles to the southwest of the project (EPA, 2022).

5.14 Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (16 USC Section 1271 et seq.) establishes a National Wild and Scenic Rivers System (NWSRS) for the protection of rivers with important scenic, recreational, fish and wildlife, and other values. Rivers are classified as wild, scenic, or recreational. The Act designates specific rivers for inclusion in the System and prescribes the methods and standards by which additional rivers may be added. There are no wild and scenic rivers within the vicinity of the Proposed Project. The nearest designated wild and scenic river in the American River, located approximately 31 miles northeast in the City of Sacramento (NWSRS, 2022). Therefore, no portion of the project is located within or near a designated wild and scenic river.

6.0 Alternatives

An alternatives analyses is not generally required for IS/MNDs and is reserved for analysis in an Environmental Impact Report (EIR). However, in the case of the proposed project, the CWSRF Program requires an environmental analysis to include alternatives even for projects that have a NDs and/or MNDs. Therefore, this document provides an alternatives analysis that is based on the State CEQA Guidelines Section (§) 15126. The Project also is federally funded and as such must comply with NEPA requirements. NEPA requires an alternatives analysis be performed for a Project.

The following are key provisions of the CEQA Guidelines (Section 15126.6):

- The discussion of alternatives shall focus on alternatives to the project or its site that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede, to some degree, the attainment of the project objectives, or would be more costly.
- The No Project Alternative shall be evaluated, along with its impacts. The no-project analysis will discuss what would be reasonably expected to occur in the foreseeable future if the project were not approved;
- The range of alternatives is governed by a "rule of reason," and the document need only evaluate those alternatives necessary to permit a reasoned choice and that would avoid or substantially lessen any of the significant effects of the project;
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered;
- The document need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

Lastly, the range of feasible alternatives is selected and discussed in a manner that fosters meaningful public participation and informed decision making. Among the factors that may be taken into account when addressing the feasibility of alternatives (as described in CEQA Guidelines Section 15126.6(f)(1)) are environmental impacts, site suitability, economic viability, social and political acceptability, technological capacity, availability of infrastructure, General Plan consistency, specific plan consistency, regulatory limitations, jurisdictional boundaries, and whether the project proponent could reasonably acquire, control, or otherwise have access to an alternative site. If an alternative has effects that cannot be reasonably identified, if its implementation is remote or speculative, and if it would not achieve the basic project objectives, it need not be considered in the EIR.

This section is based on the Collection System Evaluation Technical Memorandum (HydroScience, 2022) which is provided as Appendix F to this Initial Study. See **Figure 6-1: Alternative Sewer Alignment**, which identifies the alternative sewer alignments further analyzed below.

FIGURE 6-1: Alternative Sewer Alignment
Wastewater Plant Consolidation Project

Not to scale

City of Rio Vista

Alternative 1: No Project Alternative

CEQA Guidelines Section 15126.6(e)(1) states that a No Project Alternative must be analyzed. Alternative 1 evaluates the environmental impacts if the proposed improvements are not undertaken and the existing wastewater systems continued to function in its current state. were to remain in its current state. No construction would occur with this alternative and the existing violations would continue.

Under the No Project Alternative, the City would continue to operate the Beach WWTP, Northwest WWTP and entire wastewater system in its existing condition, at their current locations. The new force mains and lift stations would not be installed and existing lines, lift stations, and other equipment would only be replaced or repaired on an as needed basis. This alternative would not require any demolition of any existing facilities or reconstruction.

Under this alternative the same inspection and maintenance requirements for the wastewater system would be required and would likely continue to increase as the system ages. This is anticipated to result in increased costs and increase City staff time to replace and system components including sewer lines, lift station, and make repairs at the Beach WWTP. This also creates a safety and hazard risk as the violations from the Beach WWTP would continue.

The No Project Alternative would not achieve any of the project objectives, would result in greater long-term operational impacts, greater potential for service interruptions, and would result in increased operations and maintenance costs.

Alternative 2 (Alternative 1 in Technical Report)

Hillside Terrace Alternate Route- This alternative would have the same initial route the intersection of Beach Road and South 2nd Street but would continue northerly on south 2nd Street to the intersection with Montezuma Street. At this intersection the alignment would process northwest onto Montezuma St. to the intersection with South 7th Street where it would continue to the north. At Main Street the line would be routed west until it reaches Bruna Vista Park. This park is a City owned parcel and could be utilized as a construction staging area as well as a location for the trenchless jacking pit. From Bruna Vista Park, the alignment would turn northeast onto Hillside Terrace, where it crosses Hwy-12. The alignment would then traverse Flores Way and Gardiner Way before reaching St Francis Way. At St. Francis Way the wastewater line would continue to the Northwest WWTP with the same design as under the proposed project. This alignment has a total length of 15,200 linear feet, which is the longest length out of the four alternatives evaluated.

Alternative 3 (Alternative 2 in Technical Report)

This alternative would have the same initial route the intersection of Beach Road and South 2nd Street but would continue northerly on south 2nd Street to the intersection with Logan St. At Logan Street the alignment would turn northwesterly until it reaches 90 N. 6th Street. The alignment would then run along the north side of the existing residential lot to reach the Lira's Supermarket property, where it then crosses Highway 12 onto Gardiner Way. The alignment would continue on Gardiner Way until reaching St Francis Way. At St. Francis Way the wastewater line would continue to the Northwest WWTP with the same design as under the proposed project.

This alignment has a total length of 14,700 linear feet. This alternative requires acquiring two easements: one on the private residential lot, and the other on the supermarket property. The trenchless crossing of

Highway 12 would take several weeks to complete, and the work area would obstruct the supermarket loading docks during that period. Therefore, the impacts to the supermarket would be significant.

Alternative 4 (Alternative 3 in Technical Report)

This alternative would have a similar alignment as the proposed project from the Beach WWTP to the North Front Street. Except this alternative would proceed easterly at Saint Gertrudes Way instead of Brunning Avenue and then proceed northerly on South Front Street for one extra block. From this location the alignment would continue northerly on North Front Street, but diverge on the westerly leg (on-ramp off-ramp to Hwy-12) of North Front Street. The alignment would proceed southwest along the westerly alignment of Hwy-12 and then run for several hundred feet until reaching the crossing location with Virginia Drive. The line would cross and continue northwesterly to the intersection at St. Francis Way. Virginia Drive the line would turn northwest to the intersection with Hwy-12. which is Caltrans right-of-way. Francis Way the wastewater line would continue to the Northwest WWTP with the same design as under the proposed project. This alignment has a total length of 14,200 linear feet, which represents the shortest length of the four alternatives.

The type of Caltrans encroachment permit required (a longitudinal encroachment permit), typically has a processing time of over 12 months Considering the time-critical nature of the consolidation project, a Caltrans longitudinal encroachment permit is not preferable.

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