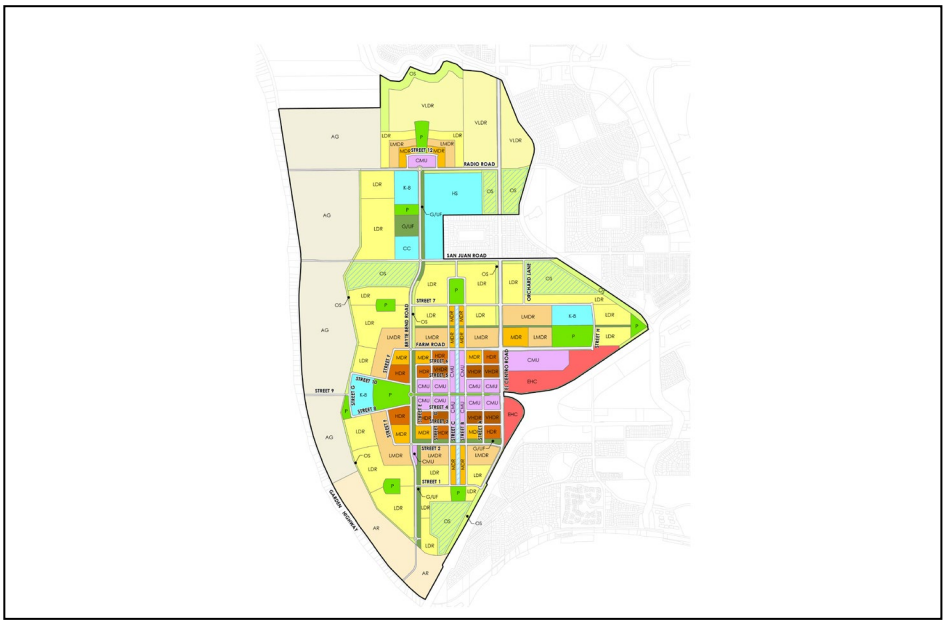
PARTIALLY RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT

UPPER WESTSIDE SPECIFIC PLAN



Control Number: PLNP2018-00284
State Clearinghouse Number: 2020100069
December 2025

COUNTY OF SACRAMENTO
DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW DIVISION
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LIST OF ACRONYMS

ADT	average daily trips
AFY	acre-feet per year
CC	Community College land use designation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
DPS	distinct population segment
DWR	California Department of Water Resources
E/HC	Employment/Highway Commercial
EFH	Essential Fish Habitat
ESU	evolutionarily significant unit
FESA	federal Endangered Species Act
ITP	Incidental Take Permit
LDR	Low Density Residential
LOS	level of service
LTA	Local Transportation Analysis
MAF	million acre feet
MG	million gallons
mgd	million gallons per day
NCMWC	Natomas Central Mutual Water Company
NDD	North Delta Diversion
NMFS	National Marine Fisheries Service
PRC	Public Resources Code
PRDEIR	Partially Recirculated Draft EIR
RC	Regional Commercial
RCRA	Resource Conservation and Recovery Act of 1976
SCWA	Sacramento County Water Agency

SWRCB	State Water Resources Control Board
USBR	United States Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
UWSP	Upper Westside Specific Plan
VMT	vehicle miles traveled
WSCP	SCWA's Water Shortage Contingency Plan
WTP	water treatment plant
YOY	young-of-the-year

1 INTRODUCTION

PURPOSE AND LEGAL CONTEXT

As required by the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Chapter 3, section 15000, et seq.), this Partially Recirculated Draft EIR (PRDEIR) discloses, analyzes, and considers the potential environmental impacts of a new alternative to the Upper Westside Specific Plan. The PRDEIR has been prepared in accordance with CEQA Guidelines Sections 15088.5 and 15132, necessitated by the addition of Alternative 5. The information contained in this PRDEIR will be reviewed and considered by the County and by any responsible agencies (as defined in CEQA) prior to a decision to approve, disapprove, or modify the proposed project.

BACKGROUND AND PROJECT OVERVIEW

The Draft Environmental Impact Report (Draft EIR) for the Upper Westside Specific Plan (UWSP) was originally published in August 2024 under State Clearinghouse Number 2020100069. The public review period for the Draft EIR lasted 45 days, from August 29, 2024, to October 14, 2024. During the public review period the County received 40 comment letters. In addition, during hearings before the Natomas Community Planning Advisory Council and Sacramento County Planning Commission on October 3, 2024, and October 21, 2024, respectively, the County received 75 oral comments and 124 written comments. Subsequently the County prepared written responses to all written and oral comments received, and on June 11, 2025, published a Final EIR containing all the comments and written responses related to the Draft EIR.

Following the publication of the Final EIR, the County received additional written comments pertaining to the merits of the project. Although there is no requirement under CEQA to address comments received following publication of a Final EIR, the County has carefully considered all comments received and has determined that potential further refinement of the proposed UWSP merits further consideration. Recirculation of the Draft EIR is prompted by the identification of a new project alternative, Alternative 5, as discussed further below. This PRDEIR provides further environmental analysis and updated information to assist the County, responsible and trustee agencies, and the public in understanding the impacts of the newly proposed changes.

This PRDEIR presents an analysis of a new Alternative 5: Revised Project Alternative, which alters the original proposed project in two key ways:

- Additional New Water Supply Source: Alternative 5 introduces Natomas Central Mutual Water District (NCMWD) as a potential domestic water supply source,

expanding the options for serving future development and potentially enhancing water supply reliability for the project area.

- Revised Circulation Network: Alternative 5 considers the removal of regular vehicular traffic connection on Radio Road between Bryte Bend Road and Garden Highway, and implementation of traffic calming on San Juan Road between Garden Highway and El Centro Road to discourage its use by through traffic. These revisions would be intended to reduce traffic volumes and related safety concerns associated with traffic levels along Garden Highway.

All other aspects of the proposed UWSP would remain unchanged, including land uses, densities, and plans for infrastructure and service delivery.

Scope of Recirculation

The RDEIR focuses chiefly on those environmental issues that would be substantially affected by the changes included in Alternative 5. It presents a description of Alternative 5, refined analyses of water supply and circulation impacts, and new or modified mitigation measures. All other portions of the original August 2024 Draft EIR and the June 2025 Final EIR remain valid and unchanged, except as otherwise revised herein.

Organization of the Document

The structure of this document is designed to highlight new and revised content, as follows:

- Introduction: Context and purpose of the recirculated Draft EIR for the Upper Westside Specific Plan.
- Description of Alternative 5: Detailed presentation of the specific differences between the proposed UWSP and Alternative 5.
- Evaluation of Environmental Issues: Evaluation of potential environmental impacts from implementation of Alternative 5, with emphasis on water supply and circulation modifications.
- Comparative Analysis of Environmental Effects: Side-by-side analysis of the proposed UWSP and Alternative 5.

Public Review and Comment

The RDEIR is being made available for a new 45-day public review and comment period, in accordance with CEQA. Interested parties are encouraged to examine the revised sections—particularly those related to Alternative 5's new water supply source and changes to the circulation network—and to submit their input regarding the

adequacy and thoroughness of the environmental analysis. All substantive comments received during this review will be considered prior to finalizing the EIR and making determinations regarding project approval.

The RDEIR is available for public review and comment as set forth in the Notice of Availability circulated by the County. During the review and comment period, written comments (including email) regarding the Revised Draft EIR may be submitted to the County at the address below.

Julie Newton, Environmental Coordinator
Department of Community Development
Division of Planning and Environmental Review
827 7th Street, Room 225, Sacramento, CA 95814
Email: CEQA@saccounty.gov

The RDEIR, Notice of Availability and other supporting documents, such as technical reports prepared by the County as part of the EIR process, are available for public review at the Division of Planning and Environmental Review at the address listed above.

In addition, electronic versions of these documents are available on the County's website at:

https://planning.saccounty.gov/PlansandProjectsIn-Progress/Pages/UpperWestsideSpecificPlan.aspx

Next Steps

Upon the conclusion of the public review period, all substantive comments will be evaluated and addressed in a Revised Final EIR. As lead agency, the County will then consider certification of the EIR and approval of the proposed UWSP, considering the updated environmental information and public input provided throughout the recirculation process.

2 ALTERNATIVE 5: REVISED PROJECT ALTERNATIVE

DESCRIPTION

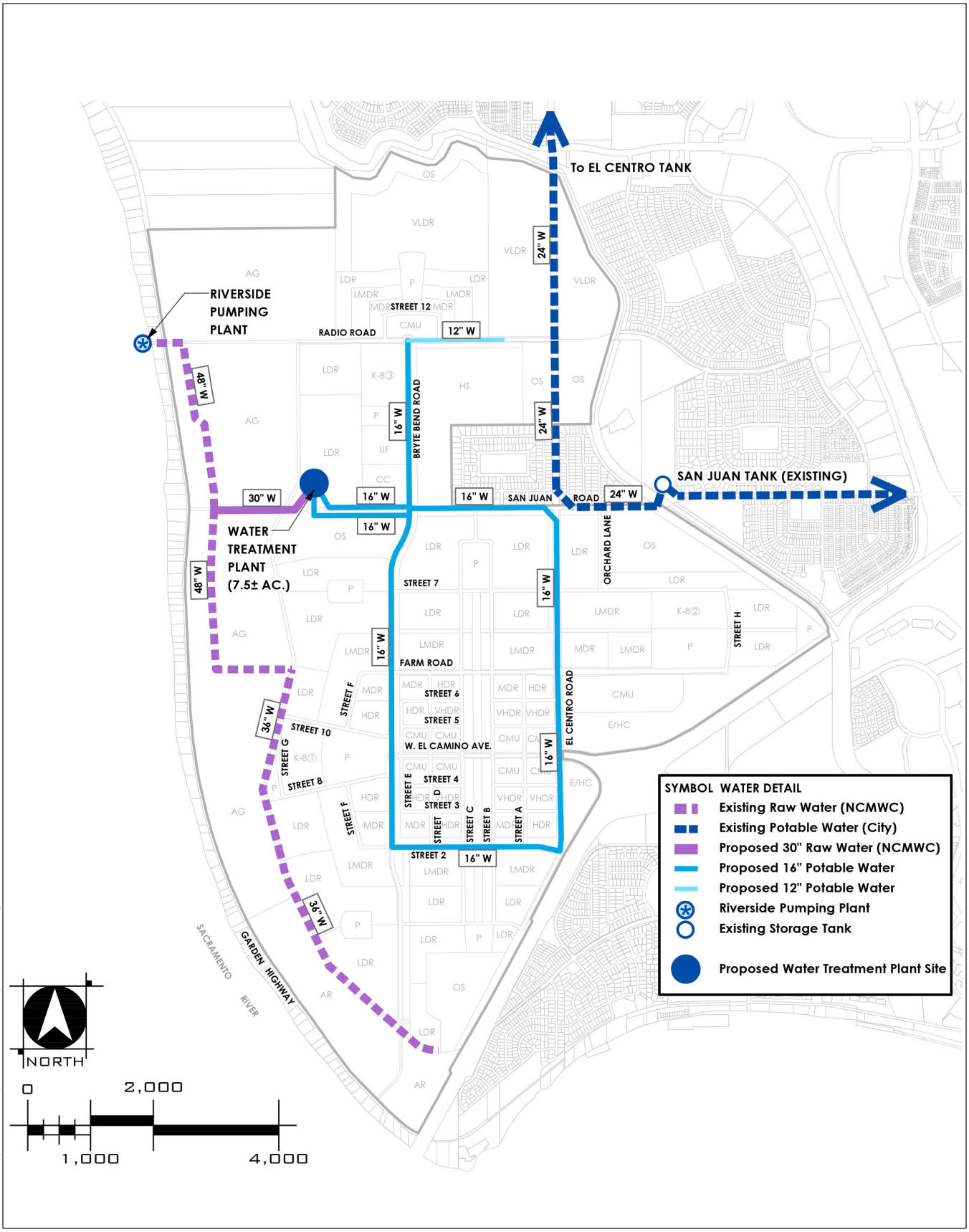
Alternative 5: Revised Project Alternative includes (i) an optional wholesale source for domestic water supply in the event that treated water from the City of Sacramento is not available, and (ii) potential changes to the circulation network intended to reduce traffic flow on Garden Highway. The Revised Project Alternative is identical to the proposed UWSP in all other respects. Land use configuration and densities, provision of infrastructure and public services, and all other characteristics of the proposed UWSP described in Draft EIR Chapter 2, *Project Description*, are the same under Alternative 5.

WATER SUPPLY OPTIONS

The proposed UWSP would be served by the Sacramento County Water Agency (SCWA) with potable water provided through a wholesale agreement with the City of Sacramento. Under Alternative 5, SCWA would instead enter into an agreement for wholesale purchase of raw water from the Natomas Central Mutual Water Company (NCMWC). The configuration and amount of residential and non-residential land uses developed under this alternative would remain the same as the proposed UWSP.

NCMWC sources its surface water supply from the Sacramento River, and NCMWC also has groundwater sources within its service area boundaries. NCMWC, through its Settlement Agreement with the United States Bureau of Reclamation (USBR) can divert and deliver up to 120,200 acre-feet (af) of surface water per year. NCMWC provides water services to 33,223 acres through pipelines, pumps and more than 50 miles of canals.

Under Alternative 5, raw water would be diverted via pumps from the existing NCMWC Riverside Pumping Plant, located on the Sacramento River adjacent to Garden Highway, immediately west of the UWSP area at Radio Road (see **Plate ALT 5-1**). Raw water would be delivered to the UWSP area via an existing 48-inch distribution main that runs along the western border of the development area. The UWSP would connect to this main where it crosses San Juan Road, approximately 600 feet east of Garden Highway, via a new 30-inch main that would extend east along San Juan Road to a proposed water treatment plant (WTP) located in the vicinity of San Juan Road and Bryte Bend Road. Construction of the new 30-inch main would occur within the San Juan Road right-of-way. After treatment and disinfection, potable water would be delivered to future uses in the UWSP area via the planned water distribution system for the UWSP presented in the Water Master Plan and described in Draft EIR Chapter 2, *Project Description*, page 2-45.



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SOURCE: Wood Rodgers, 2025

Upper Westside Specific Plan EIR

Plate ALT 5-1
Alternative 5 Water Plan

ESA

A more detailed description of the new water infrastructure required as part of Alternative 5 is presented below.

Surface Water Treatment Plant

Under Alternative 5, an approximately 7 million gallon per day WTP would be constructed on an approximately 8 acres (subject to subsequent engineering and design) on the north side of San Juan Road within the UWSP area on a parcel designated as Low Density Residential (LDR) as shown in Plate ALT 5-1. Utilities such as the proposed WTP are allowed under the LDR designation.

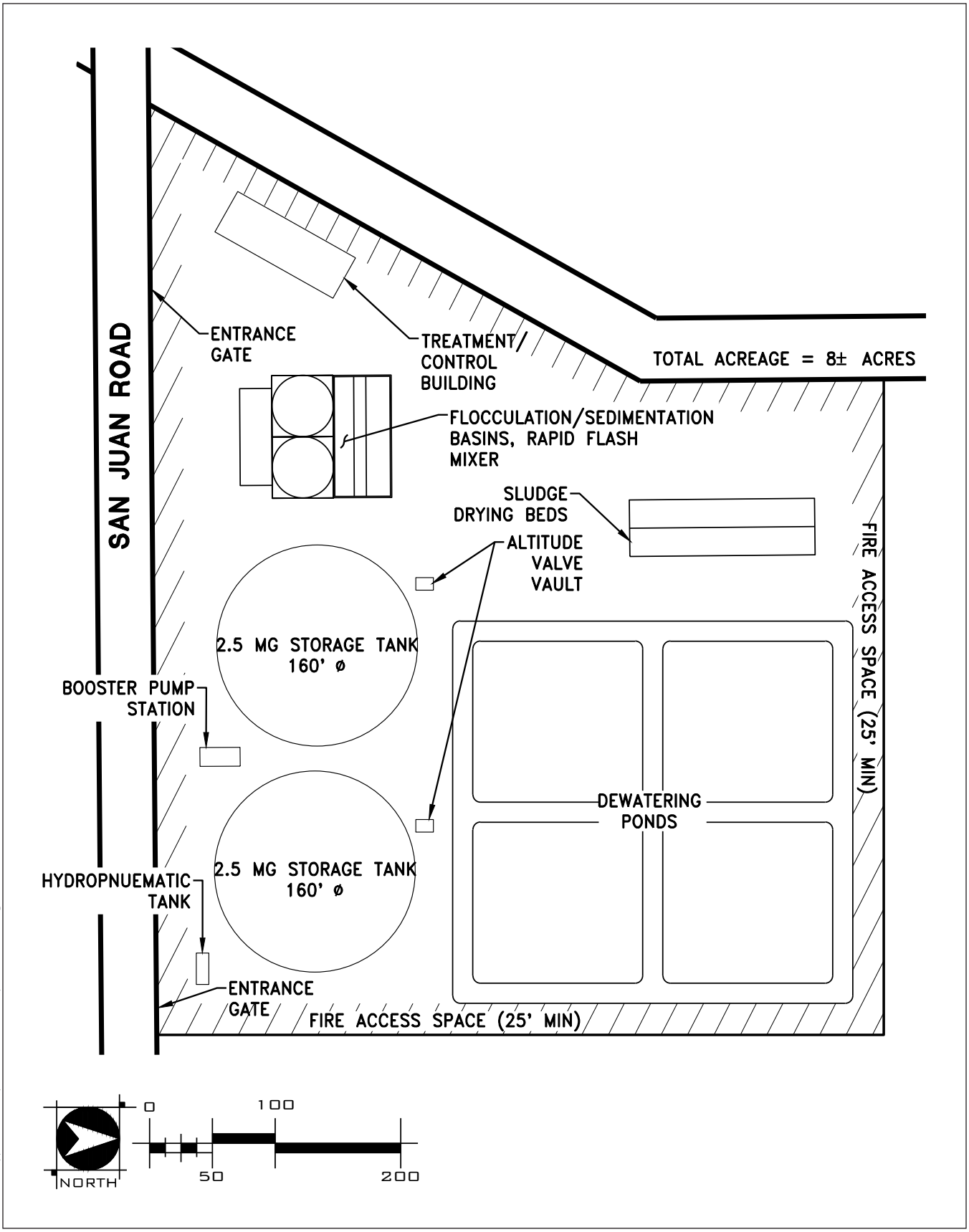
Surface water treatment plants typically consist of grit removal, followed by coagulation, flocculation, sedimentation, filtration and disinfection. In a water treatment facility, grit removal is the first step in the treatment process and reduces the solids loading of processes further downstream. A coagulant is added to the water after the grit basin and it is rapidly mixed, which is referred to as flash mix or rapid mix. This process ensures the coagulant is circulated throughout the water and relies on an injection pump for thorough dispersion. The coagulated water is either filtered directly through a medium filter (such as sand and gravel), a microfiltration or ultrafiltration membrane for higher quality waters, or it can be moved to a settling tank. In a settling tank, or clarifier, the heavy particles settle to the bottom and are removed, and then the water moves on to the filtration step of the treatment process.

It is anticipated that the UWSP WTP would include the following major aspects: raw water conveyance to water treatment plant, grit removal, rapid / flash mix, flocculation, sedimentation, filtration, disinfection, backwash storage and pumps, miscellaneous supporting electrical and site features, and other features deemed necessary to provide treated water to development allowed under the UWSP. System redundancies would be included where customary. Those redundancies would be identified in subsequent design efforts. **Plate ALT 5-2** presents a schematic layout of how the WTP may be configured.

Onsite Water Storage and Booster Pump Station

Under Alternative 5, the WTP site would include five million gallons of treated water storage and a booster pump station based on the factors shown in **Table ALT 5-1** below.

The treated water storage would be divided into two tanks of 2.5 million gallons each for redundancy and maintenance purposes. Redundancy of the booster pump station would be determined during subsequent design steps. Under Alternative 5 the booster pump would be located at or adjacent to the WTP. Proximity to the WTP would allow treated water to be discharged directly into the storage tank where it could then be pumped into the water transmission and distribution system for the UWSP. Placing the storage tank in line with the WTP would promote turnover of the treated water which maintains water quality.



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SOURCE: Wood Rodgers, 2025

Upper Westside Specific Plan EIR

Plate ALT 5-2
Schematic Water Treatment Plant Site Plan

ESA

Table ALT 5-1: Onsite Storage Sizing

Storage Criteria	Factor (gpm)	Storage (MG)
Operational Capacity: 20% of Maximum Day Demand for 24 hours	778	1.12
Fire Flow: 4,500 gpm for 4 hours[1]	4,500	1.08
Emergency: Average Day Demand[2]	1,946	2.80
Total Storage		**5.00**
Source: Wood Rogers October 15, 2025		

Transmission System Layout

The transmission and distribution system for Alternative 5 would remain largely unchanged from those described for the proposed UWSP. However, there would be two additional 16-inch transmission mains conveying water from the WTP to the distribution system. Two 16-inch transmission mains would be proposed to provide adequate capacity while simultaneously providing for redundancies that enhance reliability. The additional 16-inch transmission mains would convey potable water from the WTP to the transmission and distribution mains at the intersection of San Juan Road and Bryte Bend Road.

Circulation Options

Under Alternative 5 the UWSP circulation system would be revised to:

(1) Remove the Radio Road vehicular connection between the UWSP area and Garden Highway (other than continued access for emergency response)[3]; and

(2) Implement traffic calming on San Juan Road between Garden Highway and El Centro Road to discourage its use by through traffic.[4]

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[1] While SCWA fire flow is 3,000 gpm for 3 hours, the UWSP area is served by the Natomas Fire Protection District which contracts to the City of Sacramento for fire service. Therefore, the City's higher fire flow requirement is utilized.

[2] SCWA criteria is one third of average day demand based on the assumption that groundwater pumping is available. Since the water plan does not propose to utilize groundwater, it utilizes a more conservative demand of full average day demand.

[3] Radio Road would be a paved Emergency Vehicle Access (EVA) roadway with bike/pedestrian access. Bollards or a crash gate would be utilized to control access.

[4] Specific traffic calming measures would be determined when tentative maps are prepared. Traffic calming measures that could be implemented include vertical deflections such as speed bumps and raised intersections, horizontal shifts such as traffic circles, and roadway narrowing using bulb outs and chokers,

These revisions to the roadway network are depicted on **Plate ALT 5-3**. All other characteristics of the roadway network and plans for mobility within the UWSP area would remain as described in Draft EIR Chapter 2, *Project Description*, pages 2-39 through 2-43.

Evaluations of Environmental Issues

As described above, under Alternative 5 all characteristics of the proposed UWSP would remain unchanged except for the identification of a new source of water and minor modifications to the circulation network. As such, the analyses in the Draft EIR apply to this Alternative 5, with the exception of the following potential impacts:

- Aquatic Biological Resources: The potential effects of diverting water from the Sacramento River at the Riverside Pumping Plant on aquatic habitat and species that may be present in the river;
- Transportation: The potential effects of restricted traffic flows on Radio Road and San Juan Road that could occur under Alternative 5; and
- Utilities (water supply infrastructure and water supply): The potential effects of the UWSP on NCMWC and its water sources.

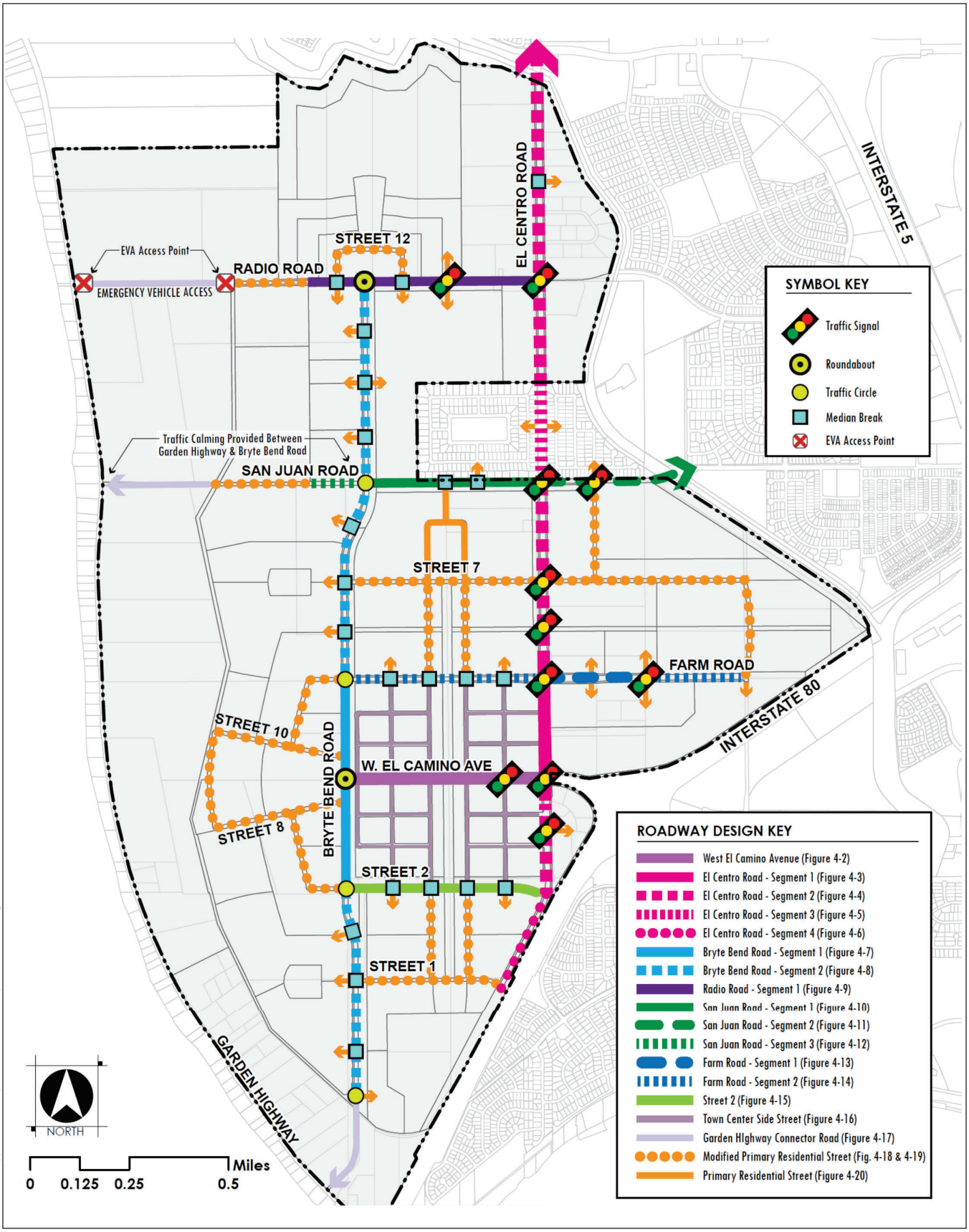
Aquatic Biological Resources

Introduction

The following discussion addresses the potential aquatic biological resource impacts associated with delivery of raw water from NCMWC to the UWSP as provided for under Alternative 5. The source of NCMWC's surface water supply would come from the Sacramento River at NCMWC's Riverside Pumping Plant. Water supply in excess of the existing water demand for agricultural purposes that is currently diverted at the Riverside Pumping Plant would be delivered for municipal uses for the UWSP. This change in the use of diverted water at the Riverside Pumping Plant would lead to an increase in annual diversions and a change in seasonality of diversions compared to existing conditions.

The terrestrial biological resources that could be affected by the proposed UWSP were addressed in Draft EIR Chapter 7, *Biological Resources*. The effects analysis herein evaluates the impact of changes in the operation of the Riverside Pumping Plant to special-status fish species in the Sacramento River in the vicinity of or adjacent to the plant, including an evaluation of direct effects (entrainment) and indirect effects (habitat changes due to reduced flows).

The analysis below is comprised of an Environmental Setting that includes descriptions of existing conditions relevant to aquatic biological resources. The Regulatory Setting presents existing regulations, plans, and policies relevant to aquatic biological resources



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SOURCE: Wood Rodgers, 2025

Upper Westside Specific Plan EIR

Plate ALT 5-3
Alternative 5 Conceptual Roadway Plan

ESA

associated with implementation of Alternative 5. Finally, the Impact discussion presents thresholds of significance and evaluates potential impacts on aquatic biological resources that could result from implementation of Alternative 5.

A review of pertinent literature and database queries were conducted for the UWSP area and surrounding area. The sources of reference data reviewed for this evaluation include the following:

- Sacramento County 2030 General Plan (2011);
- CDFW California Natural Diversity Database (CNDDB) List of Regionally Occurring Special-Status Species (CDFW 2025); and
- U.S. Fish and Wildlife Service (USFWS) List of Federally Threatened and Endangered Species that May Occur in the Project Location (USFWS 2023).

Environmental Setting

A general description of the Sacramento River in the vicinity of the Riverside Pumping Plant, along with fisheries resources in the river is presented below.

Sacramento River and Delta

The Sacramento River is the largest river system in California. It originates near the slopes of Mount Shasta in northern California and flows southward to Suisun Bay in the Delta in central California. The lower Sacramento River is defined as the reach south of the Sacramento and Yolo Bypass, near the American River confluence downstream through to the City of Freeport. The lower Sacramento River is highly channelized and leveed and bordered by agricultural lands. Aquatic habitat in the lower Sacramento River is characterized by slow-water glides and pools, and has reduced water clarity and habitat diversity, compared to the upper Sacramento River. The Sacramento River is a major migration corridor that supports numerous anadromous fish species including green sturgeon, Chinook salmon, and steelhead.

The Delta lies at the confluence of the Sacramento and San Joaquin Rivers and is one of the largest estuaries in the United States. The Delta boundary extends north along the Sacramento River terminating just south of the American River, south along the San Joaquin River terminating just north of the Stanislaus River, east to the City of Stockton, and west to Suisun Bay. Runoff from Central Valley streams accounts for approximately 95 percent of Delta inflows. The Riverside Pumping Plant, a potential raw water source for the proposed USWP under Alternative 5, is located approximately six river miles upstream of the Delta boundary.

Special-Status Species

Special-status species relevant to the UWSP area are discussed and presented in Draft EIR, Chapter 7, *Biological Resources*, pages 7-10 through 7-27, including Table BR-2, *Special-Status and NBHCP and MAP HCP Covered Species Evaluated for Potential Occurrence in the UWSP Area*. The following discussion addresses aquatic special-status species that may be present in the vicinity of the Riverside Pumping Plant.

Special-status species are regulated under the federal Endangered Species Act (FESA) and California Endangered Species Act (CESA) or other regulations or are species that are considered sufficiently rare by the scientific community to qualify for such listing. These species are classified in the following categories:

- Species listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the Federal Register [FR] [proposed species])
- Species that are candidates for possible future listing as threatened or endangered under the FESA (61 FR 40, February 28, 1996)
- Species listed or proposed for listing by the State of California as threatened or endangered under the CESA (California Code of Regulations, Title 14, Section 670.5)
- Animal species of special concern to CDFW
- Species that meet the definitions of rare and endangered under CEQA; a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (CEQA Guidelines, Section 15380)

A list of special-status fish species that have the potential to occur in the vicinity of Riverside Pumping Plant was compiled based on data contained in the CNDDB (CDFW 2025); the USFWS List of Threatened and Endangered Species that May Occur in your Proposed Project Location or May Be Affected by Your Proposed Project (USFWS 2025); and the National ESA Critical Habitat Mapper (NMFS 2025). **Table ALT 5-2** provides a list of special-status fish species, their general habitat requirements, and an assessment of their potential to occur in the vicinity of the Riverside Pumping Plant.

The "Potential to Occur" categories are defined as follows:

- **None:** A species is determined to have no potential to occur if (1) its specific habitat requirements are not present; **AND/OR** (2) it is outside the range or presumed to be extirpated from the area or region; **AND/OR** (3) a survey has been conducted according to agency protocol and the species was not found.
- **Low**: A species is determined to have a low potential to occur if (1) its known current distribution or range is outside of but near the study area; **AND/OR** (2) only limited or marginally suitable habitat is present.
- **Moderate**: A species is determined to have a moderate potential to occur if (1) habitat is present in the study area or immediately adjacent areas; **AND** (2) the study area is in the known range of the species, even if the species was not observed during general biological surveys.
- **High:** A species is determined to have a high potential to occur or be present if (1) habitat is present in the study area or immediately adjacent areas; **AND** (2) the study area is in the known range of the species; **AND/OR** (3) there are recent and reliable records of the species on or near the site.

Table ALT 5-2: Special-Status Species with the Potential to be Affected by Changes in Water Supply

Scientific Name	Common Name	Listing Status: Federal/ State/Other	Habitat Description	Potential for Occurrence within the Vicinity of the Riverside Pumping Plant
FISH				
Acipenser medirotris pop. 1	Green sturgeon – southern DPS	FT/SSC/--	Spawning occurs primarily in cool (11-15 C) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to medium-sized sand, gravel, cobble, or boulder.	High. Green sturgeon could occur in the vicinity of the Riverside Pumping Plant year-round. Spawning occurs in the upper portions of the Sacramento River and sturgeon use the lower river, adjacent to the Project, as a migration corridor.
Acipenser transmontanus	White sturgeon	--/SC/--	Spawning occurs primarily in cool (11-15 C) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to medium-sized sand, gravel, cobble, or boulder. Primarily reside in the San Francisco Estuary.	High. Adult white sturgeon could occur in the vicinity of the Riverside Pumping Plant during upstream migration to spawning areas on the Sacramento River. Juveniles could also occur while rearing and during their outmigration in the Project area on way to the the Delta.
Spirinchus thaleichthys	Longfin smelt	FP/ST/--	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15–30 parts per thousand but can be found in completely freshwater to almost pure seawater.	Low. While historically longfin smelt have been found as far north as Colusa, CA, the species has been experiencing rapid decline. Today, longfin smelt are known to spawn in the lower Sacramento River near or downstream of Rio Vista and are not expected to be in the Project area.
Hypomesus transpacificus	Delta smelt	FT/SE/--	Occurs in open surface waters in the Sacramento/San Joaquin Delta. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Found in Delta estuaries with dense aquatic vegetation and low occurrence of predators. May be affected by downstream sedimentation.	Low. While historically delta smelt have been found as far north as the Feather River, the species has been experiencing rapid decline. Recently their distribution is restricted to Suisun Bay and the north, east, and west Delta and their presence is unlikely upstream of the Delta boundary. Critical habitat for delta smelt extends upstream in the Sacramento River to just below the American River confluence, downstream of the Project area.

Scientific Name	Common Name	Listing Status: Federal/ State/Other	Habitat Description	Potential for Occurrence within the Vicinity of the Riverside Pumping Plant
Oncorhynchus mykiss irideus pop. 11	Steelhead – Central Valley DPS	FT/--/--	This DPS enters the Sacramento and San Joaquin rivers and their tributaries from July to May; spawning from December to April. Young move to rearing areas in and through the Sacramento and San Joaquin Rivers, Delta, and San Pablo and San Francisco Bays.	High. Primarily present during in-migration (adults) and out-migration (juveniles) periods. Spawning occurs on the upper Sacramento River. Upstream migrating adults and outmigrating juveniles would be expected to be present seasonally in the Project area,
Oncorhynchus tshawytscha pop. 7	Chinook salmon – Sacramento River winter-run ESU	FE/SE/--	Anadromous species using riverine, estuarine, and saltwater habitat. Adult migration potentially occurs from January through May. Juvenile outmigration occurs from November through mid-March.	**High.** Primarily present during in-migration (adults) and out-migration (juveniles) periods. Spawning occurs in the upper reaches of the Sacramento River. Upstream migrating adults and outmigrating juveniles would be expected to be present seasonally in the Project area
Oncorhynchus tshawytscha pop. 11	Chinook salmon – Central Valley spring-run ESU	FT/ST/--	Anadromous species using riverine, estuarine, and saltwater habitat. Adult migration potentially occurs from March through May. Juvenile outmigration occurs from November through April.	**High.** Primarily present during in-migration (adults) and out-migration (juveniles) periods. Spawning occurs in tributaries of the upper Sacramento River. Upstream migrating adults and outmigrating juveniles would be expected to be present seasonally in the Project area
Oncorhynchus tshawytscha pop. 13	Chinook salmon – Central Valley fall-/late fall-run ESU	SC/SSC/--	Anadromous species using riverine, estuarine, and saltwater habitat. Adult migration potentially occurs from June through December. Juvenile outmigration occurs from March through July.	**High.** Primarily present during in-migration (adults) and out-migration (juveniles) periods. Spawning occurs in the Upper Sacramento River. Upstream migrating adults and outmigrating juveniles would be expected to be present seasonally in the Project area
Lampetra tridentata	Pacific lamprey	SC/SSC/--	Adults need clean, gravelly riffles in permanent streams to spawn successfully. Ammocoetes live in silty backwaters and eddies with muddy or sandy substrate into which they burrow.	**Moderate.** Can occur in lower Sacramento, and San Joaquin rivers, including the Delta and is expected to be present in the Sacramento River in the Project area.

Scientific Name	Common Name	Listing Status: Federal/ State/Other	Habitat Description	Potential for Occurrence within the Vicinity of the Riverside Pumping Plant
Lampetra ayresii	River lamprey	--/SSC/--	Adults need clean, gravelly riffles in permanent streams to spawn successfully. Ammocoetes live in silty backwaters and eddies with muddy or sandy substrate into which they burrow.	**Low.** Can occur in lower American, lower Sacramento, and San Joaquin rivers, including the Delta, but are rarely captured in the Sacramento River in the Project area.
Pogonichthys macrolepidotus	Sacramento splittail	--/SSC/--	Splittail spawn in shallow water over flooded vegetated habitat with a detectable water flow. Splittail larvae and juveniles remain in riparian or annual vegetation along shallow edges on floodplains.	**Moderate.** Historically, Sacramento splittail were found as far north as Redding, CA but they are now largely confined to the Delta, Suisun Bay, Suisun Marsh, and the Napa and Petaluma rivers. Both adults and juveniles occur in the Sacramento River in the Project area.
Lavinia symmetricus spp.	Sacramento hitch	--/SSC/--	Sacramento hitch inhabit warm lowland waters including clear streams, turbid sloughs, lakes, and reservoirs.	**Low.** In the Sacramento River, hitch appear to be spread across much of their native range including the Delta, but are rarely captured in the Sacramento River in the Project area.
Archoplites interruptus	Sacramento perch	--/SSC/--	Historically found in the sloughs, slow moving rivers, and lakes of the Central Valley. Prefer warm water. Aquatic vegetation is essential for young.	**None.** Extirpated from native range.
Mylopharodon conocephalus	Hardhead	--/SSC/--	Hardhead are often found at low to mid elevations in relatively undisturbed habitats of larger streams with high water quality (clear, cool).	**Moderate.** In the Sacramento River, they are common and may be present in the Delta and is expected to be present in the Sacramento River in the Project area.
Lavinia exilicauda exilicauda	Central California roach	--/SSC/--	Occurs in small, warm tributaries to larger streams that flow through open foothill woodlands of oak and foothill pine. Located in the foothills in much of the same region that contains the pikeminnow-hardhead-sucker assemblage.	**Moderate.** Occurs upstream of large reservoirs or in tributary streams and is expected to be present in the Sacramento River in the Project area.
KEY: DPS = distinct population segment; ESU = evolutionarily significant unit				

Scientific Name	Common Name	Listing Status: Federal/ State/Other	Habitat Description	Potential for Occurrence within the Vicinity of the Riverside Pumping Plant
Federal: (NMFS, USFWS) FE = Listed as Endangered by the Federal Government FT = Listed as Threatened by the Federal Government FP = Proposed for listing by the Federal Government SC = Species of Concern SOURCES: CDFW, 2025; NMFS, 2025; and USFWS, 2025.			State: (CDFW) SE = Listed as Endangered by the State of California ST = Listed as Threatened by the State of California SC = Candidate for listing by the State of California SSC = California Species of Special Concern	

Conclusions regarding habitat suitability and species occurrence are based on the analysis of existing literature and databases described previously and known habitats occurring within the vicinity of the Riverside Pumping Plant and regionally. Six special-status species have high potential to occur, and one special-status species has moderate potential to occur in the vicinity of the Riverside Pumping Plant. Eight species have low or no potential to occur in the vicinity of the Riverside Pumping Plant. Only species classified as having a moderate or high potential for occurrence were considered in the impact analysis.

SPECIAL-STATUS FISH

GREEN STURGEON

The southern distinct population segment (DPS) of green sturgeon is found in North America, from Ensenada, Mexico to Southeast Alaska. Green sturgeon was classified as a Class 1 Species of Special Concern by CDFW in 1995 (Moyle et al., 1995). Class 1 Species of Special Concern are those that conform to State definitions of threatened or endangered and could qualify for addition to the official list. On April 7, 2006, National Marine Fisheries Service (NMFS) determined that the southern DPS of green sturgeon was threatened under the federal ESA (NMFS, 2006b). On October 9, 2009, NMFS designated critical habitat for the green sturgeon southern DPS throughout most of its occupied range (NMFS, 2009), including the Sacramento and American rivers.

Green sturgeon are widely distributed in the Delta and estuary areas. Historical and recent information confirms that green sturgeon occur in the Sacramento River and a few of its tributary (Feather, Yuba, and Bear) rivers. Historic and present records indicate that spawning of green sturgeon is limited exclusively to the Sacramento River watershed (NMFS, 2018). Adults typically migrate upstream into rivers between late February and late July. Spawning occurs from March to July, with peak spawning from mid-April to mid-June. Green sturgeon are believed to spawn every three to five years, although recent evidence indicates that spawning may be as frequent as every two years (NMFS, 2005c). Adult green sturgeon broadcast their eggs in deep, fast water over large cobble substrate, where the eggs settle into the interstitial spaces (Moyle, 2002). Larvae hatch from eggs between six to eight days after spawning if temperature conditions are optimal. Larvae and young-of-the-year (YOY) use riverine areas to forage and rear until they gain the ability to tolerate higher salinity concentrations.

Juvenile green sturgeon are known to live in freshwater for up to three years using riverine, subtidal, and intertidal habitats in the lower Sacramento River and Delta (Radtke, 1966; Klimley et al., 2015). Post-spawn fish behavior varies between holding for several months in the Sacramento River then out-migrating in the fall or winter or moving out of the river quickly during the spring or summer months (Heublein et al., 2009). Post-spawn outmigration through the Delta Estuary is also variable with some adults traveling to the Pacific Ocean in 2 to 10 days and others remaining in the estuary for months. Juvenile and adult green sturgeon can be present within the vicinity of the Riverside Pumping Plant year-round.

WHITE STURGEON

As with green sturgeon, white sturgeon are found from Ensenada, Mexico to Southeast Alaska. The San Francisco Estuary population of white sturgeon – the only reproducing population of white sturgeon in California – was previously classified as a Species of Special Concern by CDFW. On July 12, 2024, CDFW approved white sturgeon as a candidate species for listing as threatened under CESA. Candidate species for listing under CESA are granted full protections during the review process. Presently, there is no federal ESA listing for white sturgeon.

White sturgeon primarily inhabit estuaries of large river systems, migrating to fresh water to spawn. Spawning success has been hindered by the construction of dams, such as Shasta Dam on the Sacramento River and Oroville Dam on the Feather River. Spawning in the California Central Valley is now limited to the Sacramento River between Knights Landing and Colusa (Moyle, 2002; Moyle et al., 2015) with observations of periodic spawning occurring in the Feather and San Joaquin rivers (Beamesderfer et al., 2004; Jackson et al., 2015). Prior to spawning, white sturgeon move into the lower reaches of rivers during the winter and migrate upstream to spawning areas between December and early June (Moyle et al., 2015). Like green sturgeon, white sturgeon broadcast their eggs in deep, fast water over large cobble substrate, where the eggs settle into the interstitial spaces (Moyle, 2002). Larvae hatch from eggs between 4-12 days after spawning if temperature conditions are optimal (Wang, 1986). Larvae and YOY use riverine areas to forage and rear until they gain the ability to tolerate higher salinity concentrations (McCabe and Tracy, 1994). Recruitment success of juvenile white sturgeon is correlated with high spring flows and Delta outflow. High spring flows during juvenile rearing (i.e., between April and July) assist in moving larval sturgeon downstream into suitable rearing habitat quicker than years with low spring flows (Stevens and Miller, 1970).

White sturgeon typically inhabit deep water over soft bottom substrates, feeding on or near the bottom (Moyle, 2002). White sturgeon remain in the San Francisco Estuary throughout most of their life (Klimley et al., 2015), but more evidence is showing that white sturgeon may move into marine environments as well (Sellheim et al., 2022; Scott and Crossman, 1973). Adult and juvenile white sturgeon primarily occur in the San Francisco Estuary but can be present in the vicinity of the Riverside Pumping Plant during upstream migration as adults and downstream migration as rearing juveniles.

CENTRAL VALLEY STEELHEAD

Central Valley steelhead was federally listed as threatened on March 19, 1998 (NMFS, 1998b). The threatened status of Central Valley steelhead was reaffirmed in NMFS's final listing determination on January 5, 2006 (NMFS, 2006a). Critical habitat for Central Valley steelhead was designated by NMFS on September 2, 2005 (NMFS, 2005b) and includes the entire Sacramento River upstream to Keswick Dam and the lower American river to Folsom Dam.

Steelhead have highly variable and complex life history patterns but are broadly categorized into winter and summer reproductive ecotypes. Winter-run steelhead are the most widespread reproductive ecotype and the only type currently present in Central

Valley streams (McEwan, 2001). Winter steelhead become sexually mature in the ocean and enter fresh water from August through April, typically spawning from December through April (NMFS, 2014). Individual steelhead may spawn more than once, returning to the ocean between each spawning migration.

Juvenile steelhead typically rear one to two years in fresh water before migrating to the ocean as smolts. Juvenile migration to the ocean generally occurs from December through August, with peak outmigration from January to May (McEwan, 2001). However, some juveniles may stay and mature in fresh water without migrating to the ocean (i.e., resident rainbow trout). Resident rainbow trout can shift back to anadromy if conditions are appropriate. Juvenile steelhead tend to use bank habitat more frequently than the main channel, because bank habitat provides increased protection, shade, and food.

Central Valley steelhead occur in the vicinity of the Riverside Pumping Plant as adults migrating upstream to their spawning habitat, or as juveniles rearing and migrating toward the ocean.

SACRAMENTO RIVER WINTER-RUN CHINOOK SALMON ESU

The Sacramento River winter-run Chinook salmon evolutionarily significant unit (ESU) was listed as threatened under FESA on August 4, 1989 (NMFS, 1989). NMFS subsequently upgraded the federal listing to endangered on January 4, 1994 (NMFS, 1994). NMFS designated critical habitat for Sacramento River winter-run Chinook salmon on June 16, 1993 (NMFS, 1993) and includes the entire Sacramento River upstream to Keswick Dam.

Winter-run Chinook salmon spend one to three years in the ocean. Adult winter-run Chinook salmon leave the ocean and migrate through the Delta into the Sacramento River from December through July with peak migration in March. Adults spawn from mid-April through August (Moyle, 2002). Egg incubation continues through October. Downstream movement of juvenile winter-run Chinook salmon begins in August, soon after fry emerge.

Historically, winter-run Chinook salmon occupied and spawned in the upper reaches of the Sacramento River including Little Sacramento, McCloud, and Pit rivers and Battle Creek (Moyle et al., 1989; Lindley et al., 2007). After construction of the Shasta and Keswick dams, those habitats became unavailable due to the impassable dams and hydroelectric operations. Currently, winter-run Chinook salmon is known to occur only in the mainstem of the Sacramento River, with spawning occurring between Keswick Dam near Redding and Red Bluff Diversion Dam (Lindley et al., 2007; NMFS, 2016). The Sacramento River is the main migration route through the Delta. However, juveniles occasionally may stray into the central Delta and lower San Joaquin River system during outmigration because of entrainment into diversion channels.

Winter-run Chinook salmon adults have the potential to occur in the vicinity of the Riverside Pumping Plant during their upstream migration to spawn in the Sacramento

River near Redding. Juveniles have the potential to occur in the vicinity of the Riverside Pumping Plant during their downstream migration through the Sacramento River.

CENTRAL VALLEY SPRING-RUN CHINOOK SALMON ESU

The Central Valley spring-run Chinook salmon ESU was federally listed as threatened on September 16, 1999 (NMFS, 1999). Their threatened status was reaffirmed in NMFS's final listing determination issued on June 28, 2005 (NMFS, 2005a). Critical habitat for Central Valley spring-run Chinook salmon was designated by NMFS on September 2, 2005 (NMFS, 2005b) and includes the entire Sacramento River upstream to Keswick Dam.

Historically, spring-run Chinook salmon occupied the upstream reaches of all major river systems in the Central Valley where no natural barriers existed. By the 1950s, however, populations in the San Joaquin River had been extirpated (Yoshiyama et al., 1998). Loss of access and holding areas due to the construction of dams was a major contributing factor. Similarly, abundance of spring-run in the Sacramento River has been in decline, with only remnant runs occurring in Butte, Mill, and Deer creeks of the upper Sacramento River (Williams et al., 2016).

Adult spring-run Chinook salmon begin their upstream migration in March, with peak upstream migration occurring from May through June, and ending in September. Spring-run Chinook salmon are sexually immature during upstream migration, and adults hold in deep, cold pools near spawning habitat until spawning commences in late summer and fall. Spring-run Chinook salmon spawn in the upper reaches of the mainstem Sacramento River and tributary streams (USFWS, 2001). Spawning typically begins in late August and may continue through October. Juveniles emerge in November and December in most locations but may emerge later when water temperature is cooler. Newly emerged fry remain in shallow, low-velocity edgewater (CDFG, 1998).

A small portion of an annual year-class of juvenile spring-run Chinook salmon may emigrate as post-emergent fry (less than 1.8 inches long) and reside in the Delta undergoing smoltification. However, most are believed to rear in the upper river and tributaries during winter and spring, emigrating as juveniles (more than 1.8 inches long). Rearing takes place in their natal streams, the mainstem of the Sacramento River, inundated floodplains (including the Sutter and Yolo bypasses), and the Delta. Downstream migration of yearlings typically coincides with the onset of the winter storm season, and migration may continue through March (CDFG, 1998).

Spring-run Chinook salmon adults have the potential to occur in the vicinity of the Riverside Pumping Plant during their upstream migration to spawn in tributaries of the Sacramento River. Juveniles have the potential to occur in the vicinity of the Riverside Pumping Plant during their downstream migration from tributaries and through the Sacramento River.

CENTRAL VALLEY FALL-/LATE FALL-RUN CHINOOK SALMON ESU

Central Valley fall-/late fall–run Chinook salmon ESU are currently the most abundant and widespread salmon runs in California (Mills et al., 1997). This species is not listed under the FESA. On March 9, 1998, NMFS issued a proposed rule to list fall-run Chinook salmon as threatened (NMFS, 1998a). However, on September 16, 1999, NMFS determined that the species did not warrant listing (NMFS, 1999). On April 15, 2004, NMFS classified Central Valley fall-/late fall–run Chinook salmon as a species of concern (NMFS, 2004). However, Essential Fish Habitat (EFH) is designated for this species. EFH is defined as those waters and substrate necessary for spawning, breeding, feeding, or growth to maturity. EFH includes currently and historically accessible habitat. This species is also designated as a California Species of Concern by CDFW.

Adult fall-run Chinook salmon migrate into the Sacramento River and its tributaries from June through December in mature condition and spawn from late September through December, soon after arriving at their spawning grounds (Yoshiyama et al., 1998). The spawning peak occurs in October and November. Emergence occurs from December through March, and juveniles migrate downstream to the ocean soon after emerging, rearing in fresh water for only a few months. Smolt outmigration typically occurs from March through July (Yoshiyama et al., 1998).

Late fall–run Chinook salmon migrate upstream before they are sexually mature and hold near spawning grounds for one to three months before spawning. Upstream migration takes place from October through April and spawning occurs from late January through April, with peak spawning in February and March (Yoshiyama et al., 1998). Fry emerge from April through June. Juvenile late fall–run Chinook salmon rear in their natal streams during the summer, and they remain in some streams throughout the year. Smolt outmigration can occur from November through May (Yoshiyama et al., 1998).

Fall-/late fall-run Chinook salmon adults have the potential to occur in the vicinity of the Riverside Pumping Plant during their upstream migration to spawn in tributaries of the Sacramento River. Juveniles have the potential to occur in the vicinity of the Riverside Pumping Plant during their downstream migration through the Sacramento River.

PACIFIC LAMPREY

The Pacific lamprey is a relatively large anadromous and parasitic fish that reaches more than 80 centimeters in length (Goodman and Reid 2012). Adult Pacific lampreys enter fresh water and reside there for a few months to a few years before spawning, although spawning generally occurs in the spring after migration into fresh water, often in low-gradient stream reaches, in gravel, and at the tailouts of pools and riffles (Goodman and Reid 2012).

Pacific lampreys were historically widespread along the West Coast of the United States; because they overlap with several FESA-listed salmonids, they may be vulnerable to many of the same threats (Goodman and Reid 2012). In particular, they appear to be declining in numbers because of the reduced quantity and quality of spawning and rearing habitats; passage issues associated with hydropower and

irrigation diversion such as obstruction, entrainment, and mortality; a propensity for high predation risks; and a vulnerability to contaminants based on their life history (Goodman and Reid 2012). Pacific lamprey are designated as a Species of Special Concern in California and a Species of Concern by the USFWS due to their declining populations and restricted distribution (Moyle et al. 2015).

Pacific Lamprey have the potential to occur in the waters in the vicinity of the Riverside Pumping Plant as migrating adults or rearing juveniles.

SACRAMENTO SPLITTAIL

Sacramento splittail are not listed under the CESA or FESA but are considered a California Species of Special Concern. Sacramento splittail are a relatively large, long-lived cyprinid, endemic to the sloughs, lakes, and rivers of the Central Valley (Moyle, 2002) and most typically is found in tidally influenced freshwater and estuarine habitats (e.g., the Delta and Suisun Bay) with salinities as high as 10 to 18 ppt (Moyle et al., 2004). Nonbreeding splittail can survive wide fluctuations in temperature and low dissolved oxygen levels (less than 1 milligram of oxygen per liter), allowing them to live in slow-moving sections of rivers and sloughs (Moyle et al., 2004). Adults begin a gradual upstream migration toward spawning areas sometime between late November and late January. The migration is associated with flow events from February through April that inundate floodplains and riparian areas used for spawning and rearing (Moyle et al., 2004). Spawning is associated with conditions such as changing water levels, lower water temperatures, and increasing length of day (Moyle et al., 2004).

In the Sacramento River basin, the most important spawning areas appear to be the Yolo and Sutter Bypasses, which are extensively flooded during wet years. In the San Joaquin drainage, spawning apparently takes place in wet years where the San Joaquin River is joined by the Tuolumne and Merced rivers (Moyle et al., 2004). There are two genetically distinct populations of Sacramento splittail in the greater Estuary; a Napa and Petaluma rivers population and a Central Valley population (Baerwald et al., 2007). It is thought that current data is biased toward the Central Valley population, which consists of individuals from the Cosumnes, Sacramento, and San Joaquin rivers and their tributaries. Threats to Sacramento splittail include habitat loss and degradation, loss of access to seasonally inundated floodplains, introduction of nonnative species, entrainment in the CVP and SWP water export facilities, and harvest by recreational anglers.

HARDHEAD

The hardhead is not listed under the FESA or CESA but is considered a California Species of Special Concern. Hardhead is a native species that is widely distributed in low- to mid-elevation streams in the Sacramento and San Joaquin drainages. Although hardhead is still common, populations are generally in decline, similar to other California native species (Moyle 2002). The cause of this decline appears to be habitat loss and predation by non-native fishes (Moyle 2002).

Hardhead have the potential to occur in the waters in the vicinity of the Riverside Pumping Plant as adults or rearing juveniles.

CENTRAL CALIFORNIA ROACH

The Central California Roach is not listed under the FESA or CESA but is considered a California Species of Special Concern. Central California roach are small, stout-bodied minnows (cyprinids) that are found in tributaries to the Sacramento and San Joaquin rivers and tributaries to San Francisco Bay (Moyle 2002). Although roach are primarily benthic feeders, Moyle (2002) observed roach feeding in the Tuolumne River in swift current on drift organisms, including terrestrial insects. Juvenile roach consume large quantities of crustaceans and small chironomid midge larvae, while adult roach are more opportunistic feeders, feeding both off the substrate and from drifting insects in the water column (Moyle 2002). Roach spawn in large groups over coarse substrates where each female repeatedly deposits eggs, a few at a time, into the interstices between rocks which are immediately fertilized by one or more attendant males (Moyle 2002).

Roach are most abundant in mid-elevation streams in the Sierra Nevada foothills and in lower reaches of some San Francisco Bay streams but they may also be found in the main channels of some rivers (Moyle 2002). Although Central California Roach is still common, populations are generally in decline, similar to other California native species (Moyle 2002). The cause of this decline appears to be habitat loss and predation by non-native fishes (Moyle 2002).

Central California Roach have the potential to occur in the waters in the vicinity of the Riverside Pumping Plant as adults or rearing juveniles.

CRITICAL HABITAT

Draft EIR, Chapter 7, *Biological Resources*, discusses critical habitat as defined in Section 3(5)A of the FESA as a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. While no critical habitat was identified that is relevant to the UWSP area, there are four designated critical habitats present in the vicinity of the Riverside Pumping Plant, and are described below.

NORTH AMERICAN GREEN STURGEON CRITICAL HABITAT

Designated critical habitat for the southern DPS of green sturgeon includes the Sacramento River, the Delta, and Suisun, San Pablo, and all of San Francisco Bay (NMFS, 2009).

SACRAMENTO RIVER WINTER-RUN CHINOOK SALMON CRITICAL HABITAT

Designated critical habitat for winter-run Chinook salmon includes the Sacramento River from Keswick Dam, Shasta County (River mile 302) to Chipps Island (River mile 0) at the westward margin of the Sacramento-San Joaquin Delta; all waters from Chipps Island westward to Carquinez Bridge, including Honker Bay, Grizzly Bay, Suisun Bay, and Carquinez Strait; all waters of San Pablo Bay westward of the Carquinez Bridge; and all waters of San Francisco Bay (north of San Francisco/Oakland Bay Bridge) from San Pablo Bay to the Golden Gate Bridge (NMFS, 1993).

CENTRAL VALLEY SPRING-RUN CHINOOK SALMON CRITICAL HABITAT

Designated critical habitat for spring-run Chinook salmon includes all river reaches accessible in the Sacramento River and its tributaries in California, all waters from Chipps Island westward to Carquinez Bridge, including Honker Bay, Grizzly Bay, Suisun Bay, and Carquinez Strait; all waters of San Pablo Bay westward of the Carquinez Bridge; and all waters of San Francisco Bay (north of San Francisco/Oakland Bay Bridge) from San Pablo Bay to the Golden Gate Bridge (NMFS, 2005b).

CENTRAL VALLEY STEELHEAD CRITICAL HABITAT

Designated critical habitat for Central Valley steelhead includes the stream channels in the designated stream reaches and the lateral extent as defined by the ordinary high-waterline or bank-full elevation in the Sacramento and San Joaquin rivers, their tributaries, and the Delta (NMFS, 2005b).

REGULATORY SETTING

FEDERAL

Draft EIR Chapter 7, *Biological Resources*, pages 7-28 to 7-29, includes federal regulations that address the protection of biological resources, including aquatic biological resources, including the Federal Endangered Species Act, the Migratory Bird Treaty Act, and the Clean Water Act. In addition, the following laws and regulatory instruments are relevant to the protection of aquatic biological resources in the vicinity of the Riverside Pumping Plant.

BIOLOGICAL OPINIONS ON THE COORDINATED LONG-TERM OPERATION OF THE CENTRAL VALLEY PROJECT AND STATE WATER PROJECT

On August 2, 2016, Reclamation, the lead federal agency, and the California Department of Water Resources (DWR), the applicant, jointly requested the reinitiation of FESA consultation on the coordinated long-term operation of the CVP and SWP. The USFWS accepted the re-initiation request on August 3, 2016, and NMFS accepted the re-initiation request on August 2, 2019. On January 31, 2019, Reclamation transmitted their Biological Assessment to USFWS and NMFS. Both USFWS and NMFS finalized their biological opinions on the coordinated long-term operation of the CVP/SWP on October 21, 2019.

In February 2019, state agencies announced that they would for the first time pursue a separate state Incidental Take Permit (ITP) to ensure the SWP's compliance with the CESA. In November 2019, DWR issued a draft document prepared under CEQA that identified potential operational changes to protect species and manage the SWP based on real-time conditions in the Delta ecosystem, including additional flows dedicated to the environment. After a public comment period, DWR developed an application for an ITP and submitted the application to CDFW in December 2019. DWR certified its final environmental document on March 27 and CDFW issued the ITP on March 31, 2020.

In fall 2021, Reclamation and DWR collaborated with the USFWS, NMFS, and CDFW to develop revised operating rules for the CVP and SWP (the proposed action) and

evaluate how the anticipated modifications may cause effects to ESA-listed species and/or designated critical habitat not analyzed in the 2019 biological opinions. The updated rules align operations for the Sacramento-San Joaquin River Delta and present a drought-resilient framework for operating Delta facilities and Shasta Reservoir that will provide more certainty for water users and fish and wildlife. The plan also includes a new winter-run action plan to improve viability over the next 10 years, an adaptive management approach to incorporate new science, and a federal strategy to evaluate impacts of new water infrastructure (Reclamation, 2024a). Reclamation and DWR analyzed impacts of the proposed action and alternatives under National Environmental Policy Act and CEQA, respectively. The fish and wildlife agencies also analyzed this proposed action consistent with the FESA and CESA (Reclamation, 2024a). On December 20, 2024, Reclamation signed the Record of Decision signaling approval of the revised operating rules (Reclamation, 2024b).

MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

Under the Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (16 USC 1801 et seq.), NMFS, fishery management councils, and federal agencies are required to cooperatively protect EFH for commercially important fish species such as Pacific coast groundfish, Pacific salmon, highly migratory species, and coastal pelagic fish and squid. As defined by the U.S. Congress, EFH includes “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.”[5]

CENTRAL VALLEY PROJECT IMPROVEMENT ACT

The Reclamation Projects Authorization and Adjustment Act of 1992 (Public Law 102-575) includes Title 34, the Central Valley Project Improvement Act (CVPIA). The CVPIA amended the CVP’s authorization to include fish and wildlife protection, restoration, and mitigation as project purposes of the CVP having equal priority with irrigation and domestic uses of CVP water, and it elevated fish and wildlife enhancement to a level having equal purpose with power generation. Among the changes mandated by the CVPIA was the dedication of 800 thousand acre-feet of CVP yield annually to fish, wildlife, and habitat restoration.

The U.S. Department of the Interior’s May 9, 2003, decision on the implementation of Section 3406(b)(2) of the CVPIA explains how Section 3406(b)(2) water will be dedicated and managed. Dedication of CVPIA 3406(b)(2) water occurs when Reclamation takes a fish and wildlife habitat restoration action based on the recommendations of USFWS (and in consultation with NMFS and CDFW), pursuant to Section 3406(b)(2). Water exports at the CVP pumping facilities have been reduced using “(b)(2) water” to decrease the risk of fish entrainment at the salvage facilities and to augment river flows.

STATE

Draft EIR Chapter 7, *Biological Resources*, pages 7-30 to 7-31, includes State regulations that address the protection of biological resources, including aquatic biological resources,

[5] 16 USC 1802 – Definitions (10)

including the California Endangered Species Act, the California Fish and Game Code, the Porter-Cologne Water Quality Control Act, and the State Wetland Definition and Procedures for Discharges of Fill Materials to Waters of the State.

LOCAL

SACRAMENTO COUNTY 2030 GENERAL PLAN

Draft EIR Chapter 7, *Biological Resources*, pages 7-32 to 7-36, includes policies of the Sacramento County 2030 General Plan that are relevant to biological resources, including aquatic biological resources discussed in this analysis.

IMPACTS AND ANALYSIS

SIGNIFICANCE CRITERIA

In accordance with Appendix G of the CEQA Guidelines, an impact is considered significant if the project or alternative would cause any of the following:

- A substantial adverse effect, either directly or through habitat modification, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS; or
- Substantial interference 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.

Impacts related to the following significance thresholds are addressed in Draft EIR Chapter 7, *Biological Resources*.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFW or USFWS;
- Have a substantial adverse effect on State and federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

METHODOLOGY AND ASSUMPTIONS

This section assesses the potential for development allowed under Alternative 5 to adversely change fisheries resources in or around the vicinity of the Riverside Pumping Plant. The impact analysis focuses on foreseeable changes to existing conditions and compares those changes to the significance criteria presented below. Potential impacts are analyzed using information presented above regarding habitats present in and

around the vicinity of the Riverside Pumping Plant, and potential occurrence of special-status and protected species. Specific to this impact analysis, three principal factors were considered: (1) the magnitude of the impact (i.e., substantial/not substantial); (2) the uniqueness of the affected resource (i.e., rarity of the resource); and (3) susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource). The evaluation of potential significance considered the interrelationship of these three principal factors. For example, a relatively small magnitude impact to a State or federally listed species would be considered significant if the species is exceptionally rare or believed to be highly susceptible to disturbance.

Implementation of Alternative 5 would be regulated by the laws, regulations, plans, and policies summarized under, *Regulatory Setting*, above. Therefore, the impact analysis assumes that implementation of Alternative 5 would comply with existing applicable regulatory and permitting requirements.

To evaluate whether development allowed under Alternative 5 would result in aquatic biological resource impacts, the analysis considers how water supply operations could result in changes to existing conditions for special-status and native fishes. Construction and operation activities associated with the other project components do not have in-water components and therefore would not be expected to impact fish or their habitat. See Draft EIR Chapter 7, *Biological Resources*, for analysis of effects of construction and operations (non-water supply) to terrestrial biological resources.

Changes in operations of the Riverside Pumping Plant could result in both near-field and far-field effects. Near-field effects are those that have the potential to impact fish immediately surrounding the water intakes, such as through entrainment or impingement. Far-field effects are those that have the potential to impact fish upstream and/or further downstream of the water intakes, such as flow changes that result from increased diversions at the Riverside Pumping Plant. Numerical modeling (e.g. CalSim) to evaluate changes in river flows was not warranted because project-related changes in river flows (from changes in diversions) are a fraction of a percentage and within the sensitivity bounds (e.g., model noise or error) of the best available hydrologic and habitat suitability models.

IMPACT ALT 5 BIO-1: SPECIAL-STATUS FISH SPECIES

NEAR-FIELD IMPACTS

As introduced above, near-field effects are those effects that have the potential to impact fish immediately surrounding the Riverside Pumping Plant water intakes, such as through entrainment, impingement, or in-water maintenance activities.

ENTRAINMENT AND IMPINGEMENT

Operation of the Riverside Pumping Plant at levels or during seasons that it has not been used previously has the potential to entrain or impinge listed fish species in the Sacramento River such as out-migrating juvenile salmonids. During operations, water that is pulled into the intake could entrain fish swimming or feeding in adjacent water.

However, in conformance with State and federal fish screen requirements, the Riverside Pumping Plant added a new cylindrical fish screen in 2022 to prevent entrainment of special-status fish species (Jacobs 2022). The Riverside Pumping Plant is designed to meet standards in accordance with CDFW (2010) and NMFS (2023) fish screening criteria (Jacobs 2022). More specifically, the screen is designed to meet the following guidelines that provide protection for juvenile salmonids:

- Approach velocity (water velocity perpendicular to the screen) – less than or equal to 0.40 fps where exposure time is limited to less than 60 seconds, or 0.33 fps where exposure time is greater than 60 seconds;
- Minimum sweeping velocity (water velocity parallel to the screen) – two times the approach velocity; between 0.8 fps and 3 fps is optimal;
- Screen slot opening size – 1.75 millimeters (0.069 inch); and
- Screen porosity – 27% minimum open area.

A 1.75-millimeter screen opening size is understood to be effective at excluding juvenile salmonids of 22-millimeter standard length and greater (ICF International 2016), which is the equivalent of around 25-millimeter fork length. Therefore, this would be expected to exclude all juvenile salmonids occurring in the vicinity of the intake. And because this diversion is located approximately six river miles upstream of the Legal Delta boundary, Delta smelt and longfin smelt would not be expected to be present and vulnerable to entrainment.

MAINTENANCE IMPACTS

Maintenance activities associated with the cylindrical screen at the Riverside Pumping Plant involve sediment and debris removal that may accumulate near the pump station and fish screen (Jacobs 2022). The fish screen and pump station include a pumped water jet system that prevents sediment from accumulating. The jets spray water on the fish screens and pump bays to resuspend settled and accumulated sediment to be pumped back out into the main canal or river. Furthermore, the fish screens are self-cleaning but require routine maintenance and inspection in accordance with manufacturer's recommendations. Maintenance actions involve the periodic removal of excess accumulated sediment, vegetation, or other debris around the fish screens to ensure that the system operates at its design capacity and that fish passage hydraulic criteria are being achieved.

Maintenance activities can release sediments into the aquatic environment near the Riverside Pumping Plant. Suspended sediments in the water column have the potential to affect listed fish by disrupting normal feeding behavior, reducing growth rates, increasing stress levels, and reducing respiratory functions. Increased suspended solids can also affect aquatic organisms by reducing dissolved oxygen levels and light transmission, and when the sediment in the suspended solids resettles, it could potentially smother aquatic habitats and organisms. Research with salmonids has shown that high turbidity concentrations can reduce feeding efficiency; decrease food availability; reduce dissolved oxygen in the water column; result in reduced respiratory

functions and tolerance to diseases; and cause fish mortality (Berg and Northcote 1985; Gregory and Northcote 1993; Waters 1995).

However, these maintenance activities already occur infrequently (roughly once per year) and occur during low-flow period in the summer, when special-status fish species are least likely to occur, and the use of the Riverside Pumping Plant to serve the UWSP under Alternative 5 would not affect the scheduled maintenance. Furthermore, turbidity increases are brief and generally confined to within a few hundred feet of the activity. Turbidity levels would initially be higher than baseline levels, but the sediment is dispersed and redeposited, and background levels are expected to be restored within hours of the disturbance. Therefore, use of the Riverside Pumping Plant to serve the UWSP would not alter maintenance activities associated with the Riverside Pumping Plant in a way expected to impact special-status fish species or interfere with movement of native resident or migratory fish.

FAR-FIELD IMPACTS

As introduced above, far-field effects are those effects that have the potential to impact fish upstream and/or further downstream of the water intakes. Changes in operations of the Riverside Pumping Plant in order to serve the UWSP under Alternative 5 would increase diversions from the Sacramento River and change seasonality of diversions potentially resulting in changes in river flows and alteration of habitat for special-status fishes. Reduction in river flows during those new or changed periods of operation of the Riverside Pumping Plant could decrease available habitat for special-status species and potentially impede migration of juvenile and adult salmonids and sturgeons, as evaluated further below.

NCMWC has historically provided surface water to the UWSP area for agricultural purposes. Within the UWSP area, NCMWC reports historical agricultural diversions at the Riverside Pumping Plant ranging from 1,307 acre-feet per year (AFY) to 4,860 AFY with an average of 2,703 AFY for years 2013 through 2024 (see **Table ALT 5-3**). As shown below, water diversions for agricultural uses primarily occurred during April through September (see Table ALT 5-3) with no or very limited diversions during October through March each year.

Under Alternative 5, the UWSP would be anticipated to utilize 3,139 AFY of NCMWC surface water for domestic uses (see **Table ALT 5-4**). When comparing existing water diversions at the Riverside Pumping Plant to diversions under Alternative 5, the UWSP would utilize more surface water during the cooler months between September and March, and generally less water in the warmer months between April and August (see Table ALT 5-4). As a result, there would be increased diversions of the Sacramento River during the months of September through March in the range of approximately 122 AF to 270 AF (see Table ALT 5-4). Increased diversions during cooler months would coincide with greater presence of listed fish species in the Sacramento River adjacent to the UWSP, especially juvenile salmonids that primarily emigrate during winter and spring during higher flows. However, despite greater listed fish presence, the potential entrainment rate of juvenile salmonids would be lower under seasonally higher river flows due to a smaller proportion of the flows being diverted.

Table ALT 5-3: Historical Summary of Riverside Pumping Plant Diversions (acre-feet)

Year/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2024					216	542	599	584	58	364	1	0	2,365
2023				0	38	712	616	353	91	75	3	2	1,892
2022			307	389	133	165	335	220	59	7			1,307
2021			145	1,085	155	312	654	730	221	127			3,284
2020				63	325	341	204	229	160				1,321
2019						227	415	458	238	10			1,335
2018					247	739	944	699	367	6			3,002
2017					217	441	555	586	245				2,045
2016				90	539	935	951	758	430	80			3,782
2015				483	653	786	760	417	94	24			3,218
2014				147	843	1,104	969	733	162	28			4,014
2013				373	1,265	1,041	865	807	237	14			4,860
Average			**38**	**221**	**386**	**612**	**656**	**548**	**197**	**61**	**0**	**0**	**2,703**
Source: Wood Rogers October 15, 2025													

Table ALT 5-4: Proposed UWSP Anticipated Net New Water Demand by Month

Month	Proposed Surface Water Demand (acre-feet)	Average Existing Surface Water Usage (acre-feet)	Average Net Change in Water Usage (acre-feet)	Additional Monthly Water Use Beyond Existing	
				Acre Feet	Average cfs
Jan	140	0	+140	140	2.3
Feb	133	0	+133	133	2.2
Mar	122	0	+122	122	2
Apr	154	221	-67	0	0
May	245	386	-141	0	0
Jun	351	612	-261	0	0
Jul	401	656	-255	0	0
Aug	430	548	-138	0	0
Sep	406	197	+209	209	3.5
Oct	331	61	+270	270	4.5
Nov	258	0	+258	258	4.3
Dec	168	0	+168	168	2.8
Total	**3,139**	**2,681**	**+458**	**N/A**	**N/A**
Source: Wood Rogers October 15, 2025					

The Riverside Pumping Plant draws water at an instantaneous rate of 33 to 47 cubic feet per second(cfs) based on the existing pump and hydraulic head required to raise water over the levee (Jacobs 2022). The pump cycles on and off throughout the day as water is required to serve NCMWC water users, including the properties within the UWSP area. Therefore, averaged over a 24-hour period, the maximum rate of diversion to serve the UWSP equates to four to nine cfs. Converting the diversion amount (acre-feet per month) needed to serve the UWSP that is in addition to diversions occurring during existing conditions to an average daily discharge equates to an average additional water diversion of 2.2 to 4.5 cfs across the months of September through March (see Table ALT 5-4).

To evaluate the effect additional diversions at the Riverside Pumping Plant may have on fish habitat in the Sacramento River, the percentage of Sacramento River flow diverted was calculated. Sacramento River flow at Verona gauge (DWR 2025) was used as a measure of flow adjacent to the Riverside Pumping Plant. The percentage diverted was calculated monthly under minimum, mean, and maximum Sacramento River at Verona flows across the recent years of 2013-2024. These 12 years present a wide range of river conditions, including four critically dry years and three wet years. Under minimum monthly Sacramento River flow conditions (6,041 cfs to 10,238 cfs), the additional diversions in September through March equates to 0.02 to 0.07 percent of the flow present in the Sacramento River (see **Table ALT 5-5**).

Table ALT 5-5: Projected Rate of Sacramento River Flow Diverted by the Proposed UWSP Under the Range of Sacramento River Flow Conditions Observed from 2013-2024

Month	Additional Water Use Beyond Existing (cfs)	Sacramento River at Verona Years 2013-2024 (cfs)			Percentage Diverted (%)		
		Min	Mean	Max	Min Flows	Mean Flows	Max Flows
Jan	2.3	6,417	22,740	57,367	0.04	0.01	0.00
Feb	2.2	10,238	23,994	72,884	0.02	0.01	0.00
Mar	2	7,043	28,330	62,471	0.03	0.01	0.00
Apr	0	5,792	22,300	57,779	0.00	0.00	0.00
May	0	5,095	15,604	40,281	0.00	0.00	0.00
Jun	0	5,500	12,018	22,705	0.00	0.00	0.00
Jul	0	5,899	11,486	16,632	0.00	0.00	0.00
Aug	0	6,296	13,087	18,417	0.00	0.00	0.00
Sep	3.5	7,095	12,992	19,380	0.05	0.03	0.02
Oct	4.5	6,041	9,166	12,306	0.07	0.05	0.04
Nov	4.3	6,268	9,185	16,470	0.07	0.05	0.03
Dec	2.8	7,777	16,351	32,552	0.04	0.02	0.01
Source: California Department of Water Resources, 2025							

These very small diversion amounts (less than 0.1 percent) under Alternative 5 are not expected to have a meaningful impact on fish habitat or fish survival. An analysis completed by Perry and Pope (2018) investigated the effect of the proposed North Delta Diversion (NDD) (located downstream of the City of Sacramento on the Sacramento River) on survival of juvenile Chinook salmon. Their analyses used the results of a Bayesian survival model that allowed them to simulate travel time, migration routing, and survival of juvenile Chinook salmon migrating through the Delta in response to NDD operations (Perry and Pope 2018). Perry and Pope (2018) determined that the constant low-level pumping scenario, which simulated a diversion of 900 cfs, led to minimal decreases in survival of Chinook salmon of less than two percent across a wide range of river flows. Therefore, diversion flows from the UWSP of up to 4.5 cfs, 200 times smaller than the 900 cfs diversion modeled in Perry and Pope (2018), would be expected to result in no discernible changes to fish survival in the Sacramento River.

Near-Field and Far-Field Impacts Conclusion

The Riverside Pumping Plant is designed to meet fish screening criteria standards in accordance with CDFW (2010) and NMFS (2023), and therefore not expected to entrain or impinge juvenile salmonids that may be present in the Sacramento River at any time of the year. Furthermore, Delta smelt are not expected to be present and vulnerable to entrainment due to the Riverside Pumping Plant being located approximately six river miles upstream of the Delta boundary and upstream of Critical Habitat for Delta smelt.

Maintenance activities associated with the Riverside Pumping Plant take place under existing conditions. They are infrequent and occur during the low-flow period in the summer when special-status fish species are least likely to occur, and would not be altered as a result of the provision of raw water for domestic purposes in the UWSP area. Therefore, changes in maintenance activities are not expected to impact special-status fish species or interfere with movement of native resident or migratory fish.

Changes in diversion of Sacramento River flows associated with provision of raw water to the UWSP under Alternative 5 are estimated to be very small, less than 0.08 percent even under minimum Sacramento River flow conditions (see Table ALT 5-5). This low level of flow diversion (less than 0.1 percent) would be expected to be indiscernible relative to existing habitat conditions for special-status and native fish species. Therefore, additional Sacramento River diversions under Alternative 5 are not expected to impact special-status fish species or interfere with movement of native resident or migratory fish. Therefore, this impact would be **less than significant**.

Transportation

Introduction

The proposed UWSP includes expansion of and improvements to the circulation network within the UWSP area, including paving of Radio Road to open it to regular vehicular

traffic between San Juan Road and Garden Highway. As discussed above, in response to concerns about the levels of future traffic on Garden Highway, Alternative 5 would:

1. Remove the Radio Road vehicular connection between the plan area and Garden Highway (other than continued access for emergency response); and
2. Implement traffic calming on San Juan Road between Garden Highway and El Centro Road to discourage its use by through traffic.

The following analysis addresses the potential for these circulation changes in Alternative 5 to result in impacts that are different than those from the proposed UWSP as presented in the UWSP Draft EIR, Chapter 18, *Transportation*.

The analysis below is based on a technical memorandum prepared by Fehr & Peers in August 2025 (see Appendix ALT 5-1). In order to evaluate the changes in projected future conditions that would result from the elimination of regular vehicular traffic on Radio Road between the UWSP area and Garden Highway, and the implementation of traffic calming on San Juan Road between Garden Highway and El Centro Road, traffic forecasts were developed using the same version of the SACSIM travel demand model used in the *Final Local Transportation Analysis (LTA) for Upper Westside Specific Plan.* Roadway segments were analyzed to determine the segment daily level of service (LOS) using the same analysis methods as applied in the LTA. Peak hour intersection turning movement volumes were developed and reviewed to determine whether certain critical turning movements would experience notable increases in traffic (relative to the forecasts in the LTA), which could warrant supplemental traffic operations analysis.

The analysis of roadway safety was undertaken by developing traffic forecasts for average daily conditions for 23 different roadway segments and 14 different intersections under Cumulative Plus Revised Project conditions. This scenario was chosen because, compared to Existing Plus Project conditions, it addresses conditions with greater levels of background traffic on streets to be modified and/or effected.

Impact TR-1: Conflict with a Program, Plan, Ordinance or Policy Addressing the Circulation System

The proposed changes to the circulation system would not conflict with relevant General Plan policies addressing circulation as proposed roadways with the changes would continue to meet LOS operating standards with just a few exceptions where physical improvements to increase capacity have either been deemed infeasible or would be inconsistent with the UWSP's goal of creating an environment conducive to walking and bicycling. Furthermore, the UWSP would remain consistent with the Caltrans Four Pillars of Traffic Safety as the proposed traffic calming on San Juan Road between Garden Highway and El Centro Road would improve safety along this roadway. Finally, as the proposed changes would only affect vehicular circulation, the UWSP would continue to be consistent with policies addressing bicycle, pedestrian, and transit service as the proposed changes would not affect planned bicycle, pedestrian, and transit networks. Therefore, like with implementation of the proposed UWSP, Alternative 5 would not conflict with a program, plan, ordinance or policy addressing the circulation

system and the impact would be less than significant with implementation of Mitigation Measures TR-1a and TR-1b.

Impact TR-2: Vehicle Miles Traveled

The proposed changes to the UWSP circulation system would result in an overall net reduction of 800 average daily trips (ADT). As vehicle-miles traveled (VMT) is the product of daily trips and trip length, fewer daily trips would result in less VMT generated. In addition, the roadway network changes would remove travel routes that are likely more circuitous for project residents. In certain parts of the UWSP area, use of Garden Highway to access external destinations could be quicker than using El Centro Road or West El Camino Avenue but would result in longer travel lengths. Elimination of those connections effectively reduces average trip lengths, albeit very slightly. For these reasons, like with implementation of the proposed UWSP, VMT impacts under Alternative 5 would be less than significant.

Impact TR-3: Hazards Due to Design or Incompatible Uses

Elimination of the Radio Road connection to Garden Highway and the implementation of traffic calming along San Juan Road between Garden Highway and El Centro Road under Alternative 5 would result in Garden Highway north of Radio Road carrying considerably less traffic (a reduction of 2,900 daily trips) than the configuration of the proposed UWSP and Garden Highway south of San Juan Road carrying slightly less traffic (a reduction of 200 daily trips) than the configuration of the proposed UWSP. As such, with implementation of Alternative 5, potential hazards associated with traffic levels along and at intersections on Garden Highway would be less than with the proposed UWSP. Similarly, potential hazards associated with freeway off-ramp storage queues and on-ramp meter queues at the 1-80/West El Camino Avenue interchange and potential safety issues at I-80/West El Camino Avenue interchange associated with Sacramento 49er Travel Plaza truck stop would be less than with the proposed UWSP, as implementation of Alternative 5 would result in less traffic (a reduction of 400 daily trips) along West El Camino Avenue between I-80 and El Centro Road. Finally, as Alternative 5 would result in an overall net reduction in ADT, and thus fewer trips on area freeways, hazards associated with potential collisions on adjacent segments of I-80 and I-5 would be less than with the proposed UWSP.

With Alternative 5, there would be some roads that would experience minor increases in traffic flow, including El Centro Road and Radio Road east of Street 12 (East). El Centro Road north and south of Radio Road would experience increases of about 900 ADT southbound toward San Juan Road (which would remain LOS E) and 2,000 ADT northbound toward Arena Boulevard (which would increase to LOS F). El Centro Road is already at the maximum number of lanes allowed in both the City and County general plans (four lanes). The County Department of Transportation has indicated that an increase to six lanes would not be necessary, given that the main capacity constraint is the El Centro Road/Arena Blvd intersection, which is within the City of Sacramento's limits. The LTA prepared for the proposed UWSP identifies some operational improvements at that intersection (see Table 23 and Table 24 in the Final LTA), which

have been vetted by the City. These include a second westbound left turn lane, second southbound through lane, restriping the eastbound right turn lane to a shared eastbound through/right lane, lengthening the northbound right turn lane, and adding an overlap phase. These operational improvements would reduce the delay significantly from 131 to 109 seconds of delay, both of which still represent LOS F.

With Alternative 5, there would be a 4.3-6.5 percent increase in traffic at the El Centro/ Arena intersection, primarily in the westbound left, northbound through, northbound right, and southbound through movements. There are no additional feasible improvements to improve the westbound left and northbound through turning movements, beyond those already identified above. While a third northbound and southbound lane would improve operations, this would be inconsistent with the City of Sacramento General Plan. In addition, the City generally opposes further capacity expansion/roadway widening as a matter of policy. Thus, reclassification of El Centro Road to a six-lane roadway, whether for intersection or segment capacity, is not considered feasible or desirable.

For the segment of Radio Road between Street 12 (East) and El Centro Road, the analysis in the LTA for the proposed UWSP assumed a “low access control” roadway,[6] with a reduced capacity of 15,000 ADT (compared to 18,000 ADT capacity for a “moderate access control” roadway).[7] With development allowed under the proposed UWSP, the 17,100 ADT would exceed the 15,000 ADT threshold. The proposed operational improvement recommended in the LTA for the proposed UWSP is to design the segment of Radio Road between Street 12 (East) and El Centro Road to a moderate access control roadway standard (see LTA page 142), which would result in LOS E. With Alternative 5, which would increase traffic volumes on this segment from 17,100 to 17,700 ADT, the proposed operational improvement recommended in the LTA for the proposed UWSP would still mitigate the issue and result in LOS E.

Based on the above, the changes to roadway configurations under Alternative 5 would reduce traffic on Garden Highway north of Radio Road, as well as result in minor reductions in traffic flows at the I-80/West El Camino Avenue interchange, while resulting in some relatively minor increases in traffic flows on El Centro Road and Radio Road east of Street 12 (East). With these changes, like with implementation of the proposed UWSP, impacts to traffic hazards under Alternative 5 would remain less than significant with implementation of Mitigation Measures TR-3a through TR-3e.

Impact TR-4: Emergency Access

While Radio Road would be closed to regular vehicular use under Alternative 5, emergency vehicle access would still be provided along this roadway. As a result, impacts under Alternative 5 regarding emergency access would be less than significant, like those under the proposed UWSP.

[6] Road generally has frequent driveways and speeds of 25 to 35 miles per hour.

[7] Road generally has limited driveways and speeds 35 to 45 miles per hour.

Transportation Impacts Conclusion

As discussed above, the roadway network changes to the proposed UWSP circulation system under Alternative 5 would result in reduced projected future traffic levels on Garden Highway when compared to traffic levels under the proposed UWSP. With implementation of Alternative 5 all other transportation impact conclusions would be the same as with implementation of the proposed UWSP.

Utilities

Introduction

Under Alternative 5, NCMWC through an agreement with the Sacramento County Water Agency (SCWA), would serve as the raw water wholesaler, and the SCWA would serve as the water retailer, and would own, operate, the proposed WTP and maintain on-site storage, transmission, and distribution facilities. The analysis below includes an Environmental Setting describing existing conditions for water supply, demand, and infrastructure within the NCMWC's service area; a Regulatory Setting presenting relevant regulations, plans, and policies for water supply, conservation, and quality; and an Impact Discussion that states the thresholds of significance and addresses potential environmental effects related to the construction of water supply infrastructure (Impact UT-1) and the adequacy of water supply to meet project demands (Impact UT-2), as analyzed in Draft EIR Chapter 20, *Utilities*.

Environmental Setting

The NCMWC is a private, not-for-profit corporation representing the interests of its 280 member/shareholders. For more than 80 years, NCMWC has provided irrigation water, at cost, to its shareholders for agriculture use. NCMWC provides water services to 33,223 acres through pipelines, pumps and more than 50 miles of canals. NCMWC service area is adjacent to the Sacramento River, north to the Cross Canal, east to Natomas East Main Drainage Canal and south to the American River in Sacramento County.

Water Supply Entitlements, Water Rights And Contracts

Water Supply Sources

Background

In 1964, the NCMWC, along with hundreds of other Sacramento River water rights holders (diverters), signed a Sacramento River Settlement Contract with the USBR to purchase water from its Central Valley Project (CVP). In exchange for the right to purchase water, the diverters (contractors) agreed to limit their diversions from the Sacramento River to a monthly allocation which represented a good faith estimate of their historical use.

SACRAMENTO RIVER WATER SUPPLIES

NCMWC currently obtains surface water diversions from the Sacramento River to supply agricultural users in the Natomas Basin. As a Sacramento River contractor, it can divert up to 120,200 AFY. As discussed above, NCMWC along with several Sacramento River diverters is contracted with USBR pursuant to the Natomas Settlement Contract (14-06-200-885A-R-1). The Settlement Contract addresses portions of NCMWC's surface water rights and provides CVP water supplies for use within NCMWC's existing service area that includes the Natomas Vision Plan Area. The Settlement Contract can be amended to serve the UWSP area. Furthermore, NCMWC has sufficient capacity to serve the UWSP area as well as the broader Natomas Vision Plan Area.

As indicated in **Table ALT 5-6**, NCMWC's Sacramento River diversions have seasonal restrictions that only allow diversions and deliveries during specific months of the year. During late fall to early spring (October through March), Permit 19400 allows for direct diversion and delivery of another 10,000 AF. However, Permit 19400 is Term 91 limited (refer to detailed discussion of Critical Year Supplies, page 19) and is therefore not always available. To ensure year-round raw water deliveries, the delivery schedule of the USBR Contract entitlements would have to be modified for year-round diversions and deliveries. It should be noted that delivery of wholesale raw water from NCMWC to the UWSP area would also require a wholesale agreement between NCMWC and SCWA to allow service of M&I water to the proposed UWSP development.

SURFACE WATER DELIVERIES

In order to divert and deliver water from the Sacramento River to the urban developments within its service area, NCMWC would need to apply for or request modifications to its USBR Settlement Contract and water rights permits to change from strictly agricultural uses to also include M&I uses. Notably, NCMWC maintains specific M&I water rights for use at the Sacramento Airport and within the Metro Air Park development.

NORMAL YEAR SUPPLIES

As shown in **Table ALT 5-7**, under the USBR Settlement Agreement NCMWC can divert and deliver up to 120,200 AFY of Sacramento River water to agricultural users within its service area although delivery periods are limited to specific months pursuant to the Sacramento River Settlement Agreement and the conditions of the individual water rights permits. Separately, Water Permit 19400 (1978) allows for direct diversion and delivery of up to 10,000 AFY from October through March.

Table ALT 5-6: NCMWC Total Water Supplies

	USBR	California Water Rights Permits						
	Contract	**A000534**	**A001056**	**A001203**	**A001413**	**A015572**	**A022309**	**A025727 Permit: 19400**
Priority		3/1/1905	8/1/1918	3/1/1919	8/1/1919	10/1/1953	10/1/1965	5/1/1978
Source	CVP Settlement Contract	Sacramento River	Sacramento River	Sacramento River	Sacramento River	Sacramento River	Drain	Sacramento River and Drain (Winter)
Permit Total (AFY)	120,200	15,394.20	16,205.20	58,394.20	36,655.10	11,846.00	2,627.00	10,000.00
Delivery Period	April - October	April - October	April - October	May - October	May - October	April - June and October	March - June Sept and October	October - March
October	2,000							
November	0	0	0	0	0	0	0	
December	0	0	0	0	0	0	0	
January	0	0	0	0	0	0	0	
February	0	0	0	0	0	0	0	
March	0	0		0	0	0		
April	14,000			0	0			0
May	27,700							0
June	23,000							0
July	18,700					0	0	0
August	18,700					0	0	0
September	16,100					0		0
Totals (AFY)	**120,200**	**15,394**	**16,205**	**58,394**	**36,655**	**11,846**	**2,627**	**10,000**

Source: Natomas Central Mutual Water Company, August 13, 2025.

Note: Table adapted by ESA, October 2025.

Table ALT 5-7: USBR Contract Water Curtailments

USBR Contract Amount	25% Curtailment	Drought Protection Program 50% Curtailment
120,200 AFY	90,150 AFY	60,100 AFY
Source: Natomas Central Mutual Water Company, August 2025.		

CRITICAL YEAR SUPPLIES AND CVP DROUGHT PROTECTION PROGRAM

USBR SETTLEMENT CONTRACT CRITICAL YEAR REDUCTIONS

CVP water deliveries to Sacramento River Settlement Contractors are based on inflow quantities to Shasta Reservoir above Redding, California. Pursuant to the renewal of the USBR Settlement Agreement (May 2005), USBR may declare a Critical Year condition when the natural flows into Shasta Reservoir are equal to or less than 3.2 million acre-feet (MAF), or when total actual deficiencies below 4 MAF in the prior water year or series of successive prior water years experienced inflows of less than 4 MAF and current year forecasted inflow deficiencies exceed 800,000 acre-feet – in Critical Years, Sacramento River Settlement Contractors CVP water diversions are reduced by 25 percent.

Pursuant to the Agreement between USBR and Sacramento River Settlement Contractors for Establishment of a Drought Protection Program (January 2025), the signatories established a new program designed to improve water supply reliability and avoid severe storage deficiencies, such as the one that occurred in 2022. Under the Drought Protection Program when USBR declares a Critical Year and the Sacramento-San Joaquin Delta (Delta) is in a "Balanced Condition"[8] Sacramento River Settlement Contractors have agreed to further reduce diversions an additional 25 percent. As shown in Table ALT 5-7, NCMWC diversions of CVP water in Critical Years are reduced by 25 percent to a maximum of 90,150 AFY. Furthermore, in Critical Years an additional 25 percent reduction can be imposed under the new Drought Protection Program (January 2025). In such years, NCMWC diversions of CVP water can be reduced by up to a total of 50 percent to a maximum of 60,100 AFY.

WATER RIGHTS PERMIT CURTAILMENTS

As shown in Table ALT 5-6, Water Rights Permit 19400 was acquired after the 1963 USBR Settlement Agreement and can be used to divert and deliver water from October to March in any given year. On an annual basis, if the State Water Resources Control Board (SWRCB) determines that the Delta is in "Balanced Condition" and can declare a Term 91 condition when the natural flows in the Sacramento River are insufficient to meet the various water quality and water flow requirements in the Delta, and Supplemental Project

[8] Balanced Condition when Supplemental Project Water (SPW) releases are being made by the Central Valley Project or State Water Project (collectively Projects). The Delta is referred to be in "Balanced Condition" when the Projects are being operated to meet water quality and flow requirements in the Delta. SPW releases are releases of imported and previously stored Project water to meet in-basin entitlements, including maintenance of Delta water quality and flow requirements.

Water releases are being made by the CVP and SWP. It is likely that Term 91 will be declared more often in the future, reducing the diversions from the Sacramento River. Permit 19400 is subject to potential curtailment pursuant to Term 91. To address these potential curtailments under Term 91 during winter months, NCMWC has proposed seeking an amendment to its USBR Settlement Agreement that would allow for year-round diversions by reallocating some summer diversions to the winter period.

HISTORICAL AND EXISTING DELIVERIES – ALL WATER YEAR TYPES

As shown in **Tables ALT 5-8 and ALT-5-9**, NCMWC's historical diversions and deliveries range from as low as 29,012 AFY in 2022 to as high as 81,580 AFY in 2016. Over this 12-year time period NCMWC delivered an average of 68,099 AFY. In normal, wet or above normal water years, the average surface water delivery was 71,595 AFY. In dry and critical dry years (2014, 2015, 2021 and 2022), the surface water deliveries averaged 61,107 AFY. In 2022, NCMWC was only able to deliver to its agricultural users 29,012 AFY; in all other dry years, deliveries were above the Drought Protection Program 50 percent curtailment maximum of 60,100 AFY. Though the Drought Protection Program is designed to improve water supply reliability, decreased deliveries could potentially occur in the future, such as in 2022, when it is possible for water supplies reductions to be below the 50 percent curtailment level. Such conditions are addressed in a letter from NCMWC, included in Appendix F, which states that M&I water for the UWSP would be prioritized. Thus, under Alternative 5 the UWSP would be expected to have sufficient supplies even during these times when deliveries are below the Drought Protection Program limits.

Table ALT 5-8: Annual Surface Water Use

Year	Annual Surface Water (AFY) Deliveries
2024	60,799
2023	72,593
2022	29,012
2021	74,450
2020	75,053
2019	63,188
2018	74,879
2017	63,763
2016	81,580
2015	67,618
2014	73,348
2013	80,903

Note: Table adapted by ESA, October 2025.

Source: Natomas Central Mutual Water Company, August 13, 2025.

Table ALT 5-9: Average Surface Water Deliveries in All Year Type

Average Deliveries[1]	68,099
Average Deliveries[2]	71,595
Average Drought Year Deliveries[3]	61,107

Note: Table adapted by ESA, October 2025.

1. All water year types
2. Wet, above normal and normal years
3. 2014, 2015, 2021 and 2022

Source: Natomas Central Mutual Water Company, August 2025.

WATER DEMAND

EXISTING UWSP AREA AGRICULTURE WATER DEMAND

As shown in **Table ALT 5-10**, between 2013 and 2024 NCMWC delivered to agricultural users within the UWSP area between 1,307 and 4,860 AFY with an average of 2,703 AFY. In the drought years of 2014, 2015, 2021 and 2022, surface water deliveries for agricultural uses ranged from 1,307 AFY to 4,014 AFY with an average of 2,956 AFY. Because agricultural users demand more water for irrigation when there is less precipitation, the average water use was higher in the drought years compared to 2013-2014 average of 2,703 AFY.

Table ALT 5-10: Summary of Water Deliveries within UWSP Area (AFY)

Year/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2024					216	542	599	584	58	364	1	0	2,365
2023				0	38	712	616	353	91	75	3	2	1,892
2022			307	389	133	165	335	220	59	7			1,307
2021			145	1,085	155	312	654	730	221	127			3,284
2020				63	325	341	204	229	160				1,321
2019						227	415	458	238	10			1,353
2018					247	739	944	699	367	6			3,002
2017					217	441	555	586	245				2,045
2016				90	539	935	951	758	430	80			3,782
2015				483	653	786	760	417	94	24			3,218
2014				174	843	1,104	969	733	162	28			4,014
2013				373	1,265	1,041	865	807	237	14		256	4,860
Minimum					4	165	204	220	58				**1,307**
Average			38	221	386	612	656	548	197	61	0	22	**2,703**
Maximum			307	1,085	1,265	1,104	969	807	430	364	3	256	**4,860**

Source: Natomas Central Mutual Water Company, August 2025.

PROPOSED UWSP PROJECT WATER DEMAND – OPERATIONS

The estimated annual water demand for the UWSP would be 3,139 AFY and would be consistent with SCWA's 2020 Urban Water Management Plan. The proposed UWSP land uses and projected water demand for the UWSP area are presented in **Table 5-11**. It should be noted that the Agricultural Reserve, General Agriculture and Regional Commercial land uses are existing conditions and would not generate new water demands within the UWSP area[9]

Table ALT 5-11: UWSP Estimated Water Demand (AFY)

Land Uses	Corresponding Land Use Classification in WSMP(2)	Unit Water Demand (AFY/Acre)(1)(3)	Gross Acreage	Water Demand (AFY)(3)
RESIDENTIAL DESIGNATIONS				
Low Density Residential (RD-2)	Residential Low	1.47	164.5	242.3
Low Density Residential (RD-5)	Residential Low	2.29	429.2	982.8
Low Density Residential (RD-7)	Residential Low	2.29	133.0	304.5
Medium Density Residential (RD-10)	Residential Medium	3.58	62.5	102.0
High Density Residential (RD 25)	Residential Medium	3.58	36.4	130.2
High Density Residential (RD 40)	Residential Medium	3.58	22.6	164.0
NON-RESIDENTIAL				
Landscape Corridor	Park	3.01	38.2	115.1
Mixed Use	Mixed Use	5.75	82.0	471.5
Agricultural Reserve	-	n/a	410.2	n/a
General Agriculture	-	n/a	86.1	n/a
Agricultural Urban Reserve	Park	3.01	45.1	84.0
Commercial & Office (CC)	Commercial/Office	2.17	1.2	2.7
Commercial & Office (E/HC)	Commercial/Office	2.17	52.9	114.9
Roads	-	0.19	122.0	23.6
Public/Quasi-Public	Public	0.87	141.1	122.8
Public/Quasi-Public	-	0	15.0	0
Natural Reserve	-	0	141.9	0
Recreation	Park	3.01	82.3	153.0
Regional Commercial	Regional Commercial (RC)	n/a	n/a	n/a
TOTALS			**2,066**	**3,138.9**

[9] Upper Westside Water Master Plan, page 7

Notes:

1. Demand estimates per SCWA 2016 WSIP include 7.5 percent system losses
2. Proposed land use from UWS WSMP, October 2023.
3. Demands may vary slightly due to land use plan modifications.
Source: Sacramento County Water Agency, 2025.

ANTICIPATED UWSP NCMWC WATER DEMANDS

Under the UWSP, agricultural water demand would taper down as the proposed development would convert the existing agricultural land uses to developed land uses. Under existing conditions, from October through March NCMWC does not deliver raw water to meet agricultural uses in the UWSP area as existing agricultural uses do not irrigate crops during the winter months. Under Alternative 5 water use to meet M&I demand in the UWSP area between October and March would be required. As a result, NCMWC would increase monthly diversions from the Sacramento River during these months. Water supplies needed to serve the UWSP area during these months are expected to be as high as 331 acre-feet in October to as low as 122 acre-feet in March in any given year.[10]

Anticipated monthly deliveries to the UWSP area are shown in Table 8 and are consistent with the monthly water uses provided in the 2020 SCWA UWMP. In the October through March period, NCMWC would divert and deliver water to the UWSP area under its Water Right Permit 14900. As shown in **bold** in **Table ALT 5-12**, during the late fall (October) through early spring (March) NCMWC would divert 1,300 AFY more than under existing conditions to meet demand generated by the UWSP area.[11]

Table ALT 5-12: UWSP Water Demand by Month

Month	Proposed Surface Water Demand (acre-feet)
January	**140**
February	**133**
March	**122**
April	154
May	245
June	351
July	401
August	430
September[1]	**406**

[10] UWSP Alternative Water Source Memorandum, Wood-Rodgers, October 2025.

[11] UWSP Alternative Water Source Memorandum, Wood-Rodgers, October 2025.

Month	Proposed Surface Water Demand (acre-feet)
October[1]	**331**
November	**258**
December	**168**
Yearly Total	**3,139**

Notes:

1. Under existing conditions in September and October, NCMWC currently delivers 197 acre-feet and 61 acre-feet to agricultural users. Supplemental water supplies would be needed to meet the additional demand above average water use within the UWSP area.

Source: UWSP Alternative Water Source Memorandum, Wood-Rodgers, October 2025.

As shown in **Table ALT 5-13**, based on historical diversions and deliveries to existing agricultural users, the WSA estimated NCMWC's projected diversions and water supply deliveries over the next 20 years to meet agricultural and M&I within its service area including the UWSP area. Prior to serving the UWSP area with M&I water, NCMWC would be required tor modify its State water rights permits and amend its USBR Settlement Agreement.

Table ALT 5-13: Projected Water Deliveries

	2030	2035	2040	2045	2050
NCMWC – Service Area[1,2,3]	71,595	71,595	71,595	71,595	71,595
NCMWC – Service Area (Dry Years)[2,3]	61,107	61,107	61,107	61,107	61,107
UWSP – Average Annual	3,139	3,139	3,139	3,139	3,139
UWSP – Dry Years Annual	2,668	2,668	2,668	2,668	2,668

NOTES:

1 Based on average annual pumping at the Riverside Pumping Plan and annual deliveries to existing agricultural users, including the UWSP area and other proposed developments, i.e., GrandPark Southwest Specific Plan and Grandpark Trails Specific Plan.
2. Annual diversions and deliveries are expected to decrease over the next twenty years as agricultural uses within NCMWC service area are converted to urban uses. For conservative water supply planning purposes, diversions and deliveries are held constant through the 20-year planning horizon.
3. Average Annual deliveries include additional water supplies of 436 acre-feet needed to meet UWSP demands

SOURCE: Table derived by ESA from Natomas Central Mutual Water Company data and information based on demand management measures during dry years to achieve water conservation (Stage 2, up to 20%) pursuant to SCWA's Water Shortage Contingency Plan *(ver 4-19-21)*.

WATER INFRASTRUCTURE

NCMWC maintains four river pumping plants for extracting and delivery of Sacramento River water to its agricultural uses. The closest pump station to UWSP area is the Riverside Pumping Plant located west of the Garden Highway and Radio Road intersection. From there Sacramento River water is pumped into the NCMWC distribution system. While the NCMWC irrigation system is integrated throughout the Natomas Basin, there is a newly constructed raw water pipeline that conveys water south adjacent to the UWSP area.

The minimum and maximum preferred operating range for the Riverside Pumping Plant is approximately 33 and 47 cubic feet per second, respectively. This equates to a capacity of 14,800 to 21,100 gallons per minute. The pumping plant discharges into a concrete portion of the Riverside Canal.

Approximately 125 feet south of the Riverside Pumping Plant discharge point is the Riverside Canal/Pipeline Lift Station. This facility consists of valving, a 50-horsepower and 60-horesepower pump discharge into a new 48-inch HDPE pipeline. The 48-inch pipeline travels south transitioning to a 36-inch at existing Farm Road and then a 32-inch pipe at existing Parker Road. The pipeline ultimately discharges into an open canal that runs parallel to Interstate 80. The pipeline is currently utilized to serve agriculture water to existing NCMWC agricultural uses via periodic turnouts and discharges to open canals (Wood Rodgers 2025).

REGULATORY SETTING

FEDERAL

Draft EIR Chapter 20, *Utilities*, pages 20-15 to 20-16, includes federal regulations that address water quality, including the Federal Safe Drinking Water Act and the U.S. Environmental Protection Agency's role in implementing the act.

STATE

Draft EIR Chapter 20, *Utilities*, pages 20-16 to 7-20, includes State regulations that address water supply and quality, including the Urban Water Management Planning Act, California Public Resources Code requirements to prepare water supply assessments and written verification of water supply, and the State's role in implementing the Federal Safe Drinking Water Act.

LOCAL

Draft EIR Chapter 20, *Utilities*, pages 20-23 to 20-26, includes policies of the Sacramento County 2030 General Plan that are relevant to water conservation, quality and supply.

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, an impact is considered significant if the project or alternative would cause any of the following:

- 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; or
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;

Impacts related to the following significance thresholds are addressed in Draft EIR Chapter 20, *Utilities*, and would remain unchanged under Alternative 5.As such, effects of Alternative 5 related to these significance criteria are not further addressed herein.

- 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;
- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

METHOD OF THE ANALYSIS

SCWA's 2020 UWMP provides a table of gross unit water use factors for various land uses. The water uses are divided into six main categories of water demand factors: single-family residential; multi-family residential, commercial, government and institutional, industrial and landscape irrigation. All water demand factors are based on acre-feet per year per acre (AFY/Acre). For the proposed UWSP, dwelling units are comprised of low, medium and high density residential while nonresidential areas are comprised of commercial and offices, landscape corridors, parks and other public area. A water supply assessment, or WSA, was prepared for Alternative 5 by the SCWA in December 2025 (see Appendix ALT 5-2). The WSA assessed available water supplies and described existing and projected water demand and then calculates and systematically compares water supply reliability for the UWSP under all water year types including normal, single dry, and multiple dry years over a 20-year planning horizon.

As shown in Table ALT 5-11, land uses allowed under the proposed UWSP would generate an estimated annual water demand of 3,139 AFY. Based on the WSA, water demand for the proposed UWSP was compared to water supplies available to the NCMWC, and a determination was made regarding the sufficiency of supply for the proposed UWSP.

Development allowed under the proposed UWSP would be required to comply with water conservation, reuse, and efficiency standards under CALGreen. To this end, development would use low-flow/high-efficiency plumbing fixtures, and landscaping in the UWSP area would be designed and maintained for low water use and appropriate site conditions and methods for reducing water demand. As a result, compliance with these measures may reduce the water demand of the proposed UWSP to less than 3,139 AFY.

IMPACT UT-1: CONSTRUCTION OF WATER SUPPLY INFRASTRUCTURE COULD RESULT IN ADVERSE PHYSICAL EFFECTS

Under Alternative 5, raw water would be diverted at the Riverside Pumping Plant and then treated at a proposed WTP on the north side of San Juan Road within the UWSP area. The anticipated capacity of the WTP would be approximately 7 million gallons per day and would be located on approximately 8-acres (subject to subsequent engineering and design). The WTP would also include a booster pump station and two 2.5-million-gallon storage tanks.

Raw surface water would be delivered to the UWSP area via an existing 48-inch distribution main that runs along the western border of the UWSP area. The proposed UWSP would connect to this main where it crosses San Juan Road, approximately 600 feet east of Garden Highway, via 30-inch main that would extend east along San Juan Road to the proposed WTP.

The transmission and distribution system for Alternative 5 would remain largely unchanged from those described for the proposed UWSP. However, there would be two additional 16-inch transmission mains conveying water from the WTP to the distribution system. The additional 16-inch transmission mains would convey potable water from the WTP to the transmission and distribution mains at the intersection of San Juan Road and Bryte Bend Road.

The connection to the existing 48-inch distribution main would occur within the right-of-way of San Juan Road while construction of the WTP and distribution system would occur within the footprint of the UWSP area that was evaluated in the Draft EIR. As a result, the potential impacts associated with the construction and installation of these improvements were considered throughout the technical chapters of the Draft EIR, including Chapter 6, *Air Quality*; Chapter 7, *Biological Resources*; Chapter 9, *Cultural Resources*; Chapter 11, *Geology, Soils, and Paleontology*; Chapter 15, *Noise and Vibration*; Chapter 18, *Transportation and Circulation*; and Chapter 19, *Tribal Cultural Resources*. Project-specific mitigation measures for construction identified for each topical issue would reduce potential significant impacts associated with construction and installation of the water treatment and distribution facilities associated with Alternative 5 to the maximum extent feasible. There are no environmental impacts that would occur specifically related to the construction and installation of these facilities. In addition, these facilities would be required to comply with the County's requirements for construction projects, including but not limited to, grading permits and encroachment permits.

During operations, odors, noise and lighting generated by the WTP are not expected to adversely affect future neighboring residential uses. Modern design of surface water treatment plants include provisions for limiting odor and noise impacts. For example, odors would be controlled and limited by covering basins/tanks, use of activated carbon filters or scrubbers, and chemical treatment and/or sludge management. Noise would be limited by providing sound walls, locating pumps away from property lines, and/or potentially housing pumps within buildings. Finally, lighting would be addressed via standard shielding based on lighting studies that would demonstrate compliance with

County standards. Specific details would be vetted and analyzed during the treatment plant design process and County review of improvement plans.

For these reasons, impacts from implementation of Alternative 5 would be less than significant, like from implementation of the proposed UWSP, with respect to water treatment and distribution facilities.

IMPACT UT-2: RESULT IN A PROJECT WATER DEMAND THAT CANNOT BE MET BY SUPPLY

As a result of implementation of the UWSP and conversion of land uses, (agricultural to urban) total water demand within NCMWC service area is expected to decrease over the 20-year planning horizon. A detailed discussion of water demand and supply under multiple types of water years is discussed further below.

NCMWC SERVICE AREAS – SUPPLY AND DEMAND

Table ALT 5-14 presents a water supply and demand comparison in all water year types, normal, dry and drought protection program years when supplies could be curtailed by 50 percent. Normal year supply quantities are assumed to be like historical average supplies presented in Table ALT 5-8, above. In normal water years, NCMWC has adequate water supply to meet existing and projected demand, including the proposed UWSP estimated water demand of 3,139 AFY. In normal years, NCMWC would have access to another 48,605 AFY after delivering water to UWSP and agricultural consumers.

In Critical Years (i.e., dry years) CVP supplies are assumed to be reduced by 25 percent to a maximum of 90,150 acre-feet (refer to Table ALT 5-14). In Critical Years, NCMWC has adequate water supplies to meet existing and projected demand including the UWSP area estimated 3,139 AFY of water demand. As shown in Table ALT 5-14, pursuant to the NCMWC and SCWA water service agreement discussed in Section 5, NCMWC would prioritize M&I deliveries to UWSP area to meet demand during Critical Years. As a result, in Critical Years when supplies are reduced by 25 percent, NCMWC would be able to meet existing and projected demand and NCMWC would have access to another 29,043 AFY after delivering water to UWSP and agricultural consumers. This assumes a projected 15 percent reduction in demand due to water conservation pursuant to SCWA's Water Shortage Contingency Plan (WSCP).[12]

[12] SCWA's new WSCP will address all mandated requirements in of the Urban Water Management Planning Act and will identify specific water shortage actions in all seven of its service areas to meet staged water use reduction targets of up to 10%, 10-20%, 20-30%, 30-40%, 40-50% and greater than 50%. SCWA Water Shortage Contingency Plan (ver 4-19-21)

Table ALT 5-14: NCMWC Supply and Demand in All Water Years

Year Type		2030	2035	2040	2045	2050
NORMAL YEAR						
Supply	USBR CVP Settlement Agreement	120,200	120,200	120,200	120,200	120,200
Demand	NCMWC – Service Area[1,2,3]	71,595	71,595	71,595	71,595	71,595
	Surplus/(Deficit)	48,605	48,605	48,605	48,605	48,605
CRITICAL YEAR AKA DRY YEAR						
Supply	USBR CVP (25% Curtailment)	90,150	90,150	90,150	90,150	90,150
Demand	NCMWC – Service Area (15% conservation or fallow lands and reduced planting)[1,2,3]	61,107	61,107	61,107	61,107	61,107
	Surplus/(Deficit)	29,043	29,043	29,043	29,043	29,043
DROUGHT PROTECTION PROGRAM CURTAILMENT						
Supply	USBR CVP (50% Curtailment)	60,100	60,100	60,100	60,100	60,100
Demand	NCMWC – Service Area (Dry Years 15% conservation or fallow lands and reduced planting)[1,2,3]	61,107	61,107	61,107	61,107	61,107
	Surplus/(Deficit)	(1,007)	(1,007)	(1,007)	(1,007)	(1,007)
Supply	USBR CVP (50% Curtailment)	60,100	60,100	60,100	60,100	60,100
Demand	NCMWC – Service Area (Dry Years 17% reduction or fallow lands and reduced planting)[1,2,3]	60,099	60,099	60,099	60,099	60,099
	Surplus/(Deficit)	1	1	1	1	1

NOTES:

1. Based on average annual pumping at the Riverside Pumping Plan and annual deliveries to existing agricultural users, including the UWSP area and other proposed developments, i.e., GrandPark Southwest and Grandpark Trails.
2. Annual diversions and deliveries are expected to decrease over the next twenty years as agricultural uses within NCMWC service area are converted to urban uses. For conservative water supply planning purposes, diversions and deliveries are held constant through the 20-year planning horizon.
3. Average Annual deliveries include additional water supplies of 436 acre-feet needed to meet UWSP demands.

Table derived by ESA from NCMWC data and information and based on demand management measures during dry years to achieve water conservation (Stage 2, up to 20%) pursuant to SCWA's Water Shortage Contingency Plan *(ver 4-19-21)*.

Source: UWSP Alternative Water Source Memo and NCMWC, October 2025

In years when the Drought Protection Program is in effect, CVP water is reduced by 50 percent or a maximum of 60,100 acre-feet for NCMWC (refer to Table ALT 5-14). Under the Drought Protection Program, NCMWC could experience a potential shortfall of 1,007 AFY as shown in Table ALT 5-14. In these Drought Protection Program years when supplies are reduced by 50 percent, pursuant to the NCMWC and SCWA water service agreement, NCMWC would prioritize M&I deliveries to UWSP area to meet demand. As a result, in Drought Protection Program Years when CVP supplies are reduced by 50 percent, NCMWC would be able to meet existing and projected demand. This assumes a projected 17 percent reduction in demand due to water conservation pursuant to SCWA's WSCP.[10]

UPPER WESTSIDE SPECIFIC PLAN SERVICE AREA - – SUPPLY AND DEMAND

Table ALT 5-15 presents a water supply and demand comparison in all water year types, including normal, Critical dry years when supplies could be curtailed by 25 percent, and Drought Protection Program years when supplies could be curtailed by 50 percent.

Table ALT 5-15: UWSP Area Supply and Demand in All Water Years

		2030	2035	2040	2045	2050
Supply	NCMWC - UWSP Deliveries	3,139	3,139	3,139	3,139	3,139
Demand	UWSP Service Area1	3,139	3,139	3,139	3,139	3,139
	Surplus/(Deficit)	0	0	0	0	0
Supply	USBR CVP (25% Curtailment)	3,139	3,139	3,139	3,139	3,139
Demand	UWSP Service Area1	3,139	3,139	3,139	3,139	3,139
	Surplus/(Deficit)	0	0	0	0	0
Supply	USBR CVP (50% Curtailment)	3,139	3,139	3,139	3,139	3,139
Demand	UWSP Service Area1	3,139	3,139	3,139	3,139	3,139
	Surplus/(Deficit)	0	0	0	0	0

NOTES:

1. For conservative water supply planning purposes, UWSP demand is held constant through the 20-year planning horizon. Under SCWA's Water Shortage Contingency Plan (ver. 4-19-21) demand would be reduced in response to applicable water conservation measures.

Table derived by ESA from NCMWC data and information and based on demand management measures during dry years to achieve water conservation (Stage 2, up to 20%) pursuant to SCWA's Water Shortage Contingency Plan *(ver 4-19-21)*.

Source: Alternative Water Source Memo and NCMWC, October 2025

Normal year supply quantities are assumed to be similar to historical average supplies presented in ALT Table 5-15. In normal water years, NCMWC has adequate water supply to meet existing and projected demand, including the UWSP estimated 3,139

AFY of water demand. In normal years, NCMWC has sufficient supplies to meet demand generated by the UWSP area.

In dry Critical Years, when CVP water supplies are reduced by 25 percent as presented in Table ALT 5-7, NCMWC would be able to meet existing and projected demand including demand generated by the UWSP area and would have access to another 29,043 AFY after delivering water to UWSP and agricultural consumers. This assumes a projected 15 percent reduction in demand due to water conservation pursuant to SCWA's WSCP[13]. As shown in ALT Table 5-16, pursuant to a NCMWC and SCWA water service agreement, NCMWC would prioritize M&I deliveries to UWSP area to meet demand during Critical Years. As a result, in Critical Years when CVP supplies are reduced by 25 percent, NCMWC would be able to meet existing and projected demand including demand generated by the UWSP area.

In years when the Drought Protection Program is in effect, CVP water is reduced by 50 percent or a maximum of 60,100 acre-feet (refer to Table ALT 5-7). In these years NCMWC could experience a supply shortfall. In these Drought Protection Program years, pursuant to a NCMWC and SCWA water service agreement, NCMWC would prioritize M&I deliveries to UWSP area to meet demand. This assumes a projected 17 percent reduction in demand due to water conservation pursuant to SCWA's WSCP.[14] As a result, in Drought Protection Program years when CVP supplies are reduced by 50 percent, NCMWC would be able to meet existing and projected demand including demand generated by the UWSP area.

For the reasons described above, impacts to water supply with implementation of Alternative 5, like with implementation of the proposed UWSP, would be less than significant.

UTILITIES IMPACTS CONCLUSION

As discussed above, impacts related to the provision of potable water supply from the NCMWC and the construction of necessary treatment and distribution infrastructure with implementation of Alternative 5 would be less than significant, the same impact conclusion as with the proposed UWSP.

[13] SCWA's new WSCP will address all mandated requirements in of the Urban Water Management Planning Act and will identify specific water shortage actions in all seven of its service areas to meet staged water use reduction targets of up to 10%, 10-20%, 20-30%, 30-40%, 40-50% and greater than 50%. SCWA Water Shortage Contingency Plan (ver 4-19-21)

[14] SCWA's new WSCP will address all mandated requirements in of the Urban Water Management Planning Act and will identify specific water shortage actions in all seven of its service areas to meet staged water use reduction targets of up to 10%, 10-20%, 20-30%, 30-40%, 40-50% and greater than 50%. SCWA Water Shortage Contingency Plan (ver 4-19-21)

COMPARATIVE ANALYSIS OF ENVIRONMENTAL EFFECTS

The Draft EIR included an analysis of the following CEQA topics: aesthetics, agricultural resources, air quality, biological resources, climate change, cultural resources, energy, geology, soils, and paleontology, hazards, and hazardous materials, hydrology and water quality, land use, mineral resources, noise, population and housing, public services and recreation, transportation, tribal cultural resources, utilities, and wildfire. The comparative impacts of Alternative 5 on each of these topics is addressed below.

AESTHETICS

Impacts related to aesthetics under Alternative 5 would be like those described for the proposed UWSP, as the same amount of land would be converted from farmland and rural use to urban use under this alternative. As a result, impacts related to scenic views, visual character, and new sources of light would remain significant and unavoidable under Alternative 5 like the proposed UWSP.

AGRICULTURAL RESOURCES

Impacts related to agricultural resources under Alternative 5 would be like those described for the proposed UWSP, as the same amount of farmland within the UWSP area would be converted to urban uses. Therefore, with respect to the conversion of farmland to non-agricultural uses, the proposed plan's significant and unavoidable impact with mitigation would remain the same under Alternative 5. Furthermore, impacts related to conflicts with existing agricultural use and zoning under this alternative would also remain less than significant.

AIR QUALITY

Impacts related to air quality would be the same under Alternative 5 when compared to the proposed UWSP, as the location and amount of residential and non-residential development under this alternative would be the same as under the proposed UWSP. As a result, the proposed UWSP's significant and unavoidable impacts (with mitigation) would remain be same with respect to conflicts with an applicable air quality plan long-term, operational emissions of criteria air pollutants and precursors, and toxic air contaminants.

BIOLOGICAL RESOURCES

Residential and non-residential development under Alternative 5 would occur over the same development footprint as the proposed UWSP, and therefore the effects of this alternative on biological resources, except for fish species, would not differ from the UWSP as proposed. Therefore, with respect to sensitive species, riparian habitats, wetlands, wildlife movement, wildlife nursery sites, tree preservation, and conflicts with a habitat conservation plan, the proposed plan's less-than-significant impacts with mitigation would be generally the same under this alternative.

Under Alternative 5 the source of UWSP domestic water supply would come from the Sacramento River and NCMWC's Riverside Pumping Plant and therefore could lead to

direct and indirect effects to special-status fish species. Annually a total of 3,139 AFY, a net increase of 458 acre feet per year in water that has previously been delivered from the Riverside Pumping Plant to the UWSP area for agricultural purposes, would be available for development allowed under the proposed UWSP. This change in the use of diverted water at the Riverside Pumping Plant would lead to an increase in annual diversions and a change in seasonality of diversions compared to existing conditions. Importantly, a total of 1,300 AFY of water would be diverted during the September through March period when sensitive fish species are present in the Sacramento River.

As described in greater detail above, changes in diversion of Sacramento River flows associated with provision of raw water to the proposed UWSP under Alternative 5 are estimated to be very small, less than 0.08 percent of flow even under minimum Sacramento River flow conditions. This low level of flow diversion (less than 0.1 percent of river flows) would be expected to be indiscernible relative to existing habitat conditions for special-status and native fish species. Therefore, additional Sacramento River diversions from the Riverside Pumping Plant under the Alternative 5 are not expected to impact special-status fish species or interfere with movement of native resident or migratory fish. Therefore, this impact would be less than significant.

Climate Change

Impacts related to GHG emissions and climate change would be the same under Alternative 5 as under the proposed UWSP, as the amount of residential and nonresidential development under Alternative 5 would be the same as under the proposed UWSP. As a result, the proposed UWSP's less-than-significant impact (with mitigation) related to construction GHG emissions would be the same. Similarly, less-than-significant (with mitigation) impacts related to operational GHG emissions and conflicts with an applicable plan, policy, or regulation related to GHG emissions would also be the same.

Cultural Resources

Impacts related to cultural resources under Alternative 5 would also be like those described for the proposed UWSP as the project footprint would remain the same, and thus the amount of ground disturbance would remain the same under this alternative. Therefore, with respect to historical resources, archaeological resources and/or human remains, the proposed UWSP's significant and unavoidable impacts with mitigation would remain the same under Alternative 5.

Energy

Impacts related to energy consumption would be the same under Alternative 5 when compared to the proposed UWSP, as residential and non-residential development under this alternative would be the same as under the proposed UWSP. As a result, the proposed UWSP's less-than-significant impacts related to energy use would be the same.

Geology, Soils, and Paleontology

Impacts related to geology and soils under Alternative 5 would be the same as the proposed UWSP as the same number of residents, employees, and potentially structures would be exposed to the same seismic risks, geologic hazards, and soil conditions found in the UWSP area. Therefore, the same mitigation as identified for the proposed UWSP would also be required under this alternative to reduce the impact to a less-than-significant level.

Concerning paleontological resources, the impact related to these resources would also continue to be potentially significant under Alternative 5, as the potential for the discovery of unknown paleontological resources would remain the same. As a result, the same mitigation as identified for the proposed UWSP would also be required under this alternative to reduce the impact to a less-than-significant level.

Hazards and Hazardous Materials

The location and amount of the residential and non-residential development under Alternative 5 would be the same as under the proposed UWSP. As a result, impacts with respect routine transport, use, or disposal of hazardous materials, accidental release of hazardous materials, hazardous emissions or use of hazardous materials near schools, and physically interfering with an adopted emergency response plan or emergency evacuation plan under this alternative would remain less than significant. Furthermore, with respect to potential onsite contamination, the same mitigation as identified for the proposed UWSP would also be required under this alternative to reduce the impact to a less-than-significant level.

Hydrology and Water Quality

Impacts related to hydrology and water quality under Alternative 5 would be like those described for the proposed UWSP, as the same amount of land would be developed under this alternative as the proposed plan. Therefore, impacts with respect to groundwater supplies or management; flood risk; alteration of drainage patterns; addition of impervious surfaces resulting in erosion, siltation, increased runoff, impedance, or redirection of flood flows; and conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan would remain less than significant. Furthermore, with respect to violation of water quality standards or waste discharge requirements, or degradation of surface or groundwater quality, the same mitigation as identified for the proposed UWSP would also be required under this alternative to reduce the impact to a less-than-significant level.

Land Use

Alternative 5 includes the same development area footprint and residential and commercial densities as the proposed UWSP. As a result, impacts with respect to consistency with applicable land use plans, policies, and regulations, including the Sacramento County 2030 General Plan and the County Zoning Code, the physical division of an established community or conflict with any land use plan, policy, or

regulation adopted for the purpose of avoiding or mitigating an environmental effect would remain less than significant.

Noise

The location and amount of the residential and non-residential development under Alternative 5 would be the same as under the proposed UWSP. Therefore, impacts related to construction noise, construction vibration, traffic noise, and stationary noise would remain potentially significant but could be reduced to less-than-significant levels with the same mitigation measures proposed for UWSP. However, stationary noise impacts on offsite receptors from facilities like the high school sports stadium and parks would remain significant and unavoidable, even with mitigation. Additionally, aircraft noise exposure for future residents would be addressed similarly to UWSP through insulation and disclosure requirements.

Population and Housing

Impacts related to population and housing under Alternative 5 would be the same as those described for the proposed UWSP, as the amount of residential use under this alternative would be the same. Therefore, impacts related to the inducement of substantial unplanned population growth in the area, either directly or indirectly, would remain significant and unavoidable. Furthermore, impacts related to displacement of housing would also remain less than significant.

Public Services and Recreation

Impacts related to public services and recreation under Alternative 5 would be the same as those described for the proposed UWSP, as the amount of residential and commercial use under this alternative would be the same. As a result, impacts related to the demand for police protection service, fire protection service, public schools, parks and recreation, and libraries would remain less than significant under Alternative 5.

Transportation

As discussed above, the proposed roadway network changes to the proposed UWSP circulation system would reduce projected future traffic levels on Garden Highway and slightly increase traffic on El Centro Road and Radio Road but would not otherwise change the impact conclusions reached in the Draft EIR. Therefore, significant and unavoidable impacts (with mitigation) related to the consistency with plans, ordinances, or policies addressing the circulation system and design-related hazards such as ramp queueing and safety issues near the Sacramento 49er truck stop would remain the same. Furthermore, impacts with respect to VMT and emergency access impacts would also continue to be less than significant for the same reason.

Tribal Cultural Resources

Impacts related to tribal cultural resources under Alternative 5 would be like those described for the proposed UWSP, as the project footprint, and thus the amount of ground disturbance, would remain the same under this alternative. As a result, the

proposed UWSP's significant and unavoidable impacts would remain under this alternative even with the same mitigation required.

Utilities and Service Systems

Infrastructure

The amount and location of required wastewater, stormwater/drainage, electrical, natural gas, and telecommunication infrastructure would remain the same as those described for the proposed UWSP as the amount of the residential and non-residential development under Alternative 5 would be the same as under the proposed plan. As discussed above, the proposed water treatment and distribution infrastructure to serve Alternative 5 would either occur within an existing right-of-way or within the footprint of the USWP area that was evaluated in the Draft EIR. Therefore, the impact related to the construction of required infrastructure to serve development allowed under the proposed UWSP would remain less than significant.

Water Supply

As discussed above, the NCMWC would have adequate planned water supply to serve development allowed under the proposed UWSP during normal, single dry, and multiple dry years as confirmed by the WSA prepared by SCWA for the proposed UWSP. As a result, the impact related water supply would remain less than significant.

Sewer

The amount of the residential and non-residential development under Alternative 5 would be the same as under the proposed UWSP. Therefore, impacts related to demand for wastewater disposal would remain less than significant.

Solid Waste

The amount of the residential and non-residential development under Alternative 5 would be the same as under the proposed UWSP. Therefore, impacts related to demand for solid waste disposal would remain less than significant.

Relationship to Project Objectives

All of the objectives for the proposed UWSP would be achieved under Alternative 5.

Environmentally Superior Alternative

Because the significant impacts of Alternative 5 are essentially the same as those of the proposed UWSP, there are no changes in the conclusions of the Draft EIR regarding the Environmentally Superior Alternative. As previously presented in Chapter 3 of the Draft EIR, *Alternatives*, Alternative 4: Reduced Footprint would be the environmentally superior alternative. While none of the significant impacts of the proposed UWSP or Alternative 5 would be avoided under Alternative 4, due to its substantially reduced development footprint, this alternative would provide the greatest reduction in the magnitude of significant impacts while still meeting or partially meeting several of the proposed UWSP objectives.

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