City of SACRAMENTO
Community Development

300 Richards Boulevard, Third Floor
Sacramento, CA 95811

DATE: April 6, 2022

TO: Interested Persons

FROM: Scott Johnson, Senior Planner
Community Development Department

RE: NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE SACRAMENTO WATER+ TREATMENT PLANTS RESILIENCY AND IMPROVEMENTS PROJECT

COMMENT PERIOD: April 6, 2022 – May 6, 2022

SCOPING MEETING: April 27, 2022; 12:00 p.m.(noon)

By Computer: To join the meeting by computer, please register:

Zoom Meeting Registration Link:

https://cityofsacramento-org.zoom.us/webinar/register/WN_i4hCwltxRyKAZeDqomPaYg

The presentation will be recorded and available to view after **April 27, 2022**.

Responsible agencies and members of the public are invited to attend and provide input on the scope of the EIR. Written comments regarding relevant issues may be submitted during the meeting.

INTRODUCTION

The City of Sacramento (City) is the Lead Agency for preparation of an Environmental Impact Report (EIR) for the City's proposed Water+ Treatment Plants Resiliency and Improvements Project (proposed project). The EIR to be prepared by the City will evaluate potential significant environmental effects of the proposed project and other actions associated with construction and operation of the proposed project. Written comments regarding the issues that should be covered in the EIR, including potential alternatives to the proposed project and the scope of the analysis, are invited.

The EIR for the proposed project is being prepared in compliance with the California Environmental Quality Act (CEQA). Under CEQA, upon deciding to prepare an EIR, the City as lead agency must issue a Notice of Preparation (NOP) to inform responsible agencies, the public, and trustee agencies of that decision. The purpose of the NOP is to provide information describing the proposed project and its potential environmental effects to those who may wish to comment regarding the scope and content of the information to be included in the EIR. Agencies should comment on such information as it relates to their statutory responsibilities in connection with the project.

The EIR will provide an evaluation of potential environmental impacts associated with development of the proposed project. The proposed project location, description, and environmental issue areas that may be affected by development of the proposed project are described below. The EIR will evaluate potentially significant environmental impacts of the proposed project, on a direct, indirect, and cumulative basis; identify mitigation measures that may be feasible to lessen or avoid such impacts; and identify alternatives that may lessen one or more potentially significant impacts to the proposed project.

PROJECT BACKGROUND

The City owns and operates treatment and distribution facilities that provide drinking water to nearly half a million customers in a 100 square-mile service area. These facilities include approximately 1,700 miles of distribution pipelines, two surface-water treatment plants, and 32 groundwater wells.

The City's two surface water treatment plants, the E.A. Fairbairn Water Treatment Plant (FWTP) and the Sacramento River Water Treatment Plant (SRWTP), currently have a combined reliable water supply and treatment capacity of 260 million gallons per day (MGD).[1] The FWTP, originally constructed in 1961 and last updated in 2014, treats water from the American River. The SRWTP, originally constructed in 1923 and last updated in 2014 treats water from the Sacramento River through the Sacramento River Intake. Both surface water treatment plants use conventional treatment process including flocculation, sedimentation, filtration, and chemical treatment, to produce drinking water in compliance with state and federal requirements.

Consistent with the 2035 General Plan,[2] the City is proposing the Water+ Treatment Plants Resiliency and Improvements Project to provide treatment resiliency for changing water quality in both the American and Sacramento Rivers, to address reliability of facilities with infrastructure currently approaching the end of its useful life, and to meet the projected potable water demand. Service area needs are anticipated to exceed the reliable surface water supply and treatment capacity by 2035. By 2050, it is estimated that an additional 150 MGD (410 MGD[3] total) of treated surface water will be required. The proposed project includes the following components:

- Rehabilitation of infrastructure approaching the end of its effective life at both FWTP and SRWTP to improve treatment reliability.
- Integration of ozone generation and contact into the treatment process at both FWTP and SRWTP to reduce regulated disinfection byproducts and improve the ability for both treatment plants to address changing river water quality conditions.

[1] Long Term Water Supply Infrastructure Needs Memorandum (2017)
[2] Sacramento 2035 General Plan (2015); www.sacgp.org
[3] Water Supply Master Plan (2013)

- Installation of pipelines between both of the City's Sacramento River water intakes and SRWTP to assist with cleaning of these facilities.
- Construction and operation of a replacement to the original Sacramento River Water Intake Structure in the Sacramento River and pipelines for transferring water to SRWTP and to improve surface water supply reliability during low river level conditions.
- Phased construction and operation of additional SRWTP water treatment capacity to match the projected service area needs.
- Conversion from chlorine gas to sodium hypochlorite as the primary chemical for disinfection of the water to improve facility, City staff, and public safety, and to help protect against reductions in chemical availability.
- Phased improvement of the water transmission and distribution system in the vicinity of SRWTP to match the demand and address critical hydraulic constrictions.

The elements of each of these components is described below under Project Description.

PROJECT LOCATION/SETTING

The proposed project area includes existing and proposed facilities at FWTP and SRWTP. Figure 1 shows the location of the project areas in the Sacramento region. Figures 2 and 3 show the proposed project areas around the FWTP and SRWTP, respectively. The 30-acre FWTP is located just south of the American River and at the northwest corner of State University Drive and College Town Drive, approximately eight miles upstream from SRWTP along the American River (see Figure 2).

The approximately 50-acre SRWTP site is located near the confluence of the Sacramento River and American River. Nearby features include the Sacramento River to the west; the American River and Richards Boulevard to the north, 7th Street to the east, and Railyards Boulevard to the south. The original Sacramento River Water Intake Structure and proposed replacement intake site are located off the east bank of the Sacramento River within the project area (see Figure 3).

PROJECT DESCRIPTION

PROJECT OBJECTIVES

The general objective of the proposed project is to provide a reliable, resilient, and safe water supply while meeting the City's projected potable water demand.

Specific proposed project objectives include:

- Increase treatment flexibility to address changing water qualities within the Sacramento and American Rivers and to meet drinking water regulations.
- Improve safety, reliability, and resiliency of both surface water treatment plants.
- Provide for consistent treatment and distribution of potable water to the service area.
- Increase reliable water supply and treatment capacity to meet projected water demand.

PROJECT ELEMENTS

The proposed project is designed to achieve these objectives through multiple phases of work. The initial phase would improve treatment reliability by replacing facilities at the end of their effective lives. This phase of work would also provide treatment resiliency through the addition of

ozone treatment to both water treatment plants. In parallel with the initial reliability and resiliency improvements at both water treatment plants, the SRWTP raw-water supply and treatment capacity would be increased from 160 MGD to 235 MGD. Additional phases would be staged to meet the increasing City potable water demand through 2050 for an ultimate capacity of 310 MGD at SRWTP. No expansion of treatment capacity at FWTP would be implemented due to limitations placed on withdrawal amounts from the American River. Specifically, implementation of the proposed project would involve the following components:

- Replacement of aging infrastructure at both FWTP and SRWTP.
- Integration of ozone into the treatment process at both FWTP and SRWTP.
- Conversion from chlorine gas to sodium hypochlorite as the primary chemical for disinfection of the water at both FWTP and SRWTP.
- Construction and operation of a replacement intake to the original Sacramento River Water Intake Structure in the Sacramento River and pipelines for transferring water to SRWTP.
- Installation of pipelines between the existing Sacramento River Intake and the replacement intake and SRWTP.
- Improvement of the water transmission and distribution system in the vicinity of SRWTP to address critical hydraulic constrictions.

Both FWTP and SRWTP would remain operational throughout construction of the proposed project elements. The work would be sequenced in a manner that minimizes facility shutdowns and maintains the integrity of the treatment process. The overall schedule to complete the work for each phase is anticipated to take several years with the initial phase of work having the longest schedule. The length of the schedule for each phase will be dependent upon the amount of work or project elements included for that phase.

The elements of each of these components is summarized below.

FWTP improvements to enhance treatment processes and improve treatment resiliency – This involves the construction and operation of following elements summarized in Table 1. Construction activities would occur within the existing FWTP facility property limits.

Table 1: Summary of Elements for FWTP

Project Element	Initial Phase[1,2]
Ozone Generation Treatment System	• Four enclosed partially buried process tanks (300,000 gal/tank) • Equipment located inside new building and dedicated area outside • Liquid oxygen supply tanks (2)
Flocculation-Sedimentation Basins Modifications and Replacement	• Replace two aged flocculation-sedimentation basins with a new basin (50 MGD capacity) • Extend existing concrete effluent channel to feed to new ozone system • Structural modifications (e.g., valve and overflow weir) to feed inlet channel to improve water distribution and conveyance between basins
Intermediate Pump Station	• One new wetwell (500,000 gal) with pump station (reliable 120 MGD capacity)
Hypochlorite Storage and Feed Facility	• Decommission existing gas chlorine system • Four new storage tanks and shelter • One new chemical feed building
Electrical Building	• Two new electrical generators • Electrical improvements
Filters	• Replace eight aged filters with four new filters • Replace filter media in remaining eight filters • One new wetwell (650,000 gal) with backwash supply pump station (46 MGD). • Constant head box to protect filter underdrain from excess pressure
Maintenance Shop	• Replacement for maintenance shop removed to construct treatment improvements above

Improvements to enhance the resiliency and increase treatment capacity of SRWTP – This component involves construction and operation of the elements summarized in Table 2. Construction activities would occur within the City owned properties for SRWTP. Implementation of elements as part of an initial phase would increase SRWTP capacity to 235 MGD and additional elements would be integrated over additional phases to increase the treatment capacity to the buildout maximum 310 MGD.

[1] All dimensions, sizes or volumes listed in this table are approximate and may change during the design phase of the project. Complete or partial demolition of existing facilities will be required for each project element.

[2] "Process Equipment" may include any of the following: process pumps, mixers, specialty equipment (e.g., ozone generator, liquid oxygen vaporizers), piping, valves, and related electrical equipment.

Table 2: Summary of Elements for SRWTP

Project Element[1]	Initial Phase (235 Mgd Capacity[2])	Buildout (310 Mgd Capacity)
Grit Basin	• Open-top, above-grade process tank (1,500,000 gal) • Equipment located in process tank and dedicated area around tank	Not Applicable (N/A)
Raw Water Blending System	• Open-top, above-grade tank (100,000 gal) • Process equipment located in process tank and dedicated area around tank	• Additional process equipment[3]
Chemical Flash Mix System	• Process equipment and large diameter (72-inch) piping • Process equipment located in dedicated area around above-grade piping	• Additional process equipment
Flocculation-Sedimentation Basins	• Two open-top, partially buried process tanks process tanks (2,000,000 gal/tank) • Process equipment located in tank and dedicated area around tank • Modifications to existing four basins.	• Two process tanks and associated process equipment
Ozone Generation and Treatment System	• Six enclosed, partially buried process tanks (350,000 gal/tank) • Process equipment located inside new building or dedicated storage area outside • Liquid oxygen supply tanks (4)	• Two process tanks and associated process equipment
Filters	• Eight new open-top, partially buried process tanks (200,000 gal/tank) • Process equipment located inside new building or dedicated storage area outside • Replace filter media in sixteen filters • Operational control area located above filter process equipment	• Eight process tanks and associated process equipment
Chlorine Contact Tank 2	• One process tank (3,000,000 gal) • Enclosed, partially buried tank • Process equipment located inside new tank or dedicated storage area outside	N/A

[1] For purposes of discussion “Initial Phase” and “Buildout” have been designated with plant production capacities of 235 MGD and 310 MGD respectively. These capacities represent the SRWTP treatment capacity. The number of phases in between may change based on future water demands and budgets.
[2] All dimensions, sizes or volumes listed in this table are approximate and may change during the design phase of the project. Complete or partial demolition of existing facilities will be required for each project element.
[3] “Process Equipment” may include any of the following: process pumps, mixers, specialty equipment (e.g., air-burst screen cleaning, ozone generator), mixers, piping, valves, and related electrical equipment.

Project Element[1]	Initial Phase (235 Mgd Capacity[2])	Buildout (310 Mgd Capacity)
5 MG Finished Water Reservoir	• Replacement of existing reservoir with new reservoir (3.5 million gallon [MG]) • Enclosed, partially buried tank • Process equipment located inside new tank or dedicated storage area outside	N/A
9.5 MG Finished Water Reservoir	• Replacement of existing reservoir with new enclosed, partially buried tank (13 MG) • Process equipment located inside new tank or dedicated storage area outside	N/A
High-Service Pump Station 2	• 7,000 square foot (sq-ft) building • Process equipment located inside new building	• Additional pumps and process equipment
Electrical Building 2	• 10,000 sq-ft two-story building • Electrical distribution equipment • High-voltage transformer / switchgear	• Additional electrical equipment and transformer
Chemical Building - North	• Modification of existing chemical building • Seven storage tanks for lime (12,000 gal/tank) • Three storage tanks for fluoride (6,000 gal/tank)	• Three storage tanks for lime • One storage tank for fluoride
Chemical Bulk Storage & Feed - North	• 3,000 sq-ft sun canopy • Six storage tanks for sodium hypochlorite (21,000 gal/tank)	• Two process tanks for sodium hypochlorite
Chemical Building – South	• 10,000 sq-ft single-story building • Process equipment (chemical feed and polymer systems) located inside new building • Maintenance and operator workspace	• Additional process equipment
Chemical Bulk Storage & Feed - South	• 6,000 sq-ft sun canopy • Three storage tanks for caustic soda • Six storage tanks for alum	• One storage tank for caustic soda • Two storage tanks for alum
Filter Waste Washwater Basins	• Replace existing three filter waste washwater basins with three new open-top, partially buried process tanks (1,200,000 gal/tank) • Process equipment located inside new tank or dedicated storage area outside	N/A
Dewatering Building 2	• 17,000 sq-ft three-story building • Six process tanks (80,000 gal/tank) • Open-top, partially buried process tanks • Waste processing equipment	• Additional process equipment

Project Element[1]	Initial Phase (235 Mgd Capacity[2])	Buildout (310 Mgd Capacity)
Gravity Thickeners	• Four process tanks (60,000 gal/tank) • Open-top, partially buried process tanks • Process equipment located inside new building or dedicated storage area outside	• Two process tanks and associated process equipment
Miscellaneous Yard Improvements	• Three backup diesel generators (3,250 kilowatts each) • Three surge tanks (45,000 gal/tank) • Subsurface electrical ductbanks, process lines and equipment vaults • Concrete retaining walls	• One surge tank • Additional electrical ductbanks, process lines and equipment vaults
Electrical & Instrumentation Building	• 22,000 sq-ft three-story building • Maintenance and administrative work areas	N/A
Maintenance Building	• 10,000 sq-ft two-story building • Maintenance work areas	N/A
Parking / Storage	• Provide dedicated parking for City vehicles (electric and conventional) and motored equipment. • Relocate storage areas around the site that will be displaced by facility resiliency, facility improvements, and construction activities.	• Relocate storage areas around the site that will be displaced by facility resiliency, facility improvements, and construction activities.

Replacement intake and raw water transmission pipelines to the SRWTP – This component involves the following elements:

- Demolition and removal of the original Sacramento River Water Intake Structure. Construction and operation of a replacement intake structure in the Sacramento River between the I Street Bridge and the confluence of Sacramento River and American River. The replacement intake would operate in parallel with the currently operating Sacramento River Intake to provide surface water for the water treatment plant capacity.
- Installation of conveyance pipelines to convey raw water and sediment from the replacement river intake to SRWTP. The pipelines are anticipated to go through/over the Sacramento River levee, east along the north side of Sacramento Municipal Utility District's (SMUD) Museum of Science and Curiosity (MOSAC), under Interstate 5 (I-5), to SRWTP.
- Installation of a conveyance pipeline to transport sediment from the currently operating Sacramento River Intake to SRWTP. The pipeline would be located on/under the existing bridge, through/over the Sacramento River levee and under I-5, to SRWTP.

Potable water distribution pipelines from the SRWTP – This involves the installation and operation of following elements summarized in Table 3. Potable water transmission pipelines will be installed in the vicinity of SRWTP to overcome hydraulic constrictions within the area defined on the north by the American River, on the east by 7th Street, on the south by the Union Pacific Railroad, and on the west by the Sacramento River.

Table 3: Summary of Elements of Potable Water Transmission Pipelines in Vicinity of SRWTP

Project Element[1]	Initial Phase
Pipeline (78-in Diameter)	• 4,000 linear feet
Pipeline (66-in Diameter)	• 10,000 linear feet

ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

The EIR will analyze potentially significant impacts that result from construction and operation of the proposed project. The proposed project is consistent with the City 2020 Urban Water Management Plan (2021).

Pursuant to section 15063(a) of the CEQA Guidelines, an Initial Study has not been prepared for the proposed project. The EIR will evaluate the full range of environmental issues contemplated for consideration under CEQA and the CEQA Guidelines, as well as non-environmental issues including:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils and Paleontology
- Greenhouse Gas Emissions, Climate Change, and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise and Vibration
- Public Services
- Population and Housing
- Recreation

[1] All dimensions, sizes or volumes listed in this table are approximate and may change during the design phase of the project.

- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Growth Inducement
- Cumulative Impacts

Environmental issues not contemplated for consideration due to the determination that there will be no impact include:

- Forestry Resources

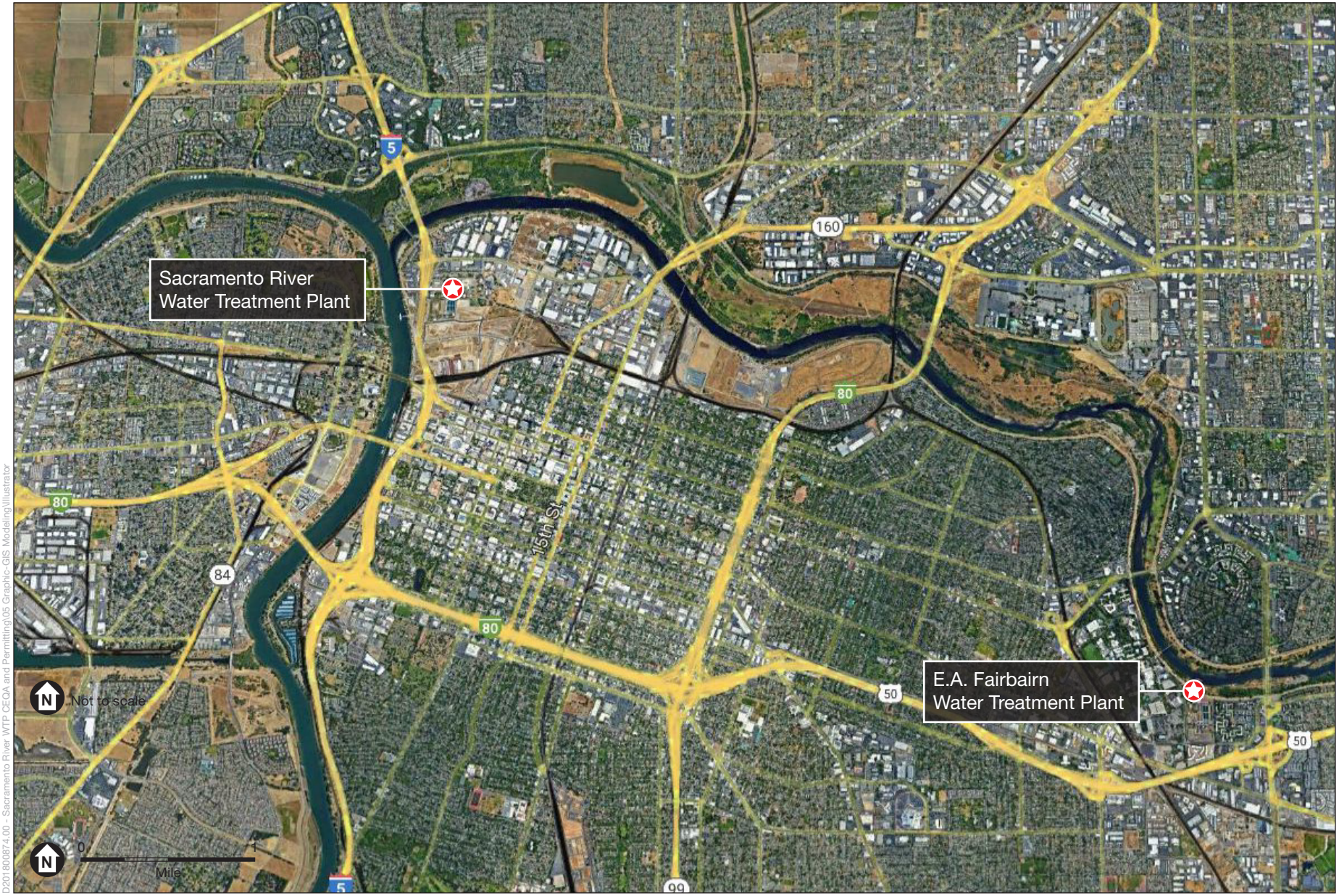
The EIR will identify and evaluate alternatives to the proposed project.

SUBMITTING COMMENTS

Comments and suggestions as to the appropriate scope of analysis in the EIR are invited from all interested parties. Written comments or questions concerning the EIR for the proposed project should be directed to the City's environmental project manager at the following email address: srjohnson@cityofsacramento.org, or by mail addressed to the following address

Scott Johnson, Senior Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811 Phone (916) 808-5842
Email: srjohnson@cityofsacramento.org

Comments should be submitted no later than 5:00 p.m. on May 6, 2022. Please include the commenter's full name and address.



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SOURCE: Carollo, 2022

Sacramento Water + Treatment Plants Resiliency and Improvement Projects

Figure 1
Regional Location Map

ESA

No.	Project Area Description
1	E.A. Fairbairn Water Treatment Plant boundary

N

0 1
Feet

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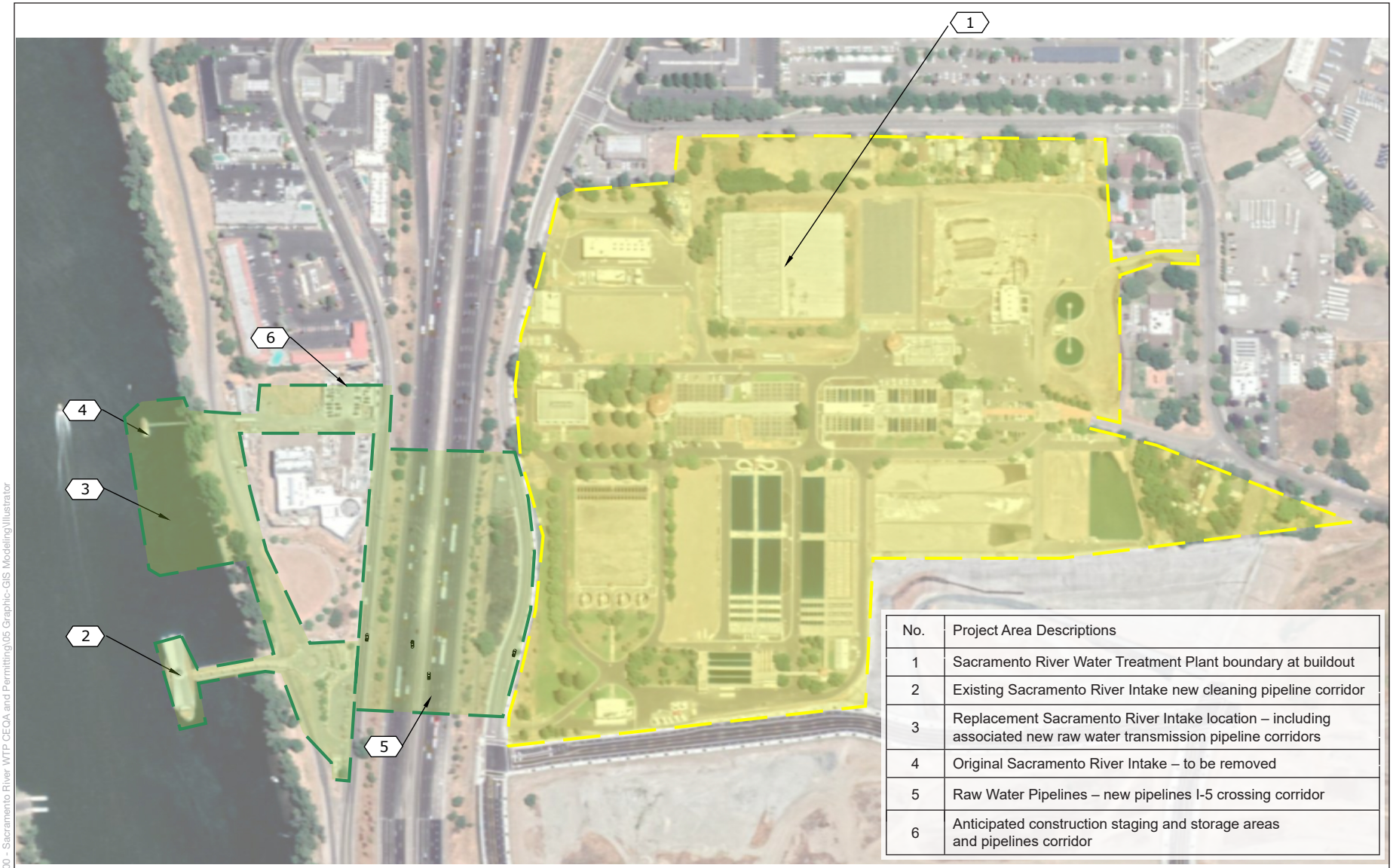
SOURCE: Carollo, 2022

Sacramento Water + Treatment Plants Resiliency and Improvement Projects

Figure 2
E.A. Fairbairn Water Treatment Plant Project Area

ESA



No.	Project Area Descriptions
1	Sacramento River Water Treatment Plant boundary at buildout
2	Existing Sacramento River Intake new cleaning pipeline corridor
3	Replacement Sacramento River Intake location – including associated new raw water transmission pipeline corridors
4	Original Sacramento River Intake – to be removed
5	Raw Water Pipelines – new pipelines I-5 crossing corridor
6	Anticipated construction staging and storage areas and pipelines corridor

Notes: Yellow area: Sacramento River Water Treatment Plant boundary
Green area: Boundary of intakes, associated pipeline corridors, and anticipated construction staging and storage areas

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SOURCE: Carollo, 2022

Sacramento Water + Treatment Plants Resiliency and Improvement Projects

Figure 3
Sacramento River Water Treatment Plant Project Areas

ESA