

---

## 2.0 PROJECT DESCRIPTION

---



### 2.1 PROJECT LOCATION

The proposed project would construct a groundwater treatment facility at 10555 Coloma Road, within the City of Rancho Cordova. Extraction wells would be installed adjacent to the treatment facility, at the intersection of Zinfandel Drive and Cordova Lane, and at Rossmoor Bar where Rossmoor Drive meets the American River Parkway. Collection pipelines would be installed under City streets to connect the extraction wells to the treatment facility. A discharge pipeline would also be located under the City streets and would run from the treatment facility to a discharge point within the American River Parkway. The project location is shown in **Figure 1** and **Figure 2**. The locations of the treatment plant, the wells, the collection pipelines, and the discharge pipeline are shown in **Figure 3**.

Some minor modification in the locations of extraction wellheads and the associated collection pipelines may occur due to the condition and characteristics of the aquifer at the time of construction. If such a change occurs, the City will analyze any potential change in any impact or analysis as presented in this IS/MND and will determine at that time if subsequent analysis is required, pursuant to State CEQA Guidelines Section 15162.

### 2.2 EXISTING CONDITIONS

The proposed project is located almost entirely within a previously developed portion of the City. Only the portion of the discharge pipeline that lies within the American River Parkway would be located in an undeveloped area. Adjacent properties to the north of the proposed treatment plant location consist of existing residential housing. Residential housing also exists south of the proposed treatment plant location, across Coloma Road. The property to the west is currently vacant and zoned for residential use (RD-5). The property to the east consists of a neighborhood church and parking lot.

### 2.3 SPECIAL PLANNING AREA

#### WILLIAMSON RANCH SPECIAL PLANNING AREA

The proposed treatment plant location is within the Williamson Ranch Special Planning Area (SPA). The Williamson Ranch SPA is the last remaining portion of the Williamson family ranch established on the site in the 1850's. The SPA was adopted by the Sacramento County Board of Supervisors to allow for the eventual development of the project vicinity. One of the last portions of the SPA to be developed includes the site of the proposed treatment plant.

Development and performance standards were included in the SPA to ensure that residential and non-retail commercial development would be conducted in such a manner as to be compatible with the existing single-family residential neighborhood, while recognizing the aesthetic and historical value of the site.

The Williamson Ranch SPA expressly prohibits wholesale and retail sales. Specific development standards include the following:

- a) *The development shall not generate traffic above the amount that would be generated by residential development of ten dwelling units per acre.*
- b) *The minimum setback from Coloma Road shall be 25 feet. The area of the setback shall be fully landscaped with live landscaping.*

## 2.0 PROJECT DESCRIPTION

---

- c) *Buildings shall not exceed 30 feet in height (2 stories), except that no structure which abuts existing single family residential development along the north, west, and east boundaries of the Special Planning Area shall exceed one story in height.*
- d) *The development shall have a maximum of three vehicular access points onto Coloma Road and only single family residential traffic is permitted onto the presently abutting residential streets. Pedestrian access to Coloma Road shall be provided in a manner which minimizes walking distance to bus stops.*
- e) *A permanent all-weather marker shall be installed on the site indicating the historical value of the Williamson Ranch in the history of Rancho Cordova.*
- f) *If commercial uses are developed, only one monument sign, not to exceed eight (8) feet in height and 36 square feet in area, is permitted. (Rancho Cordova Zoning Code, Chapter 1, Article 14, Section 501-144)*

## 2.4 PROJECT BACKGROUND AND PURPOSE

The Aerojet General Corporation site is located within approximately 5,900 acres of the northeastern portion of the City of Rancho Cordova Planning Area. Since 1953, Aerojet and its subsidiaries have manufactured liquid and solid propellant rocket fuels for military and commercial applications and have formulated a number of chemicals in the process. In addition, the Cordova Chemical Company operated chemical manufacturing facilities on the Aerojet complex from 1974 to 1979. Both companies disposed of unknown quantities of hazardous waste chemicals, including Trichloroethylene (TCE) and other chemicals associated with rocket propellants, as well as various chemical processing wastes. Some wastes were disposed of in surface impoundments, landfills, deep injection wells, leachate fields, and some were disposed of by open burning. (GP DEIR, p. 4.4-4)

Environmental investigations at the site began in 1979. Groundwater contamination has been defined in a number of discrete plumes that move out radially to the north, west, and south of the site. The major contaminants found both on and off the Aerojet site include solvents such as TCE and chloroform as well as rocket fuel by-products such as N-Nitrosodimethylamine (NDMA) and perchlorate. Aerojet installed and is operating five groundwater extraction and treatment (GET) systems on its property east of the City in order to prevent further offsite migration. (GP DEIR, p. 4.4-4) Aerojet also installed and operates seven additional treatment facilities located outside the Aerojet property (MacDonald, 2007).

The Aerojet site is an active Federal Superfund Site. In November 2000, the Environmental Protection Agency (EPA) proposed a plan to clean up the plume of groundwater contamination to the west of the Aerojet property (including the proposed project site and general vicinity) and to ensure continued safe water supplies for area residents. The EPA signed a Record of Decision in July 2001 to formally approve the cleanup plan for the former Aerojet site, called the Western Groundwater Operable Unit (WGOU) (GP DEIR, p. 4.4-11). Aerojet is required to perform remedial actions by the EPA's Region IX Unilateral Administrative Order (UAO) Docket No. 2002-13 (Aerojet, 2006). The Central Valley Regional Water Quality Control Board (RWQCB) and the California Department of Toxic Substances Control (DTSC) concur and support the EPA's Unilateral Administrative Order (Aerojet, 2006). To that end, the RWQCB issued a Cleanup and Abatement Order requiring Aerojet to implement the WGOU remedy (MacDonald, 2007).

In June 2003, Aerojet sampled groundwater at Rossmoor Bar Park at the known edge of the contamination plume, to investigate a potential site for a new drinking water well to replace wells already lost to contamination in the Western Groundwater area. Analysis revealed that the groundwater under the Rossmoor Bar location was contaminated with NDMA. Additional evidence indicates the presence of TCE and perchlorate at other locations. Further sampling of existing wells showed that the NDMA plume extends northwest underneath the American River toward the southern edge of the community of Carmichael. (GP DEIR, p. 4.4-11)

The proposed project would extract contaminated groundwater at the leading edge of the plume in order to contain the migration of the plume to water supply wells down grade from the existing leading edge of the plume (MacDonald, 2006). While the contamination plume is migrating in a westerly and northerly direction, the proposed extraction wells are placed at the currently identified leading edge of the plume.

### 2.5 PROJECT CHARACTERISTICS

The proposed project would require approval of a tentative parcel map, conditional use permit, and design review by the City. The project would divide an existing 10-acre parcel into a 9.2-acre parcel occupied by the Cordova Church of Christ and a 0.8-acre parcel (see **Figure 4**). The proposed project would construct a groundwater treatment plant on the 0.8 acre parcel for the purpose of treating contaminated groundwater. With the exception of limited piping and other appurtenances, the treatment plant would be fully enclosed within a building (see **Figures 5 and 6**). The design of this building largely coordinates with the visual look of the adjoining church buildings. Existing or comparable six-foot fencing would be maintained with adjacent neighbors. The proposed treatment plant would be accessed by a new driveway to be installed on the parcel which would connect the project directly to Coloma Road and to the parking lot of the adjacent church through a cross-access easement. The proposed treatment plant would be surrounded by a decorative fence or wall and the property would be fully landscaped. A preliminary landscaping plan is provided on **Figure 7**.

Contaminated groundwater would be extracted from four wells to be installed as part of the proposed project, as well as one existing well. One new extraction well would be installed at the treatment plant, one near the intersection of Zinfandel Drive and Cordova Lane, and two wells would be installed at the Rossmoor Drive entrance to the American River Parkway. The existing well is located on the northwest corner of Zinfandel Drive and Cordova Lane, on property owned by St. Clement's Episcopal Church. All new wellheads would be located in pits, hiding them from view at street level. For a depiction of the well locations, see **Figure 3**.

Approximately 6,080 feet of collection pipeline would be installed in order to convey contaminated water from various extraction wells to the treatment plant. An additional 4,085 feet of discharge pipeline would be installed to convey treated water from the treatment plant to the American River. All pipelines would be installed underground, using methods and materials that meet or exceed current safety standards for water conveyance. The collection pipeline originating from the wells at the intersection of Zinfandel Drive and Cordova Lane would travel northwest to Coloma Road then southwest along Coloma Road to the proposed treatment plant. The collection pipeline from the wells on Rossmoor Drive would travel southeast along Rossmoor Drive to Georgetown Drive, then southwest along Georgetown Drive until it enters the Cordova Church of Christ property, where it would be conveyed to the treatment plant (see **Figure 3**).

## 2.0 PROJECT DESCRIPTION

---

Once conveyed to the treatment plant, the extracted groundwater would be routed through a closed vessel system with various filtering media including:

- Influent Bag Filters to remove settleable material;
- Ion-Exchange Vessels to remove perchlorate;
- Granular Activated Carbon Filters to remove TCE;
- Ultra-Violet lights to destroy NDMA;
- Effluent Bag Filters to remove any fugitive filter media; and
- Gaseous CO<sub>2</sub> addition for pH control to meet State and Federal discharge limits.

The spent filter media would require replacement approximately every two to four months, depending on treatment plant volume. No human contact or handling of the spent filter media would occur during the replacement process. Spent filter media would be extracted through a system of hoses and piping. New filter media would be installed from a trailer to the filter vessel via hoses and piping. The spent filter media would not contain a high enough concentration of perchlorate or volatile organic compounds to classify the media as hazardous (MacDonald, 2006). The spent filter media would be collected by a State-licensed waste hauler and transported to a permitted off-site facility for disposal or recycling. The effluent water would be treated to discharge standards established by State and federal agencies that meet or exceed current drinking water standards.

Once treated at the treatment plant, the water would then be conveyed via a discharge pipeline to the American River. The discharge pipeline would be located in a common trench with the collection pipelines leading to the Rossmoor Drive wells until it turns southwest within the American River Parkway and runs behind the existing single-family residences along the Parkway. The discharge pipeline would drain into an existing storm drain within the American River Parkway which then leads directly to the American River. The locations of all pipelines, wells, and physical facilities associated with the proposed project are shown in **Figure 3**.

## 2.6 REQUIRED PROJECT APPROVALS

In addition to the approval of the proposed project by the City Council of the City of Rancho Cordova, the following agency approvals may be required (depending on the final project design):

1. California Department of Fish and Game (CDFG)
2. Central Valley Regional Water Quality Control Board (CVRWQCB)
3. County Sanitation District (CSD-1)
4. Sacramento County Water Agency (SCWA) Zone 40
5. Sacramento Metropolitan Air Quality Management District (SMAQMD)
6. Sacramento Metropolitan Fire District (SMFD)
7. Sacramento Municipal Utility District (SMUD)
8. Sacramento Resource Conservation District (SRCD)
9. U.S. Army Corps of Engineers (USACE)
10. U.S. Fish and Wildlife Service (USFWS)
11. U.S. Environmental Protection Agency (EPA)

## **2.0 PROJECT DESCRIPTION**

---

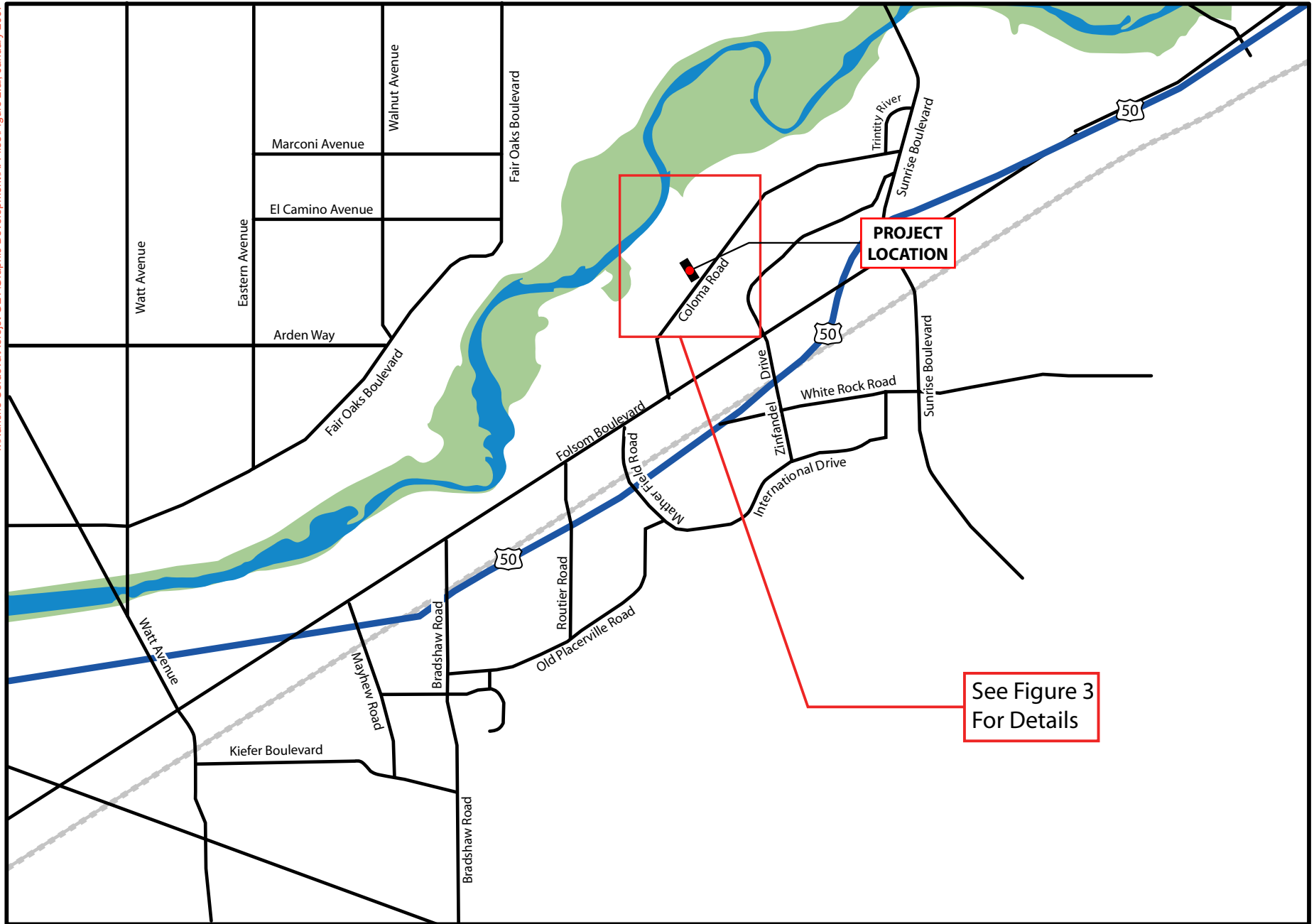
As the proposed project includes work in the American River Parkway, and planning services and permitting for the Parkway is provided by Sacramento County, the County is acting as a Responsible Agency for the proposed project. Additionally, the Central Valley Regional Water Quality Control Board must grant a discharge permit for the proposed project to cover the extraction of groundwater and the discharge of treated water into the American River. Therefore, the California Regional Water Quality Control Board is also acting as a Responsible Agency for the proposed project.





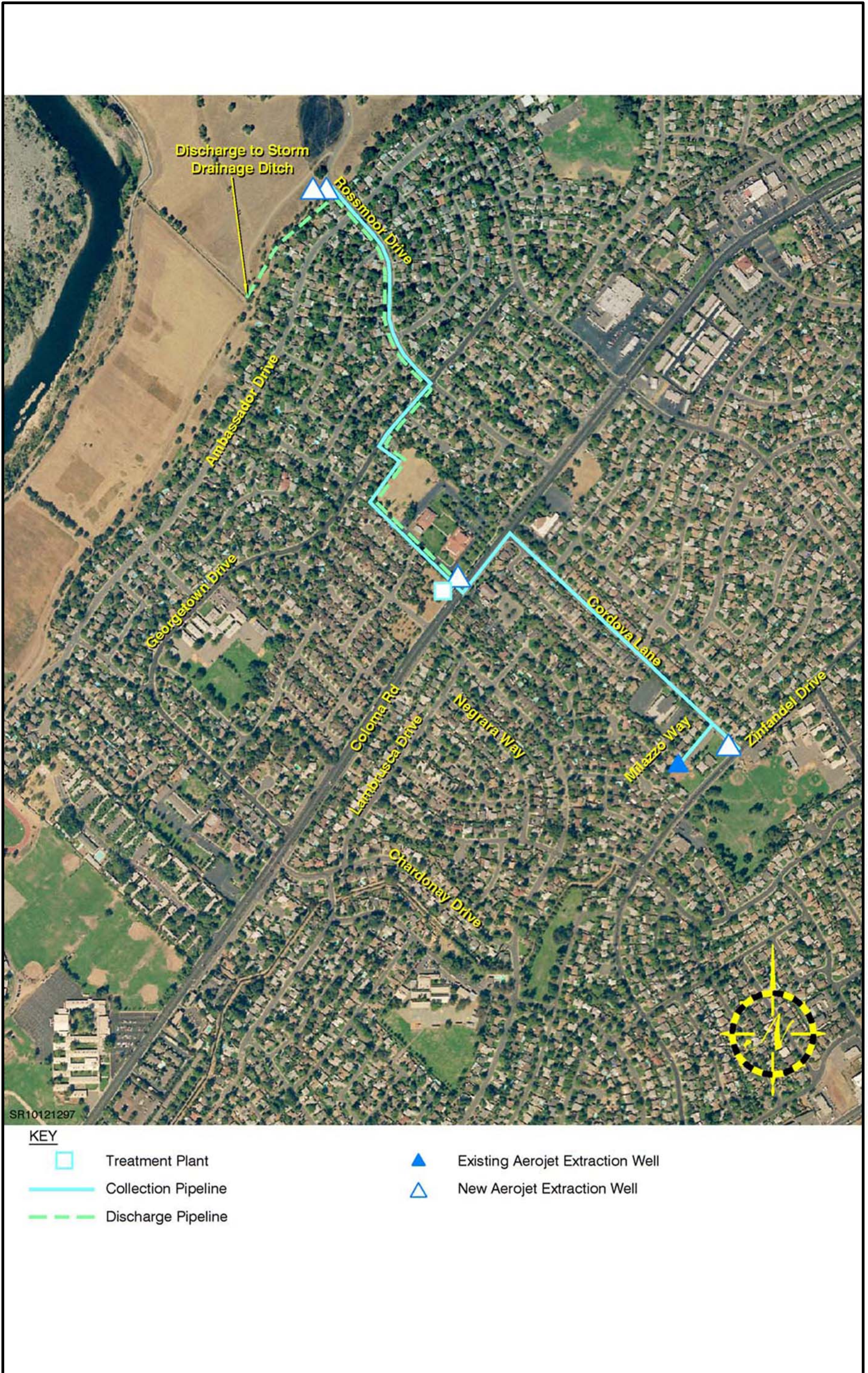












SR10121297







City of Rancho Cordova  
Planning Department

Figure 4  
Tentative Parcel Map



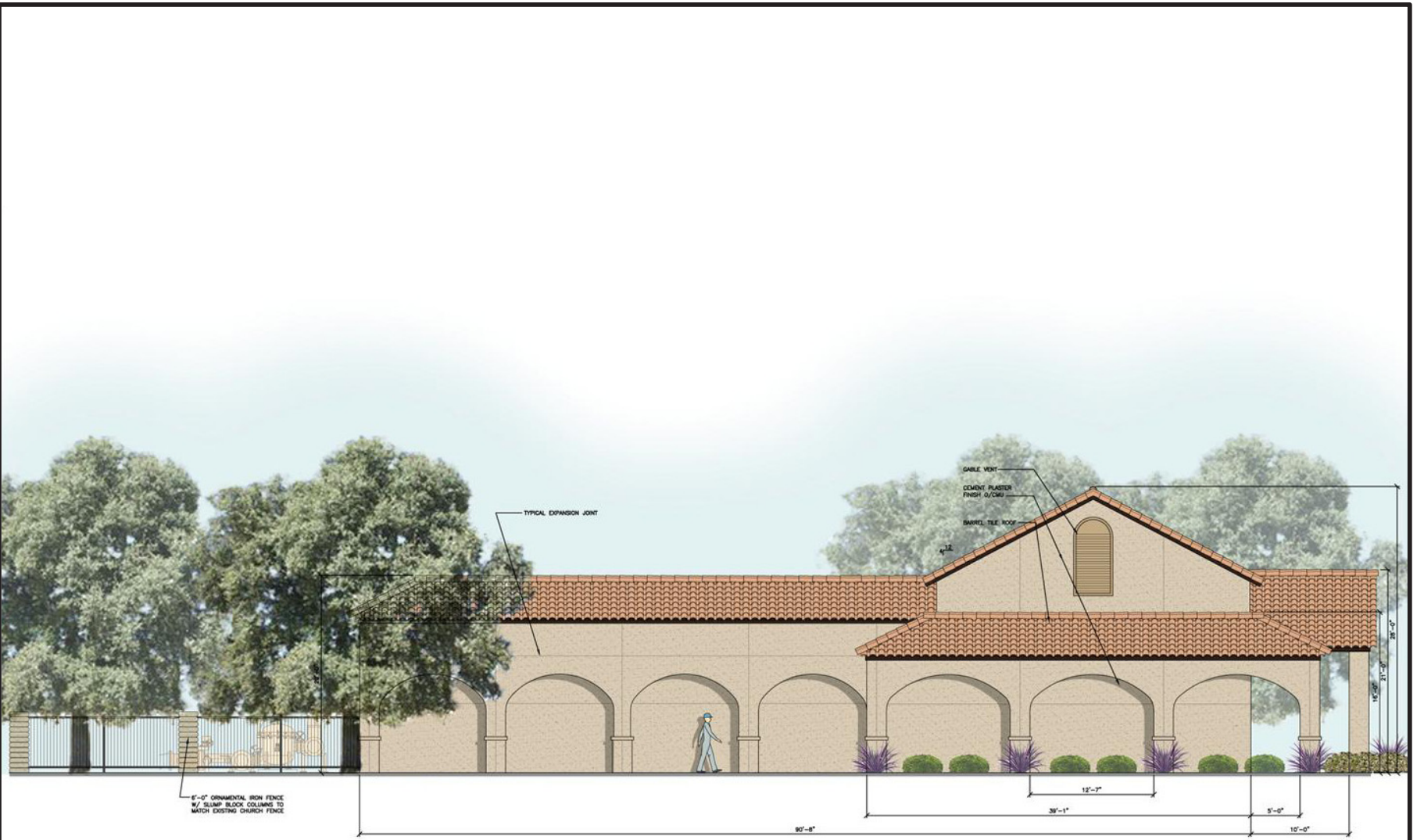




Note: View is from inside property line.

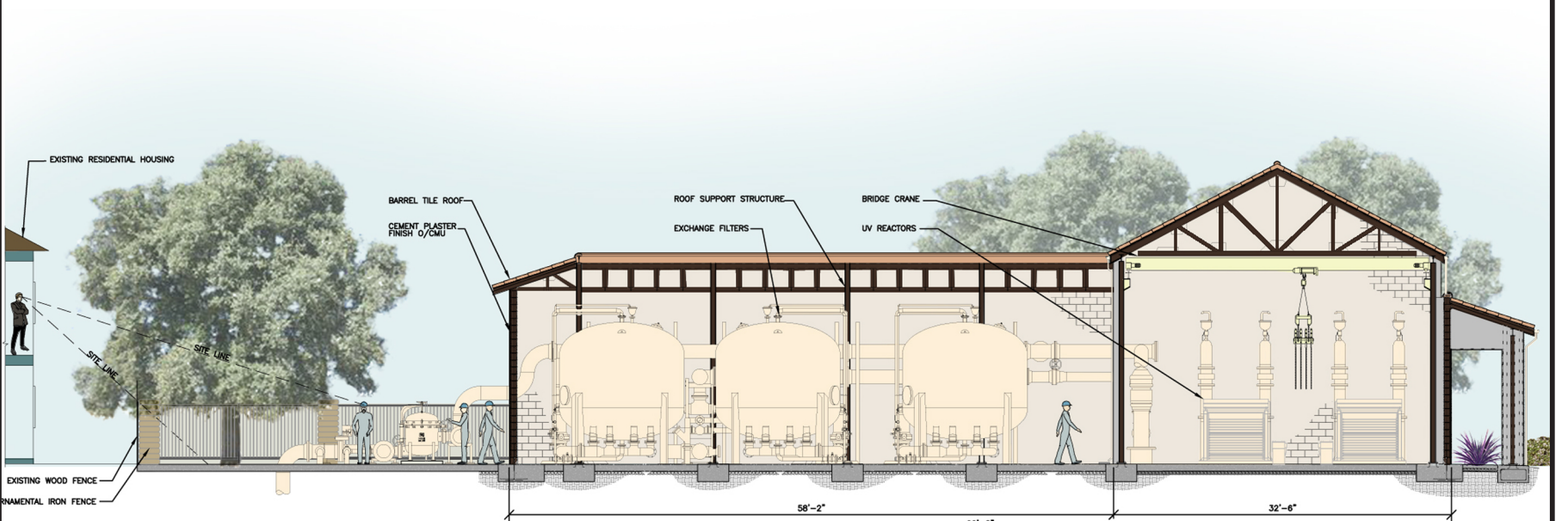






View from Studaras Dr.

Note: Does not include property fence



Cutaway View







### PROPOSED PLANT LEGEND

TREES	BOTANICAL / COMMON	WATER USE
	NYSSA SYLVATICA / SOUR GUM	MEDIUM
	QUERCUS ILEX / HOLLY OAK	MEDIUM
SHRUBS	BOTANICAL / COMMON	WATER USE
	PHORHILUM TENAX 'DAZZLER' / PHORHILUM	MEDIUM
	PHORHILUM TENAX 'BRONZE BABY' / PHORHILUM	MEDIUM
	PHOTINIA FRASERI 'INDIAN PRINCESS' TM / INDIAN PRINCESS PHOTINIA	MEDIUM
	PITTOSPORUM TOBIIRA 'WHEELERS DWARF' / WHEELER'S DWARF PITTOSPORUM	MEDIUM
	RHAPHIDOLEPIS INDICA 'BALLERINA' / INDIAN HAWTHORNE	MEDIUM
	RHAPHIDOLEPIS INDICA 'WHITE ENCHANTRESS' TM / WHITE ENCHANTRESS INDIAN HAWTHORNE	MEDIUM
	XYLOSMA CONGESTUM 'COMPACTA' / COMPACT XYLOSMA	MEDIUM
GROUND COVERS	BOTANICAL / COMMON	WATER USE
	HYOPORUM PARVIFOLIUM / TRAILING HYOPORUM	LOW
	TRACHELOSPERUM JASKINDIDES / STAR JASMINE	LOW
	6' LAWN	HIGH
	BARK MULCH ONLY	NONE



