Todd Smith, Planning Director
Planning and Environmental Review

Troy Givans, Director
Department of Community Development

County of Sacramento

Mitigated Negative Declaration

Pursuant to Title 14, Division 6, Chapter 3, Article 6, Sections 15070 and 15071 of the California Code of Regulations and pursuant to the Procedures for Preparation and Processing of Environmental Documents adopted by the County of Sacramento pursuant to Sacramento County Ordinance No. SCC-116, the Environmental Coordinator of Sacramento County, State of California, does prepare, make, declare, publish, and cause to be filed with the County Clerk of Sacramento County, State of California, this Mitigated Negative Declaration re: The Project described as follows:

1. **Control Number:** PLNP2022-00114

2. **Title and Short Description of Project:** Gay Road Rezone and Parcel Map

3. **Assessor's Parcel Number:** 143-0333-023-0000

4. **Location of Project:** The project site is located along Gay Road on an unaddressed parcel, approximately 0.5 miles west from the intersection of Gay Road and Wilton Road in the Cosumnes community of unincorporated Sacramento County.

5. **Project Applicant:** David Congdon

6. Said project will not have a significant effect on the environment for the following reasons:
   a. It will not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.
   b. It will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.
   c. It will not have impacts, which are individually limited, but cumulatively considerable.
   d. It will not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly.

7. As a result thereof, the preparation of an environmental impact report pursuant to the Environmental Quality Act (Division 13 of the Public Resources Code of the State of California) is not required.

8. The attached Initial Study has been prepared by the Sacramento County Planning and Environmental Review Division in support of this Mitigated Negative Declaration. Further information may be obtained by contacting the Planning and Environmental Review Division at 827 Seventh Street, Room 225, Sacramento, California, 95814, or phone (916) 874-6141.

Kevin Messerschmitt

Digitally signed by Kevin Messerschmitt
DN: cn=Kevin Messerschmitt, o=Sacramento County Planning and Environmental Review, ou, email=messerschmittk@saccounty.gov, c=US
Date: 2024.11.01 14:47:17 -07'00'

Julie Newton
Environmental Coordinator
County of Sacramento, State of California

COUNTY OF SACRAMENTO
PLANNING AND ENVIRONMENTAL REVIEW
INITIAL STUDY

PROJECT INFORMATION

CONTROL NUMBER: PLNP2022-00114

NAME: Gay Road Rezone and Parcel Map

LOCATION: The project site is located along Gay Road on an unaddressed parcel, approximately 0.5 miles west from the intersection of Gay Road and Wilton Road in the Cosumnes community of unincorporated Sacramento County (See **Plate IS-1**).

ASSESSOR'S PARCEL NUMBER: 143-0333-023-0000

OWNER: David and Sandra Congdon Family Trust

APPLICANT: David Congdon
8873 Sheldon Oaks Lane
Elk Grove, CA 95624
mcongdon@wfcsac.com

PROJECT DESCRIPTION

The project proposes to rezone a 19.98-acre parcel from Agricultural 80-acre (AG-80) to Agricultural Residential 5-acre (AR-5) and subdivide the property into four new approximately 5-acre lots.

All four proposed lots would take access from Gay Road via a single private drive (see Plate IS-2). The project is conditioned to install Class C road improvements which will require the widening of Gay Road, and relocation of the roadside ditch. The project proposes a 40-foot private road and utility easement that grants access to parcels 1 and 2 with a hammer head at the end of the road that gives the fire department and residents access to parcels 3 and 4. All future lots will be served by individual groundwater wells and septic systems.

The project requests the following entitlements:

1. A **Rezone** request to the Board of Supervisors of a single 19.98-acre parcel to Agricultural-Residential 5-ac (AR-5) from Agricultural 80-acre (AG-80).

2. A **Tentative Parcel Map** to divide the single 19.98-acre parcel into four, approximately 5-acre lots.

3. A **Special Development Permit** to allow one or more proposed lots to be below the 5.00-acre minimum required for Agricultural-Residential 5 (AR-5) zoning district.

4. A **Design Review** to determine substantial compliance with the *Sacramento County Countywide Design Guidelines* (Design Guidelines).

Environmental Setting

The subject parcel is a 19.98-acres unaddressed property located off Gay Road approximately 630-feet east of Sherman Lane, in the Cosumnes community of unincorporated Sacramento County (see **Plate IS-1Error! Reference source not found.**). The elevation of the Project site ranges from 76-78 feet above mean sea level. The topography of the site is generally flat. The entire parcel consists of a grassy field with only limited native trees on the eastern edge of the parcel. A drainage ditch, running east to west, bisects the parcel into northern and southern portions. The surrounding parcels are predominantly single-family residences and agricultural fields The parcel is zoned Agricultural-80 (AG-80) and is bordered by a mixture of other AG-80 and Agricutural-5 (AG-5) parcels (see **Plate IS-3**through **Plate IS-5**).

Plate IS-1: Aerial View of Project Site (2023 photo)

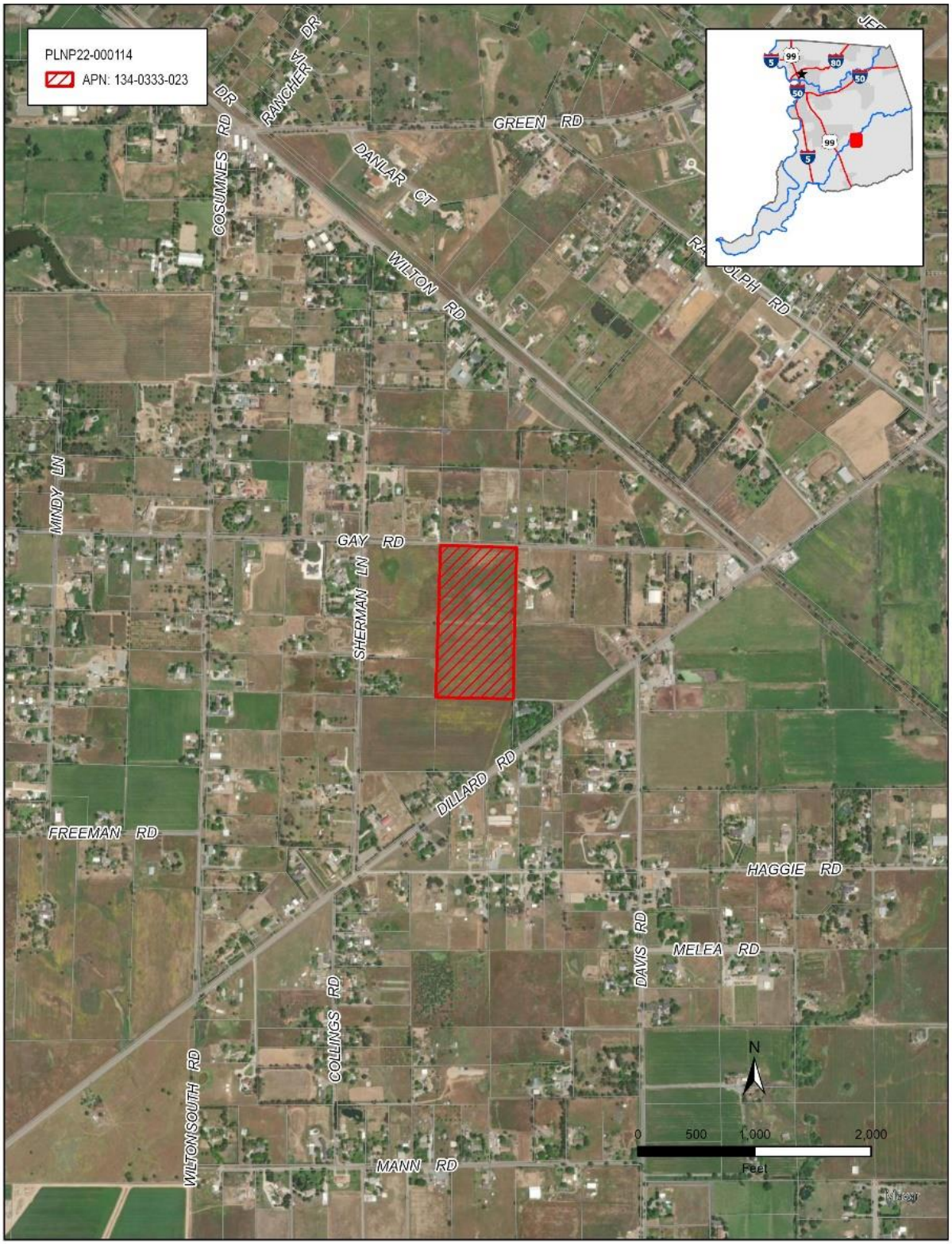


Plate IS-2: Site Plan

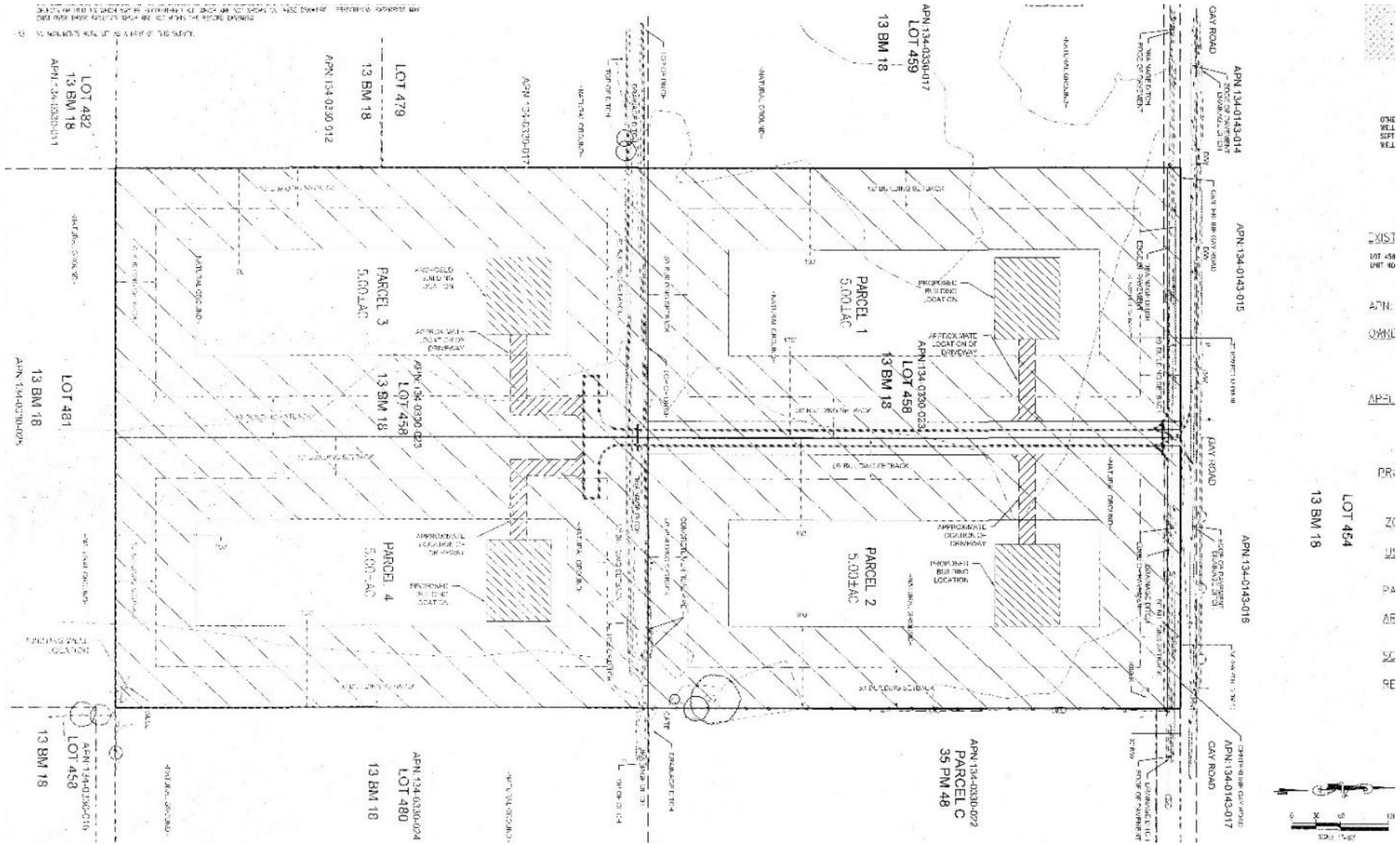


Plate IS-3: General Plan Map

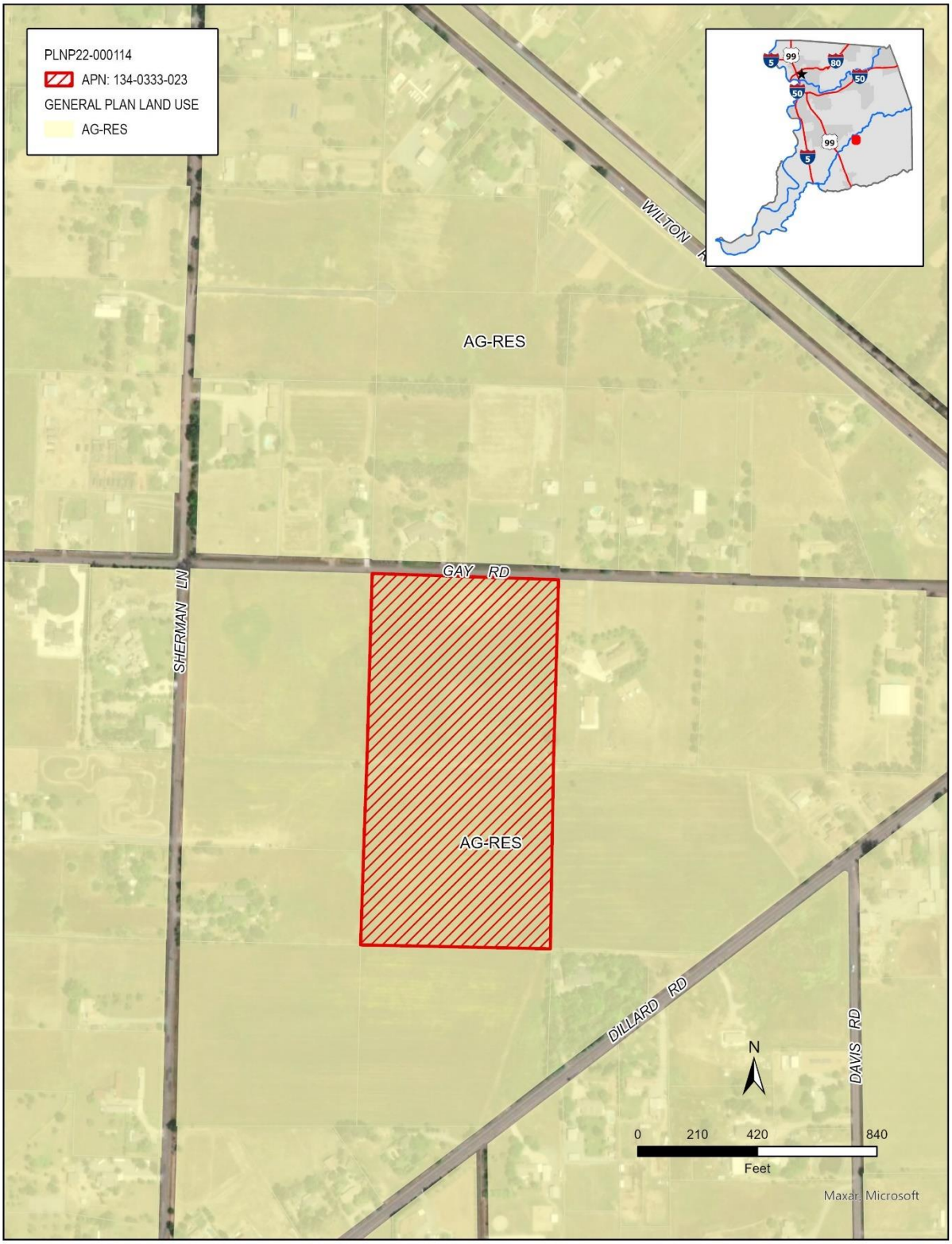


Plate IS-4: Community Plan Map

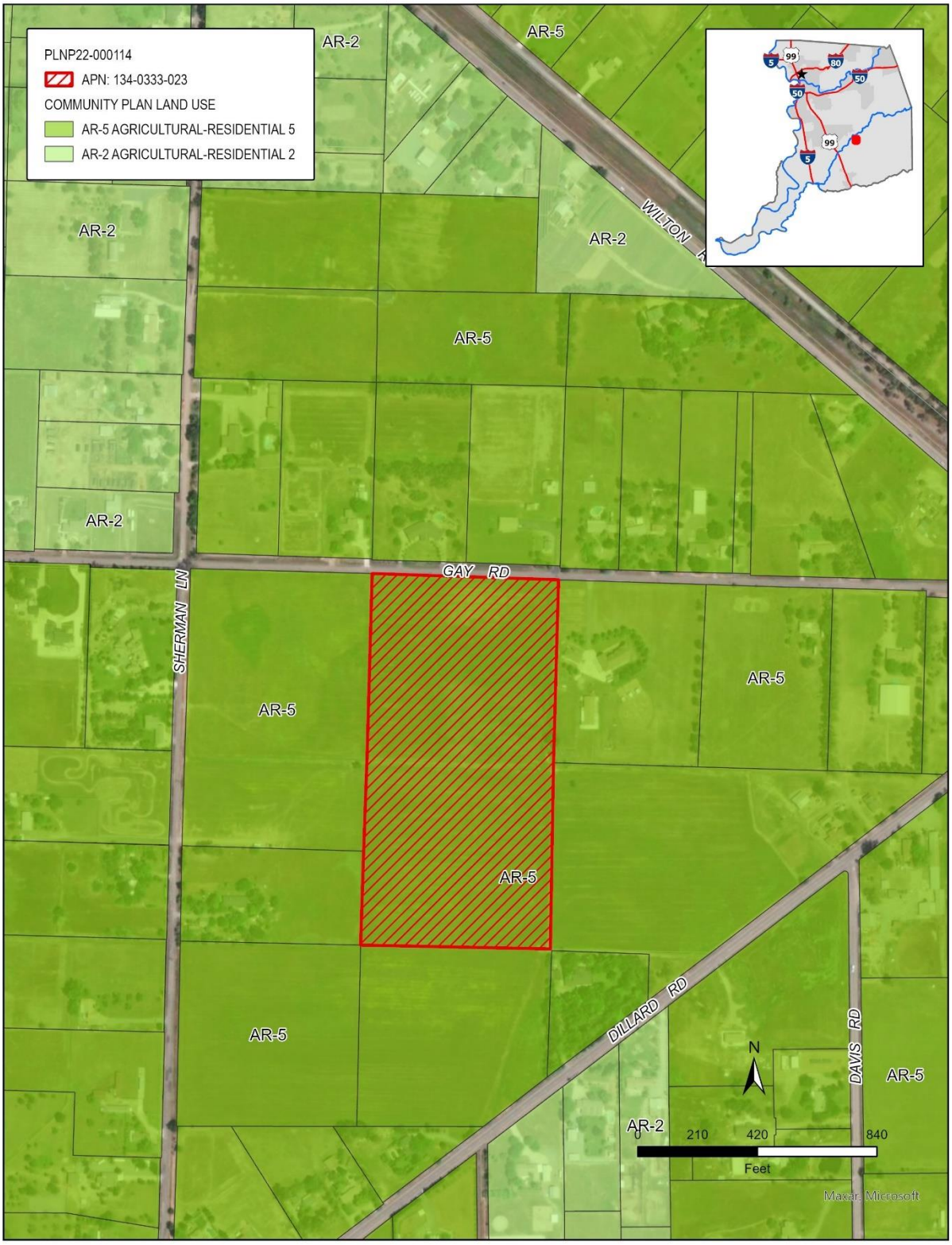
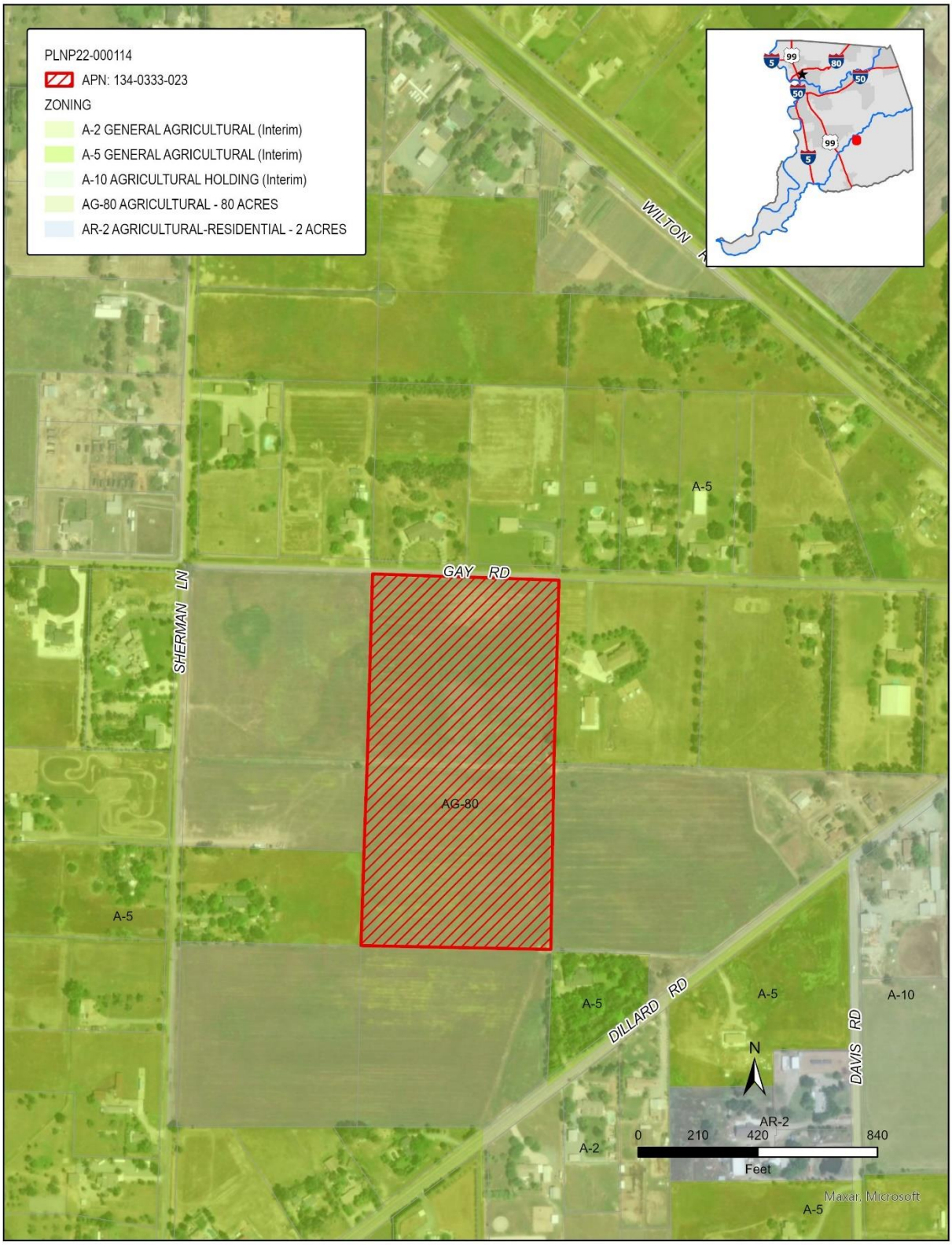


Plate IS-5: Zoning Map



ENVIRONMENTAL EFFECTS

Appendix G of the California Environmental Quality Act (CEQA) provides guidance for assessing the significance of potential environmental impacts. Based on this guidance, Sacramento County has developed an Initial Study Checklist (located at the end of this report). The Checklist identifies a range of potential significant effects by topical area. The topical discussions that follow are provided only when additional analysis beyond the Checklist is warranted.

LAND USE

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

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

- Physically disrupt or divide an established community.

SACRAMENTO COUNTY GENERAL PLAN

The existing General Plan land use designation for the parcel is Agricultural-Residential (AG-RES). Agricultural-Residential is defined as follows in the General Plan:

> The Agricultural-Residential designation provides for rural residential uses, such as animal husbandry, small-scale agriculture, and other limited agricultural activities. This designation is typical of established rural communities where between one and ten acres per unit is allowed, resulting in a development density of 2.5 to 0.25 persons per acre.

Further, General Plan Policy LU-82 encourages in-fill of Agricultural-Residentially designated land over the expansion of new Agricultural-Residential land:

> Infill of existing Agricultural-Residential communities shall take precedence over expansion. Infill is defined as development within areas designated Agricultural-Residential on the Land Use Diagram. Each community is defined by the Agricultural-Residential land use classifications designated on the Land Use Diagram. Expansion is the change from Agriculture to Agricultural-Residential land use classifications.

The proposed Tentative Parcel Map is consistent with the AG-RES land use designation and General Plan Policy LU-82 (see **Plate IS-3**). Policy LU-82 acknowledges that development within areas designated as Agricultural-Residential on the General Plan's Land Use Diagram shall take precedence over expansion, such that the creation of an additional supply of Agricultural-Residential land or lots should first occur in areas shown for Agricultural-Residential on the Land Use Diagram. Future supply of Agricultural-Residential areas shall be determined by an Agricultural-Residential

Implementation Program adopted by the Board of Supervisors (Policy LU-83, Resolution 2004-0175). The General Plan policies are more general in nature while the details of implementation including development criteria are in the program. For example, this program allows for both large and small-scale expansion with separate criteria governing each instance. The program criteria are intended to be flexible to allow for different character of parcellation, geography and soil type. For example, the Wilton agricultural-residential area is larger and has a relatively larger number of parcels, while the Sloughhouse area is smaller and the surrounding parcels are in larger holdings and, therefore, may need more flexible criteria.

The existing General Plan land use designation for the parcel is Agricultural-Residential (AG-RES). The proposed Tentative Parcel Map is consistent with the AG-RES land use designation (see Further, the proposed project would not significantly disrupt of divide the community and the proposed use of the site does not conflict with the policies of the General Plan. Impacts in regard to consistency with the Sacramento County General Plan are ***less than significant***.

Southeast-Wilton Community Plan

The project site is located within the Wilton community of unincorporated Sacramento County. The County Board of Supervisors adopted the Southeast-Wilton Community Plan (Community Plan) in 1976. The Community Plan identifies goals and objectives related to land use, population, housing, transportation, noise, utilities and community facilities in order to guide development within the Community Plan area. The Community Plan land use designation for all 20 acres of the subject parcel is Agricultural-Residential 5-acres (AR-5). The project proses to rezone from AG-80 to AR-5. The proposed tentative subdivision map would be consistent with the Community Plan (see **Plate IS-4**).

Therefore, the proposed project would not significantly disrupt of divide the community and the proposed use of the site does not conflict with the policies of the Community Plan. Impacts in regard to consistency with the Southeast-Wilton Community Plan are ***less than significant.***

Sacramento County Zoning Code

The AG-RES Zoning Districts established in the Sacramento County Zoning Code are designed to promote and protect public health, safety, and general welfare. Each is distinguished by minimum lot size and is adopted for the following purposes:

- To establish living areas within the County where development is limited to low density concentrations of single-family dwellings.

- To limit the number of permitted nonresidential uses so as to promote and encourage a suitable environment for family life on parcels of land larger than generally is provided in residential zoning districts.

- To protect estate areas against fire, explosions, and other hazards and against offensive noises, odors, glare, and other objectionable influences.

- To provide adequate open space and access of light and air for privacy by controls over the spacing and height of buildings.

- To permit those religious, educational, recreational, and public cultural facilities that serve the needs of the nearby residents and that generally perform their own activities more effectively in a residential environment and that do not create objectionable influences.

- To promote the most desirable use of land and direction of building development in accord with the General Plan, to promote stability and sustainability of land development, to conserve the value of land and improvements and to protect the County's tax revenues.

- To regulate the development of land when not served with both public water supply and public sewerage facilities.

- To avoid undue concentration of population and overcrowding of land to lessen congestion in the streets.

The entire project site is in the Agricultural 80-acre (AG-80) zoning district (see **Plate IS-5**). Although the proposed Tentative Parcel Map and the associated densities are inconsistent with the AG-80 zoning district, they are compatible with the proposed zoning districts. The rezone request would allow for residential infill development that compliments the existing development in the vicinity. The densities associated with the proposed rezones are similar to nearby existing residential development in the area.

Impacts associated with rezoning the parcel and division of land are ***less than significant***.

TRANSPORTATION/TRAFFIC

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) – measuring transportation impacts individually or cumulatively, using a vehicles miles traveled standard established by the County.

- Result in a substantial adverse impact to access and/or circulation.

- Result in a substantial adverse impact to public safety on area roadways.

VEHICLE MILES TRAVELLED (VMT)

Senate Bill 743 (Steinberg, Chapter 386, Statutes of 2013; SB 743) modified how transportation impacts are evaluated under CEQA by requiring Lead Agencies to disclose how a project's transportation impacts affect greenhouse gas emissions rather than automobile delay. The intent of SB 743 is to bring CEQA transportation analyses into closer alignment with other statewide policies regarding greenhouse gas reduction, active transportation and complete streets, and smart growth. As a result, the Governor's Office of Planning and Research recommended the adoption of VMT as the metric to determine the significance of transportation impacts under CEQA. CEQA Guidelines §15064.3, which addresses the use of VMT as the metric for transportation analysis, indicates "beginning on July 1, 2020, the provisions of this section shall apply statewide" (see subdivision (c)).

The County of Sacramento Department of Transportation (DOT) reviewed the project and provided an expected trip generation table (see **Table IS-1**), which analyzes the estimated trips from the current vacant, AG-80 zoning to the proposed zoning district. The project is estimated to result in 52 additional daily trips when compared to the existing use, which does not exceed the screening criteria threshold of 237 daily trips to be considered a small project. Therefore, a VMT analysis for the proposed project is not required. Impacts related to VMT are ***less than significant.***

Table IS-1: Trip Generation Table

PLNP2022-00114 Gay Road Rezone and Parcel Map									
Table 1 Trip Generation Estimates									
Condition	Zoning or Use (Area)	Source	Daily Trip Rate	Daily Trips	AM Peak Hour Trip Rate	AM Peak Trips	PM Peak Hour Trip Rate	PM Peak Trips	Data Used
Existing Use	Vacant 0 N/A		0 N/A	0	0 N/A	0	0 N/A	0	N/A
Existing Use Total				0		0		0	
Existing Zoning	AG-80 1 DU	ITE (210)	N/A	15	N/A	1	N/A	1	Fitted Curve
Existing Zoning Total				15		1		1	
Proposed Use	Single Family Detached Housing 4 DU	ITE (210)	N/A	52	N/A	4	N/A	5	Fitted Curve
Proposed Use Total				52		4		5	
Proposed Zoning	A-5 4 DU	ITE (210)	N/A	52	N/A	4	N/A	5	Fitted Curve
Proposed Zoning Total				52		4		5	
Trip increase from Existing Zoning to Proposed Project				**37**		**3**		**4**	
Increase in Trips from Existing to Proposed Use				**52**		**4**		**5**	
Increase in Trips from Existing to Proposed Zoning				**37**		**3**		**4**	
NOTES: VTE = Vehicle Trip Ends DU = Dwelling Unit ITE = Institute of Transportation Engineers, Trip Generation, 11th Edition (Land Use No.) KSF GFA = 1000 square foot gross floor area									
Please note that this trip generation analysis is preliminary and is not intended for use in a traffic study									

PUBLIC SERVICES

GROUNDWATER – STATE REGULATORY SETTING

SUSTAINABLE GROUNDWATER MANAGEMENT ACT

The Sustainable Groundwater Management Act (SGMA) was signed into law in 2014. SGMA tasks California Department of Water Resources (DWR) to draft a Strategic Plan for its Sustainable Groundwater Management (SGM) Program. DWR's SGM Program will implement new and expanded responsibilities identifies in the 2014 SGMA. Some of these expanded responsibilities include: (1) developing regulation to revise groundwater basin boundaries; (2) adopting regulations for evaluation and implementing Groundwater Sustainability Plans (GSPs) and coordination agreements; (3) identifying basins subject to critical conditions of overdraft; (4) identifying water available for groundwater replenishment; and (5) publishing best management practices for the sustainable management of groundwater.

On September 16, 2014, the California legislature enacted the SGMA to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably pursuant to one or more Groundwater Sustainability Plans (GSPs). The Cosumnes Subbasin (also referred to herein as "the Basin"), California Department of Water Resources (DWR) Basin No. 5- 022.16, is located at the northern end of the San Joaquin Valley (within Sacramento and Amador Counties) and is classified by DWR as a medium priority basin. High- and medium-priority basins are required to prepare groundwater sustainability plans to achieve the sustainability goal for their groundwater basin within a 20-year timeframe.

Seven GSAs have been established within the Basin, each acting as the exclusive GSA in their respective areas. The seven GSAs form the Cosumnes Subbasin SGMA Working Group (Working Group): Amador County Groundwater Management Authority (ACGMA), City of Galt, Clay Water District, Galt Irrigation District (GID), Omochumne-Hartnell Water District (OHWD), Sacramento County, and Sloughhouse Resource Conservation District (SRCD). The Working Group developed this single coordinated GSP to meet SGMA regulatory requirements, reflect stakeholder values, and preserve local control over management of the groundwater resource.

Under SGMA, GSPs are required to contain certain elements, the most significant of which include: a Sustainability Goal; a description of the area covered by the GSP ("Plan Area"); a description of the Basin Setting, including the hydrogeologic conceptual model, historical and current groundwater conditions, and a water budget; locally-defined sustainability criteria; networks and protocols for monitoring sustainability indicators; and a description of projects and/or management actions that will be implemented to achieve or maintain sustainability. SGMA also requires a significant element of stakeholder outreach to ensure that beneficial uses and users of groundwater are given the opportunity to provide input into the GSP development and implementation process. This GSP developed by the Working Group provides a path to

maintain and document sustainable groundwater management within 20 years following GSP adoption. The Basin GSAs adopted a joint exercise of powers agreement (JPA) in November 2021 that establishes the Cosumnes Groundwater Authority (CGA) for the purpose of implementing the GSP.

DISCUSSION OF PROJECT IMPACTS: GROUNDWATER

Development of the project site with 4 parcels and 4 new single-family dwellings will require the provision of potable water. Any new water well that is located on the site must be installed pursuant to Sacramento County Code Chapter 6.28, which is enforced by the County Environmental Management Department, to ensure safe drinking water standards.

The Project is within the Cosumnes Basin of the San Joaquin River Hydrologic Region and is considered a Medium Priority basin. The sustainability plan for the Cosumnes Basin has been submitted to the California Department of Water Resources and has been approved in October of 2023. The sustainability plan was drafted in consultation with the County's General Plan and referenced the General Plan's land use designation when establishing criteria that would facilitate sustainable groundwater use while also allowing for residential growth in the county (Cosumnes GSP 2024). The project site's General Plan designation is Agricultural-Residential. The proposed four parcels, each with their own groundwater well are consistent with that designation. Therefore, the Impacts to groundwater supply associated with the development on this project site are considered ***less than significant***.

AIR QUALITY

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

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

The proposed project site is located in the Sacramento Valley Air Basin (SVAB). The SVAB's frequent temperature inversions result in a relatively stable atmosphere that increases the potential for pollution. Within the SVAB, the Sacramento Metropolitan Air Quality Management District (SMAQMD) is responsible for ensuring that emission standards are not violated. Project related air emissions would have a significant effect if they would result in concentrations that either violate an ambient air quality standard or contribute to an existing air quality violation (**Table IS-2**). Moreover, SMAQMD has established significance thresholds to determine if a proposed project's emission contribution significantly contributes to regional air quality impacts (

Table IS-3).

Table IS-2: Air Quality Standards Attainment Status

Pollutant	Attainment with State Standards	Attainment with Federal Standards
Ozone	Non-Attainment (1-hour Standard[1] and 8-hour standard)	Non-Attainment, Classification = Severe -15* (8 hour[3] Standards) Attainment (1-hour standard[2])
Particulate Matter 10 Micron	Non-Attainment (24-hour Standard and Annual Mean)	Attainment (24-hour standard)
Particulate Matter 2.5 Micron	Attainment (Annual Standard)	Non-Attainment (24-hour Standard) and Attainment (Annual)
Carbon Monoxide	Attainment (1 hour and 8-hour Standards)	Attainment (1 hour and 8-hour Standards)
Nitrogen Dioxide	Attainment (1 hour Standard and Annual)	Unclassified/Attainment (1 hour and Annual)
Sulfur Dioxide[4]	Attainment (1 hour and 24-hour Standards)	Attainment/unclassifiable[5]
Lead	Attainment (30 Day Standard)	Attainment (3-month rolling average)
Visibility Reducing Particles	Unclassified (8-hour Standard)	No Federal Standard
Sulfates	Attainment (24-hour Standard)	No Federal Standard
Hydrogen Sulfide	Unclassified (1 hour Standard)	No Federal Standard

1. Per Health and Safety Code (HSC) § 40921.59(c), the classification is based on 1989-1001 data, and therefore does not change.

2. Air Quality meets Federal 1-hour Ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply. The SMAQMD attained the standard in 2009.

3. For 1997, 2008 and the 2015 Standard.

4. Cannot be classified

5. Designation was made as part of EPA's designations for the 2010 SO_2 Primary National Ambient Air Quality Standard – Round 3 Designation in December 2017

* Designations based on information from http://www.arb.ca.gov/desig/changes.htm#reports

Source: SMAQMD. "Air Quality Pollutants and Standards". Web. Accessed: March 11, 2024

http://airquality.org/air-quality-health/air-quality-pollutants-and-standards

Table IS-3: SMAQMD Significance Thresholds

	ROG[1] (lbs/day)	NO_x (lbs/day)	CO ($\mu g/m^3$)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
Construction (short-term)	None	85	CAAQS[2]	80[3*]	82[3*]
Operational (long-term)	65	65	CAAQS	80[3*]	82[3*]

1. Reactive Organic Gas

2. California Ambient Air Quality Standards

3*. Only applies to projects for which all feasible best available control technology (BACT) and best management practices (BMPs) have been applied. Projects that fail to apply all feasible BACT/BMPs must meet a significance threshold of 0 lbs/day.

Construction Emissions/Short-Term Impacts

Short-term air quality impacts are mostly due to dust (PM_{10} and $PM_{2.5}$) generated by construction and development activities, and emissions from equipment and vehicle engines (NO_x) operated during these activities. Dust generation is dependent on soil type and soil moisture, as well as the amount of total acreage actually involved in clearing, grubbing and grading activities. Clearing and earthmoving activities comprise the major source of construction dust generation, but traffic and general disturbance of the soil also contribute to the problem. Sand, lime or other fine particulate materials may be used during construction and stored on-site. If not stored properly, such materials could become airborne during periods of high winds. The effects of construction activities include increased dust fall and locally elevated levels of suspended particulates. PM_{10} and $PM_{2.5}$ are considered unhealthy because the particles are small enough to inhale and damage lung tissue, which can lead to respiratory problems.

Construction Particulate Matter Emissions

The SMAQMD Guide includes screening criteria for construction-related particulate matter. Projects that are 35 acres or less in size will generally not exceed the SMAQMD's construction PM_{10} or $PM_{2.5}$ thresholds of significance provided that the project does not:

- Include buildings more than 4 stories tall;
- Include demolition activities;
- Include significant trenching activities;
- Have a construction schedule that is unusually compact, fast-paced, or involves more than 2 phases (i.e., grading, paving, building construction, and architectural coatings) occurring simultaneously;
- Involve cut-and-fill operations (moving earth with haul trucks and/or flattening or terracing hills); or,
- Require import or export of soil materials that will require a considerable amount of haul truck activity.

Some PM_{10} and $PM_{2.5}$ emissions during project construction can be reduced through compliance with institutional requirements for dust abatement and erosion control. These institutional measures include the SMAQMD "District Rule 403-Fugitive Dust" and measures in the Sacramento County Code relating to land grading and erosion control [Title 16, Chapter 16.44, Section 16.44.090(K)].

The project is less than 35-acres and does not include any of the criteria listed above. However, to use the non-zero thresholds for particulate matter, the project must implement construction BMP's. With inclusion of BMP's, impacts with regard to construction emissions are ***less than significant with mitigation.***

Operational Emissions

The project will add four new homes which is less than the screening thresholds for operational emissions per SMAQMD (see **Table IS-4**). Therefore, impacts from operational emissions are ***less than significant.***

Table IS-4: SMAQMD Operational Screening Levels

Land Use Category	CalEEMod Land Use	Ozone Precursor Screening Level*	PM Screening Level*,**	GHG Screening Level*	Units
Residential	Single Family Housing	485	1,000	56	dwelling units
*Screening level suggest this size project would be below the respective thresholds of significance for each pollutant: 65 lbs/day NOX, 65 lbs/day ROG, 80 lbs/day PM2.5, and 1,100 MT/year GHG.					
**PM Screening is only available if BMP's are included in the project.					

Criteria Pollutant Health Risks

All criteria air pollutants can have human health effects at certain concentrations. Air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS). The NAAQS and CAAQS are informed by a wide range of scientific evidence, which demonstrates that there are known safe concentrations of criteria air pollutants. Because the NAAQS and CAAQS are based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district thresholds pertain to attainment of these standards, the thresholds established by air districts are also protective of human health. Sacramento County is currently in nonattainment of the NAAQS and CAAQS for ozone. Projects that emit criteria air pollutants in exceedance of Sacramento Metropolitan Air Quality Management District (SMAQMD) thresholds would contribute to the regional degradation of air quality that could result in adverse human health impacts.

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health effects include permeability of respiratory epithelia and the possibility of permanent lung impairment (EPA 2016).

HEALTH EFFECTS SCREENING

In order to estimate the potential health risks that could result from the operational emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$, PER staff implemented the procedures within SMAQMD's Instructions for Sac Metro Air District Minor Project and Strategic Area Project Health Effects Screening Tools (SMAQMD, 2020). To date, SMAQMD has published three options for analyzing projects: small projects may use the Minor Project Health Screening Tool, while larger projects may use the Strategic Area Project Health Screening Tool, and practitioners have the option to conduct project-specific modeling.

Both the Minor Project Health Screening Tool and Strategic Area Project Health Screening Tool are based on the maximum thresholds of significance adopted within the five air district regions contemplated within SMAQMD's Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District (SMAQMD's Friant Guidance; October 2020). The air district thresholds considered in SMAQMD's Friant Guidance included thresholds from SMAQMD as well as the El Dorado County Air Quality Management District, the Feather River Air Quality Management District, the Placer County Air Pollution Control District, and the Yolo Solano Air Quality Management District. The highest allowable emission rates of NO_X, ROG, PM_{10}, and $PM_{2.5}$ from the five air districts is 82 pounds per day (lbs/day) for all four pollutants. Thus, the Minor Project Health Screening Tool is intended for use by projects that would result in emissions at or below 82 lbs/day, while the Strategic Area Project Health Screening Tool is intended for use by projects that would result in emissions between two and eight times greater than 82 lbs/day. The Strategic Area Project Screening Model was prepared by SMAQMD for five locations throughout the Sacramento region for two scenarios: two times and eight times the threshold of significance level (2xTOS and 8xTOS). The corresponding emissions levels included in the model for 2xTOS were 164 lb/day for ROG and NO_X, and 656 lb/day under the 8xTOS for ROG and NO_X (SMAQMD 2020).

As noted in SMAQMD's Friant Guidance, "each model generates conservative estimates of health effects, for two reasons: The tools' outputs are based on the simulation of a full year of exposure at the maximum daily average of the increases in air pollution concentration… [and] [t]he health effects are calculated for emissions levels that are very high" (SMAQMD 2020).

The model derives the estimated health risk associated with operation of the project based on increases in concentrations of ozone and $PM_{2.5}$ that were estimated using a photochemical grid model (PGM). The concentration estimates of the PGM are then applied to the U.S. Environmental Protection Agency's Benefits Mapping and Analysis Program (BenMAP) to estimate the resulting health effects from concentration increases. PGMs and BenMAP were developed to assess air pollution and human health impacts over large areas and populations that far exceed the area of an average

land use development project. These models were never designed to determine whether emissions generated by an individual development project would affect community health or the date an air basin would attain an ambient air quality standard. Rather, they are used to help inform regional planning strategies based on cumulative changes in emissions within an air basin or larger geography.

It must be cautioned that within the typical project-level scope of CEQA analyses, PGMs are unable to provide precise, spatially defined pollutant data at a local scale. In addition, as noted in SMAQMD's Friant Guidance, "BenMAP estimates potential health effects from a change in air pollutant concentrations, but does not fully account for other factors affecting health such as access to medical care, genetics, income levels, behavior choices such as diet and exercise, and underlying health conditions" (2020). Thus, the modeling conducted for the health risk analysis is based on imprecise mapping and only takes into account one of the main public health determinants (i.e., environmental influences).

DISCUSSION OF PROJECT IMPACTS: CRITERIA POLLUTANT HEALTH RISKS

Since the project was below the daily operational thresholds for criteria air pollutants, the Minor Project Health Screening Tool was used to estimate health risks. The results are shown in **Table IS-5** and **Table IS-6**.

Table IS-5: $PM_{2.5}$ Health Risk Estimates

$PM_{2.5}$ Health Endpoint	Age Range[1]	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5]	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]	Percent of Background Health Incidences Across the 5-Air-District Region[3]	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
		(Mean)	(Mean)		
Respiratory					
Emergency Room Visits, Asthma	0 - 99	0.76	0.68	0.0037%	18419
Hospital Admissions, Asthma	0 - 64	0.050	0.045	0.0025%	1846
Hospital Admissions, All Respiratory	65 - 99	0.24	0.21	0.0010%	19644
Cardiovascular					
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.13	0.12	0.00048%	24037

Acute Myocardial Infarction, Nonfatal	18 - 24	0.000062	0.000055	0.0015%	4
Acute Myocardial Infarction, Nonfatal	25 - 44	0.0056	0.0052	0.0017%	308
Acute Myocardial Infarction, Nonfatal	45 - 54	0.014	0.013	0.0018%	741
Acute Myocardial Infarction, Nonfatal	55 - 64	0.023	0.021	0.0017%	1239
Acute Myocardial Infarction, Nonfatal	65 - 99	0.081	0.073	0.0015%	5052
Mortality					
Mortality, All Cause	30 - 99	1.5	1.4	0.0030%	44766

Notes:

1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.
2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.
3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.
4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.
5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District.*

Table IS-6: Ozone Health Risk Estimates

Ozone Health Endpoint	**Age Range[1]**	**Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year)[2,5]**	**Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2]**	**Percent of Background Health Incidences Across the 5-Air-District Region[3]**	**Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]**
		(Mean)	**(Mean)**		
Respiratory					
Hospital Admissions, All Respiratory	65 - 99	0.049	0.037	0.00019%	19644

Emergency Room Visits, Asthma	0 - 17	0.23	0.18	0.0031%	5859
Emergency Room Visits, Asthma	18 - 99	0.37	0.29	0.0023%	12560
Mortality					
Mortality, Non-Accidental	0 - 99	0.030	0.024	0.000079%	30386

Notes:

1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.
2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region.
3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.
4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.
5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District.*

Again, it is important to note that the "model outputs are derived from the numbers of people who would be affected by [the] project due to their geographic proximity and based on average population through the Five-District-Region. The models do not take into account population subgroups with greater vulnerabilities to air pollution, except for ages for certain endpoints" (SMAQMD 2020). Therefore, it would be misleading to correlate the levels of criteria air pollutant and precursor emissions associated with project implementation to specific health outcomes. While the effects noted above could manifest in individuals, actual effects depend on factors specific to each individual, including life stage (e.g., older adults are more sensitive), preexisting cardiovascular or respiratory diseases, and genetic polymorphisms. Even if this specific medical information was known about each individual, there are wide ranges of potential outcomes from exposure to ozone precursors and particulates, from no effect to the effects listed in the tables. Ultimately, the health effects associated with the project, using the SMAQMD guidance "are conservatively estimated, and the actual effects may be zero" (SMAQMD 2020).

CONCLUSION: CRITERIA POLLUTANT HEALTH RISKS

Neither SMAQMD nor the County of Sacramento have adopted thresholds of significance for the assessment of health risks related to the emission of criteria pollutants. Furthermore, an industry standard level of significance has not been adopted or proposed. Due to the lack of adopted thresholds of significance the health risks, this

data is presented for informational purposes and does not represent an attempt to arrive at any level-of-significance conclusions.

HYDROLOGY AND WATER QUALITY

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Substantially alter the existing drainage pattern of the project area and/or increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.
- Place structures that would impede or redirect flood flows within a 100-year floodplain.
- Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems.
- Create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality.

DRAINAGE AND FLOODING

The project site is located within an area identified on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel Number 06067C0345H as "Zone X-no show" (see **Plate IS-6**). Flood Zone X-no show means the property does not show up as being either a 500-year or a 100-year floodplain according to FEMA. Flood zone X is a designation used by FEMA to represent a low-to-moderate risk of flooding. The subject property is located within the Cosumnes River watershed.

In correspondence dated May 10, 2023, Sacramento County Department of Water Resources (DWR) staff requested a Level 2 drainage study pursuant to improvement standards, hydrology standards, Stormwater Quality Design Manual and the Floodplain Management Ordinance. JTS Engineering Consultants, Inc. prepared the Level 2 drainage study (Appendix A) on July 13, 2022. DWR staff sent correspondence to the applicant on July 21, 2022, that the Level 2 drainage study is technically sufficient to outline the drainage infrastructure required to support the project. An approved Level 4 (design-level) study will be required prior to the approval of improvement plans.

EXISTING CONDITIONS

As indicated in the drainage study, the existing surface water drainage generally sheet flows from east to west. Some surface water is concentrated in two ditches – a central feature, and a roadside ditch along the south side of Gay Road. The central drainage feature is a trapezoidal feature with a base width of 13 feet and depth of six feet with side slopes of 1:1.The off-site watershed to the east of the project site is approximately 35 acres. This area drains to the west through the existing 8-inch culvert which outlets into the existing central drainage ditch.

PROPOSED CONDITIONS

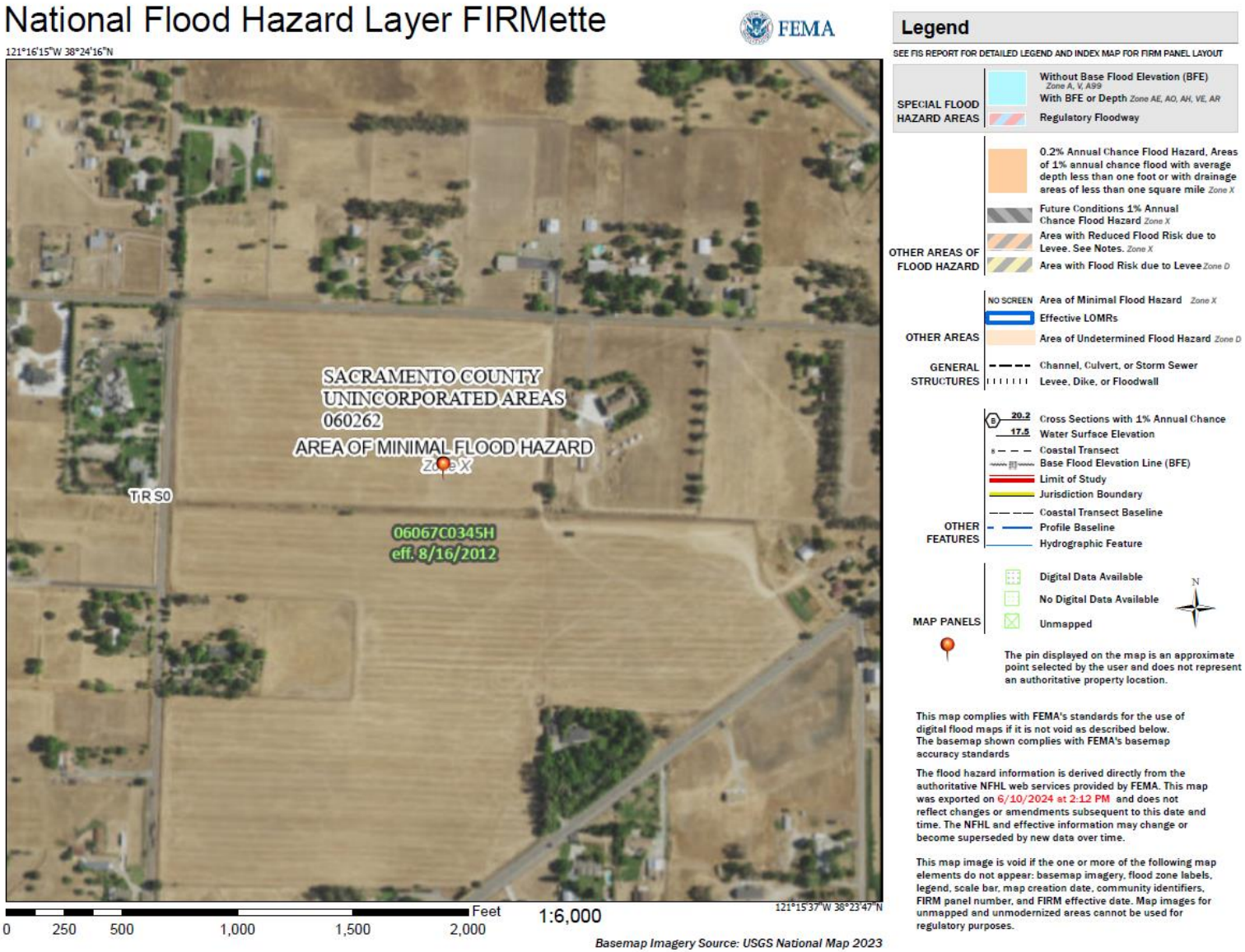
The project proposes a 40-foot private road and utility easement that grants access to parcels 1 and 2 with a hammer head at the end of the road that gives the fire department and residents access to parcels 3 and 4. Where the private road will cross the central drainage ditch a proposed 30-inch corrugated metal culvert will be installed to allow flow to continue. The project is conditioned to install Class C road improvements which will require the widening of Gay Road, and relocation of the roadside ditch. Where the private road will cross the roadside ditch a 12-inch corrugated metal culvert will be installed to allow flow to continue.

PROJECT IMPACTS

While the project is not in a federal or local floodplain, the drainage study analyzed the effects of the proposed project in a 100-year storm event. The existing 100-year peak flow for the off-site drainage along with approximately 10 acres of on-site drainage is estimated at 32 cubic feet per second. Under the proposed condition, an additional 20 percent impervious area is assumed for building out (approximately one acre per parcel of impervious surfaces). The estimated flow rate would be 46 cubic feet per second. The proposed 30-inch culvert in the central drainage ditch would increase the water surface elevation to 76.23, which will remain within the banks of the ditch. The project is located outside the 500-year floodplain. Therefore, the Sacramento County Floodplain Management Ordinance requires a minimum pad elevations will need to be 1.5 feet above the water level in the ditch, resulting in a building pad height of 77.73 feet (reference Sacramento County Floodplain Management Ordinance page 17).

The proposed project would not result in impacts to drainage and flooding, and therefore impacts are ***less than significant*.**

Plate IS-6: FEMA Floodplain Map



WATER QUALITY

CONSTRUCTION WATER QUALITY: EROSION AND GRADING

Construction on undeveloped land exposes bare soil, which can be mobilized by rain or wind and displaced into waterways or become an air pollutant. Construction equipment can also track mud and dirt onto roadways, where rains will wash the sediment into storm drains and thence into surface waters. After construction is complete, various other pollutants generated by site use can also be washed into local waterways. These pollutants include, but are not limited to, vehicle fluids, heavy metals deposited by vehicles, and pesticides or fertilizers used in landscaping.

Sacramento County has a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by Regional Water Board. The Municipal Stormwater Permit requires the County to reduce pollutants in stormwater discharges to the maximum extent practicable and to effectively prohibit non-stormwater discharges. The County complies with this permit in part by developing and enforcing ordinances and requirements to reduce the discharge of sediments and other pollutants in runoff from newly developing and redeveloping areas of the County.

The County has established a Stormwater Ordinance (Sacramento County Code 15.12). The Stormwater Ordinance prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. It applies to all private and public projects in the County, regardless of size or land use type. In addition, Sacramento County Code 16.44 (Land Grading and Erosion Control) requires private construction sites disturbing one or more acres or moving 350 cubic yards or more of earthen material to obtain a grading permit. To obtain a grading permit, project proponents must prepare and submit for approval an Erosion and Sediment Control (ESC) Plan describing erosion and sediment control best management practices (BMPs) that will be implemented during construction to prevent sediment from leaving the site and entering the County's storm drain system or local receiving waters. Construction projects not subject to SCC 16.44 are subject to the Stormwater Ordinance (SCC 15.12) described above.

In addition to complying with the County's ordinances and requirements, construction sites disturbing one or more acres are required to comply with the State's General Stormwater Permit for Construction Activities (CGP). CGP coverage is issued by the State Water Resources Control Board (State Board) http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml and enforced by the Regional Water Board. Coverage is obtained by submitting a Notice of Intent (NOI) to the State Board prior to construction and verified by receiving a WDID#. The CGP requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that must be kept on site at all times for review by the State inspector.

Applicable projects applying for a County grading permit must show proof that a WDID # has been obtained and must submit a copy of the SWPPP. Although the County has no enforcement authority related to the CGP, the County does have the authority to ensure

sediment/pollutants are not discharged and is required by its Municipal Stormwater Permit to verify that SWPPPs include the minimum components.

The project must include an effective combination of erosion, sediment and other pollution control BMPs in compliance with the County ordinances and the State's CGP.

Erosion controls should always be the *first line of defense*, to keep soil from being mobilized in wind and water. Examples include stabilized construction entrances, tackified mulch, 3-step hydroseeding, spray-on soil stabilizers and anchored blankets. Sediment controls are the *second line of defense*; they help to filter sediment out of runoff before it reaches the storm drains and local waterways. Examples include rock bags to protect storm drain inlets, staked or weighted straw wattles/fiber rolls, and silt fences.

In addition to erosion and sediment controls, the project must have BMPs in place to keep other construction-related wastes and pollutants out of the storm drains. Such practices include, but are not limited to: filtering water from dewatering operations, providing proper washout areas for concrete trucks and stucco/paint contractors, containing wastes, managing portable toilets properly, and dry sweeping instead of washing down dirty pavement.

It is the responsibility of the project proponent to verify that the proposed BMPs for the project are appropriate for the unique site conditions, including topography, soil type and anticipated volumes of water entering and leaving the site during the construction phase. In particular, the project proponent should check for the presence of colloidal clay soils on the site. Experience has shown that these soils do not settle out with conventional sedimentation and filtration BMPs. The project proponent may wish to conduct settling column tests in addition to other soils testing on the site, to ascertain whether conventional BMPs will work for the project.

If sediment-laden or otherwise polluted runoff discharges from the construction site are found to impact the County's storm drain system and/or Waters of the State, the property owner will be subject to enforcement action and possible fines by the County and the Regional Water Board.

Project compliance with requirements outlined above, as administered by the County and the Regional Water Board will ensure that project-related erosion and pollution impacts are ***less than significant*.**

Biological Resources

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Have a substantial adverse effect on any special status species, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community.

- Have a substantial adverse effect on streams, wetlands, or other surface waters that are protected by federal, state, or local regulations and policies?

- Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species.

- Adversely affect or result in the removal of native or landmark trees.

Biological Resources – Regulatory Setting

Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 protects species that are federally listed as endangered or threatened with extinction. FESA prohibits the unauthorized "take" of listed wildlife species. Take includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such activities. Harm includes significant modifications or degradations of habitats that may cause death or injury to protected species by impairing their behavioral patterns. Harassment includes disruption of normal behavior patterns that may result in injury to or mortality of protected species. Civil or criminal penalties can be levied against persons convicted of unauthorized "take." In addition, FESA prohibits malicious damage or destruction of listed plant species on federal lands or in association with federal actions, and the removal, cutting, digging up, damage, or destruction of listed plant species in violation of state law. FESA does not afford any protections to federally listed plant species that are not also included on a state endangered species list on private lands with no associated federal action.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any native migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11.). Likewise, Section 3513 of the California Fish & Game Code prohibits the "take or possession" of any migratory non-game bird identified under the MBTA. Therefore, activities that may result in the injury or mortality of native migratory birds, including eggs and nestlings, would be prohibited under the MBTA.

Wetlands and Waters of the U.S

Federal and state regulation (Clean Water Act Sections 404 and 401) uses the term "surface water" to refer to all standing or flowing water which is present above-ground either perennially or seasonally. There are many types of surface waters, but the two major groupings are linear waterways with a bed and bank (streams, rivers, etc.) and wetlands. The Clean Water Act has defined the term wetland to mean "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of

vegetation typically adapted for life in saturated soil conditions". The term "wetlands" includes a diverse assortment of habitats such as perennial and seasonal freshwater marshes, vernal pools, and wetted swales. The 1987 Army Corps Wetlands Delineation Manual is used to determine whether an area meets the technical criteria for a wetland and is therefore subject to local, State or Federal regulation of that habitat type. A delineation verification by the United States Army Corps of Engineers (Army Corps) will verify the size and condition of the wetlands and other waters in question and will help determine the extent of government jurisdiction.

Wetlands are regulated by both the Federal and State government, pursuant to the Clean Water Act Section 404 (federal) and Section 401 (state). The Army Corps is generally the lead agency for the federal permit process, and the Regional Water Quality Control Board (Regional Water Board) is generally the lead agency for the state permit process. The Clean Water Act protects all "navigable waters", which are defined as traditional navigable waters that are or were used for commerce, or may be used for interstate commerce; tributaries of covered waters; and wetlands adjacent to covered waters, including tributaries. Isolated wetlands, that is, those wetlands that are not hydrologically connected to other "navigable" surface waters (or their tributaries), are not considered to be subject to the Clean Water Act.

In addition to the Clean Water Act, the state also has jurisdiction over impacts to surface waters through the Porter-Cologne Water Quality Control Act, which does not require that waters be "navigable". For this reason, Federal non-jurisdictional waters – isolated wetlands – can be regulated by the State of California pursuant to Porter-Cologne.

The Clean Water Act establishes a "no net loss" policy regarding wetlands for the state and federal governments, and General Plan Policy CO-58 establishes a "no net loss" policy for Sacramento County. Pursuant to these policies, any wetlands to be excavated or filled require 1:1 mitigation, and construction within the wetlands cannot take place until the appropriate permit(s) have been obtained from the Army Corps, the U.S. Fish and Wildlife Service (USFWS), the Regional Water Board, the California Department of Fish and Wildlife (CDFW) and any other agencies with authority over surface waters. Any loss of delineated wetlands not mitigated for through the permitting process must be mitigated, pursuant to County policy. Appropriate mitigation may include establishment of a conservation easement over wetlands, purchase of mitigation banking credits, or similar measures.

There are regulatory setbacks established for vernal pools and other seasonal wetlands which may contain vernal pool crustaceans. The purpose of a setback is to buffer the wetland from the indirect impacts of development, such as polluted runoff. According to the Programmatic Consultation for vernal pool crustaceans, all construction activities must remain a minimum of 250 feet from any vernal pool in order to avoid impacts (refer to the discussion "Vernal Pool Crustaceans"). There is no regulatory setback for other surface waters, but County Planning and Environmental Review has typically required a

minimum 50-foot setback[1]. Maintenance of these setbacks will avoid indirect impacts to the surface water. A direct impact is the filling or excavation of a surface water. Note that if filling or excavation occurs within any portion of a vernal pool or seasonal wetland, the entire wetland should be considered directly impacted.

STATE REGULATIONS

STATE ENDANGERED SPECIES ACT

With limited exceptions, the California Endangered Species Act (CESA) of 1984 protects state-designated endangered and threatened species in a way similar to FESA. For projects on private property (i.e. that for which a state agency is not a lead agency), CESA enables the California Department of Fish and Wildlife (CDFW) to authorize take of a listed species that is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code Section 2081).

CALIFORNIA FISH AND GAME CODE, SECTION 3503.5 - RAPTOR NESTS

Section 3503.5 of the Fish and Game Code makes it unlawful to take, possess, or destroy hawks or owls, unless permitted to do so, or to destroy the nest or eggs of any hawk or owl.

LOCAL REGULATIONS

COUNTY OF SACRAMENTO GENERAL PLAN

The Conservation Element of the Sacramento County General Plan (under Policy CO-58) currently provides protection to various ecosystems. Specifically, it "ensures no net loss of wetlands, riparian woodlands, and oak woodlands." The General Plan also seeks to protect native and landmark (collectively referred to as "protected trees"). "Landmark trees" are defined as ones that are "especially prominent and stately." Policies CO-137, CO- 138, CO-139, CO-140, and CO-141 encourage protection and preservation of landmark and heritage trees, and Policy CO-145 requires mitigation by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed.

SPECIAL STATUS SPECIES

Special status wildlife species that have a moderate or greater potential for occurrence on the project site are discussed below. For the purposes of this Initial Study, special-status species is defined as those species that are:

- listed as threatened or endangered, or proposed or candidates for listing by the USFWS or National Marine Fisheries Service;

[1] Research suggests that some of the most common urban runoff pollutants – including sediment, nitrogen, and phosphorus – can be filtered over this distance by intervening vegetation. Source: McElfish, James M. et al. 2008. Planner's Guide to Wetland Buffers for Local Governments. Environmental Law Institute, Washington, D.C.

- listed as threatened or endangered and candidates for listing by CDFW;
- identified as Fully Protected species or species of special concern by CDFW;
- identified as Medium or High priority species by the Western Working Bat Group (WBWG) (WBWG 2022);
- plant species considered to be rare, threatened, or endangered in California by the CNPS and CDFW [California Rare Plant Rank (CRPR) 1, 2, and 3]:
    - CRPR 1A: Plants presumed extinct.
    - CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
    - CRPR 2A: Plants extirpated in California, but common elsewhere.
    - CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.

Surveys and Methodology

Area West Environmental, LLC. (Area West) Prepared a Biological Inventory Report (Appendix B) for the Gay Road Rezone and Tentative Parcel Map project (Study Area). The report included information regarding the biological resources present within the Study Area and an assessment of special status species that may occur or be affected by the project.

A list of special status species with potential to occur within the Study Area was developed by conducting a query of the following databases:

- California Natural Diversity Database (CNDDB) (CNDDB 2022) query of the Study Area and all areas within 5 miles of the Study Area and eight surrounding USGS quadrangles
- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2022) query of the Elk Grove and the eight surrounding quadrangles
- USFWS Information for Planning and Conservation (IPaC) (USFWS 2022) query for the Study Area

The following set of criteria was used to determine each species potential for occurrence on the site:

- Present: Species occur on the site based on CNDDB records, and/or was observed on the site during field surveys.

- High: The site is within the known range of the species and suitable habitat exists.

- Moderate: The site is within the known range of the species and very limited suitable habitat exists.

- Low: The site is within the known range of the species and there is marginally suitable habitat, or the species was not observed during protocol-level surveys conducted on-site.

- Not expected to occur: The site does not contain suitable habitat for the species, the species was not observed during protocol-level floristic surveys conducted on-site, or the site is outside the known range of the species.

A preliminary review of CNPS, SSHCP, USFWS, and a 5-mile radius CNDDB species lists identified 10 special-status plants and 28 special-status wildlife species with potential to be present within the geographic region (**Table IS-7** and **Table IS-8**).This list was used to focus the site investigation on the special-status species and associated habitats with potential to be present at the project site. Species that are not expected to occur are not discussed further in subsequent analysis sections.

In addition, Area West prepared an Aquatic Resource Delineation Report to document aquatic resources delineated at project site (Appendix C). The results of the delineation are discussed in the Wetlands and Other Surface Waters section below.

SURVEY FINDINGS

On August 16 and August 24, 2022, Area West conducted a biological survey and aquatic resources survey of the project site. Walking the perimeter of the property, and meandering transects throughout the project site, the surveyor searched for signs of vernal pools, bird nests, identified vegetation, and looked for other signs of wildlife occupancy and suitable habitat for special status species identified above. Survey efforts emphasized the search for special-status species that had documented occurrences in the data records search of the CNDDB, IPaC, and CNPS databases.

Table IS-7: Special Status Plant Species and Potential for Occurrence

Scientific Name **(Common Name)**	**Federal Status**	**State Status**	**CRPR**	**Habitat Requirements**	**Potential for Occurrence**
	Plants				
Blepharizonia plumosa Big tarplant	--	--	1B.1	Dry hills and plains in annual grasslands, usually on slopes	**Not expected to occur**. The species was not observed within the Project site during the survey, which was conducted during the species' blooming period.
Cuscuta obtusiflora var. glandulosa Peruvian dodder			2B.2	Marshes and swamps (freshwater)	**Not expected to occur**. The project site lacks habitat.
Downingia pusilla Dwarf downingia			2B.2	Vernal pools and other depressional wetlands	**Moderate.** The seasonal wetlands within the Study Area have potential to provide marginal habitat for this species.
Gratiola heterosepala Boggs Lake hedge-hyssop		CE	1B.2	Vernal pools and margins of lakes/ponds	**Not expected to occur.** The seasonal wetlands within the Study Area have potential to provide marginal habitat for this species. However, this species was not observed within the Project site during the survey, which was conducted during the species' blooming period.
Juncus leiospermus var. ahartii Ahart's dwarf rush			1B.2	Edges of vernal pools and other seasonally ponded features.	**Moderate.** The seasonal wetlands within the Study Area have potential to provide marginal habitat for this species.
Legenere limosa legenere			1B.1	Vernal pools	**Moderate.** The seasonal wetlands within the Study Area have potential to provide marginal habitat for this species.

Scientific Name **(Common Name)**	**Federal Status**	**State Status**	**CRPR**	**Habitat Requirements**	**Potential for Occurrence**
Navarretia merci ssp. myersii pincushion navarretia			1B.1	Vernal pools	**Low.** The seasonal wetlands within the study area have potential to provide marginal habitat for this species, however, the soil within the study area is not mapped and has clay.
Orcuttia tenuis slender Orcutt grass	FT	CE		Vernal pools	**Not expected to occur.** The seasonal wetlands within the Study Area have potential to provide marginal habitat for this species. However, this species was not observed within the Project site during the survey, which was conducted during the species' blooming period.
Orcuttia viscida Sacramento Orcutt grass	FE	CE		Vernal pools	**Not expected to occur.** The seasonal wetlands within the study area have potential to provide marginal habitat for this species. Although the survey was conducted outside of this species blooming period, the species would have been identifiable during the survey, therefore, is unlikely to occur onsite.
Sagittaria sanfordii Sanford's arrowhead			1B.2	Emergent marsh habitat, typically associated with drainages, canals, or agricultural canales. Requires permanent water.	**Note expected to occur.** There are no permanently wet soils, vernal pools, or wetlands on the project site.

Status Codes:

CE - CDFW Endangered

FE - Federally Endangered

FT - Federally Threatened

CRPR - California Rare Plant Rank

Table IS-8: Special Status Wildlife Species and Potential for Occurrence

Scientific Name **(Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Andrena blennospermatis Blennosperma vernal pool andrenid bee			Upland areas near vernal pools	**Moderate.** The seasonal wetlands within the Study Area may provide suitable habitat for this species.
Bombus crotchii Crotch's Bumble bee	SE		Inhabits open grasslands and scrub habitat. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bud nest, rock piles, or cavities of dead trees.	**Not expected to occur.** The project site has been mowed/disturbed in recent years and is not likely to support the necessary vegetation for the species.
Branchinecta lynchi Vernal pool fairy shrimp	FT	--	Large playa vernal pools and wetlands.	**Moderate.** The seasonal wetlands within the Study Area may provide suitable habitat for this species.
Branchinecta mesovallensis Midvalley fairy shrimp	FE	--	Vernal pools and wetlands	**Moderate.** The seasonal wetlands within the Study Area may provide suitable habitat for this species.
Danaus plexippus Monarch Butterfly	FC	--	During the breeding season Monarch's lay their eggs on their obligate milkweed host plant (primarily Asclepias spp.)	**Moderate.** Narrow-leaf milkweed was observed during field survey. Monarch butterflies may use the Study Area for breeding or foraging.

***Scientific Name* (Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT	--	Dependent upon elderberry (Sambucus species) shrubs as primary host species.	**Not expected to occur.** No Habitat Present. No elderberry shrubs are located within the Study Area.
Hydrochara rickseckeri Rickescker's water scavenger beetle			The species is an aquatic beetle dependent upon wetland habitats. [2] Based on CNDDB records	**Moderate.** The seasonal wetlands within the Study Area may provide suitable habitat for this species.
Lepidurus packardi Vernal pool tadpole shrimp	FE	--	Vernal pools and wetlands.	**Moderate.** The seasonal wetlands within the Study Area may provide suitable habitat for this species.
Linderiella occidentalis California linderiella			Vernal pools and wetlands.	**Moderate.** The seasonal wetlands within the Study Area may provide suitable habitat for this species.
Oncorhynchus mykiss irideus Central Valley steelhead	FE	--	Anadromous species requiring freshwater water courses with gravelly substrates for breeding. The young remain in freshwater areas before migrating to estuarine and marine environments.	**Not expected to occur.** No Habitat Present. There are no streams or rivers located within the Study Area.

***Scientific Name* (Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Spea hammondii Western spadefoot	--	CSC	Breeds in vernal pools, seasonal ponds, seasonal wetlands and associated swales. Forages and aestivates in adjacent grasslands and oak woodlands.	**Not expected to occur.** No Habitat Present. There are no permanent ponds on the project site.
Ambystoma californiense California tiger salamander	FT	CT, CSC	Breeds in ponds or other deeply ponded wetlands, and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging.	**Moderate.** The seasonal wetlands could provide suitable breeding habitat and the adjacent grasslands could provide suitable foraging habitat.
Emys marmorata Western pond turtle	--	CSC	Occurs in perennial ponds, lakes, rivers, and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs) and submerged shelter. Require some slack- or slow-water aquatic habitat. Nests upland, on unshaded south-facing slopes with friable soils that have a high percentage of clay or silt.	**Not expected to occur. No Habitat Present.** There is no suitable aquatic habitat for this species within the Study Area.

Scientific Name **(Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Thamnophis gigas Giant garter snake	FT	ST	Endemic to valley floors of the Sacramento and San Joaquin Valleys. Prefers freshwater marsh and low gradient streams. Has adapted to rice agriculture, drainage channels, and agricultural canales. Requires permanent water, emergent vegetation, and upland habitat for basking and cover.	**Not expected to occur.** Though the site has a drainage ditch running through it, this ditch does not have the permanent water that the species requires.
Accipiter cooperii Cooper's hawk			Feeding: Catches small birds, especially young during nesting season, and small mammals; also takes reptiles and amphibians. Hunts in broken woodland and habitat edges; catches prey in air, on ground, and in vegetation. Often dashes suddenly from perch in dense cover and pursues prey in air through branches. Sometimes runs prey down in dense thickets. Uses cover to hide, attack, and approach prey; also soars and makes low, gliding search flights.	**Moderate.** The trees along the project perimeter could provide suitable perching habitat and the open agricultural fields could provide suitable foraging habitat.

***Scientific Name* (Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Agelaius tricolor Tricolored blackbird	--	CT, CSC	Colonial nester in cattails, bulrush, or blackberries associated with marsh habitats.	**Not expected to occur.** No Habitat Present. There is no mash or bramble nesting habitat within the Study Area.
Adrea alba Great egret			Associated with estuaries, rivers, and oceans, the species is known to occur along major rivers in the Central Valley. A colonial nester, the species prefers cliffs, rugged slopes, or tall trees beside water. Listed for the protection of nesting colonies.	**Not expected to occur.** There is no suitable habitat withing the Study Area.
Ardea herodias Great blue heron			Associated with estuaries, rivers, and oceans, the species is known to occur along major rivers in the Central Valley. A colonial nester, the species prefers tall trees beside water. The range is restricted to within 10 miles of the nesting area. Listed for the protection of nesting colonies.	**Not expected to occur.** There is no suitable habitat withing the Study Area.

Scientific Name **(Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Athene cunicularia Burrowing owl	--	CSC	Frequents open grasslands and shrublands with perches and burrows. Nests and roosts in old burrows of small mammals and rubble piles. Listed for breeding habitat.	**Moderate.** The wild oat and annual brom grasslands community in the study area provides suitable foraging habitat for burrowing owl.
Buteo regalis Ferruginous hawk			Frequents open grasslands. Searhes for prey from low floghts over open, treeless areas and glides to intercept prey on the ground. Roosts in the open areas, usually a long tree or utility pole.	**Moderate.** The grassland in the Study Area provides suitable foraging habitat. The few isolated trees could provide suitable roosting habitat.
Buteo swainsoni Swainson's hawk	--	CT	Nests in large trees, preferably in riparian areas. Forages in fields, cropland, irrigated pasture, and grassland near large riparian corridors.	**Moderate.** The large trees within the Study Area represent suitable nesting habitat. The project site has suitable foraging habitat.
Elanus leucurus White-tailed kite	--	CFP	Open grasslands, fields, and meadows are used for foraging. Isolated trees in close proximity to foraging habitat are used for perching and nesting.	**Moderate** The trees within the Study Area represent potential nesting habitat for white- tailed kite. There is suitable foraging habitat in the study area.

***Scientific Name* (Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Riparia Bank swallow	None	CT	Colonial nester preferring vertical cliffs and banks with fine textured/sandy soils associated with riparian zones along streams, rivers, and lakes.	**Not expected to occur.** No Habitat Present. There are no riverbanks with sandy soil located within the Study Area.
Antrozous pallidus Pallid bat	--	CSC, WBWG H	Roosts in crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating bark, deciduous trees in riparian areas, and fruit trees in orchards), bridges, barns, porches, bat boxes, and human- occupied as well as vacant buildings (WBWG 2022).	**Moderate.** Trees in and adjacent to the Project site provide roosting habitat for special-status bats, such as western red bat, and bats protected by California Fish and Game Code Section 4150. There is moderate potential for bats to occur within the Study Area.
Corynorhinus townsendii Townsend's big-eared bat	--	CC, WBWG H	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of coast redwoods and giant sequoias. Extremely sensitive to human disturbance. (WBWG 2022)	**Moderate.** Trees in and adjacent to the Project site provide roosting habitat for special-status bats, such as western red bat, and bats protected by California Fish and Game Code Section 4150. There is moderate potential for bats to occur within the Study Area.

Scientific Name **(Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Lasionycteris noctivagans Silver-haired bat	--	WBWG M	Roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. It forages in open wooded areas near water features. (WBWG 2022)	**Moderate.** Trees in and adjacent to the Project site provide roosting habitat for special-status bats, such as western red bat, and bats protected by California Fish and Game Code Section 4150. There is moderate potential for bats to occur within the Study Area.
Lasiurus blossevillii Western red bat	--	CSC, WBWG H	Roosts primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat. (WBWG 2022)	**Moderate.** Trees in and adjacent to the Project site provide roosting habitat for special-status bats, such as western red bat, and bats protected by California Fish and Game Code Section 4150. There is moderate potential for bats to occur within the Study Area.
Taxidea taxus American badger	--	CSC	Drier open areas with shrub, forest, and herbaceous habitats with friable soils.	**Low.** No Habitat Present. The Study Area lacks the shrub and forested habitat needed to support this species.

Status Codes:

CC - CDFW Candidate for Listing CT - CDFW Threatened

CE - CDFW Endangered

CFP - CDFW Fully Protected

CRPR - California Rare Plant Rank

CSC - CDFW Species of Concern

CR - California Rare

FE - Federally Endangered

FT - Federally Threatened

FC - Candidate for Federal Listing

WBWG M - Western Bat Working Group Medium Threat Rank

WBWG H - Western Bat Working Group High Threat Rank

PROJECT IMPACTS

MONARCH BUTTERFLY

The USFWS has reviewed the monarch butterfly or listing since 2014. In December 2020, USFWS found the species does qualify for listing but that it is precluded due to other higher priority species. Therefore, the species remains a candidate species under the FESA. The western migratory monarch butterfly population has declined by more than 90 percent since the 1980s. The population decline is likely due to multiple stressors across the monarch's range, including the loss and degradation of overwintering habitat; pesticide use, particularly insecticides; loss of breeding and migratory habitat; climate change; parasites and disease (USFWS, 2023). Migratory western monarchs depart the overwintering sites in mid-winter to early-spring. Then throughout the spring and summer, monarchs breed, lay their eggs on milkweed and migrate across multiple generations within California and other states west of the Rocky Mountains.

The USFWS prepared a white paper titled, Western Monarch Butterfly Conservation Recommendations, February 10, 2023. The paper outlines voluntary conservation measures based on the breeding zone the project is located in. The proposed project is located within Priority Zone 1 – Early Breeding Season. Conservation measures focus on protection of existing plants, no pesticide use and repropagation of larvae host plants.

Narrow-leafed milkweed was observed within the top of bank of the central drainage ditch. Monarch butterflies may use the project site for breeding or foraging. There is moderate potential for this species to occur within the Study Area. The Biological Survey did not specifically identify where the milkweed was observed so it is unknown if the plants would be removed due to the construction of the private road. Therefore, mitigation is recommended to have a botanist survey the drainage ditch in the location of the proposed private road prior to construction activities. If there are no milkweed within the construction footprint no further measures are required. If milkweed plants are located within the proposed construction area, consistent with the voluntary conservation measures, the applicant shall enhance habitat along the drainage ditch by planting native, insecticide-free milkweed, including early-emerging species (e.g., *Asclepias vestita, A. californica, A. cordifolia, A. erosa*).

BURROWING OWL

Burrowing owl are small, ground-dwelling owls found throughout most of the western U.S. Burrowing owl inhabit open areas with sparse or non-existent tree or shrub canopies. Burrowing owl are dependent upon burrows created by other animals (burrowing mammals) or suitable surrogate burrows (e.g. rock/concrete piles, culverts). The wild oats and annual brome grasslands community at the project site provides suitable foraging habitat for burrowing owl.

No burrows were observed within the Study Area at the time of the survey. The grassland within and adjacent to the Study Area could provide suitable habitat. Per

CNDDB there have been 21 occurrences within 10 miles of the project site. None of the occurrences identify an active reporting of burrowing owl within last five years. However, given the suitable habitat, there is a moderate potential for burrowing owl to occur within the project site and the Study Area between the time of survey and the time of construction. Mitigation has been included in the form of pre-construction surveys and consultation with the CDFW as necessary if owls or evidence of owls are present on the project site. With this mitigation, impacts will be ***less than significant.***

SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is listed as a threatened species by the State. It is a migratory raptor typically nesting in or near valley floor riparian habitats during spring and summer months. Swainson's hawks were once common throughout the state, but various habitat changes, including the loss of nesting habitat (trees) and the loss of foraging habitat through the conversion of native Central Valley grasslands to certain incompatible agricultural and urban uses has caused an estimated 90% decline in their population.

Swainson's hawks feed primarily upon small mammals, birds, and insects. Their typical foraging habitat includes native grasslands, alfalfa, and other hay crops that provide suitable habitat for small mammals. Certain other row crops and open habitats also provide some foraging habitat. The availability of productive foraging habitat near a Swainson's hawk's nest site is a critical requirement for nesting and fledgling success. In central California, about 85% of Swainson's hawk nests are within riparian forest or remnant riparian trees. CEQA analysis of impacts to Swainson's hawks consists of separate analyses of impacts to nesting habitat and foraging habitat.

The CEQA analysis provides a means by which to ascertain impacts to the Swainson's hawk. When the analysis identifies impacts, mitigation measures are established that will reduce impacts to the species to a less than significant level. Project proponents are cautioned that the mitigation measures are designed to reduce impacts and do not constitute an incidental take permit under the California Endangered Species Act (CESA). Anyone who directly or incidentally takes a Swainson's hawk, even when in compliance with mitigation measures established pursuant to CEQA, may violate the California Endangered Species Act.

NESTING HABITAT IMPACT METHODOLOGY

For determining impacts to and establishing mitigation for nesting Swainson's hawks in Sacramento County, CDFW recommends utilizing the methodology set forth in the Recommended Timing and Methodology for Swainson's Hawk nesting Surveys in California's Central Valley (Swainson's Hawk TAC 2000). The document recommends that surveys be conducted for the two survey periods immediately prior to the **start of construction**. The five survey periods are defined by the timing of migration, courtship, and nesting in a typical year (refer to Table IS-9**Error! Reference source not found.**). Surveys should extend a ½-mile radius around all project activities, and if active nesting is identified, CDFW should be contacted.

Table IS-9: Recommended Survey Periods for Swainson's Hawk (TAC 2000)

Period #	Timeframe	# of surveys required	Notes
I.	Jan. 1 – Mar. 20	1	Optional, but recommended
II.	Mar. 20 – Apr. 5	3	
III.	Apr. 5 – Apr. 20	3	
IV.	Apr. 21 – June 10	N/A	Initiating surveys is not recommended during this period
V.	June 10 – July 30	3	

For example, if a project is scheduled to begin on June 20, three surveys should be completed in Period III and three surveys in Period V, as surveys should not be initiated in Period IV. It is always recommended that surveys be completed in Periods II, III and V.

FORAGING HABITAT IMPACT METHODOLOGY

Swainson's hawks are known to forage up to 18 miles from their nest site; however, that is the extreme range of one individual bird's daily movement. It is more common for a Swainson's hawk to forage within 10 miles of its nest-site. Therefore it is generally accepted, and California Fish and Wildlife recommends evaluating projects for foraging habitat impacts when they are within 10 miles of a known nest site. Virtually all of Sacramento County is within 10 miles of a known nest.

Statewide, California Fish and Wildlife recommends implementing the measures set forth in the California Fish and Wildlife Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994) for determining impacts to Swainson's hawk foraging habitat unless local jurisdictions develop an individualized methodology designed specifically for their location. Sacramento County has developed such a methodology and received confirmation from California Fish and Wildlife in May of 2006 that the methodology is a better fit for unincorporated Sacramento County and should replace the statewide, generalized methodology for determining impacts to foraging habitat.

Swainson's hawk foraging habitat value is greater in large expansive open space and agricultural areas than in areas which have been fragmented by agricultural-residential or urban development. The methodology for unincorporated Sacramento County is based on the concept that impacts to Swainson's hawk foraging habitat occur as properties develop to increasingly more intensive uses on smaller minimum parcel sizes. As part of methodology development, County and California Fish and Wildlife

staff analyzed aerial photography of the County and compared this to the underlying zoning. It was determined that there was a strong correlation in most areas between the presence of suitable habitat and zoning for large agricultural parcels, and conversely that areas zoned for agricultural-residential or more dense uses tended to have fragmented or absent habitat. Therefore, the methodology relies mainly on the minimum parcel size allowed by zoning to determine habitat value. Exceptions include Rio Linda/Elverta and the Rancho Murieta areas, in which this methodology does not apply because there are very large parcels with high-quality habitat which are zoned A-2 or similar. Though there may be individual properties which do not follow the observed regional trend, it was concluded that adherence to this methodology would result in adequate cumulative mitigation for the species.

SWAINSON'S HAWK IMPACT MITIGATION PROGRAM

In 1997, in response to the need to mitigate for the loss of Swainson's hawk foraging habitat in Sacramento County, the Board of Supervisors adopted an ordinance that established a Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code). The Program has been amended several times; the latest amendment went into effect in December of 2009.

By adopting the Program, the Board of Supervisors found that "the most effective means of mitigation for the loss of suitable Swainson's hawk foraging habitat is the direct preservation, in perpetuity, of equally suitable foraging habitat on an acre-per-acre basis based on the project's determined acreage impact". On an individual basis, the acquisition of lands for habitat conservation may not always be feasible or prudent and many small, disconnected preserves do not benefit the species as well as large, connected preserve systems. Therefore, the ordinance provides for the establishment of impact mitigation fees, which in some circumstances, may be paid in-lieu of providing habitat lands. These fees accumulate and are held in trust by the County until used for the acquisition of foraging habitat of a size large enough to be biologically and economically viable. The current fee is $12,925 per acre. In addition, there is a one-time administrative fee of $500. These fees may be amended from time to time to ensure they accurately reflect market-rate land prices.

Under the Swainson's Hawk Impact Mitigation Program, only projects which have an impact of less than 40 acres are eligible to pay fees. Projects impacting 40 acres or more of foraging habitat must provide land acceptable to California Fish and Wildlife and the County. Land can be provided in fee title or through conservation easement. The Sacramento County Planning and Community Development Department (Planning) administers the Swainson's Hawk Impact Mitigation Program and more information on lands likely to be determined as acceptable replacement habitat can be found at their website https://planning.saccounty.gov/EnvironmentalDocuments/Pages/SwainsonsHawkOrdinance.aspx .

For the purpose of the methodology, properties with zoning of AG-40 and larger are assumed to maintain 100% of their foraging habitat value and properties with AR-5 zoning and smaller are assumed to have lost all foraging habitat value. **Table IS-10**

below illustrates the continuum between AG-40 and AR-5 that represents the partial loss of habitat value that occurs with fragmentation of large agricultural land holdings. The large, 50% loss of habitat value between AG-20 and AR-10 is due to the change in land use from general agriculture to agricultural-residential. The methodology does allow case-by-case analysis for projects with unique characteristics.

Table IS-10: Swainson's Hawk Foraging Habitat Value by Zoning Category

Zoning Category	Habitat Value Remaining
AG-40 and above (e.g., AG-80, 160 etc.)	100%
AG-20	75%
AR-10	25%
AR-5 and smaller (e.g., AR-2, 1 or RD-5, 7, 10, 15, 20 etc.)	0%

DISCUSSION OF PROJECT IMPACTS: SWAINSON'S HAWK

A specific CNDDB search for Swainson's hawk nests that have been active in the last five years within a 10-mile radius was conducted. No occurrences of active nests within the last five years were identified during this search. Suitable habitat is present within the Study Area, therefore there is a moderate potential for Swainson's hawk to occur. Suitable Swainson's hawk foraging habitat includes open fields and pastures within an energetically efficient flight distance from active nest sites. CDFW considers impacts to foraging habitat greater than five acres within 10 miles of an active nest (used during one or more of the last five years). No nests were observed within the Study Area, however, the grassland within and adjacent to the Project site could provide suitable foraging habitat and large trees within the Study Area could provide suitable nesting habitat. There is a moderate potential for Swainson's hawk to occur within the project area.

NESTING HABITAT IMPACTS

Pre-construction surveys consistent with the Recommended Timing and Methodology for Swainson's Hawk nesting Surveys in California's Central Valley (Swainson's Hawk TAC 2000), are included as mitigation. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success. If Swainson's hawk nests are found, the developer is required to contact California Fish and Wildlife to determine what measures need to be implemented in order to ensure that nesting hawks remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. The mitigation described above will ensure that impacts to nesting Swainson's hawk will be ***less than significant***.

FORAGING HABITAT IMPACTS

The project site consists of 19.98 acres zoned AG-80. Based on the site zoning, the land possesses 100% habitat value in its existing condition (reference **Table IS-10)**. In accordance with the methodology, rezoning the site to AR-5 will reduce the habitat value to 0%, which represents a 100% loss of foraging habitat value. To offset this impact, the developer will be required to provide 19.98 acres of mitigation. This mitigation will compensate for the loss of Swainson's hawk foraging habitat. Mitigation can be accomplished by using the County's Swainson's Hawk Impact Mitigation Program or by implementing a mitigation plan acceptable to California Fish and Wildlife. Mitigation measures that compensate for the loss of Swainson's hawk foraging habitat will reduce singular and cumulative impacts to ***less than significant***.

OTHER MIGRATORY BIRDS AND RAPTORS

There is suitable habitat for other migratory birds and raptors, including Cooper's hawk, ferruginous hawk, northern harrier, loggerhead shrike, and whited tailed-kite within and adjacent to the study area (Biological Resources Assessment Area West Environmental, Inc. Biological Resource Assessment Gay Road, Page 23, September 2022). No nests were observed during onsite surveys. The grassland within and adjacent to the Project site could provide suitable foraging habitat and trees and shrubs within and adjacent to the Study Area could provide suitable nesting habitat for migratory birds and raptors.

NESTING BIRDS OF PREY

This section addresses raptors that are not listed as endangered, threatened, or of special concern, but are nonetheless afforded general protections by the Fish and Game Code. Raptors and their active nests are protected by the California Fish and Game Code Section 3503.5, which states: It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey, or raptors) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Section 3(19) of the Federal Endangered Species Act defines the term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Causing a bird to abandon an active nest may cause harm to egg(s) or chick(s) and is therefore considered "take." Thus, take may occur both as a result of cutting down a tree or as a result of activities nearby an active nest which cause nest abandonment.

Raptors within the Sacramento region include tree-nesting species such as the red-tailed hawk and red-shouldered hawk, as well as ground-nesting species such as the northern harrier. The following raptor species are identified as "special animals" due to concerns over nest disturbance: Cooper's hawk, sharp-shinned hawk, golden eagle, northern harrier, and white-tailed kite. There is suitable habitat for nesting birds of prey/raptors within the project site and study area. No nests were observed during onsite surveys. The grassland within and adjacent to the project site could provide suitable foraging habitat and trees and shrubs within and adjacent to the study area could provide suitable nesting habitat for nesting raptors.

To avoid impacts to nesting raptors, mitigation involves pre-construction nesting surveys within 500 feet of construction to identify any active nests and to implement avoidance measures if nests are found – if construction will occur during the nesting season of February 1 to September 15. The purpose of the survey requirement is to ensure that construction activities do not agitate or harm nesting raptors, potentially resulting in nest abandonment or other harm to nesting success. If nests are found, the developer is required to contact California Fish and Wildlife to determine what measures need to be implemented in order to ensure that nesting raptors remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. If no active nests are found during the focused survey, no further mitigation will be required. Mitigation will ensure that impacts to nesting raptors will be ***less than significant.***

BATS

There are many bat species which can be found in Sacramento County, the following of which are listed as special animals: pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii townsendii),* western red bat (*Lasiurus blossevillii*), and Yuma myotis bat (*Myotis yumanensis*). The pallid bat and western red bat are state-listed Species of Special Concern, while the Yuma myotis is a special animal. All three bat species roost within either natural or human-made structures, such as caves, mines, crevices (including under bridges), hollow trees, and in abandoned or seldom-used buildings. Young are born to the species in the spring and early summer (maternity colonies typically begin to form in April, and births occur from May through early July, depending on the species). Threats to the species include loss of foraging and roosting habitat, and disruption of maternity colonies.

County policies and ordinances already require one-to-one replacement of most large-scale grassland habitat (for the Swainson’s hawk) and for wetland habitats, which will also act to conserve bat foraging habitat. Given the wide range of habitats suitable for foraging and the presence of County policies which will continue to ensure the mitigation of the most common types of foraging habitat in the County, the loss of this habitat is of less concern than would be the loss of the more specialized roosting habitat or the disruption of maternity colonies.

Trees in and adjacent to the Project site provide roosting habitat for special-status bats, such as western red bat, and bats protected by California Fish and Game Code Section 4150. There is moderate potential for bats to occur within the study area. However, given that there are already residences, people, and agricultural activities going on in the vicinity of these trees, it is unlikely that the project will cause a disturbance to roosting bat colonies. Therefore, impacts to bats would be ***less than significant.***

VERNAL POOL CRUSTACEANS

There are a variety of invertebrate species which rely on vernal pools and similar seasonal wetland habitat. Species associated with vernal pools include California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp,

and Ricksecker's water scavenger beetle. All of the these species spend their life cycle within the margins of the vernal pool. None of these species are readily observed through casual observation. Thus, lack of recorded sightings is not cause to conclude that the species is not present. If suitable habitat is present, the species should be assumed to be present unless surveys have found the species to be absent. Discussion of the California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp are grouped under the heading of Vernal Pool Crustaceans, because the survey protocols and mitigation requirements are applied to all four species.

According to the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (vernal pool recovery plan)[2], California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp use the same habitat types, though California linderiella tends to prefer deeper pools. The shrimp feed on algae, bacteria, protozoa, rotifers and bits of detritus. The females carry their eggs in a ventral brood sac until they are dropped to the bottom of the pool, or the mother dies and sinks. At the end of the rainy season, as the pool dries up, the eggs remain in a dormant stage in the dried pool until the rains of the next season, or other environmental stimuli cause them to hatch. Cysts will hatch when the pool refills, although not all cysts present will hatch during the following rainy season, and they may remain dormant in the soil for multiple seasons.

Survey requirements and mitigation protocols published by U.S. Fish and Wildlife Service ("Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods" published April 19, 1996 and the Programmatic Formal Endangered Species Act Consultation published on February 28, 1996) are only required by U.S. Fish and Wildlife Service for the two species listed under the ESA: vernal pool fairy shrimp and vernal pool tadpole shrimp. However, the discussions and mitigation below apply them to the two Species of Concern, California linderiella and midvalley fairy shrimp. Surveys to determine presence or absence of the species must include either 2 years of wet season surveys completed within a 5-year period or consecutive wet season and dry season surveys. In the absence of surveys, presence should be assumed.

A U.S. Fish and Wildlife Service programmatic consultation was published for vernal pool fairy shrimp and vernal pool tadpole shrimp on February 28, 1996. Programmatic consultation can only be used by Projects involving a maximum impact of one acre; all other projects must be individually permitted through the Army Corps and the U.S. Fish and Wildlife Service, but it is reasonable to assume that vernal pool avoidance and mitigation requirements developed during the individual permitting process would be similar to those found in the programmatic consultation.

[2] United States Fish and Wildlife Service, "Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon", December 2005.

Vernal pool habitats may be subject to either direct or indirect impacts. Indirect impacts may be caused because development in proximity of a vernal pool could deliver runoff polluted with urban contaminants and introduce non-native species associated with development landscaping. Development may also reduce the size of the watershed which supports the vernal pool, by diverting runoff which once went into the vernal pool into a storm drainage system. This watershed reduction could cause a reduction in the depth and/or duration of ponding. Shorter inundation durations may mean a change in pool temperature, depth, and pH. Features that may have been utilized by species that required specific inundation durations for the completion of breeding cycles may no longer provide suitable habitat.

RICKSECKER'S WATER SCAVENGER BEETLE

The Ricksecker's water scavenger beetle is an aquatic beetle that lives in weedy, shallow, open water, associated with freshwater seeps, springs, farm ponds, vernal pools, and slow-moving stream habitats. The U.S. Fish and Wildlife species profile[3] only contains listing status and a general map, as little is known about the life history of the species. It is listed primarily due to its association with in-decline habitats, rather than based on known population trends. The beetle is known to co-occur with vernal pool fairy shrimp.

Neither survey nor mitigation protocols for this species have been published by U.S. Fish and Wildlife. Since population trends have not been well established, it is unclear to what extent the species relies on the rarer vernal pool and seasonal wetland habitats versus more abundant surface water types. For the purposes of this analysis, it is assumed that local populations of the species have at least some dependency on vernal pool and seasonal wetland habitats, since this is the more conservative assumption.

PROJECT IMPACT

There are two small disturbed seasonal wetlands within the study area (SW-1 and SW-2) totaling 0.054 acres (reference **Plate IS-8**). These seasonal wetlands are dominated by non-native facultative grasses and may be part of a large complex of wetlands to the west (off-site). The topography of the site is relatively flat with a grade change of two feet over approximately 600 feet. The seasonal wetlands are not directly supported by another hydrologic feature and are likely filled seasonally depending on the amount of rainfall. Future construction of the private road or individual residence would not significantly disrupt the hydrologic function of the season wetlands. Therefore, if vernal pool invertebrates utilize the seasonal wetlands, they would not be impacted.

The seasonal wetlands are located along the perimeter within the parcel setback boundaries, No development or fill is proposed within the seasonal wetlands. A 50-foot buffer around the seasonal wetlands is recommended to ensure these features are not

[3] http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=I0FE

impacted (reference **Plate IS-9**). Impacts to vernal pool invertebrates are ***less than significant with mitigation***.

RARE PLANTS

A variety of plant species are adapted to the hydrologic and soil conditions present in vernal pools, and generally do not occur elsewhere. Vernal pool habitats have dramatically declined in California, and as a result many of the plant species associated with the habitat have likewise declined. Vernal pool-associated special-status plant species found in Sacramento County are: Ahart's dwarf rush, Boggs Lake hedge-hyssop, dwarf downingia, legenere, pincushion navarretia, Sacramento Orcutt grass, and slender Orcutt grass.

The project site contains seasonal wetlands along the western property line and a single drainage ditch traversing from east to west through the middle of the property. A variety of plant species are adapted to the hydrologic and soil conditions present in vernal pools, and generally do not occur elsewhere. Vernal pool habitats have dramatically declined in California, and as a result many of the plant species associated with the habitat have likewise declined. Vernal pool-associated special-status plant species found in Sacramento County are: Ahart's dwarf rush, Boggs Lake hedge-hyssop, dwarf downingia, legenere, pincushion navarretia, Sacramento Orcutt grass, and slender Orcutt grass. These plant species have a moderate potential to occur on the project site.

The drainage ditch that bisects the property did not contain any special status species when the wetland delineation was performed. Nor does the feature have the hydrological cycle of wet and dry periods to support rare plants associated with vernal pools. Therefore, the proposed access road across the drainage ditch will not impact rare plants.

As stated in the discussion for vernal pool invertebrates, the seasonal wetlands are located within the building setback area and since the topography of the site is flat, the features will not be impacted by parcel development. In order to ensure that these features are not impacts, mitigation is recommended to include a 50-foot buffer.

If project activities occur a minimum of 50 feet from the seasonal wetland , then it may be presumed that impacts to rare plants within the vernal pools will be avoided. With mitigation impacts are ***less than significant*.**

AQUATIC RESOURCES (WATERS AND WETLANDS)

Federal and state regulation (Clean Water Act Sections 404 and 401) uses the term "surface water" to refer to all standing or flowing water which is present above-ground either perennially or seasonally. There are many types of surface waters, but the two major groupings are linear waterways with a bed and bank (streams, rivers, etc.) and wetlands. The Clean Water Act has defined the term wetland to mean "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions". The term "wetlands"

includes a diverse assortment of habitats such as perennial and seasonal freshwater marshes, vernal pools, and wetted swales. The 1987 Army Corps Wetlands Delineation Manual is used to determine whether an area meets the technical criteria for a wetland and is therefore subject to local, State or Federal regulation of that habitat type. A delineation verification by the Army Corps will verify the size and condition of the wetlands and other waters in question, and will help determine the extent of government jurisdiction.

Wetlands are regulated by both the Federal and State government, pursuant to the Clean Water Act Section 404 (federal) and Section 401 (state). The United States Army Corps of Engineers (Army Corps) is generally the lead agency for the federal permit process, and the Regional Water Quality Control Board (Regional Water Board) is generally the lead agency for the state permit process. The Clean Water Act protects all "navigable waters", which are defined as traditional navigable waters that are or were used for commerce, or may be used for interstate commerce; tributaries of covered waters; and wetlands adjacent to covered waters, including tributaries. Isolated wetlands, that is, those wetlands that are not hydrologically connected to other "navigable" surface waters (or their tributaries), are not considered to be subject to the Clean Water Act.

In addition to the Clean Water Act, the state also has jurisdiction over impacts to surface waters through the Porter-Cologne Water Quality Control Act, which does not require that waters be "navigable". For this reason, Federal non-jurisdictional waters – isolated wetlands – can be regulated by the State of California pursuant to Porter-Cologne.

The Clean Water Act establishes a "no net" loss" policy regarding wetlands for the state and federal governments, and General Plan Policy CO-58 establishes a "no net loss" policy for Sacramento County. Pursuant to these policies, any wetlands to be excavated or filled require 1:1 mitigation, and construction within the wetlands cannot take place until the appropriate permit(s) have been obtained from the Army Corps, the U.S. Fish and Wildlife Service (USFWS), the Regional Water Board, the California Department of Fish and Wildlife and any other agencies with authority over surface waters. Any loss of delineated wetlands not mitigated for through the permitting process must be mitigated, pursuant to County policy. Appropriate mitigation may include establishment of a conservation easement over wetlands, purchase of mitigation banking credits, or similar measures.

There are regulatory setbacks established for vernal pools and other seasonal wetlands which may contain vernal pool crustaceans. The purpose of a setback is to buffer the wetland from the indirect impacts of development, such as polluted runoff. There is no regulatory setback for other surface waters, but the County Planning and Environmental Review Division has typically required a minimum 50-foot setback[4]. Maintenance of

[4] Research suggests that some of the most common urban runoff pollutants – including sediment, nitrogen, and phosphorus – can be filtered over this distance by intervening vegetation. Source: McElfish, James M. et al. 2008. Planner's Guide to Wetland Buffers for Local Governments. Environmental Law Institute, Washington, D.C.

these setbacks will avoid indirect impacts to the surface water. A direct impact is the filling or excavation of a surface water. Note that if filling or excavation occurs within any portion of a vernal pool or seasonal wetland, the entire wetland should be considered directly impacted.

PROJECT IMPACTS

There are two small disturbed seasonal wetlands within the study area (SW-1 and SW-2) that account for 0.054 acres of the project site (reference **Plate IS-8**). These wetlands are isolated with no hydrological connection to waters of the U.S. and therefore are not expected to qualify as waters of the U.S. The wetland features do qualify as a potential waters of the state. No development or fill is proposed for the portions of the parcel that contain wetlands and these wetlands are along the perimeter, in the parcel setback boundaries, and easily avoided. A 50-foot buffer around the seasonal wetlands is recommended to ensure these features are not impacted.

A 20-foot access road is proposed to provide access to the four parcels from Gay Road. This access road will cross the drainage ditch and connect to a hammerhead turnaround which will provide access to the two southernmost parcels (see **Plate IS-2: Site Plan**). This road will also include a 40-foot fire and utility easement (10-feet either side of the 20-foot roadway edge). The 40-foot easement will be the allowable zone of impact for the roadway to cross the drainage ditch and to accommodate the 30-inch culvert beneath the access road. Mitigation has been included requiring procurement of regulatory permits, compensation for loss of waters, and construction fencing outside of the work zone. Impacts to waters and wetlands are ***less than significant with mitigation.***

NATIVE TREES – REGULATORY SETTING

Sacramento County has identified the value of its native and landmark trees and has adopted measures for their preservation. The General Plan Conservation Element defines native and landmark trees within the County as:

- Native oak trees - valley oak (*Quercus lobata*), interior live oak (*Quercus wislizenii*), blue oak (*Quercus douglasii*), or oracle oak (*Quercus morehus*).

- Landmark tree - an especially prominent or stately tree on any land in Sacramento County, including privately owned land.

It should be noted that to be considered a tree, as opposed to a seedling or sapling, the tree must have a diameter at breast height (dbh) of at least 6 inches or, if it has multiple trunks of less than 6 inches each, a combined dbh of 10 inches. Specific policies of the Sacramento County General Plan Conservation Element, CO-138 and CO-139, provide protections for native trees:

> CO-138. Protect and preserve non-oak native trees along riparian areas if used by Swainson's Hawk, as well as landmark and native oak trees measuring a minimum of 6 inches in diameter or 10 inches aggregate for multi-trunk trees at 4.5 feet above ground.

> CO-139. Native trees other than oaks, which cannot be protected through development, shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed.

Native trees other than oaks include Fremont cottonwood (*Populus fremontii*), California sycamore (*Platanus racemosa*), California black walnut (*Juglans californica var. hindsii*), Oregon ash (*Fraxinus latifolia*), western redbud (*Cercis occidentalis),* gray pine (*Pinus sabiniana*), California white alder (*Alnus rhombifolia*), boxelder (*Acer negundo*), California buckeye (*Aesculus californica*), narrowleaf willow (*Salix exigua*), Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), shining willow (*Salix lucida*), Pacific willow (*Salix lasiandra*), and dusky willow (*Salix melanopsis*).

TREE INVENTORY

Area West prepared a tree inventory for the project site and identified the species, size, and location of onsite and overhanging offsite trees (reference Appendix B). All trees (4) inches or grater diameter at breast height (dbh) and all multi-trunk trees with an aggregate dbh of 10 inches or greater were included in the inventory.

Three tree species were observed within the project site. Two narrow-leaf willow saplings were observed in the southern wetland feature. These saplings each had several stems, all of which had a dbh less than 3 inches. Due to the dbh being less than 4 inches, the willow saplings were not mapped. Two valley oak trees and one black walnut tree were observed near the center of the eastern boundary of the Project site. Only the black walnut and valley oak trees had a dbh greater than 4 inches and were therefore mapped and are summarized in below (reference **Table IS-11** and **Plate IS-7**). All trees are afforded protection under General Plan policies.

Table IS-11: Trees identified at the Project Site

Tree #	Species	Common Name	DBH*	Protected? (Yes/No)
1	*Quercus lobata*	Valley oak	8,4,6,3	Yes
2	*Juglans hindsii*	Black walnut	12	Yes
3	*Quercus lobata*	Valley oak	18.5, 18	Yes

* The dbh of each trunk is listed in the table above and separated by commas for each multi-trunk tree. The dbh of each trunk on muti-trunk trees was added together to determine if the tree would be considered a protected tree by the County.

DISCUSSION OF PROJECT IMPACTS

None of the trees on the project site are proposed for removal and no structures are proposed within the driplines of protected trees. However, since exact improvement or building plans are not known at this time, tree protection measures during construction are recommended to ensure impacts to native trees remain less than significant.

Impacts to native trees due to potential encroachment during construction, or due to potential removal during the building plan and improvement stage are ***less than significant.***

Plate IS-7: Tree Locations

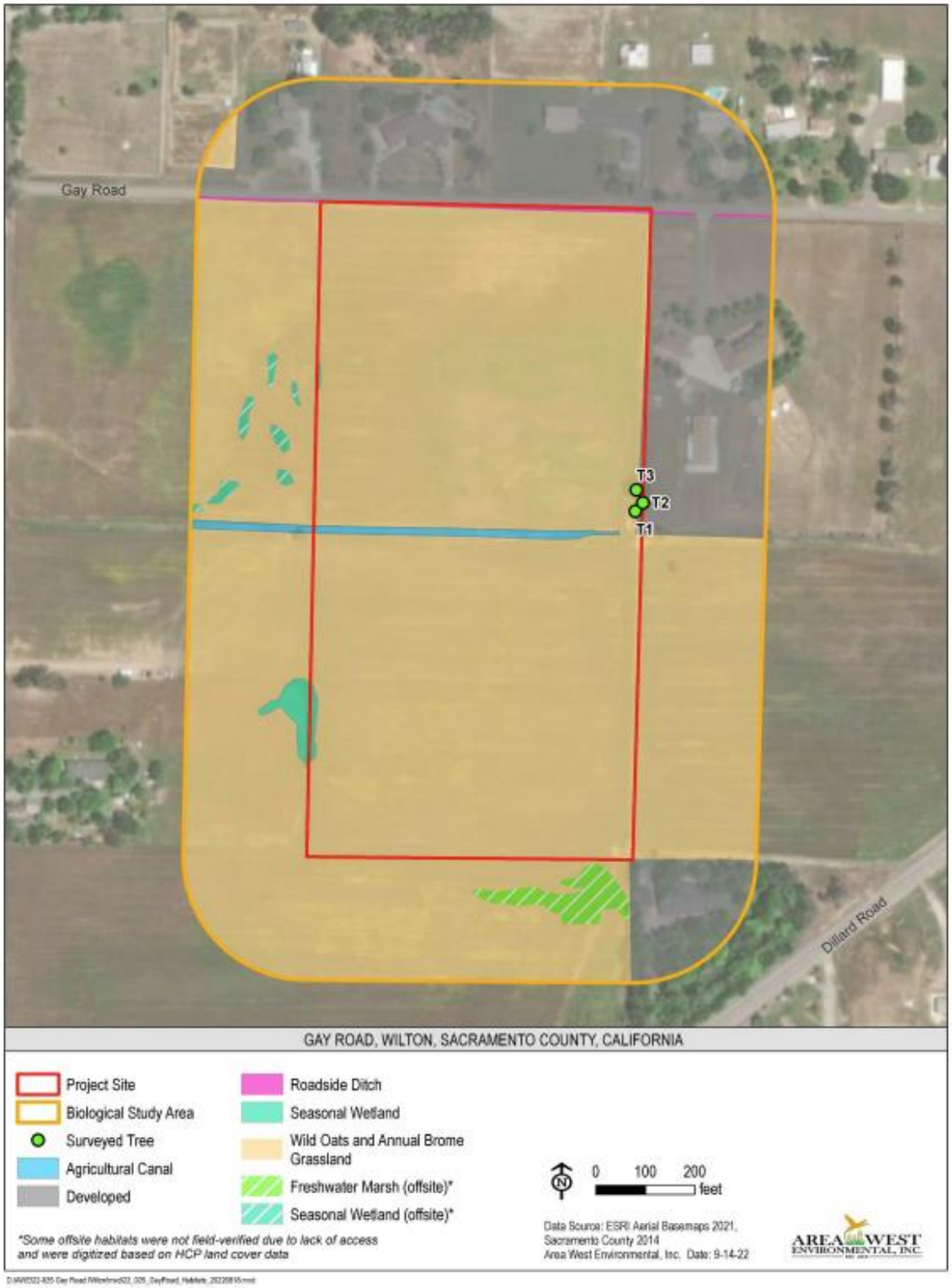


Plate IS-8: Aquatic Features

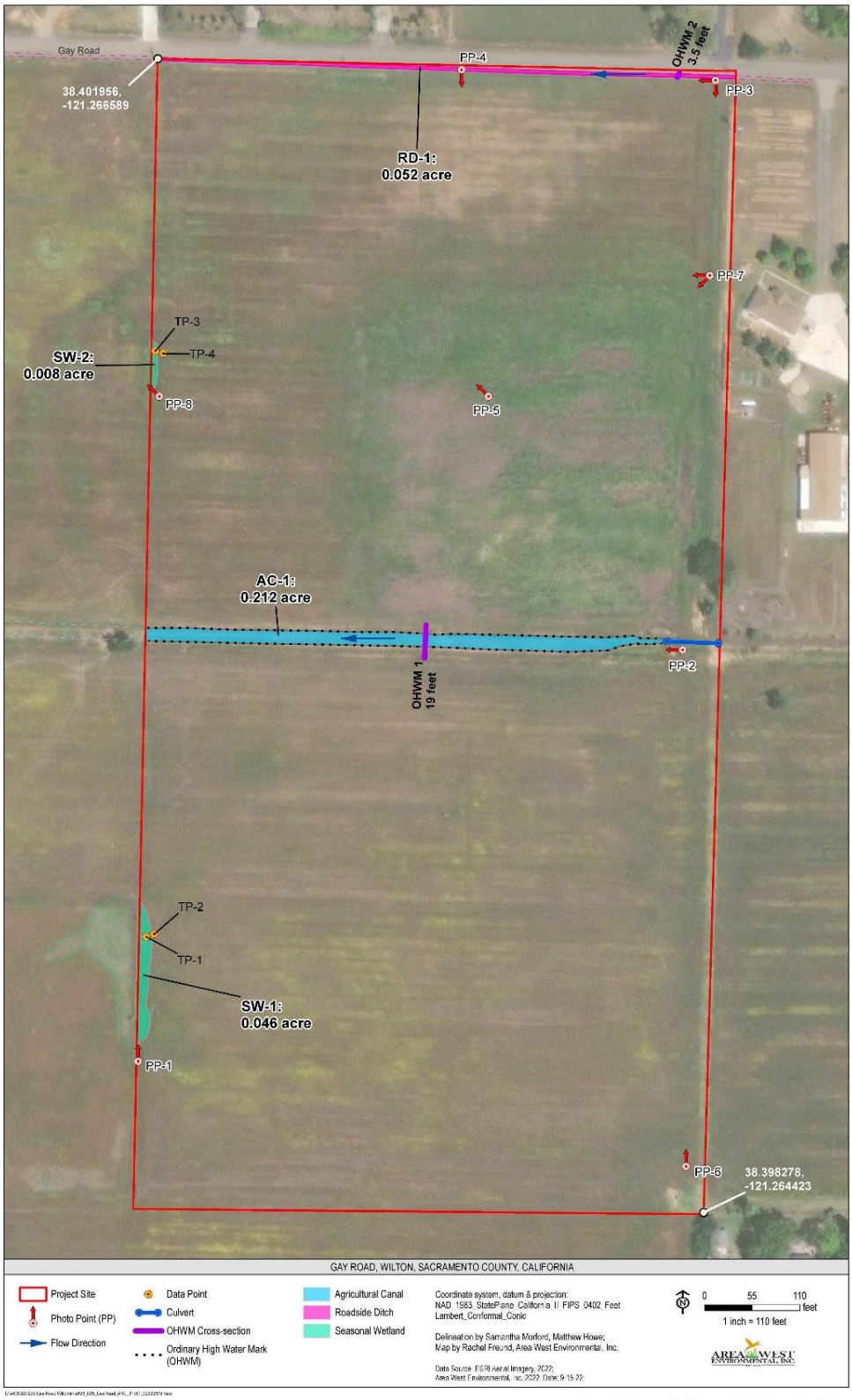


Figure 3. Aquatic Resource Delineation Map

Plate IS-9: Aquatic Features with 50-foot buffer

GREENHOUSE GAS EMISSIONS

This section supplements the Initial Study Checklist by analyzing if the proposed project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy or regulation for the purpose of reducing the emission of greenhouse gases.

REGULATORY BACKGROUND

California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this establishes a broad framework for the State's long-term GHG reduction and climate change adaptation program. Of particular importance is AB 32, which establishes a statewide goal to reduce GHG emissions back to 1990 levels by 2020, and Senate Bill (SB) 375 supports AB 32 through coordinated transportation and land use planning with the goal of more sustainable communities. SB 32 extends the State's GHG policies and establishes a near-term GHG reduction goal of 40% below 1990 emissions levels by 2030. Executive Order (EO) S-03-05 identifies a longer-term goal for 2050.[5]

COUNTY OF SACRAMENTO CLIMATE ACTION PLANNING

In November of 2011, Sacramento County approved the Phase 1 Climate Action Plan Strategy and Framework document (Phase 1 CAP), which is the first phase of developing a community-level Climate Action Plan. The Phase 1 CAP provides a framework and overall policy strategy for reducing greenhouse gas emissions and managing our resources in order to comply with AB 32. It also highlights actions already taken to become more efficient, and targets future mitigation and adaptation strategies. This document is available at http://www.green.saccounty.net/Documents/sac_030843.pdf. The CAP contains policies/goals related to agriculture, energy, transportation/land use, waste, and water.

Goals in the section on agriculture focus on promoting the consumption of locally-grown produce, protection of local farmlands, educating the community about the intersection of agriculture and climate change, educating the community about the importance of open space, pursuing sequestration opportunities, and promoting water conservation in agriculture. Actions related to these goals cover topics related to urban forest management, water conservation programs, open space planning, and sustainable agriculture programs.

[5] EO S-03-05 has set forth a reduction target to reduce GHG emissions by 80 percent below 1990 levels by 2050. This target has not been legislatively adopted.

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

Goals in the section on transportation/land use cover a wide range of topics but are principally related to reductions in vehicle miles traveled, usage of alternative fuel types, and increases in vehicle efficiency. Actions include programs to increase the efficiency of the County vehicle fleet, and an emphasis on mixed use and higher density development, implementation of technologies and planning strategies that improve non-vehicular mobility.

Goals in the section on waste include reductions in waste generation, maximizing waste diversion, and reducing methane emissions at Kiefer landfill. Actions include solid waste reduction and recycling programs, a regional composting facility, changes in the waste vehicle fleet to use non-petroleum fuels, carbon sequestration at the landfill, and methane capture at the landfill.

Goals in the section on water include reducing water consumption, emphasizing water efficiency, reducing uncertainties in water supply by increasing the flexibility of the water allocation/distribution system, and emphasizing the importance of floodplain and open space protection as a means of providing groundwater recharge. Actions include metering, water recycling programs, water use efficiency policy, water efficiency audits, greywater programs/policies, river-friendly landscape demonstration gardens, participation in the water forum, and many other related measures.

The Phase 1 CAP is a strategy and framework document. The County adopted the Phase 2A CAP (Government Operations) on September 11, 2012. Neither the Phase 1 CAP nor the Phase 2A CAP are “qualified” plans through which subsequent projects may receive CEQA streamlining benefits. The Communitywide CAP (Phase 2B) has been in progress for some time (https://planning.saccounty.net/PlansandProjectsIn-Progress/Pages/CAP.aspx) but was placed on hold in late 2018 pending in-depth review of CAP-related litigation in other jurisdictions.

The commitment to a Communitywide CAP is identified in General Plan Policy LU-115 and associated Implementation Measures F through J on page 117 of the General Plan Land Use Element. This commitment was made in part due to the County’s General Plan Update process and potential expansion of the Urban Policy Area to accommodate new growth areas. General Plan Policies LU-119 and LU-120 were developed with SACOG to be consistent with smart growth policies in the SACOG Blueprint, which are intended to reduce VMT and GHG emissions. This second phase CAP is intended to flesh out the strategies involved in the strategy and framework CAP, and will include economic analysis, intensive vetting with all internal departments, community outreach/information sharing, timelines, and detailed performance measures. County Staff prepared a final draft of the CAP, which was heard at the Planning Commission on October 25, 2021. The CAP was brought to the Board of Supervisors (BOS) as a workshop item on March 23, 2022. The CAP was revised based upon input received

from the BOS and a final CAP was brought back before the BOS for approval, on September 27, 2022. Based on comments received, Sacramento County revised the CAP and released a Subsequent Environmental Impact Report to analyze the potential impacts of the revised CAP. The revised CAP will be presented to the Board of Supervisors late 2024 for adoption

Thresholds of Significance

Addressing GHG generation impacts requires an agency to make a determination as to what constitutes a significant impact. Governor's Office of Planning and Research's (OPR's) Guidance does not include a quantitative threshold of significance to use for assessing a proposed development's GHG emissions under CEQA. Moreover, CARB has not established such a threshold or recommended a method for setting a threshold for proposed development-level analysis.

In April 2020, SMAQMD adopted an update to their land development project operational GHG threshold, which requires a project to demonstrate consistency with CARB's 2017 Climate Change Scoping Plan. The Sacramento County Board of Supervisors adopted the updated GHG threshold in December 2020. SMAQMD's technical support document, "Greenhouse Gas Thresholds for Sacramento County", identifies operational measures that should be applied to a project to demonstrate consistency.

All projects must implement Tier 1 Best Management Practices to demonstrate consistency with the Climate Change Scoping Plan. After implementation of Tier 1 Best Management Practices, project emissions are compared to the operational land use screening levels table (equivalent to 1,100 metric tons of CO_2e per year). If a project's operational emissions are less than or equal to 1,100 metric tons of CO_2e per year after implementation of Tier 1 Best Management Practices, the project will result in a less than cumulatively considerable contribution and has no further action. Tier 1 Best Management Practices include:

- BMP 1 – no natural gas: projects shall be designed and constructed without natural gas infrastructure.
- BMP 2 – electric vehicle (EV) Ready: projects shall meet the current CalGreen Tier 2 standards.
    - EV Capable requires the installation of "raceway" (the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s)
    - EV Ready requires all EV Capable improvements plus installation of dedicated branch circuit(s) (electrical pre-wiring), circuit breakers, and other electrical components, including a receptacle (240-volt outlet) or blank cover needed to support future installation of one or more charging stations

Projects that implement BMP 1 and BMP 2 can utilize the screening criteria for operation emissions outlined in Table IS-12. Projects that do not exceed 1,100 metric tons per year are then screened out of further requirements. For projects that exceed 1,100 metric tons per year, then compliance with BMP 3 is also required:

- BMP 3 – Reduce applicable project VMT by 15% residential and 15% worker relative to Sacramento County targets, and no net increase in retail VMT. In areas with above-average existing VMT, commit to provide electrical capacity for 100% electric vehicles.

SMAQMD's GHG construction and operational emissions thresholds for Sacramento County are shown in **Table IS-12**.

Table IS-12: SMAQMD Thresholds of Significance for Greenhouse Gases

Land Development and Construction Projects		
	Construction Phase	Operational Phase
Greenhouse Gas as CO_2e	1,100 metric tons per year	1,100 metric tons per year
Stationary Source Only		
	Construction Phase	Operational Phase
Greenhouse Gas as CO_2e	1,100 metric tons per year	10,000 metric tons per year

Project Impacts

Construction-Generated Greenhouse Gas Emissions

GHG emissions associated with the project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. The project is within the screening criteria for construction related impacts related to air quality. Therefore, construction-related GHG impacts are considered ***less than significant***.

Operational Phase Greenhouse Gas Emissions

The project is located within a portion of the County where piped natural gas is not available. The modeling used to develop the GHG thresholds did not include individual propane use by residences located outside the urban services area; therefore, BMP 1 is not applicable to this project. The project will implement BMP 2 in its entirety. As such, the project can be compared to the operational screening table. The number of new residences is less than 56 dwelling units and therefore operational emissions associated with the project are assumed to be less than 1,100 MT of CO_2e per year. Mitigation has been included such that the project will implement BMP 2. The impacts from GHG emissions are ***less than significant with mitigation***.

Environmental Mitigation Measures

The following Mitigation Measures are critical to ensure that identified significant impacts of the project are reduced to a level of less than significant. Pursuant to Section 15074.1(b) of the CEQA Guidelines, each of these measures must be adopted exactly as written unless both of the following occur: (1) A public hearing is held on the proposed changes; (2) The hearing body adopts a written finding that the new measure is equivalent or more effective in mitigating or avoiding potential significant effects and that it in itself will not cause any potentially significant effect on the environment.

As the applicant, or applicant's representative, for this project, I acknowledge that project development creates the potential for significant environmental impact and agree to implement the mitigation measures listed below, which are intended to reduce potential impacts to a less than significant level.

Applicant _____ Date: _____

Mitigation Measure AQ-1: Basic Construction Emissions Control Practices

The following Basic Construction Emissions Control Practices are considered feasible for controlling fugitive dust from a construction site. The practices also serve as best management practices (BMPs), allowing the use of the non-zero particulate matter significance thresholds.

Control of fugitive dust is required by District Rule 403 and enforced by District staff.

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel-powered equipment. The California Air Resources Board (CARB) enforces idling limitations and compliance with diesel fleet regulations.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.

- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic.

Mitigation Measure BIO-1: Monarch Butterfly

- Prior to construction within the central drainage ditch, a qualified botanist shall survey the construction are to determine if there are milkweed plants present. If there are no milkweed plants present within the construction footprint, no further measures are required. If milkweed plants are located within the proposed construction area, consistent with the U.S. Fish and Wildlife Service's voluntary conservation measures, the applicant shall enhance habitat along the drainage ditch by planting native, insecticide-free milkweed, including early-emerging species (e.g., Asclepias vestita, A. californica, A. cordifolia, A. erosa). A planting plan with seed varietals, quantity (pounds per acre), and location shall be submitted to the Environmental Coordinator for review and approval.

Mitigation Measure BIO -2: Burrowing Owl

- Prior to the commencement of construction activities (which includes clearing, grubbing, or grading) within 500 feet of suitable burrow habitat, a survey for burrowing owl shall be conducted by a qualified biologist. The survey shall occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat. Surveys shall be conducted in accordance with the following:

- A survey for burrows and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 meters (~500 feet) of the project impact zone.

- Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (~100 feet) and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 50 meters (~160 feet) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons.

- If no occupied burrows or burrowing owls are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the Environmental Coordinator and no further mitigation is necessary.

- If occupied burrows or burrowing owls are found, then a complete burrowing owl survey is required. This consists of a minimum of four site visits conducted on four separate days, which must also be consistent with the Survey Method, Weather Conditions, and Time of Day sections of Appendix B of the California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012). Submit a survey report to the Environmental Coordinator which is consistent with the Survey Report section of Appendix B of the California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012).

- If occupied burrows or burrowing owls are found the applicant shall contact the Environmental Coordinator and consult with California Fish and Wildlife prior to construction, and will be required to submit a Burrowing Owl Mitigation Plan (subject to the approval of the Environmental Coordinator and in consultation with California Fish and Wildlife). This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success. The California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012) should be used in the development of the mitigation plan.

MITIGATION MEASURE BIO-3: SWAINSON'S HAWK NESTING SURVEY (TAC 2000)

If construction, grading, or project-related improvements are to commence between February 1 and September 15, focused surveys for Swainson's hawk nests shall be conducted by a qualified biologist within a ½-mile radius of project activities, in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk TAC 2000). To meet the minimum level of protection for the species, surveys should be completed for the two survey periods immediately prior to commencement of construction activities in accordance with the 2000 TAC recommendations. If active nests are found, CDFW shall be contacted to determine appropriate protective measures, and these measures shall be implemented prior to the start of any ground-disturbing activities. If no active nests are found during the focused survey, no further mitigation will be required.

MITIGATION MEASURE BIO-4: SWAINSON'S HAWK FORAGING HABITAT

Prior to any site disturbance, such as clearing or grubbing, the issuance of any permits for grading, building, or other site improvements, or recordation of a final map, whichever occurs first, or, if only a rezone is requested, prior to final adoption of the zoning agreement, implement one of the following options to mitigate for the loss of 19.98± acres of Swainson's hawk foraging habitat on the project site:

1. The project proponent shall utilize one or more of the mitigation options (land dedication and/or fee payment) established in Sacramento County's Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code).

2. The project proponent shall, to the satisfaction of the California Fish and Wildlife, prepare and implement a Swainson's hawk mitigation plan that will include preservation of Swainson's hawk foraging habitat.

3. Should the County Board of Supervisors adopt a Swainson's hawk mitigation policy/program (which may include a mitigation fee payable prior to issuance of building permits) prior to the implementation of one of the measures above, the project proponent may be subject to that program instead.

Mitigation Measure BIO-5: Raptor Nest Protection

If construction activity (which includes clearing, grubbing, or grading) is to commence within 500 feet of suitable nesting habitat between February 1 and September 15, a survey for raptor nests shall be conducted by a qualified biologist. The survey shall cover all potential tree and ground nesting habitat on-site and off-site up to a distance of 500 feet from the project boundary. The survey shall occur within 7 days of the date that construction will encroach within 500 feet of suitable habitat. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no active nests are found during the survey, no further mitigation will be required. If any active nests are found, the Environmental Coordinator and California Fish and Wildlife shall be contacted to determine appropriate avoidance/protective measures. The avoidance/protective measures shall be implemented prior to the commencement of construction within 500 feet of an identified nest.

Mitigation Measure BIO -6: Migratory Bird Nest Protection

1.

Mitigation Measure BIO-7: Wetland and Waters compensation

To compensate for the permanent loss of wetlands or jurisdictional waters, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Wildlife:

A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands or jurisdictional waters. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.

B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands or jurisdictional waters, the Project applicant shall demonstrate

that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

Mitigation Measure BIO-8: Surface Water Protection

The aquatic features, or portions of aquatic features, not proposed to be permanently impacted shall have an established setback of 50 feet to ensure the features are not directly or indirectly impacted. Construction and silt fencing shall be placed on either side of the aquatic feature and the area shall be clearly demarcated on all construction plans as environmentally sensitive. For areas where construction is within the aquatic feature, temporary construction and silt fencing shall be placed at the edge of construction limits. A qualified biologist shall oversee the placement of temporary construction and silt fencing when aquatic features are present.

Mitigation Measure BIO-9: Native Tree Protection

All on site oak trees or portions of adjacent off-site oak trees that have driplines that extend onto the project site, and all off-site oak trees which may be impacted by utility installation and/or improvements associated with this project, shall be preserved and protected as follows:

a. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of each tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of each tree. Removing limbs that make up the dripline does not change the protected area.

b. Any protected trees on the site that require pruning shall be pruned by a certified arborist prior to the start of construction work. All pruning shall be in accordance with the American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) “Tree Pruning Guidelines.”

c. Temporary protective fencing shall be installed at least one foot outside the driplines of the oak trees prior to the start of construction work, in order to avoid damage to the trees and their root systems. Protective fencing shall be installed at one foot from the limit of work for retaining wall construction. Protective fencing must be maintained through the duration of construction.

d. No signs, ropes, cables (except those which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the protected trees. Small metallic numbering tags for the purpose of preparing tree reports and inventories shall be allowed.

e. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of protected trees.

f. No grading (grade cuts or fills) shall be allowed within the driplines of oak trees. Grade cuts for the proposed retaining wall shall be performed under direct supervision of a certified arborist.

g. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of any protected tree.

h. No trenching shall be allowed within the driplines of protected trees. If it is absolutely necessary to install underground utilities within the dripline of a protected tree, the utility line shall be bored and jacked under the supervision of a certified arborist.

i. The construction of impervious surfaces within the driplines of protected trees shall be stringently minimized. When it is absolutely necessary, a piped aeration system per County standard detail shall be installed under the supervision of a certified arborist.

j. No sprinkler or irrigation system shall be installed in such a manner that sprays water or requires trenching within the driplines of protected trees. An above ground drip irrigation system is recommended.

k. Landscaping beneath oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. The only plant species which shall be planted within the driplines of oak trees are those which are tolerant of the natural semi-arid environs of the trees. A list of such drought-tolerant plant species is available from the Office of Planning Environmental Review. Limited drip irrigation approximately twice per summer is recommended for the understory plants.

Mitigation Measure BIO-10: Native Tree Removal

If native trees are proposed for removal during the building plan and improvement phase of the Project, then the removal of (number) inches dbh of native trees shall be compensated for by planting in-kind native trees equivalent to the dbh inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. On-site preservation of native trees that are less than 6 inches (<6 inches) dbh, may also be used to meet this compensation requirement. Native trees include: valley oak (Quercus lobata), interior live oak (Quercus wislizenii), blue oak (Quercus douglasii), or oracle oak (Quercus morehus), California sycamore (Platanus racemosa), California black walnut (Juglans californica), Oregon ash (Fraxinus latifolia), western redbud (Cercis occidentalis), gray pine (Pinus sabiniana), California white alder (Alnus rhombifolia), boxelder (Acer negundo), California buckeye (Aesculus californica), narrowleaf willow (Salix exigua), Gooding's willow (Salix gooddingii), red willow (Salix

laevigata), arroyo willow (Salix lasiolepis), shining willow (Salix lucida), Pacific willow (Salix lasiandra), and dusky willow (Salix melanopsis).

Replacement tree planting shall be completed prior to approval of grading or improvement plans, whichever comes first. A total of (number) inches will require compensation.

Equivalent compensation based on the following ratio is required:

- one preserved native tree < 6 inches dbh on-site = 1-inch dbh
- one D-pot seedling (40 cubic inches or larger) = 1-inch dbh
- one 15-gallon tree = 1-inch dbh
- one 24-inch box tree = 2 inches dbh
- one 36-inch box tree = 3 inches dbh

Prior to the approval of Improvement Plans or Building Permits, whichever occurs first, a Replacement Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the Environmental Coordinator for approval. The Replacement Tree Planting Plan(s) shall include the following minimum elements:

1. Species, size and locations of all replacement plantings and < 6-inch dbh trees to be preserved
2. Method of irrigation
3. If planting in soils with a hardpan/duripan or claypan layer, include the Sacramento County Standard Tree Planting Detail L-1, including the 10-foot-deep boring hole to provide for adequate drainage
4. Planting, irrigation, and maintenance schedules;
5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement trees which do not survive during that period.
6. Designation of 20-foot root zone radius and landscaping to occur within the radius of trees < 6 inches dbh to be preserved on-site.

No replacement tree shall be planted within 15 feet of the driplines of existing native trees or landmark size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement native trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing).

Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single-family lots (including front yards), and roadway medians.

Native trees <6 inches dbh to be retained on-site shall have at least a 20-foot radius suitable root zone. The suitable root zone shall not have impermeable surfaces, turf/lawn, dense plantings, soil compaction, drainage conditions that create ponding (in the case of oak trees), utility easements, or other overstory tree(s) within 20 feet of the tree to be preserved. Trees to be retained shall be determined to be healthy and structurally sound for future growth, by an ISA Certified Arborist subject to Environmental Coordinator approval.

If tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of $325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.

Mitigation Measure CUL-1: Cultural Resources Unanticipated Discoveries

In the event that human remains are discovered in any location other than a dedicated cemetery, work shall be halted and the County Coroner contacted. For all other potential tribal cultural resources [TCRs], archaeological, or cultural resources discovered during project's ground disturbing activities, work shall be halted until a qualified archaeologist and/or tribal representative may evaluate the resource.

1. Unanticipated human remains. Pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, if a human bone or bone of unknown origin is found during construction, all work is to stop and the County Coroner and the Office of Planning and Environmental Review shall be immediately notified. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposition of, with appropriate dignity, the human remains and any associated grave goods.
2. Unanticipated cultural resources. In the event of an inadvertent discovery of cultural resources (excluding human remains) during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is

required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.

a. Work cannot continue within the 100-foot radius of the discovery site until the archaeologist and/or tribal monitor conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.

b. If a potentially-eligible resource is encountered, then the archaeologist and/or tribal monitor, Planning and Environmental Review staff, and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the County Environmental Coordinator as verification that the provisions of CEQA for managing unanticipated discoveries have been met.

Mitigation Measure TCR-1: Unanticipated Discoveries TCRs

1. If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within 100 feet of the find. A Tribal Representative from culturally affiliated tribes shall be immediately notified and shall determine if the find is a TCR (PRC §21074). The Tribal Representative will make recommendations regarding the treatment of the discovery. Preservation in place is the preferred alternative under CEQA and UAIC protocols, and every effort must be made to preserve the resources in place, including through project redesign.
2. Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of the CEQA, including AB 52, has been satisfied.
3. The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary.

Mitigation Measure GHG-1: Greenhouse Gases BMPs

The project is required to incorporate the following Tier 1 Best Management Practices (BMPs)

- BMP 1: Electric vehicle ready: Projects shall meet the current CalGreen Tier 2 standards, except all EV Capable spaces shall instead by EV Ready.
    - EV Capable requires the installation of "raceway" (the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) and

adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s)

- EV Ready requires all EV Capable improvements plus installation of dedicated branch circuit(s) (electrical pre-wiring), circuit breakers, and other electrical components, including a receptacle (240-volt outlet) or blank cover needed to support future installation of one or more charging stations

If the project proponent chooses to propose an alternative to the above BMPs, they will need to submit documentation, to the satisfaction of the Environmental Coordinator, demonstrating that the alternatives are equivalent to Tier 1 BMPs. Documentation shall be submitted to the Environmental Coordinator prior to final approval of building permits.

MITIGATION MEASURE COMPLIANCE

Comply with the Mitigation Monitoring and Reporting Program (MMRP) for this project as follows:

1. It shall be the responsibility of the project applicant to reimburse the County for all expenses incurred in the implementation of the Mitigation Monitoring and Reporting Program (MMRP), including any necessary enforcement actions. The applicant shall pay an initial deposit of **$6,700.00**, which includes administrative costs of **$1,103.00**. Over the course of the project, the Office of Planning and Environmental Review will regularly conduct cost accountings and submit invoices to the applicant when the County monitoring costs exceed the initial deposit.

2. Until the MMRP has been recorded and the administrative portion of the MMRP fee has been paid, no final parcel map or final subdivision map for the subject property shall be approved. Until the balance of the MMRP fee has been paid, no encroachment, grading, building, sewer connection, water connection or occupancy permit from Sacramento County shall be approved.

INITIAL STUDY CHECKLIST

Appendix G of the California Environmental Quality Act (CEQA) provides guidance for assessing the significance of potential environmental impacts. Based on this guidance, Sacramento County has developed the following Initial Study Checklist. The Checklist identifies a range of potential significant effects by topical area. The words "significant" and "significance" used throughout the following checklist are related to impacts as defined by the California Environmental Quality Act as follows:

1. Potentially Significant indicates there is substantial evidence that an effect MAY be significant. If there are one or more “Potentially Significant” entries an Environmental Impact Report (EIR) is required. Further research of a potentially significant impact may reveal that the impact is actually less than significant or less than significant with mitigation.

2. Less than Significant with Mitigation applies where an impact could be significant but specific mitigation has been identified that reduces the impact to a less than significant level.

3. Less than Significant or No Impact indicates that either a project will have an impact but the impact is considered minor or that a project does not impact the particular resource.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
1. **LAND USE** - Would the project:					
a. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X		The project stie is zoned AG-80 and currently has no residences on site. The project proposes to divide the 19.04-acre parcel into four new approximately 5 acre-lots and rezone to AR-5. The project is consistent with environmental policies of the Sacramento County General Plan, Southeast herald Community Plan, and Sacramento County Zoning Code.
b. Physically disrupt or divide an established community?			X		The project will not create physical barriers that substantially limit movement within or through the community.
2. **POPULATION/HOUSING -** Would the project:					
a. Induce substantial unplanned population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of infrastructure)?			X		The project is increasing density compared to the current zoning, but it is consistent with and not proposing to change the general plan designation..
b. Displace substantial amounts of existing people or housing, necessitating the construction of replacement housing elsewhere?			X		The project will not result in the removal of existing housing, and thus will not displace substantial amounts of existing housing.
3. **AGRICULTURAL RESOURCES** - Would the project:					
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance or areas containing prime soils to uses not conducive to agricultural production?			X		The project will convert 19.60 acres of Farmland of Local Importance(as noted on the current Sacramento County Important Farmland Map published by the California Department of Conservation) to non-agricultural uses. This conversion of agricultural land does not exceed the significance threshold of 50 acres established by the Sacramento County General Plan.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
b. Conflict with any existing Williamson Act contract?			X		No Williamson Act contracts apply to the project site. The project does not conflict with the provisions of the Williamson Act. Refer to the Agricultural Resources discussion in the Environmental Effects section above.
c. Introduce incompatible uses in the vicinity of existing agricultural uses?			X		Though in an area where agricultural uses occur in the project vicinity, the surrounding parcels are all zoned AG-5. The addition of four agricultural-residential zoned parcels will not conflict with surrounding existing agricultural uses.
4. **AESTHETICS -** Would the project:					
a. Substantially alter existing viewsheds such as scenic highways, corridors or vistas?			X		The project site is located 13.4 miles east of State Highway 160, a designated scenic highway. Therefore, the project does not occur in the vicinity of any scenic highways, corridors, or vistas.
b. In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings?			X		The surrounding topography is flat, and parcels consists of open agricultural pastureland and single-family residences. Development of the site as multiple single-family residences would be consistent with the planned development and zoning of the site. It is acknowledged that aesthetic impacts are subjective and may be perceived differently by various affected individuals. However, given the similar parcels sizes surrounding the proposed project, it is concluded that the project would not substantially degrade the visual character or quality of the project site or vicinity.
c. If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X		The project is not located in an urbanized area.
d. Create a new source of substantial light, glare, or shadow that would result in safety hazards or adversely affect day or nighttime views in the area?			X		The project will not result in a new source of substantial light, glare or shadow that would result in safety hazards or adversely affect day or nighttime views in the area.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
5. **AIRPORTS -** Would the project:					
a. Result in a safety hazard for people residing or working in the vicinity of an airport/airstrip?			X		The project occurs outside of any identified public or private airport/airstrip safety zones.
b. Expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?				X	The project occurs outside of any identified public or private airport/airstrip noise zones or contours.
c. Result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?				X	The project does not affect navigable airspace.
d. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X	The project does not involve or affect air traffic movement.
6. **PUBLIC SERVICES -** Would the project:					
a. Have an adequate water supply for full buildout of the project?			X		Private wells would be required to provide potable water to future development. As proposed, the project could result in the addition of up to four new water wells to serve the project. The introduction of four wells would add incrementally to a documented decline in the groundwater table in the County. The Consumnes Subbasin Groundwater Sustainability Plan was drafted in consultation with the Sacramento County General Plan Land Use designations. The Project is consistent with the Agricultural Residential designation and the addition of four groundwater wells would be consistent density wits with what was considered for the Groundwater Sustainability Plan. See Public Services section discussion above.
b. Have adequate wastewater treatment and disposal facilities for full buildout of the project?			X		Septic systems will be installed on each of the four parcels. Connection to municipal sewer will not be required.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
c. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X		The Kiefer Landfill has capacity to accommodate solid waste until the year 2050.
d. Result in substantial adverse physical impacts associated with the construction of new water supply or wastewater treatment and disposal facilities or expansion of existing facilities?			X		The project will not require construction or expansion of new water supply, wastewater treatment, or wastewater disposal facilities.
e. Result in substantial adverse physical impacts associated with the provision of storm water drainage facilities?			X		Project construction would not require the addition of new stormwater drainage facilities. Existing stormwater drainage facilities are located within existing roadways and other developed areas, and the extension of facilities would take place within areas already proposed for development as part of the project. No significant new impacts would result from stormwater facility extension.
f. Result in substantial adverse physical impacts associated with the provision of electric or natural gas service?			X		Minor extension of utility lines would be necessary to serve the proposed project. Existing utility lines are located along existing roadways and other developed areas, and the extension of lines would take place within areas already proposed for development as part of the project. No significant new impacts would result from utility extension.
g. Result in substantial adverse physical impacts associated with the provision of emergency services?			X		The project would incrementally increase demand for emergency services, but would not cause substantial adverse physical impacts as a result of providing adequate service.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
h. Result in substantial adverse physical impacts associated with the provision of public-school services?			X		The project would result in minor increases to student population; however, the increase would not require the construction/expansion of new unplanned school facilities. Established case law, *Goleta Union School District v. The Regents of the University of California* (36 Cal-App. 4th 1121, 1995), indicates that school overcrowding, standing alone, is not a change in the physical conditions, and cannot be treated as an impact on the environment.
i. Result in substantial adverse physical impacts associated with the provision of park and recreation services?			X		The project will result in increased demand for park and recreation services, but meeting this demand will not result in any substantial physical impacts.
7. **TRANSPORTATION** - Would the project:					
a. Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) – measuring transportation impacts individually or cumulatively, using a vehicles miles traveled standard established by the County?			X		The Sacramento County Department of Transportation issued comments that the project will generate less than 237 daily trips and therefore, does not require a Vehicle Miles Traveled analysis.
b. Result in a substantial adverse impact to access and/or circulation?			X		The project will be required to comply with applicable access and circulation requirements of the County Improvement Standards and the Uniform Fire Code. Upon compliance, impacts are less than significant.
c. Result in a substantial adverse impact to public safety on area roadways?			X		The project will be required to comply with applicable access and circulation requirements of the County Improvement Standards and the Uniform Fire Code. Upon compliance, impacts are less than significant.
d. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X		The project does not conflict with alternative transportation policies of the Sacramento County General Plan, with the Sacramento Regional Transit Master Plan, or other adopted policies, plans or programs supporting alternative transportation.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
8. **AIR QUALITY** - Would the project:					
a. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?		X			The project is within the screening criteria for construction related impacts related to air quality. The project site is less than 35 acres and does not involve buildings more than 4 stories tall; demolition activities; significant trenching activities; an unusually compact construction schedule; cut-and-fill operations; or import or export of soil materials requiring a considerable amount of haul truck activity. Basic Construction Emissions Control Practices have also been included as a mitigation measure with which the project must comply. The project meets the Sacramento Metropolitan Air Quality Management District's screening criteria for PM_{10} and $PM_{2.5}$ and Ozone precursors. Compliance with existing dust abatement rules and standard construction mitigation for vehicle particulates will ensure that construction air quality impacts are less than significant.
b. Expose sensitive receptors to pollutant concentrations in excess of standards?			X		See Response 8.a.
c. Create objectionable odors affecting a substantial number of people?			X		The project will not generate objectionable odors.
9. **NOISE -** Would the project:					
a. Result in generation of a temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the local general plan, noise ordinance or applicable standards of other agencies?			X		The project is not in the vicinity of any uses that generate substantial noise, nor will the completed project generate substantial noise. The project will not result in exposure of persons to, or generation of, noise levels in excess of applicable standards.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
b. Result in a substantial temporary increase in ambient noise levels in the project vicinity?			X		Project construction will result in a temporary increase in ambient noise levels in the project vicinity. This impact is less than significant due to the temporary nature of these activities, limits on the duration of noise, and evening and nighttime restrictions imposed by the County Noise Ordinance (Chapter 6.68 of the County Code).
c. Generate excessive ground borne vibration or ground borne noise levels.			X		The project will not involve the use of pile driving or other methods that would produce excessive ground borne vibration or noise levels at the property boundary.
10. **HYDROLOGY AND WATER QUALITY** - Would the project:					
a. Substantially deplete groundwater supplies or substantially interfere with groundwater recharge?			X		The project will incrementally add to groundwater consumption; however, the singular and cumulative impacts of the proposed project would not result in a significant impact on existing groundwater levels. Refer to Public Services discussion section above.
b. Substantially alter the existing drainage pattern of the project area and/or increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?			X		The project does not involve any modifications that would substantially alter the existing drainage pattern and or/increase the rate or amount of surface runoff in a manner that would lead to flooding. Compliance with applicable requirements of the Sacramento County Floodplain Management Ordinance, Sacramento County Water Agency Code, and Sacramento County Improvement Standards will ensure that impacts are less than significant.
c. Develop within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map or within a local flood hazard area?				X	The project is not within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map, nor is the project within a local flood hazard area.
d. Place structures that would impede or redirect flood flows within a 100-year floodplain?				X	The project site is not within a 100-year floodplain.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
e. Develop in an area that is subject to 200-year urban levels of flood protection (ULOP)?				X	The project is not located in an area subject to 200-year urban levels of flood protection (ULOP).
f. Expose people or structures to a substantial risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X		The project will not expose people or structures to a substantial risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
g. Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems?			X		Adequate on- and/or off-site drainage improvements will be required pursuant to the Sacramento County Floodplain Management Ordinance and Improvement Standards.
h. Create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality?			X		Compliance with the Stormwater Ordinance and Land Grading and Erosion Control Ordinance (Chapters 15.12 and 14.44 of the County Code respectively) will ensure that the project will not create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality. All underground storage tanks are subject to federal and State regulations pertaining to operating standards, leak reporting requirements, and corrective action requirements. The County Environmental Management Department enforces these regulations. Existing regulations will ensure that impacts are less than significant. Sacramento County Code Chapters 6.28 and 6.32 provide rules and regulations for water wells and septic systems that are designed to protect water quality. The Environmental Health Division of the County Environmental Management Department has permit approval authority for any new water wells and septic systems on the site. Compliance with existing regulations will ensure that impacts are less than significant.
11. **GEOLOGY AND SOILS** - Would the project:					

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
a. Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?				X	Sacramento County is not within an Alquist-Priolo Earthquake Fault Zone. Although there are no known active earthquake faults in the project area, the site could be subject to some ground shaking from regional faults. The Uniform Building Code contains applicable construction regulations for earthquake safety that will ensure less than significant impacts.
b. Result in substantial soil erosion, siltation or loss of topsoil?			X		Compliance with the County's Land Grading and Erosion Control Ordinance will reduce the amount of construction site erosion and minimize water quality degradation by providing stabilization and protection of disturbed areas, and by controlling the runoff of sediment and other pollutants during the course of construction.
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, soil expansion, liquefaction or collapse?				X	The project is not located on an unstable geologic or soil unit. Pursuant to Title 16 of the Sacramento County Code and the Uniform Building Code, a soils report will be required prior to building construction. If the soils report indicates than soils may be unstable for building construction then site-specific measures (e.g., special engineering design or soil replacement) must be incorporated to ensure that soil conditions will be satisfactory for the proposed construction.
d. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available?			X		All septic systems must comply with the requirements of the County Environmental Management Department, Environmental Health Division, as set forth in Chapter 6.32 of the County Code. Compliance with County standards will ensure impacts are less than significant.
e. Result in a substantial loss of an important mineral resource?			X		The project is not located within an Aggregate Resource Area as identified by the Sacramento County General Plan Land Use Diagram, nor are any important mineral resources known to be located on the project site.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X		No known paleontological resources (e.g. fossil remains) or sites occur at the project location.
12. **BIOLOGICAL RESOURCES** - Would the project:					
a. Have a substantial adverse effect on any special status species, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community?		X			The project site and a 5-mile buffer surrounding provide habitat for 10 special-status plants and 28 special-status wildlife species with potential to be present within the geographic region. Mitigation is included to reduce impacts to less than significant levels. Refer to the Biological Resources discussion in the Environmental Effects section above.
b. Have a substantial adverse effect on riparian habitat or other sensitive natural communities?		X			The project site contains19.79 acres of wild oats and annual brome grassland, 0.05 acres of seasonal wetland, 0.21 acre of drainage ditch. Mitigation is included to reduce impacts to less than significant levels. Refer to the Biological Resources discussion in the Environmental Effects section above.
c. Have a substantial adverse effect on streams, wetlands, or other surface waters that are protected by federal, state, or local regulations and policies?		X			There are two small seasonal wetlands within the project site wetlands located within the project area. No development or fill is proposed in the area near the wetlands. Refer to the Biological Resources discussion in the Environmental Effects section above. A drainage ditch crosses the project site; an access road and culvert are proposed to cross the ditch. Refer to the Biological Resources discussion in the Environmental Effects section above.
d. Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species?		X			Resident and/or migratory wildlife may be displaced by project construction; Mitigation has been included to reduce these impacts to a less than significant level. Refer to the Biological Resources discussion in the Environmental Affects section above.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
e. Adversely affect or result in the removal of native or landmark trees?		X			Native trees occur on the project site and/or may be affected by on and/or off-site construction. Mitigation is included to ensure impacts are less than significant. Refer to the Biological Resources discussion in the Environmental Effects section above.
f. Conflict with any local policies or ordinances protecting biological resources?		X			the project is required to comply with the Swainson's Hawk Ordinance and thereby, suitable land is preserved in Sacramento County. The project will be required to pay into the Swainson's Hawk Mitigation Program to offset the conversion of foraging habitat to residential uses.
g. Conflict with the provisions of an adopted Habitat Conservation Plan or other approved local, regional, state or federal plan for the conservation of habitat?			X		There are no known conflicts with any approved plan for the conservation of habitat. The proposed project is located within the South Sacramento Habitat Conservation Plan; however, it is not within the Urban Development Area (UDA). Therefore, the Project is not subject to the provisions of the SSHCP and associated permits. However, the project will convert valley grassland habitat, which provides suitable foraging habitat for Swainson's hawk. Therefore, the project is required to comply with the Swainson's hawk ordinance and thereby, suitable land is preserved in Sacramento County to provide foraging habitat for the Swainson's hawk.
13. **CULTURAL RESOURCES -** Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource?			X		No Historical resources have been identified on the project site.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
b. Have a substantial adverse effect on an archaeological resource?			X		No known archaeological resources occur on-site. The Northern California Information Center was contacted regarding the proposed project. A record search indicated that the project site is not considered sensitive for archaeological resources. Nonetheless, unanticipated discovery mitigation will ensure impacts to buried cultural resources are less than significant.
c. Disturb any human remains, including those interred outside of formal cemeteries?			X		No known human remains exist on the project site. Nonetheless, mitigation has been included to ensure appropriate treatment should remain be uncovered during project implementation.
14. **TRIBAL CULTURAL RESOURCES -** Would the project:					
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?			X		Area West Environmental, Inc. submitted a Sacred Lands File Search (SLFS) request to the Native American Heritage Commission (NAHC) on August 17, 2022. On October 27, 2022, the NAHC responded that there was a negative SLFS for the project site. In accordance with Assembly Bill (AB) 52, codified as section 21080.3.1 of CEQA, formal notification letters were sent to those tribes who had previously requested to be notified of Sacramento County projects on January 24, 2024. No responses were received from the contacted tribes. Out of an abundance of caution, mitigation has been included in the form of an Inadvertent Discovery Treatment Pan. With the included mitigation, impacts to Tribal Cultural Resources would be less than significant.
15. **HAZARDS AND HAZARDOUS MATERIALS** - Would the project:					
a. Create a substantial hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X		The project does not involve the transport, use, and/or disposal of hazardous material.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
b. Expose the public or the environment to a substantial hazard through reasonably foreseeable upset conditions involving the release of hazardous materials?			X		The project does not involve the transport, use, and/or disposal of hazardous material.
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?			X		The project does not involve the use or handling of hazardous material.
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, resulting in a substantial hazard to the public or the environment?				X	The project is not located on a known hazardous materials site.
e. Impair implementation of or physically interfere with an adopted emergency response or emergency evacuation plan?			X		The project would not interfere with any known emergency response or evacuation plan.
f. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to or intermixed with urbanized areas?			X		The project is not located in or next to a State Responsibility Area (SRA) or on lands classified as very high fire hazard severity zones. The project is located within a rural residential area and compliance with current Building Code regulations for fire suppression will reduce the risk to persons or structures to less than significant.
16. ENERGY – Would the project:					
a. Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction?			X		While the project will increase energy consumption, compliance with Title 24, Green Building Code, will ensure that all project energy efficiency requirements are net resulting in less than significant impacts.
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X		The project will comply with Title 24, Green Building Code, for all project efficiency requirements.

	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact	Comments
17. GREENHOUSE GAS EMISSIONS – Would the project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		The project will fully comply with the SMAQMD GHG Tier 1 BMPs. As such, the project screens out of further analysis and impacts are less than significant. See the GHG discussion in the Environmental Effects section above.
b. Conflict with an applicable plan, policy or regulation for the purpose of reducing the emission of greenhouse gases?			X		The project is consistent with County policies adopted for the purpose or reducing the emission of greenhouse gases.

SUPPLEMENTAL INFORMATION

LAND USE CONSISTENCY	**Current Land Use Designation**	**Consistent**	**Not Consistent**	**Comments**
General Plan	Agricultural Residential	Yes		
Community Plan	Agricultural-Residential-5	Yes		
Land Use Zone	AG 80	Yes		With approval of the requested Rezone to AR-5, the project will be consistent with the land use zone.

Initial Study Preparers

Environmental Coordinator:	Julie Newton
Senior Planner:	Alison Little
Associate Planner:	John Q. Barnard IV
Office Manager:	Belina Wekesa-Batts
Administrative Support:	Justin Maulit; Andrea Guerra

Appendices

Appendix A – Level 2 Drainage Study

Appendix B – Biological Survey

Appendix C – Aquatic Resources Delineation

Due to length, Appendices A, B and C are available to view at the Sacramento County Planning and Environmental Review, 827 7th Street, Sacramento, CA 95814, Room 225 during normal business hours, or online at: http://planningdocuments.saccounty.gov

The direct link is:

https://planningdocuments.saccounty.net/ViewProjectDetails.aspx?ControlNum=PLNP2022-00114

Citations

Area West Environmental, LLC. 2022 *Biological Resources Technical Memorandum*

Area West Environmental, LLC. 2022. *Aquatic Resources Delineation Report*

County of Sacramento. 2017. *General Plan Land Use Diagram – City of Sacramento*. Available: https://planning.saccounty.net/PlansandProjectsIn-Progress/Pages/GeneralPlan.aspx. Accessed July 8, 2024.

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County of Sacramento. 2019. *Transportation Improvement and Program Guide (TIPG)*. Available: https://sacdot.saccounty.net/pages/TIP.aspx. Accessed July 8, 2024.

County of Sacramento. 2020. *Transportation Analysis Guidelines*. Available: https://sacdot.saccounty.net/Pages/Traffic-Studies.aspx. Accessed July 8, 2024.

Cosumnes GSP. 2024. https://www.cosumnesgroundwater.org/groundwater/cosumnes-gsp/. Accessed September 30, 2024.

JTS Engineering Consultants Inc. 2022 *Level 2 Drainage Study for Gay Road.*

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2020. *Thresholds of Significance Table: https://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable4-2020.pdf.* Accessed October 1, 2024.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2013. *$PM_{2.5}$ Implementation/Maintenance Plan and Redesignation Request for Sacramento $PM_{2.5}$ Nonattainment Area*. Available: http://www.airquality.org/ProgramCoordination/Documents/9)%20%20PM2.5%20Imp%20and%20MP%202013.pdf. Accessed July 8, 2024.

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State Water Resources Control Board (SWRCB). 2022. *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities*. Order WQ 2022-0057-DWQ, NPDES No. CAS000002. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html. Accessed July 8, 2024.

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:

County of Sacramento
Department of Community Development
Planning and Environmental Review Division

COUNTY MAIL CODE: 01-225
No Fee – For the Benefit of County of Sacramento (Code 6103)

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

COUNTY OF SACRAMENTO

PLANNING AND ENVIRONMENTAL REVIEW

MITIGATION MONITORING AND REPORTING PROGRAM

CONTROL NUMBER: PLNP2022-00114

NAME: Gay Road Rezone and Parcel Map

LOCATION:

The project site is located along Gay Road on an unaddressed parcel, approximately 0.5 miles west from the intersection of Gay Road and Wilton Road in the Cosumnes community of unincorporated Sacramento County (See **Error! Reference source not found.**).

ASSESSOR'S PARCEL NUMBER(S): 143-0333-023-0000

OWNER: David and Sandra Congdon Family Trust

APPLICANT: David Congdon
8873 Sheldon Oaks Lane
Elk Grove, CA 95624
mcongdon@wfcsac.com

PROJECT DESCRIPTION:

The project proposes to rezone a 19.98-acre parcel from Agricultural 80-acre (AG-80) to Agricultural Residential 5-acre (AR-5) and subdivide the property into four new approximately 5-acre lots.

All four proposed lots would take access from Gay Road via a single private drive (see **Error! Reference source not found.**). The project is conditioned to install Class C road improvements which will require the widening of Gay Road, and relocation of the roadside ditch. The project proposes a 40-foot private road and utility easement that

grants access to parcels 1 and 2 with a hammer head at the end of the road that gives the fire department and residents access to parcels 3 and 4. All future lots will be served by individual groundwater wells and septic systems.

The project requests the following entitlements:

1. A **Rezone** request to the Board of Supervisors of a single 19.98-acre parcel to Agricultural-Residential 5-ac (AR-5) from Agricultural 80-acre (AG-80).

2. A **Tentative Parcel Map** to divide the single 19.98-acre parcel into four, approximately 5-acre lots.

3. A **Special Development Permit** to allow one or more proposed lots to be below the 5.00-acre minimum required for Agricultural-Residential 5 (AR-5) zoning district.

4. A **Design Review** to determine substantial compliance with the *Sacramento County Countywide Design Guidelines* (Design Guidelines).

TYPE OF ENVIRONMENTAL DOCUMENT: Mitigated Negative Declaration

PREPARED BY: County of Sacramento
Planning and Environmental Review
827 7th Street, Room 225
Sacramento, CA 95814

PHONE: (916) 874-6141

MITIGATION MONITORING AND REPORTING PROGRAM

ADOPTED BY: **DATE:**

ATTEST:_____
SECRETARY/CLERK

California All-Purpose Acknowledgment

Pursuant to SB 1050 (Chapter 197, Statutes of 2014), Civil Code section 1189 has been amended to provide that any certificate of acknowledgment taken within the State of California shall be in the following form:

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
)
County of _____)

On _____ before me, _____ , Notary Public, personally
(Insert name and title of officer)
appeared _____ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

_____ (Seal)
(Signature)

DECLARATION OF AGREEMENT

This Mitigation Monitoring and Reporting Program applies to certain real property, a Legal Description of which is attached as Exhibit A. I (We) the undersigned agree that this Mitigation Monitoring and Reporting Program applies to the real property described in Exhibit A. I (We) the undersigned am (are) the legal owner(s) of that property, and agree to comply with the requirements of this Mitigation Monitoring and Reporting Program (Summary and Mitigation Measures attached).

IN WITNESS WHEREOF, this declaration is hereby executed by the undersigned named legal owner(s) of the subject property on this ____ day of _____, 20_____.

OWNER(S): _____ _____
(Print name above) (title above)

Title: _____
(Print company, corporation, trust or organization name above, if applicable)

Signature: _____
(Signature above)

California All-Purpose Acknowledgment

Pursuant to SB 1050 (Chapter 197, Statutes of 2014), Civil Code section 1189 has been amended to provide that any certificate of acknowledgment taken within the State of California shall be in the following form:

> A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
)
County of _____)

On _____ before me, _____ , Notary Public,
(Insert name and title of officer)
personally appeared _____ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

_____ (Seal)
(Signature)

TABLE OF MEASURES

PURPOSE AND PROCEDURES

Pursuant to Section 21081.6 of the Public Resources Code and Chapter 20.02 of the County of Sacramento Code, a Mitigation Monitoring and Reporting Program has been established for the project entitled Gay Road Rezone and Parcel Map (Control Number: PLNP2022-00114).

PURPOSE

The purpose of this program is to assure diligent and good faith compliance with the Mitigation Measures which have been recommended in the environmental document, and adopted as part of the project or made conditions of project approval, in order to avoid or mitigate potentially significant effects on the environment.

NOTIFICATION AND COMPLIANCE

It shall be the responsibility of the project applicant/owner to provide written notification to the Environmental Coordinator, in a timely manner, of the completion of each Mitigation Measure as identified on the following pages. The Environmental Coordinator will verify that the project is in compliance with the adopted Mitigation Monitoring and Reporting Program (MMRP). Any non-compliance will be reported to the project applicant/owner, and it shall be the project applicant's/owner's responsibility to rectify the situation by bringing the project into compliance and re-notifying the Environmental Coordinator. Any indication that the project is proceeding without good-faith compliance could result in the imposition of administrative, civil and/or criminal penalties upon the project applicant/owner in accordance with Chapter 20.02 of the County of Sacramento Code.

PAYMENT

1. The proponent shall comply with the MMRP for this project, including the payment of a flat fee to cover the Planning and Environmental Review staff costs incurred during implementation of the MMRP. The MMRP fee for this project is **$6,700.00**. If the project is not expected to go to construction within the next two years, an administrative fee of $1,103.00 may be paid. The administrative fee will be deducted from the total MMRP fee when construction plans are submitted.

2. Until the MMRP has been recorded and the administrative portion of the MMRP fee has been paid, no final parcel map or final subdivision map for the subject property shall be approved. Until the balance of the MMRP fee has been paid, no encroachment, grading, building, sewer connection, water connection or occupancy permit from County of Sacramento shall be accepted for review or be reviewed.

RECORDATION

In order to record the adopted Mitigation Monitoring and Reporting Program with the County Recorder as required by Section 20.02.050(b)(2) of the County of Sacramento

Code, the project applicant/owner shall provide to the Planning and Environmental Review a Legal Description for the real property that is the subject of the project.

COMPLETION

Pursuant to Section 20.02.060 of the County of Sacramento Code, upon the determination of the Environmental Coordinator that compliance with the terms of the approved Mitigation Monitoring and Reporting Program has been achieved, and that there has been full payment of all fees for the project, the Environmental Coordinator shall record and issue a Program Completion Certificate for the project.

PROPERTY TRANSFER

The requirements of this adopted Program run with the real property that is the subject of the project, as described in Exhibit A. Successive owners, heirs and assigns of this real property are bound to comply with all of the requirements of the adopted Program.

Prior to any lease, sale, transfer or conveyance of any portion of the real property that is the subject of the project, the record owner(s) at the time of the application for the project, or his or her successor's in interest, shall provide a copy of the adopted Program to the prospective lessee, buyer, transferee, or one to whom the conveyance is made.

PENALTIES

Chapter 20.02 of the County of Sacramento Code permits civil remedies and criminal penalties to be imposed in the event of non-compliance with an adopted Mitigation Monitoring and Reporting Program. The civil remedies, which are found in Section 20.02.090 of the County of Sacramento Code, include injunctive relief, stop work orders, revocation of any special permit granted concurrently with the approval of a Program, and the abatement of any resulting nuisance. The criminal penalties, which are found in Section 20.02.080 of the County of Sacramento Code, include a fine not to exceed five hundred dollars or imprisonment in the County jail not to exceed six months, or both.

Plans that are inconsistent with the adopted Mitigation Measures will not be approved.

In the event of an ongoing, serious non-compliance issue, the Environmental Coordinator may call for a "stop work order" on the project.

STANDARD PROVISIONS

Page one of all Project Plans must include the following statement in a conspicuous location:

> "All Plans associated with this project are subject to the conditions of Mitigation Monitoring and Reporting Program PLNP2022-00114. For any

questions regarding compliance with the MMRP document, contact MMRP staff at (916) 874-6141."

All Project Plans and any revisions to those Plans shall be in full compliance with the adopted Mitigation Monitoring and Reporting Program (MMRP). The project applicant/owner shall submit one copy of all such Plans and any revisions to the Environmental Coordinator prior to final approval by the County of Sacramento Building Permits and Inspection Division (BPID) or Site Improvement and Permit Section (SIPS). If the Environmental Coordinator determines that the Plans are not in full compliance with the adopted MMRP, the Plans shall be returned to the project applicant/owner with a letter specifying the items of non-compliance, and instructing the applicant/owner to revise the Plans, and then resubmit one copy of the revised Plans to the Environmental Coordinator, for determination of compliance, prior to final approval by BPID or SIPS.

Additionally, the project applicant/owner shall notify the Environmental Coordinator no later than 48 hours prior to the start of construction and no later than 24 hours after its completion. The applicant/owner shall notify the Environmental Coordinator no later than 48 hours prior to any/all Final Inspection(s) by the County of Sacramento.

☐ Mitigation Measure AQ-1: Basic Construction Emissions Control Practices

The following Basic Construction Emissions Control Practices are considered feasible for controlling fugitive dust from a construction site. The practices also serve as best management practices (BMPs), allowing the use of the non-zero particulate matter significance thresholds.

Control of fugitive dust is required by District Rule 403 and enforced by District staff.

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel-powered equipment. The California Air Resources Board (CARB) enforces idling limitations and compliance with diesel fleet regulations.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE BIO-1: MONARCH BUTTERFLY

Prior to construction within the central drainage ditch, a qualified botanist shall survey the construction are to determine if there are milkweed plants present. If there are no milkweed plants present within the construction footprint, no further measures are required. If milkweed plants are located within the proposed construction area, consistent with the U.S. Fish and Wildlife Service's voluntary conservation measures, the applicant shall enhance habitat along the drainage ditch by planting native, insecticide-free milkweed, including early-emerging species (e.g., Asclepias vestita, A. californica, A. cordifolia, A. erosa). A planting plan with seed varietals, quantity (pounds per acre), and location shall be submitted to the Environmental Coordinator for review and approval.

Implementation and Notification (Action by Project Applicant):

3. Comply fully with the above measure.

4. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

4. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

5. Monitor compliance during periodic site inspections of the construction work.

6. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE BIO-2: BURROWING OWL

- Prior to the commencement of construction activities (which includes clearing, grubbing, or grading) within 500 feet of suitable burrow habitat, a survey for burrowing owl shall be conducted by a qualified biologist. The survey shall occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat. Surveys shall be conducted in accordance with the following:

- A survey for burrows and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 meters (~500 feet) of the project impact zone.

- Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (~100 feet) and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 50 meters (~160 feet) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons.

- If no occupied burrows or burrowing owls are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the Environmental Coordinator and no further mitigation is necessary.

- If occupied burrows or burrowing owls are found, then a complete burrowing owl survey is required. This consists of a minimum of four site visits conducted on four separate days, which must also be consistent with the Survey Method, Weather Conditions, and Time of Day sections of Appendix B of the California Fish and Wildlife “Staff Report on Burrowing Owl Mitigation” (March 2012). Submit a survey report to the Environmental Coordinator which is consistent with the Survey Report section of Appendix B of the California Fish and Wildlife “Staff Report on Burrowing Owl Mitigation” (March 2012).

- If occupied burrows or burrowing owls are found the applicant shall contact the Environmental Coordinator and consult with California Fish and Wildlife prior to construction, and will be required to submit a Burrowing Owl Mitigation Plan (subject to the approval of the Environmental Coordinator and in consultation with California Fish and Wildlife). This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success. The California Fish and Wildlife “Staff Report on Burrowing Owl Mitigation” (March 2012) should be used in the development of the mitigation plan.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE BIO-3: SWAINSON'S HAWK NESTING SURVEY (TAC 2000)

If construction, grading, or project-related improvements are to commence between February 1 and September 15, focused surveys for Swainson's hawk nests shall be conducted by a qualified biologist within a ½-mile radius of project activities, in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk TAC 2000). To meet the minimum level of protection for the species, surveys should be completed for the two survey periods immediately prior to commencement of construction activities in accordance with the 2000 TAC recommendations. If active nests are found, CDFW shall be contacted to determine appropriate protective measures, and these measures shall be implemented prior to the start of any ground-disturbing activities. If no active nests are found during the focused survey, no further mitigation will be required.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE BIO-4: SWAINSON'S HAWK FORAGING HABITAT

Prior to any site disturbance, such as clearing or grubbing, the issuance of any permits for grading, building, or other site improvements, or recordation of a final map, whichever occurs first, or, if only a rezone is requested, prior to final adoption of the zoning agreement, implement one of the following options to mitigate for the loss of 19.98± acres of Swainson's hawk foraging habitat on the project site:

1. The project proponent shall utilize one or more of the mitigation options (land dedication and/or fee payment) established in Sacramento County's Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code).
2. The project proponent shall, to the satisfaction of the California Fish and Wildlife, prepare and implement a Swainson's hawk mitigation plan that will include preservation of Swainson's hawk foraging habitat.
3. Should the County Board of Supervisors adopt a Swainson's hawk mitigation policy/program (which may include a mitigation fee payable prior to issuance of building permits) prior to the implementation of one of the measures above, the project proponent may be subject to that program instead.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE BIO-5: RAPTOR NEST PROTECTION

If construction activity (which includes clearing, grubbing, or grading) is to commence within 500 feet of suitable nesting habitat between February 1 and September 15, a survey for raptor nests shall be conducted by a qualified biologist. The survey shall cover all potential tree and ground nesting habitat on-site and off-site up to a distance of 500 feet from the project boundary. The survey shall occur within 7 days of the date that construction will encroach within 500 feet of suitable habitat. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no active nests are found during the survey, no further mitigation will be required. If any active nests are found, the Environmental Coordinator and California Fish and Wildlife shall be contacted to determine appropriate avoidance/protective measures. The avoidance/protective measures shall be implemented prior to the commencement of construction within 500 feet of an identified nest.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE BIO-6: MIGRATORY BIRD NEST PROTECTION

To avoid impacts to nesting migratory birds the following shall apply:

1. If construction activity (which includes clearing, grubbing, or grading) is to commence within 50 feet of nesting habitat between February 1 and September 15, a survey for active migratory bird nests shall be conducted no more than 14 days prior to construction by a qualified biologist.

2. Trees slated for removal shall be removed during the period of September through January, in order to avoid the nesting season. Any trees that are to be removed during the nesting season, which is February through August, shall be surveyed by a qualified biologist and will only be removed if no nesting migratory birds are found.

3. If active nest(s) are found in the survey area, a non-disturbance buffer, the size of which has been determined by a qualified biologist, shall be established and maintained around the nest to prevent nest failure. All construction activities shall be avoided within this buffer area until a qualified biologist determines that nestlings have fledged, or until September 1.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE BIO-7: WETLAND AND WATERS COMPENSATION

To compensate for the permanent loss of wetlands or jurisdictional waters, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Wildlife:

A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands or jurisdictional waters. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.

B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands or jurisdictional waters, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ Mitigation Measure BIO-8: Surface Water Protection

The aquatic features, or portions of aquatic features, not proposed to be permanently impacted shall have an established setback of 50 feet to ensure the features are not directly or indirectly impacted. Construction and silt fencing shall be placed on either side of the aquatic feature and the area shall be clearly demarcated on all construction plans as environmentally sensitive. For areas where construction is within the aquatic feature, temporary construction and silt fencing shall be placed at the edge of construction limits. A qualified biologist shall oversee the placement of temporary construction and silt fencing when aquatic features are present.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE BIO-9: NATIVE TREE PROTECTION

All on site oak trees or portions of adjacent off-site oak trees that have driplines that extend onto the project site, and all off-site oak trees which may be impacted by utility installation and/or improvements associated with this project, shall be preserved and protected as follows:

a. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of each tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of each tree. Removing limbs that make up the dripline does not change the protected area.

b. Any protected trees on the site that require pruning shall be pruned by a certified arborist prior to the start of construction work. All pruning shall be in accordance with the American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines."

c. Temporary protective fencing shall be installed at least one foot outside the driplines of the oak trees prior to the start of construction work, in order to avoid damage to the trees and their root systems. Protective fencing shall be installed at one foot from the limit of work for retaining wall construction. Protective fencing must be maintained through the duration of construction.

d. No signs, ropes, cables (except those which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the protected trees. Small metallic numbering tags for the purpose of preparing tree reports and inventories shall be allowed.

e. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of protected trees.

f. No grading (grade cuts or fills) shall be allowed within the driplines of oak trees. Grade cuts for the proposed retaining wall shall be performed under direct supervision of a certified arborist.

g. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of any protected tree.

h. No trenching shall be allowed within the driplines of protected trees. If it is absolutely necessary to install underground utilities within the dripline of a protected tree, the utility line shall be bored and jacked under the supervision of a certified arborist.

i. The construction of impervious surfaces within the driplines of protected trees shall be stringently minimized. When it is absolutely necessary, a

piped aeration system per County standard detail shall be installed under the supervision of a certified arborist.

j. No sprinkler or irrigation system shall be installed in such a manner that sprays water or requires trenching within the driplines of protected trees. An above ground drip irrigation system is recommended.

k. Landscaping beneath oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. The only plant species which shall be planted within the driplines of oak trees are those which are tolerant of the natural semi-arid environs of the trees. A list of such drought-tolerant plant species is available from the Office of Planning Environmental Review. Limited drip irrigation approximately twice per summer is recommended for the understory plants.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE BIO-10: NATIVE TREE REMOVAL

If native trees are proposed for removal during the building plan and improvement phase of the Project, then the removal of (number) inches dbh of native trees shall be compensated for by planting in-kind native trees equivalent to the dbh inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. On-site preservation of native trees that are less than 6 inches (<6 inches) dbh, may also be used to meet this compensation requirement. Native trees include: valley oak (Quercus lobata), interior live oak (Quercus wislizenii), blue oak (Quercus douglasii), or oracle oak (Quercus morehus), California sycamore (Platanus racemosa), California black walnut (Juglans californica), Oregon ash (Fraxinus latifolia), western redbud (Cercis occidentalis), gray pine (Pinus sabiniana), California white alder (Alnus rhombifolia), boxelder (Acer negundo), California buckeye (Aesculus californica), narrowleaf willow (Salix exigua), Gooding's willow (Salix gooddingii), red willow (Salix laevigata), arroyo willow (Salix lasiolepis), shining willow (Salix lucida), Pacific willow (Salix lasiandra), and dusky willow (Salix melanopsis).

Replacement tree planting shall be completed prior to approval of grading or improvement plans, whichever comes first. A total of (number) inches will require compensation.

Equivalent compensation based on the following ratio is required:

- one preserved native tree < 6 inches dbh on-site = 1-inch dbh
- one D-pot seedling (40 cubic inches or larger) = 1-inch dbh
- one 15-gallon tree = 1-inch dbh
- one 24-inch box tree = 2 inches dbh
- one 36-inch box tree = 3 inches dbh

Prior to the approval of Improvement Plans or Building Permits, whichever occurs first, a Replacement Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the Environmental Coordinator for approval. The Replacement Tree Planting Plan(s) shall include the following minimum elements:

1. Species, size and locations of all replacement plantings and < 6-inch dbh trees to be preserved
2. Method of irrigation
3. If planting in soils with a hardpan/duripan or claypan layer, include the Sacramento County Standard Tree Planting Detail L-1, including the 10-foot-deep boring hole to provide for adequate drainage

4. Planting, irrigation, and maintenance schedules;

5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement trees which do not survive during that period.

6. Designation of 20-foot root zone radius and landscaping to occur within the radius of trees < 6 inches dbh to be preserved on-site.

No replacement tree shall be planted within 15 feet of the driplines of existing native trees or landmark size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement native trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single-family lots (including front yards), and roadway medians.

Native trees <6 inches dbh to be retained on-site shall have at least a 20-foot radius suitable root zone. The suitable root zone shall not have impermeable surfaces, turf/lawn, dense plantings, soil compaction, drainage conditions that create ponding (in the case of oak trees), utility easements, or other overstory tree(s) within 20 feet of the tree to be preserved. Trees to be retained shall be determined to be healthy and structurally sound for future growth, by an ISA Certified Arborist subject to Environmental Coordinator approval.

If tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of $325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

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3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE CUL-1: CULTURAL RESOURCES UNANTICIPATED DISCOVERIES

In the event that human remains are discovered in any location other than a dedicated cemetery, work shall be halted and the County Coroner contacted. For all other potential tribal cultural resources [TCRs], archaeological, or cultural resources discovered during project's ground disturbing activities, work shall be halted until a qualified archaeologist and/or tribal representative may evaluate the resource.

1. Unanticipated human remains. Pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, if a human bone or bone of unknown origin is found during construction, all work is to stop and the County Coroner and the Office of Planning and Environmental Review shall be immediately notified. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposition of, with appropriate dignity, the human remains and any associated grave goods.
2. Unanticipated cultural resources. In the event of an inadvertent discovery of cultural resources (excluding human remains) during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.
    a. Work cannot continue within the 100-foot radius of the discovery site until the archaeologist and/or tribal monitor conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.
    b. If a potentially-eligible resource is encountered, then the archaeologist and/or tribal monitor, Planning and Environmental Review staff, and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the County Environmental Coordinator as verification that the

provisions of CEQA for managing unanticipated discoveries have been met.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

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2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

☐ MITIGATION MEASURE TCR-1: UNANTICIPATED DISCOVERIES TCRS

1. If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within 100 feet of the find. A Tribal Representative from culturally affiliated tribes shall be immediately notified and shall determine if the find is a TCR (PRC §21074). The Tribal Representative will make recommendations regarding the treatment of the discovery. Preservation in place is the preferred alternative under CEQA and UAIC protocols, and every effort must be made to preserve the resources in place, including through project redesign.
2. Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of the CEQA, including AB 52, has been satisfied.
3. The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

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3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

Mitigation Measure GHG-1: Greenhouse Gases BMPs

The project is required to incorporate the following Tier 1 Best Management Practices (BMPs)

- BMP 1: Electric vehicle ready: Projects shall meet the current CalGreen Tier 2 standards, except all EV Capable spaces shall instead by EV Ready.
    - EV Capable requires the installation of "raceway" (the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s)
- EV Ready requires all EV Capable improvements plus installation of dedicated branch circuit(s) (electrical pre-wiring), circuit breakers, and other electrical components, including a receptacle (240-volt outlet) or blank cover needed to support future installation of one or more charging stations

  If the project proponent chooses to propose an alternative to the above BMPs, they will need to submit documentation, to the satisfaction of the Environmental Coordinator, demonstrating that the alternatives are equivalent to Tier 1 BMPs. Documentation shall be submitted to the Environmental Coordinator prior to final approval of building permits.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

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3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ Date: _____

EXHIBIT A: LEGAL DESCRIPTION

APPENDIX A

Level 2 Drainage Study

For

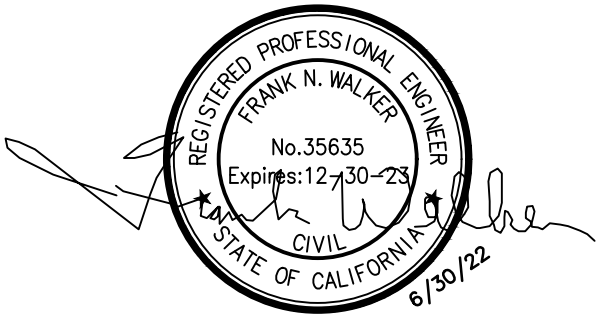
Gay road, Wilton

Sacramento County, CA

APN: 134-0333-023

Watershed: 19-CONSUMNES RIVER

June 16st, 2022



Prepared by:
JTS Engineering Consultants, Inc.
1808 J Street
Sacramento, CA 95811

Job #: 2022-028

TABLE OF CONTENTS

EXHIBITS

1. Introduction:

a. Existing Conditions

i. The project site (assessor's parcel number APN: 134-0333-023) is located on Gay Road, Wilton CA. The site is approximately 0.4 miles west of Wilton Road and approximately 400 feet North West of Dillard Road. The site zone is AG-80. The surrounding lots are all considered in agricultural zoning of AG-80 and A-5.

ii. **Historical Land use**: The parcel is currently undeveloped.

iii. **Topography:** Topography data is based on a field survey. Referring to the Topographic Survey Exhibit B, existing on-site elevations range from 71 to 79 feet per the North American Vertical Datum of 1988 (NAVD88). There is a drainage ditch in the middle of the site crossing the site from east to west, which continues and drains offsite into the adjacent west property (APN: 134-0333-017). An existing 8-inch culvert with a 5% slope is picking up offsite drainage from the eastern side property and draining into the ditch.

iv. **Offsite Drainage**: The adjacent parcels on the east of the site (APNs: 134-0333-022 and 134-0333-124) are all flat with a same elevation of 76 feet as shown in the Offsite Watershed Exhibit C, the offsite watershed area on the easterly side of the site is approximately 35.5+/- acres. The existing 8-inch culvert collects offsite drainage from this watershed and drains it into the existing drainage ditch which routes runoff to the westerly side of the parcel where the ditch continues to the west.

v. **On-site Drainage**: From the topographic survey, it shows that onsite drainage sheet flows from east to west (passing through the site) towards the adjacent parcels (APN: 134-0333-017 and APN: 134-0333-012) and to Sherman Lane. As shown on the Existing Onsite Watershed Exhibit D.

vi. **Floodplain Extent**: As shown on FEMA Flood Map Exhibit G, the project site is located in an area determined to be outside the 0.2% annual chance floodplain and is in the non-shaded zone 'X' floodplain per the Federal Emergency Management Agency (FEMA) Flood Map.

vii. **Hydrologic Soil Group**: Per the USDA Web Soil Survey website, the site is comprised mostly of type 'C' soil as shown on Exhibit E of this report.

b. Project Description

i. The subject parcel is approximately 20 acres. The project plan is to subdivide the existing parcel into four parcels of 5 acres each. The project is proposing to rezone from AG-80 to AR-5. As shown on the Tentative Parcel Map Exhibit A, it will require a 40' road that gives access to lots 1 and 2 with a hammer head at the end of this road that grants access to lots 3 and 4. The existing offsite watershed area on the east of the site as shown on the Offsite Watershed Exhibit C has a Nolte flow of 9.5 cfs according to the graph of the Design Runoff Nolte Method Drainage Areas < 50 Acres in the Sacramento County Improvement Standards Manual shown on Exhibit E. A proposed 30'' corrugated metal pipe will be required in the middle of the drainage ditch as shown on the Tentative Parcel Map Exhibit A. The 30 linear feet pipe will be at a slope of 0.5%. The sizing of this pipe is shown on the Channel Report Exhibit I with different depths and flow capacities.

c. Applicable Standards

i. 'Sacramento County Drainage Study Requirement' Standards are being followed during preparation of this drainage report. Level 2 drainage study is required for this tentative subdivision map. Hydrologic calculations were based Figure 2-5, Design Runoff Nolte Method Drainage, <50 Acres, and Figure 2-20, 100-Year Peak Flow, Rainfall Zone 2, <80 acres from Section 9 of the Sacramento County Improvement Standards.

d. Conditions of Approval: There are no conditions of approval at the moment because the county requires a preliminary drainage study be provided before conditions of approval can be drafted.

e. Previous Studies: None Identified.

f. Objective of Analysis

i. The purpose of this study is to demonstrate the viability of the proposed TSM.
ii. Analyze the 100-year storm event in order to set the minimum floor elevation for future structures.

2. Stormwater Quality:

This project is located outside of the Stormwater Utility District, so therefore no Stormwater Quality requirements are needed from the County for this project.

3. Summary of Findings:

The project site naturally drains from east to west from the adjacent right parcel passing through the site as shown on the topographic survey shown on Exhibit B. Referring to the offsite shed exhibit, the adjacent parcels on the east side of the site are relatively flat with a 76- and 78-feet elevations making an Offsite Watershed Area of 35.5+/- acres and a Nolte flow of 9.5 cfs according to the graph of the Design Runoff Nolte Method Drainage Areas < 50 Acres in the Sacramento County Improvement Standards Manual shown on Exhibit F. As shown on Exhibit D the onsite drainage flows from east to west passing through the site towards the adjacent parcels and to Sherman Lane with a Nolte flow of 5 cfs according to the graph of the Design Runoff Nolte Method Drainage Areas < 50 Acres in the Sacramento County Improvement Standards Manual shown on Exhibit F. There are no existing utilities on site. The project is proposing to rezone from AG-80 to AR-5 with no stormwater quality requirements needed since the site is located outside the Stormwater Utility District. An existing drainage ditch is in the middle of the site crossing it from east to west and routes drainage into the west side adjacent parcel. An existing 8'' culvert picks up drainage from the offsite watershed area on the easterly side of the side and drains into the drainage ditch. The project is proposing to subdivide the existing parcel with 20+/- acres into 4 parcels as shown on the Tentative Parcel Map Exhibit A, with a 40' private road and utility easement that grants access to parcels 1 and 2 with a hammer head at the end of the road that gives access to parcels 3 and 4. When the proposed private road is constructed, the undersized 8'' existing culvert in the existing ditch on eastern property line will be removed and it is proposed to install a 30'' corrugated metal culvert with a length of 30 feet and a 0.5% slope in the middle of the existing drainage ditch as shown on Exhibit A. Pipe cover will be 12'' meeting the minimum cover for corrugated metal pipes as required by Sacramento County Improvement Standards – Storm Drainage Design Manual.

➔ Calculations:

1) New Pipe:

Flow in pipe is computed using manning's equation $Q = \frac{1.49}{n}\ x\ A\ X\ R^{\frac{2}{3}}\ x\ \sqrt{S}$

Diameter of pipe = 30''

$A_{pipe} = \pi\ x\ \frac{{d_{pipe}}^2}{4} = \frac{\pi\ x\ 2.5^2}{4} = 4.908\ ft^2$

$R = \frac{Area\ of\ pipe}{wetted\ parameter} = \frac{\pi\ x\ \frac{{d_{pipe}}^2}{4}}{2\ x\ \pi\ x\ r_{pipe}} = \frac{4.908}{2\ x\ \pi\ x\ 1.25} = 0.62\ ft$

Slope = 0.5 % ➔ $\sqrt{S} = \sqrt{0.005} = 0.07$

$Q_{pipe} = \frac{1.49}{n}\ x\ A\ X\ R^{\frac{2}{3}}\ x\ \sqrt{S} = \frac{1.49}{0.024}\ x\ 4.908\ x\ 0.62^{\frac{2}{3}}\ x\ 0.07 = 15.35\ cfs$

Q_{pipe} = 15.35 cfs > Nolte flow = 9.5 cfs (according to the graph of the Design Runoff Nolte Method Drainage for Areas < 50 Acres in the Sacramento County Improvement Standards Manual shown on Exhibit F).

Channel Report for New Pipe Exhibit I shows the different values of the flow in the pipe at different depths from d = 0.25 ft to d_{full} = 2.5 ft (30'').

2) Existing Drainage Ditch:

The existing ditch is currently a trapezoidal channel section with a bottom width of 13 ft and a total depth of 6ft with side slopes 1:1

The inflow and outflow of the ditch has elevations of approximately 78' and 75' respectively as shown in The Topographic Survey Exhibit B, and the length of the ditch is approximately 912 Linear Feet.

$S_{ditch} = \frac{78-75}{912}\ x100 = 0.3\%$

Manning's coefficient: n = 0.033

Using the values found above, Channel Report Exhibit J for Existing Drainage Ditch shows the flow capacity in the ditch at full depth to be 685.4 cfs > Nolte flow = 9.5 cfs for the offsite drainage and > Nolte flow = 5 cfs for onsite drainage (according to the graph of the Design Runoff Nolte Method Drainage Areas < 50 Acres in the Sacramento County Improvement Standards Manual shown on Exhibit F) and shows the different flows according to different depth in the ditch

100-year storm event: Referring to Exhibit K, the 100-year peak flow for the combined offsite drainage area of 35.55 acres and half of the onsite drainage area of 10 acres was determined to be 32 cfs under existing conditions. With the assumption that proposed buildout condition will have 20% impervious area, the 100-year peak flow was determined to be 46 cfs from Figure 2-20 of Section 9 of the Sacramento County Improvement standards. The proposed 30" culvert was analyzed using Hydraflow Express from Autodesk Civil 3D with parameters shown on Exhibit L. With the 100-year peak flow of 46 cfs, the culvert will be full and the water elevation will increase to 76.23 which will still remain in the existing ditch. The minimum pad elevation for any proposed structures will have to be at least 77.43.

4. Conclusion:

The project site is approximately 20 acres and currently is undeveloped. The project proposes to split the existing parcel into 4 equal parcels of 5 acres each and plan to rezone the parcel from AG-80 to AR-5. Existing conditions shows that the site drains from east to west passing through the site continuing to Shamer Lane as shown on the topographic survey. The project proposes a 40' private road and utility easement that grants access to parcels 1 and 2 with a hammer head at the end of the road that gives the fire department and residents access to parcels 3 and 4. Half of the onsite runoff and the total offsite drainage will pass through the proposed private road through a proposed 30'' corrugated metal culvert in the existing drainage ditch. 100-year peak flow will increase water elevation in the existing ditch to 76.23'. Minimum pad elevations for any future structures are determined to be 77.43'.

SURVEY NOTES:

1) A PRELIMINARY TITLE REPORT BY ORANGE COAST TITLE COMPANY OF NORTH CALIFORNIA DATED OCTOBER 21, 2021, NO. 525-2290028-62 WAS PROVIDED FOR THE PREPARATION OF THIS SURVEY.

2) THE POSITION OF IDENTIFIED RECORD EASEMENTS HAVE BEEN PLOTTED USING RECORD DESCRIPTIONS. SURFACE FACILITIES HAVE BEEN PLOTTED USING FIELD INFORMATION. THE ACTUAL LOCATIONS OF UNDERGROUND FACILITIES SHOULD BE VERIFIED PRIOR TO ANY NEW CONSTRUCTIONS.

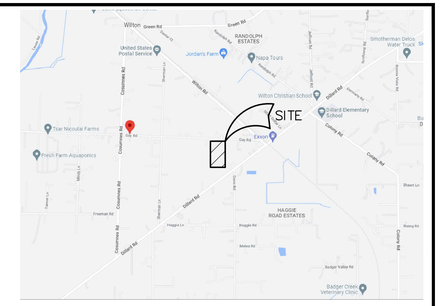
3) THIS IS NOT A BOUNDARY SURVEY. ADDITIONAL FIELD SURVEY AND RESEARCH WILL BE REQUIRED TO ESTABLISHED THE ACTUAL BOUNDARY. BOUNDARY INFORMATION SHOWN HEREON IS FROM RECORD BEING LOT 458 AS SHOWN ON THE OFFICIAL "PLAT OF CENTRAL CALIFORNIA TRACTION UNIT NO. 6" MAP 13 OF PAGE 18.

4) THE TYPES, LOCATION, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. INTERESTED PARTIES ARE CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. JTS ENGINEERING CONSULTANTS, INC. ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. PRESCRIPTIVE EASEMENTS MAY EXIST OVER THOSE FACILITIES WHICH ARE NOT WITHIN THE RECORD EASEMENT.

5) NO MONUMENTS WERE SET AS A PART OF THIS SURVEY.

LEGEND

MANHOLE
DRAIN INLET
WATER LINE (6"W)
DRAIN LINE (12"SD)
SEWER LINE (8"SS)
GAS LINE (4"G)
FIRE HYDRANT
WATER VALVE
SEWER CLEAN OUT
WATER METER (WM)
FIRE DEPT. CONNECTION
EDGE OF PAVEMENT
BACK FLOW PREVENTER
CONCRETE CURB
SPOT ELEVATION (20.98)
UTILITY POLE
OVER HEAD WIRE (O.H.)
UTILITY POLE W/GUY
PUBLIC STREET LIGHT
SIGN
FENCE
GAS METER (GM)
TREE



VICINITY MAP
NO SCALE

LOT 482 13 BM 18 APN:134-0330-011
LOT 479 13 BM 18 APN:134-0330-012
APN:134-0330-017
LOT 459 13 BM 18 APN:134-0330-017
APN:134-0143-014
APN:134-0143-015
APN:134-0143-016
APN:134-0143-017
LOT 481 13 BM 18 APN:134-0330-025
LOT 458 13 BM 18 APN:134-0330-023
LOT 454 13 BM 18
LOT 480 13 BM 18 APN:134-0330-024
LOT 458 13 BM 18 APN:134-0330-016
PARCEL 3 5.00±AC
PARCEL 4 5.00±AC
PARCEL 1 5.00±AC
PARCEL 2 5.00±AC
PARCEL C 35 PM 48 APN:134-0330-022
660.00'
330.00'
~NATURAL GROUND~
TOP OF DITCH
DRAINAGE DITCH
NEW PARCEL LINE
PROPOSED 20' PAVED ROAD
40' PRIVATE ROAD AND UTILITY EASEMENT
FIRE TRUCK TURNAROUND
CONCRETE VERTICAL PIPE
PROPOSED 30" CULVERT
PROPOSED CLASS C STREET SECTION PER COUNTY DETAIL 4-4
GAY ROAD
CENTERLINE GAY ROAD
EDGE OF PAVEMENT
DRAINAGE DITCH
D/W
20' R/W PER 13-BM-18
30' R/W
R=25'
R=50'
20'
75'
60'
16'
WELL
GATE
RISER
NORTH
0 30 60 120
SCALE 1"=60'

EXISTING LEGAL DESCRIPTION:

LOT 458 SHOWN ON THE OFFICIAL "PLAT OF CENTRAL CALIFORNIA TRACTION UNIT NO. 6" MAP 13 OF PAGE 18, RECORDS OF SACRAMENTO COUNTY.

APN: 134-0330-023

OWNER:
MUNDELL LAND/LIVESTOCK COMPANY INC
SECO CATTLE FEEDING INC
CONTACT: WEST FORK CONSTRUCTION
6050 WAREHOUSE WAY
SACRAMENTO, CA 95826
TEL: (916) 479-5281
EMAIL: mcongdon@wfcsac.com

APPLICANT/ENGINEER:
JTS ENGINEERING CONSULTANTS INC.
1808 J STREET
SACRAMENTO, CA 95811
TEL: (916) 441-6708
FAX: (916) 441-5336
CONTACT: JAVED T. SIDDIQUI, P.E.
EMAIL: javed.siddiqui@jtsengineering.com

PROJECT ADDRESS: GAY ROAD, WILTON

	EXISTING	PROPOSED
ZONING:	AG-80	AR-5
USE:	VACANT	SINGLE FAMILY RESIDENTIAL
PARCEL:	1	4
AREA: (GROSS)	20.00±AC	AS SHOWN
SCHOOL DISTRICT:	ELK GROVE UNIFIED	

REQUEST:
1. REZONE FROM AG-80 TO AR-5
2. REQUEST TO SUBDIVIDE ONE EXISTING PARCEL INTO 4 PARCELS.

UTILITY CONTACTS

TELEPHONE	AT&T	(916) 972-2142
GAS	PG&E	(916) 386-5013
ELECTRICITY	SMUD	(916) 732-5897
WATER	PRIVATE WELL	
CABLE	AT&T BROADBAND	(916) 648-8350
DRAINAGE	CITY OF SAC.	(916) 808-8891
SEWER	PRIVATE SEPTIC	
FIRE	WILTON FIRE PROTECTION DISTRICT	(916) 687-6920
UNDERGROUND SERVICE ALERT	UNDERGROUND SERVICE ALERT	(800) 227-2600

BENCHMARK ELEV. 84.01' NAVD88
BENCHMARK U2A-46 BRONZE TAB. IN CON. BM S-953 27' SW OF CL RANDOLPH RD AND 25 NW OF DILLARD RD.
NVGD EL=81.63
FIELD BOOK NO._____ PG.___

JTS ENGINEERING CONSULTANTS, INC.
1808 J STREET
SACRAMENTO CALIFORNIA 95811 (916) 441-6708

DESIGNED: DVN
DRAWN: DVN
CHECKED: JTS
SUBMITTED: JAVED T. SIDDIQUI, P.E.
SCALE: 1"=60'
RCE: 25924

REGISTERED PROFESSIONAL ENGINEER JAVED T. SIDDIQUI No.25924 Expires: 12-31-23 CIVIL STATE OF CALIFORNIA

NO	DATE	REVISION	APPROVAL	BY

TENTATIVE PARCEL MAP
GAY ROAD, WILTON
COUNTY OF SACRAMENTO — APN: 134-0333-023 — CALIFORNIA

DATE: 6/7/2022
SHEET 1 OF 1

X-REF:
JOB NO: 2022-028

SURVEY NOTES:

1) NO PRELIMINARY TITLE REPORT WAS PROVIDED FOR THE PREPARATION OF THIS SURVEY.

2) THE POSITION OF IDENTIFIED RECORD EASEMENTS HAVE BEEN PLOTTED USING RECORD DESCRIPTIONS. SURFACE FACILITIES HAVE BEEN PLOTTED USING FIELD INFORMATION. THE ACTUAL LOCATIONS OF UNDERGROUND FACILITIES SHOULD BE VERIFIED PRIOR TO ANY NEW CONSTRUCTIONS.

3) THIS IS NOT A BOUNDARY SURVEY. ADDITIONAL FIELD SURVEY AND RESEARCH WILL BE REQUIRED TO ESTABLISHED THE ACTUAL BOUNDARY.

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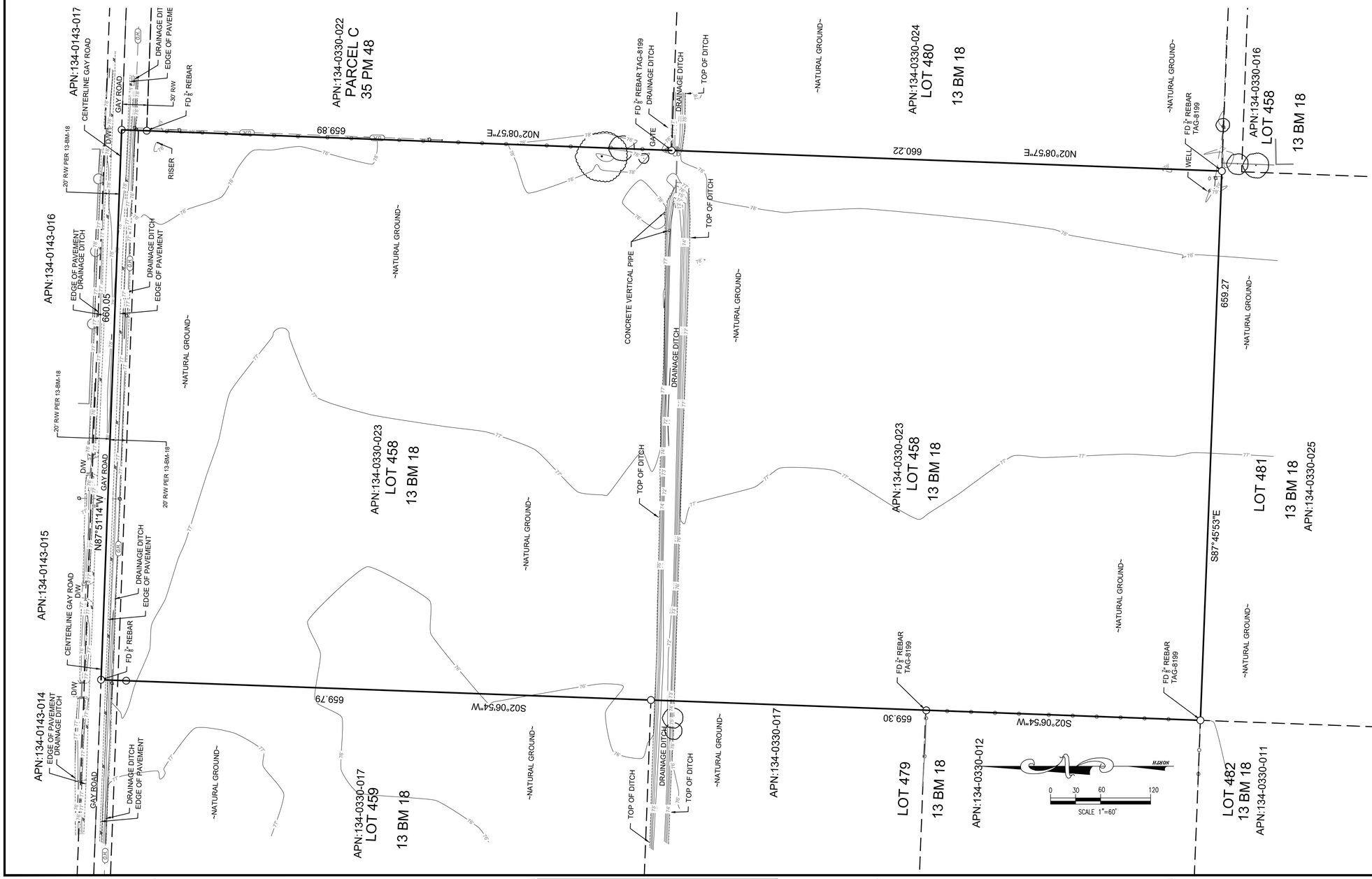
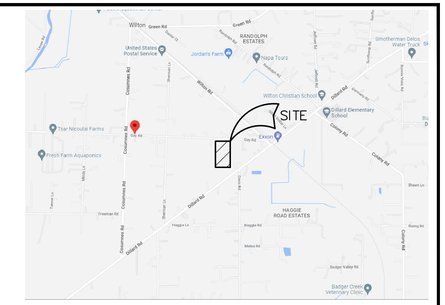
5) NO MONUMENTS WERE SET AS A PART OF THIS SURVEY.





VICINITY MAP
NO SCALE

LEGEND

- MANHOLE
- DRAIN INLET
- WATER LINE — 6"W
- DRAIN LINE — 12"SD
- SEWER LINE — 8"SS
- GAS LINE — 4"G
- FIRE HYDRANT
- WATER VALVE
- SEWER CLEAN OUT
- WATER METER — WM
- FIRE DEPT. CONNECTION
- EDGE OF PAVEMENT
- BACK FLOW PREVENTER
- CONCRETE CURB
- SPOT ELEVATION — 20.80
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL WITH LIGHT
- PARKING LIGHT
- PULL BOX
- GAS VALVE
- UTILITY POLE
- GAS METER — GM
- OVER HEAD WIRE — O.H.
- UTILITY POLE W/GUY
- PUBLIC STREET LIGHT
- SIGN
- FENCE
- WALL
- GUARD POST
- TREE
- VAULT
- TRANSFORMER
- RAIN WATER LEADER — RW
- UNDEGROUND TELEPHONE LINE — UGT
- UNDEGROUND ELECTRICAL LINE — UGE
- U.G. CABLE LINE — CTV
- RIDGE LINE — RIDGE

BENCHMARK ELEV. 84.01 NAVD88
BENCHMARK U2A-46 BRONZE TAB. IN CON. BM S-953 27' SW OF CL RANDOLPH RD AND .25 NW OF DILLARD RD.
NVGD EL=81.63

FIELD BOOK NO._____ PG.___

JTS ENGINEERING CONSULTANTS, INC.
1808 J STREET
SACRAMENTO CALIFORNIA 95811 (916) 441-6708

DESIGNED: N/A
DRAWN: HKS
CHECKED: JTS
SUBMITTED: JAVED T. SIDDIQUI, P.E. 25924
SCALE: 1"=60'

REGISTERED PROFESSIONAL ENGINEER JAVED T. SIDDIQUI No.25924 CIVIL STATE OF CALIFORNIA

NO	DATE	REVISION	APPROVAL	BY

TOPOGRAPHIC SURVEY
GAY ROAD, WILTON

SACRAMENTO COUNTY — APN: 134-0330-023 — CALIFORNIA

X-REF:

DATE: 03/09/2022
SHEET 1 OF 1
JOB NO: 2022-028

SURVEY NOTES:

1) NO PRELIMINARY TITLE REPORT WAS PROVIDED FOR THE PREPARATION OF THIS SURVEY.

2) THE POSITION OF IDENTIFIED RECORD EASEMENTS HAVE BEEN PLOTTED USING RECORD DESCRIPTIONS. SURFACE FACILITIES HAVE BEEN PLOTTED USING FIELD INFORMATION. THE ACTUAL LOCATIONS OF UNDERGROUND FACILITIES SHOULD BE VERIFIED PRIOR TO ANY NEW CONSTRUCTIONS.

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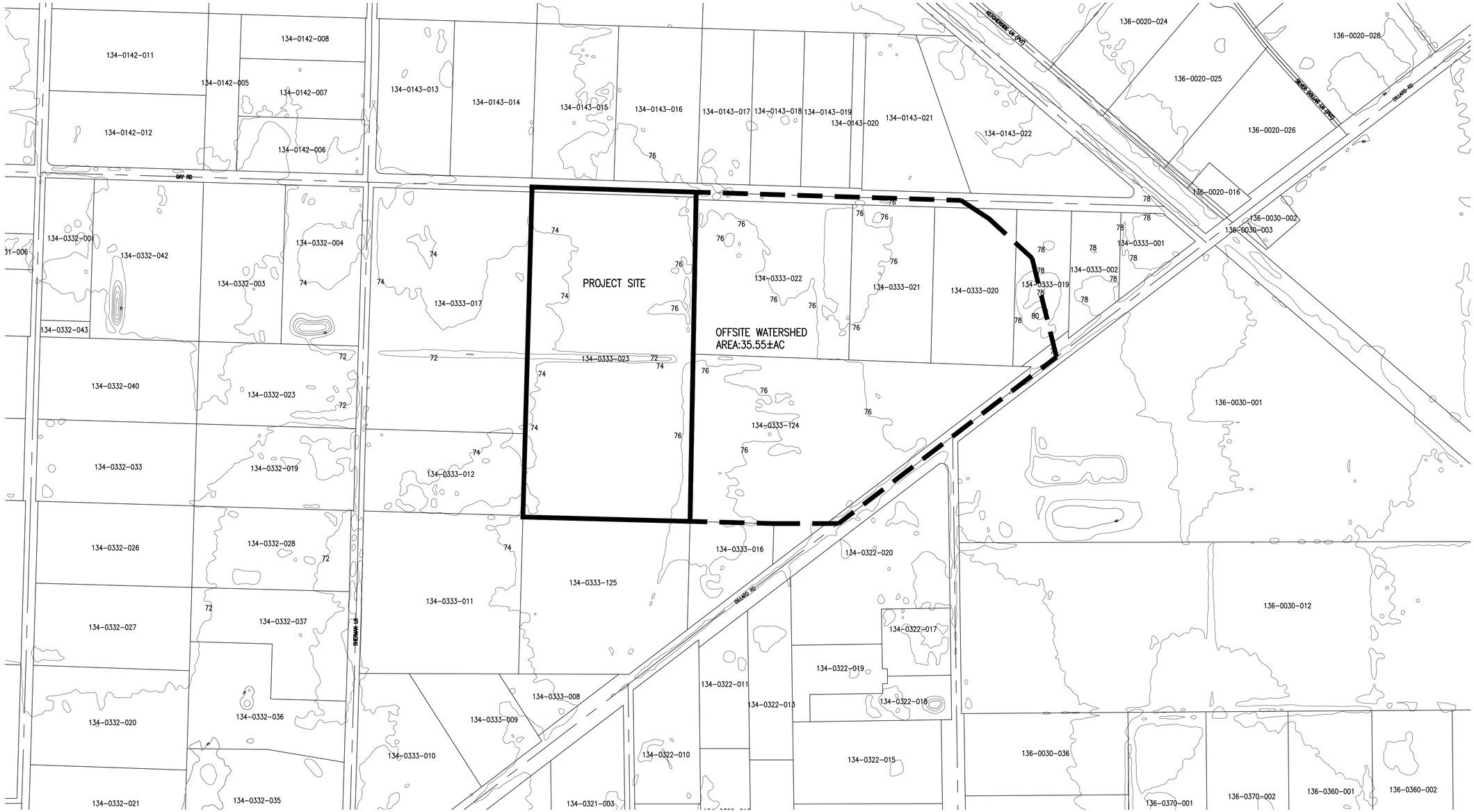

BENCHMARK ELEV. 0.00'
BENCHMARK

FIELD BOOK NO._____ PG.___

JTS ENGINEERING CONSULTANTS, INC.
1808 J STREET
SACRAMENTO CALIFORNIA 95811 (916) 441-6708

DESIGNED: AKS
DRAWN: AKS
CHECKED: JTS / FNW
SUBMITTED: JAVED T. SIDDIQUI, P.E. RCE: 25924

SCALE: 1"=200'

REGISTERED PROFESSIONAL ENGINEER
JAVED T. SIDDIQUI
No.25924
Expires: 12-31-23
CIVIL
STATE OF CALIFORNIA

NO	DATE	REVISION	APPROVAL	BY

OFFSITE WATERSHED EXHIBIT

GAY ROAD, WILTON

COUNTY OF SACRAMENTO **APN: 134-0330-023** CALIFORNIA

X-REF:

DATE: 4/19/2022
SHEET 1 OF 1
JOB NO: 2022-028

SURVEY NOTES:

1) NO PRELIMINARY TITLE REPORT WAS PROVIDED FOR THE PREPARATION OF THIS SURVEY.

2) THE POSITION OF IDENTIFIED RECORD EASEMENTS HAVE BEEN PLOTTED USING RECORD DESCRIPTIONS. SURFACE FACILITIES HAVE BEEN PLOTTED USING FIELD INFORMATION. THE ACTUAL LOCATIONS OF UNDERGROUND FACILITIES SHOULD BE VERIFIED PRIOR TO ANY NEW CONSTRUCTIONS.

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5) NO MONUMENTS WERE SET AS A PART OF THIS SURVEY.

BENCHMARK ELEV. 0.00'
BENCHMARK

FIELD BOOK NO._____ PG.___

JTS ENGINEERING CONSULTANTS, INC.
1808 J STREET
SACRAMENTO CALIFORNIA 95811 (916) 441-6708

DESIGNED: AKS
DRAWN: AKS
CHECKED: JTS / FNW
SUBMITTED: JAVED T. SIDDIQUI, P.E. RCE: 25924

SCALE: 1"=200'

REGISTERED PROFESSIONAL ENGINEER
JAVED T. SIDDIQUI
No.25924
Expires: 12-31-23
CIVIL
STATE OF CALIFORNIA

NO	DATE	REVISION	APPROVAL	BY

ONSITE WATERSHED EXHIBIT
GAY ROAD, WILTON
COUNTY OF SACRAMENTO APN: 134-0330-023 CALIFORNIA

DATE: 4/19/2022
SHEET 1 OF 1

X-REF:

JOB NO: 2022-028

Sacramento County, California

213—San Joaquin silt loam, leveled, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: hhpv
Elevation: 20 to 500 feet
Mean annual precipitation: 10 to 22 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

San joaquin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of San Joaquin

Setting

Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

H1 - 0 to 23 inches: silt loam
H2 - 23 to 28 inches: clay loam
H3 - 28 to 54 inches: indurated
H4 - 54 to 60 inches: stratified sandy loam to loam

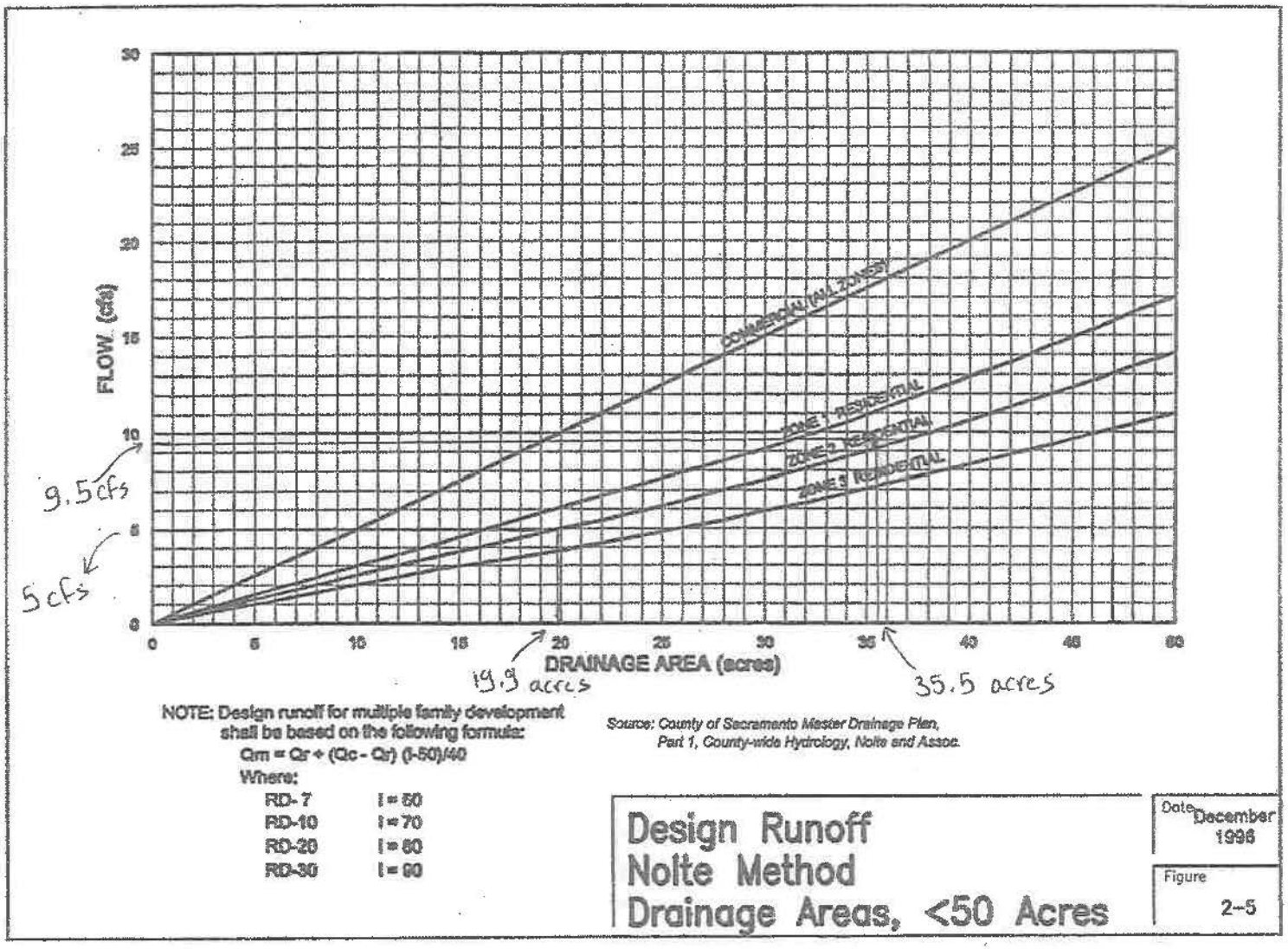
Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches; 28 to 54 inches to duripan
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Hydric soil rating: No

EXHIBIT "F"



2-17

EXHIBIT "G"

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was California State Plane Zone II (FIPSZONE 0402). The horizontal datum was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by the County of Sacramento Water Resources Department. This information was derived from digital orthophotos produced with 6-inch pixel resolution and 3.9-foot horizontal accuracy from aerial photography dated March 2001.

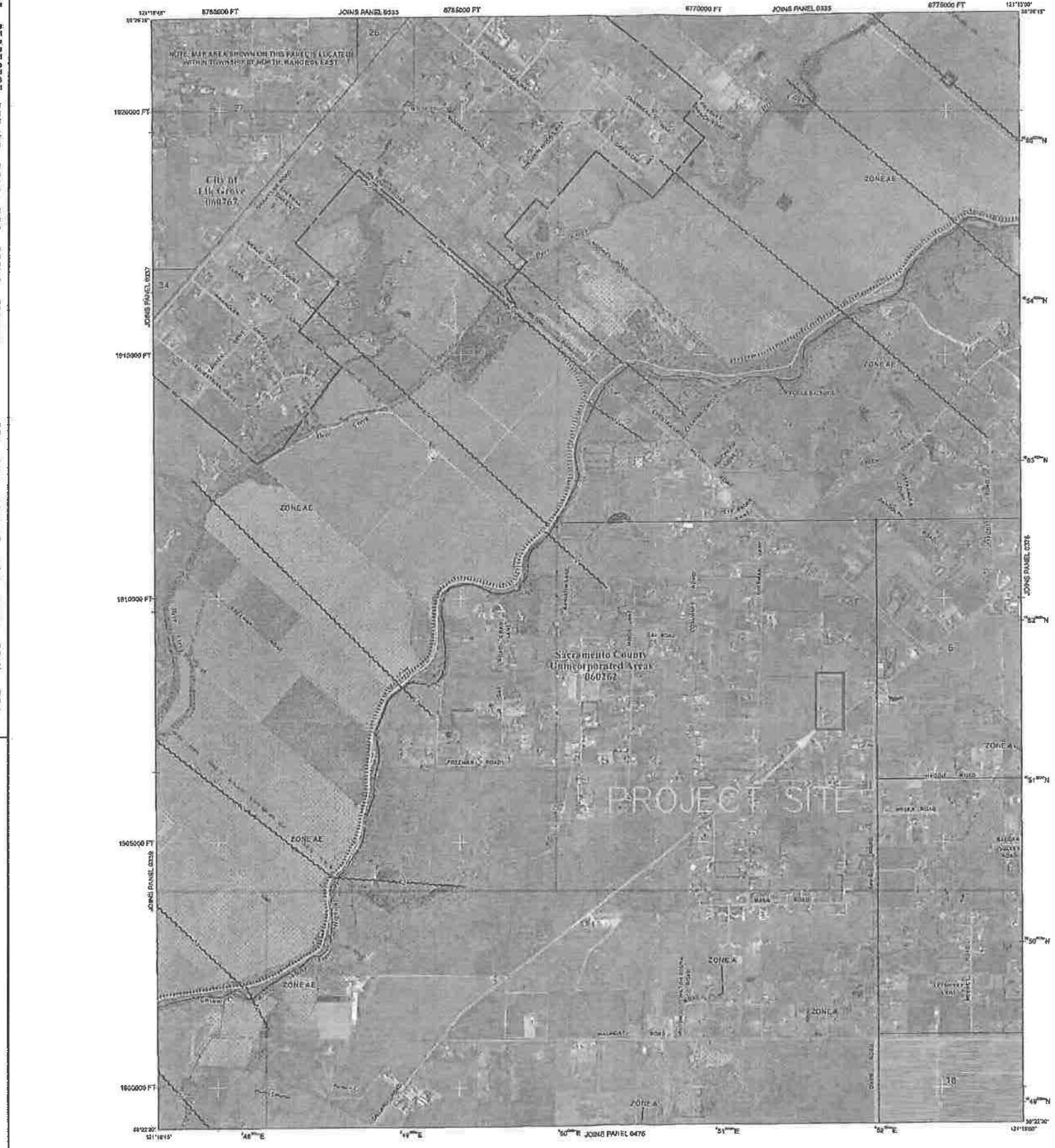
This map may reflect more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplain and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the Map Service Center (MSC) website at http://www.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have questions about this map, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange (FMIX) at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are generally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Limit of Moderate Wave Action
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Culvert, Flume, Pendock or Aqueduct
- Road or Railroad Bridge
- Footbridge
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 9775000mN — 1000-meter Universal Transverse Mercator grid values, zone 10
- 6000000 FT — 5000-foot grid values: California State Plane coordinate system, zone II (FIPSZONE 0402), Lambert Conformal Conic projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.6 — River Mile

MAP REPOSITORY
Refer to list of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
AUGUST 16, 2012

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
150 0 300 600 METERS

PANEL 0345H

FIRM

FLOOD INSURANCE RATE MAP

SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 345 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ELK GROVE, CITY OF	060767	0345	H
SACRAMENTO COUNTY	060262	0345	H

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

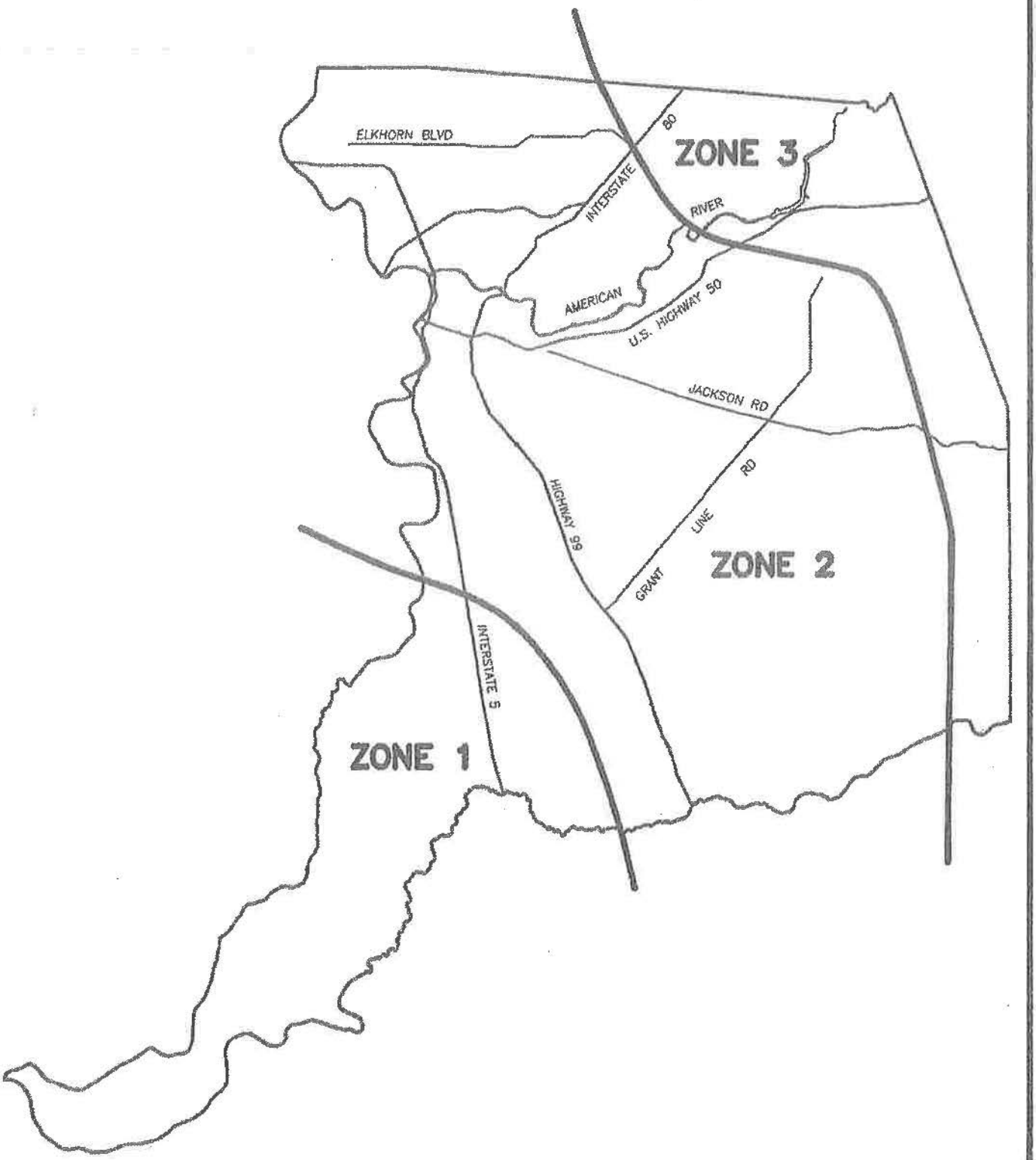
MAP NUMBER
06067C0345H

EFFECTIVE DATE
AUGUST 16, 2012

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

EXHIBIT "H"



Note : See foldout map in the back of Hydrology Standards for larger scale map of Rainfall Zones.

Sacramento City and County
Rainfall Zones
Sacramento Method

Date December 1996

Figure 2–11

Channel Report

EXHIBIT "I"

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Mar 24 2022

30" New Pipe

Circular

Diameter (ft)	= 2.50
Invert Elev (ft)	= 1.00
Slope (%)	= 0.50
N-Value	= 0.024

Calculations

Compute by:	Q vs Depth
No. Increments	= 10

Highlighted

Depth (ft)	= 1.50
Q (cfs)	= 10.59
Area (sqft)	= 3.08
Velocity (ft/s)	= 3.43
Wetted Perim (ft)	= 4.44
Crit Depth, Yc (ft)	= 1.09
Top Width (ft)	= 2.45
EGL (ft)	= 1.68

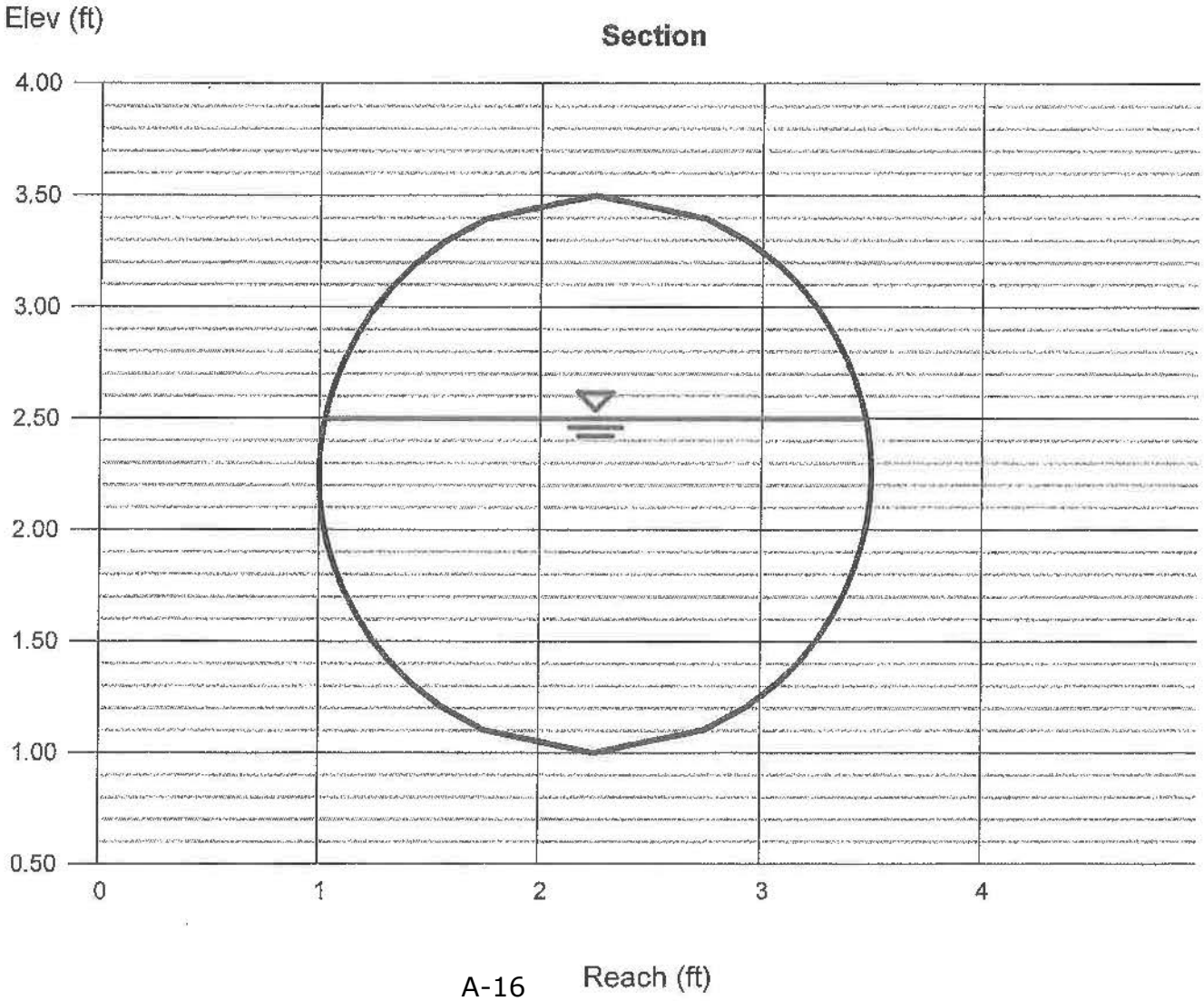


EXHIBIT "I" CONTINUED

Depth	Q	Area	Veloc	Wp
(ft)	(cfs)	(sqft)	(ft/s)	(ft)
0.25	0.331	0.257	1.29	1.61
0.50	1.390	0.704	1.97	2.32
0.75	3.082	1.240	2.48	2.90
1.00	5.300	1.835	2.89	3.42
1.25	7.910	2.468	3.21	3.94
1.50	10.59	3.084	3.43	4.44
1.75	13.18	3.677	3.58	4.96
2.00	15.36	4.211	3.65	5.54
2.25	16.75	4.655	3.60	6.25
2.50	15.71	4.909	3.20	7.85

EXHIBIT "J"

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Mar 31 2022

Existing Drianage Ditch

Trapezoidal

Bottom Width (ft)	= 13.00
Side Slopes (z:1)	= 1.00, 1.00
Total Depth (ft)	= 6.00
Invert Elev (ft)	= 1.00
Slope (%)	= 0.30
N-Value	= 0.033

Calculations

Compute by:	Q vs Depth
No. Increments	= 10

Highlighted

Depth (ft)	= 0.60
Q (cfs)	= 13.59
Area (sqft)	= 8.16
Velocity (ft/s)	= 1.67
Wetted Perim (ft)	= 14.70
Crit Depth, Yc (ft)	= 0.33
Top Width (ft)	= 14.20
EGL (ft)	= 0.64

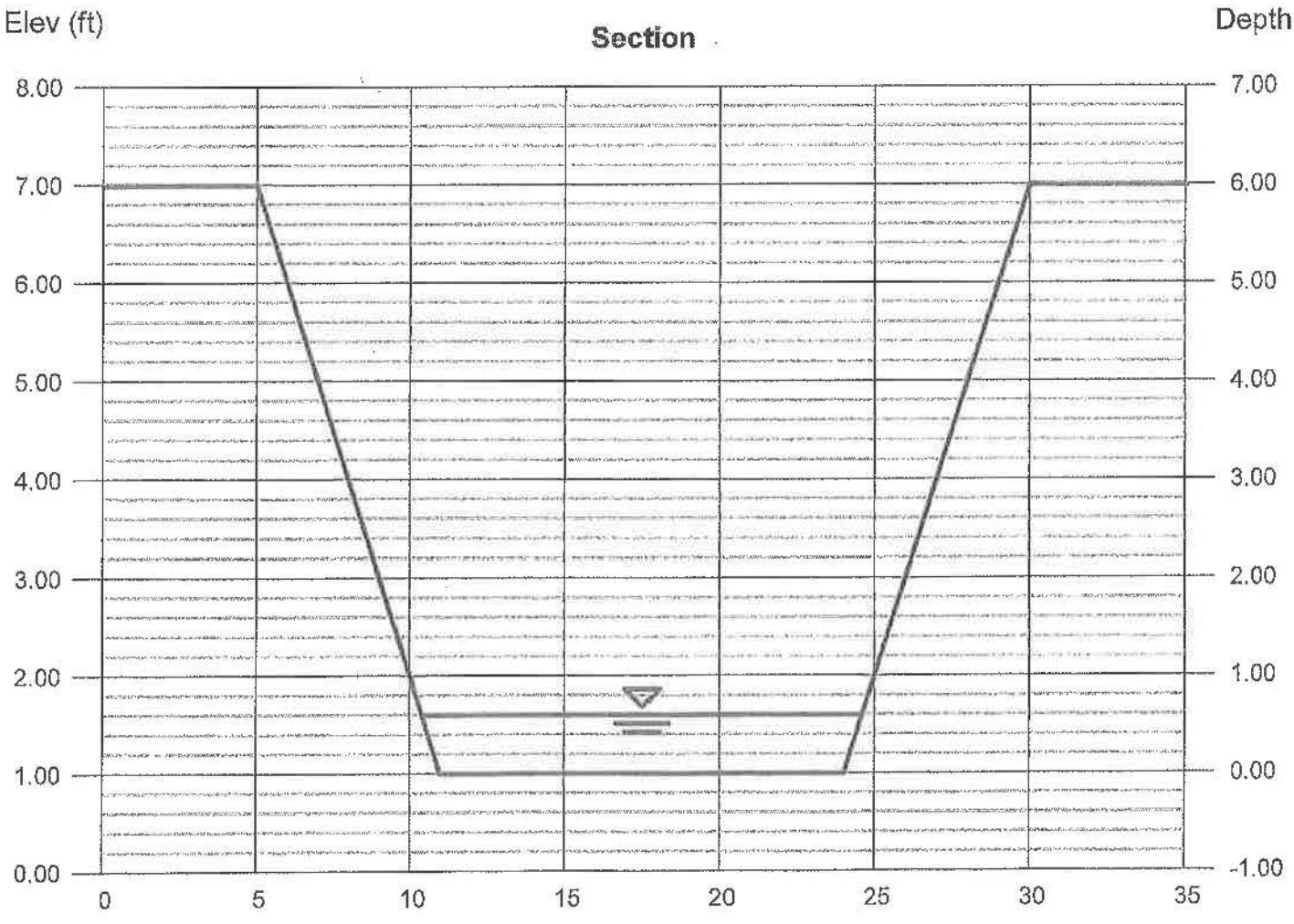
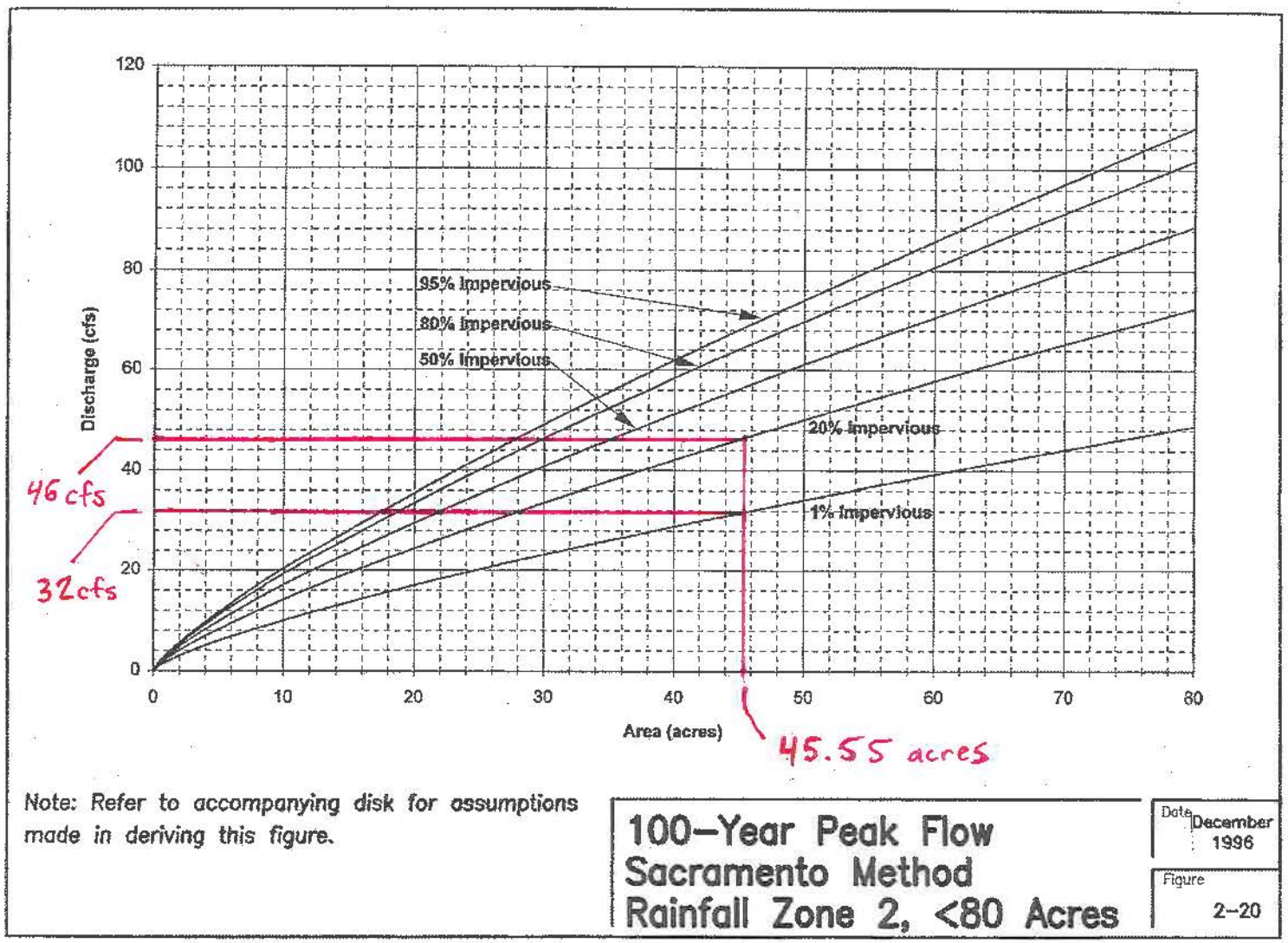


EXHIBIT "J" CONTINUED

Depth	Q	Area	Veloc	Wp
(ft)	(cfs)	(sqft)	(ft/s)	(ft)
0.60	13.59	8.160	1.67	14.70
1.20	43.12	17.04	2.53	16.39
1.80	85.06	26.64	3.19	18.09
2.40	138.3	36.96	3.74	19.79
3.00	202.4	48.00	4.22	21.49
3.60	277.2	59.76	4.64	23.18
4.20	362.8	72.24	5.02	24.88
4.80	459.2	85.44	5.37	26.58
5.40	566.7	99.36	5.70	28.27
6.00	685.4	114.0	6.01	29.97

EXHIBIT K



2-32

EXHIBIT L

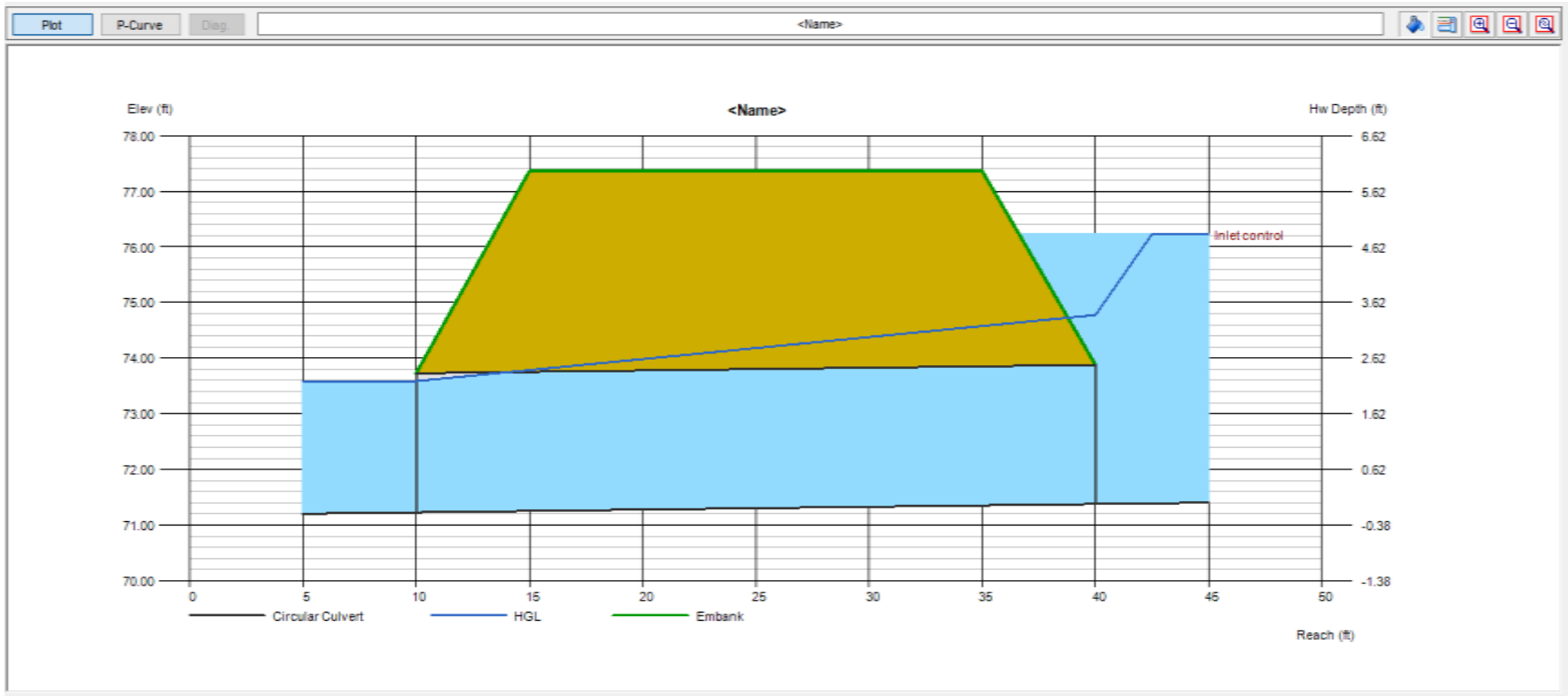
Proposed 30” Culvert Parameters

Section	Item	Input
Pipe	Inv Elev Dn =	71.23
	Length (ft) =	30.00
	Slope (%) =	0.50
	Inv Elev Up =	71.38
	Rise (in) =	30.0
	Shape =	Circular
	Span (in) =	30.0
	No. Barrels =	1
	n-value =	0.024
	Culvert Type =	Circular Corrugate Metal Pipe
	Culvert Entrance =	Headwall
Embank	Top Elev =	77.36
	Top Width (ft) =	20.00
	Crest Len (ft) =	10.00
Calcs	Q Min (cfs) =	32.00
	Q Max (cfs) =	46.00
	Q Incr (cfs) =	1.40
	Tailwater (ft) =	(dc+D)/2

Clear Run

EXHIBIT M

Results of the proposed 30” culvert for 100-year peak flow.



Q			Veloc		Depth		HGL			
Total	Pipe	Over	Dn	Up	Dn	Up	Dn	Up	Hw	Hw/D
(cfs)	(cfs)	(cfs)	(ft/s)	(ft/s)	(in)	(in)	(ft)	(ft)	(ft)	
39.00	39.00	0.00	8.25	7.95	27.63	30.00	73.53	74.47	75.49	1.64
40.40	40.40	0.00	8.51	8.23	27.82	30.00	73.55	74.55	75.67	1.71
41.80	41.80	0.00	8.77	8.52	27.99	30.00	73.56	74.62	75.85	1.79
43.20	43.20	0.00	9.03	8.80	28.15	30.00	73.58	74.70	76.03	1.86
44.60	44.60	0.00	9.29	9.09	28.30	30.00	73.59	74.78	76.23	1.94

APPENDIX B

Date: September 15, 2022

To: Marshall Congdon
West Fork Construction
6050 Warehouse Way
Sacramento, CA 95826
Via email: mcongdon@wfcsac.com

From: Becky Rozumowicz-Kodsuntie
Area West Environmental, Inc.
6248 Main Avenue, Suite C, Orangevale, CA 95662
Email: becky@areawest.net

Subject: Biological Resource Technical Memorandum for the Gay Road Rezone and Tentative Parcel Division Project, Wilton, Sacramento County, California

This biological resource technical memorandum describes environmental conditions and biological resources at the Gay Road Rezone and Tentative Parcel Division Project (Project).

1.0 PROJECT LOCATION AND DESCRIPTION

The Project is located on Assessor's Parcel Number 134-0333-0230 in Wilton, Sacramento County, California (Figure 1). The Project site is found on the U.S. Geological Survey (USGS) topographic map, Elk Grove quadrangle, Section 1, Township 6 North, Range 6 East (Figure 2). The northeast corner is located at latitude 38.401903, longitude -121.264277 and the southwest corner is located at latitude 38.398377, longitude -121.266745. The Project is in a rural area, surrounded on the north by single-family homes and undeveloped lots to the east, west, and south (Figure 3). The Project site occurs within the South Sacramento Habitat Conservation Plan (SSHCP) area, outside of the Urban Development Area.

The Project proposes to divide one parcel totaling 20 +/- acres zoned as agricultural into four smaller 5-acre parcels that will be rezoned agricultural residential (Figure 4).

2.0 STUDY OBJECTIVE

The primary objective of this study is to assess the biological resources of the Project site, determine the presence or presumed absence of sensitive biological resources (i.e., special-status species and sensitive plant communities or habitats, including land cover types designated in the SSHCP occurring at the Project site, assess potential Project impacts, and recommend mitigation strategies consistent with those in the SSHCP for potential impacts.

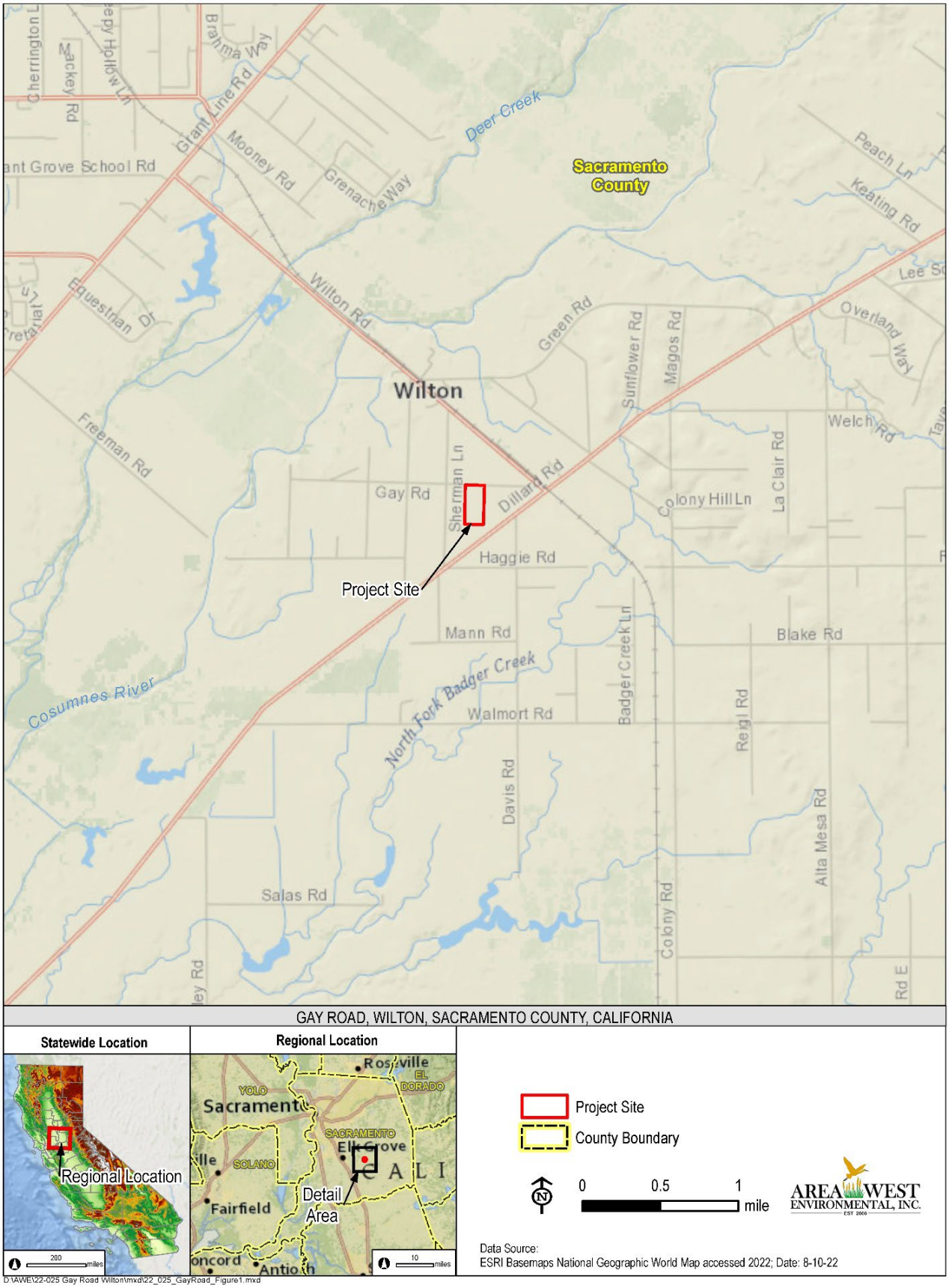


Figure 1. Project Vicinity

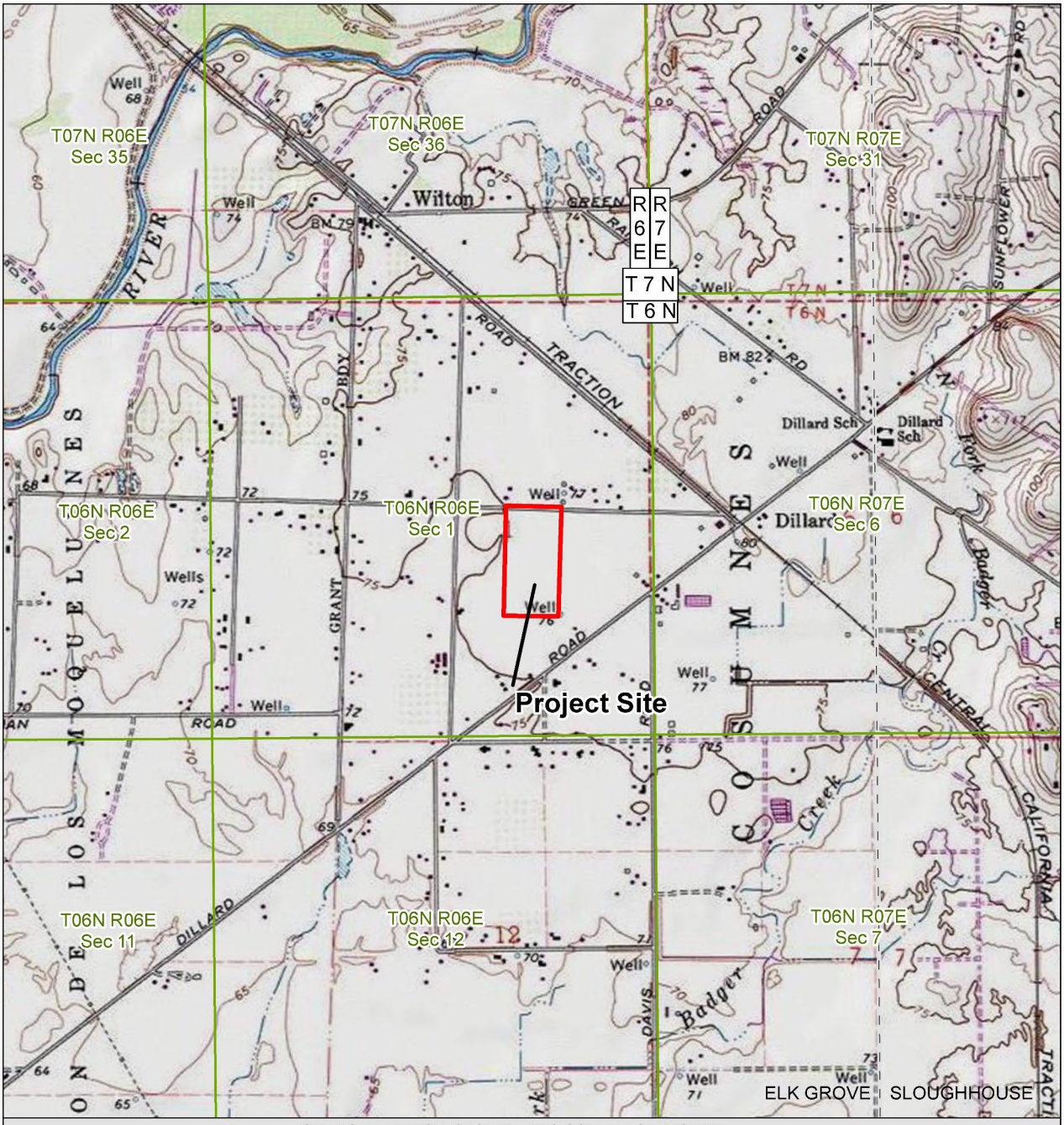


Figure 2. Project Location

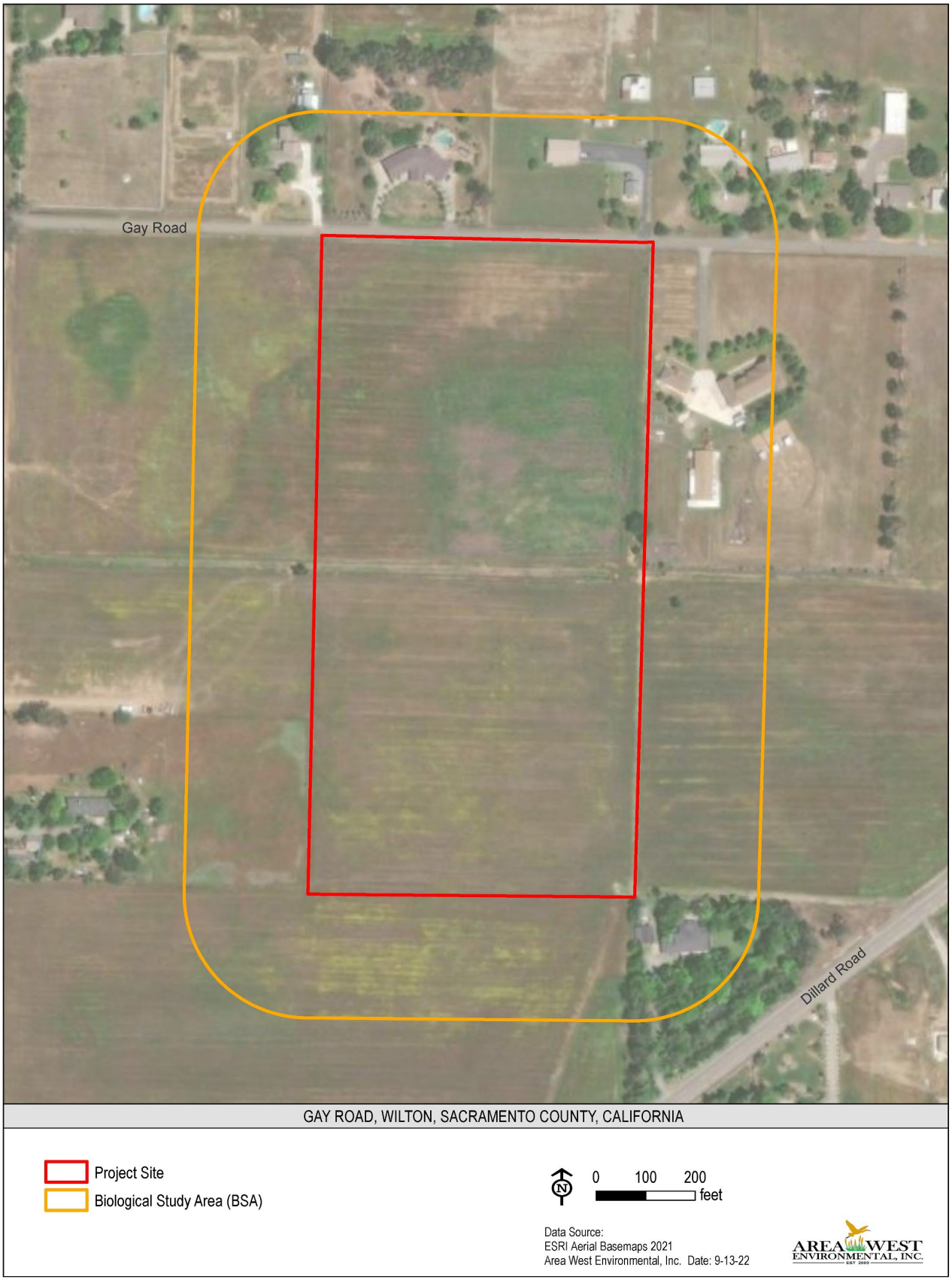


Figure 3. Aerial Photograph of Project

SURVEY NOTES:

1) A PRELIMINARY TITLE REPORT BY ORANGE COAST TITLE COMPANY OF NORTH CALIFORNIA DATED OCTOBER 21, 2021, NO. 525-2290028-02 WAS PROVIDED FOR THE PREPARATION OF THIS SURVEY.

2) THE POSITION OF IDENTIFIED RECORD EASEMENTS HAVE BEEN PLOTTED USING RECORD DESCRIPTIONS. SURFACE FACILITIES HAVE BEEN PLOTTED USING FIELD INFORMATION. THE ACTUAL LOCATIONS OF UNDERGROUND FACILITIES SHOULD BE VERIFIED PRIOR TO ANY NEW CONSTRUCTIONS.

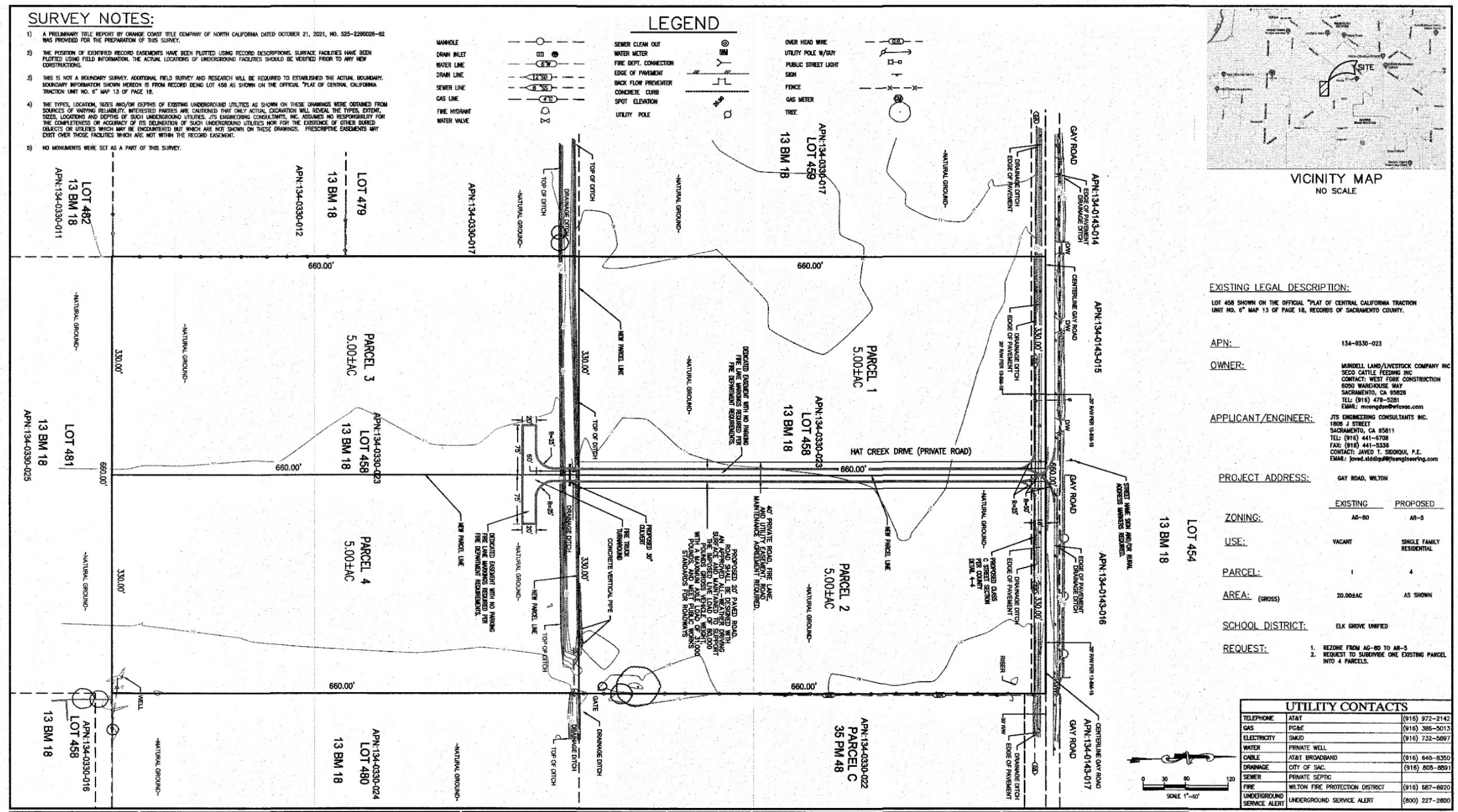
3) THIS IS NOT A BOUNDARY SURVEY. ADDITIONAL FIELD SURVEY AND RESEARCH WILL BE REQUIRED TO ESTABLISHED THE ACTUAL BOUNDARY. BOUNDARY INFORMATION SHOWN HEREON IS FROM RECORD BEING LOT 458 AS SHOWN ON THE OFFICIAL "PLAT OF CENTRAL CALIFORNIA TRACTION UNIT NO. 6" MAP 13 OF PAGE 18.

4) THE TYPES, LOCATION, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. INTERESTED PARTIES ARE CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. JTS ENGINEERING CONSULTANTS, INC. ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. PRESCRIPTIVE EASEMENTS MAY EXIST OVER THOSE FACILITIES WHICH ARE NOT WITHIN THE RECORD EASEMENT.

5) NO MONUMENTS WERE SET AS A PART OF THIS SURVEY.

LEGEND

MANHOLE
DRAIN INLET
WATER LINE
DRAIN LINE
SEWER LINE
GAS LINE
FIRE HYDRANT
WATER VALVE
SEWER CLEAN OUT
WATER METER
FIRE DEPT. CONNECTION
EDGE OF PAVEMENT
BACK FLOW PREVENTER
CONCRETE CURB
SPOT ELEVATION
UTILITY POLE
OVER HEAD WIRE
UTILITY POLE W/GUY
PUBLIC STREET LIGHT
SIGN
FENCE
GAS METER
TREE



VICINITY MAP
NO SCALE

EXISTING LEGAL DESCRIPTION:

LOT 458 SHOWN ON THE OFFICIAL "PLAT OF CENTRAL CALIFORNIA TRACTION UNIT NO. 6" MAP 13 OF PAGE 18, RECORDS OF SACRAMENTO COUNTY.

APN: 134-0330-023

OWNER: MUNDELL LAND/LIVESTOCK COMPANY INC
SECO CATTLE FEEDING INC
CONTACT: WEST FORK CONSTRUCTION
6050 WAREHOUSE WAY
SACRAMENTO, CA 95828
TEL: (916) 479-5281
EMAIL: mcongdon@wfconc.com

APPLICANT/ENGINEER: JTS ENGINEERING CONSULTANTS INC.
1808 J STREET
SACRAMENTO, CA 95811
TEL: (916) 441-6708
FAX: (916) 441-5335
CONTACT: JAVED T. SIDDIQUI, P.E.
EMAIL: javed.siddiqui@jtsengineering.com

PROJECT ADDRESS: GAY ROAD, WILTON

	EXISTING	PROPOSED
ZONING:	AG-80	AR-5
USE:	VACANT	SINGLE FAMILY RESIDENTIAL
PARCEL:	1	4
AREA: (GROSS)	20.00±AC	AS SHOWN

SCHOOL DISTRICT: ELK GROVE UNIFIED

REQUEST:
1. REZONE FROM AG-80 TO AR-5
2. REQUEST TO SUBDIVIDE ONE EXISTING PARCEL INTO 4 PARCELS.

UTILITY CONTACTS		
TELEPHONE	AT&T	(916) 972-2142
GAS	PG&E	(916) 386-5013
ELECTRICITY	SMUD	(916) 732-5897
WATER	PRIVATE WELL	
CABLE	AT&T BROADBAND	(916) 649-8350
DRAINAGE	CITY OF SAC.	(916) 808-8891
SEWER	PRIVATE SEPTIC	
FIRE	WILTON FIRE PROTECTION DISTRICT	(916) 687-6920
UNDERGROUND SERVICE ALERT	UNDERGROUND SERVICE ALERT	(800) 227-2600

0 30 60 120
SCALE 1"=60'

BENCHMARK ELEV. 84.01' NAVD88
BENCHMARK U2A-46 BRONZE TAB. IN CON. BM S-853 27' SW OF CL RANDOLPH RD AND .25 NW OF DILLARD RD.
NVGD EL=81.63
FIELD BOOK NO.____ PG.____

JTS ENGINEERING CONSULTANTS, INC.
1808 J STREET
SACRAMENTO CALIFORNIA 95811 (916) 441-6708

DESIGNED: DVN
DRAWN: DVN
CHECKED: JTS
SUBMITTED: JAVED T. SIDDIQUI, P.E. 6-30-22 RCE: 25924
SCALE: 1"=60'

NO	DATE	REVISION	APPROVAL	BY

TENTATIVE PARCEL MAP
GAY ROAD, WILTON

COUNTY OF SACRAMENTO APN: 134-0333-023 CALIFORNIA

X-REF:

DATE: 6/30/2022
SHEET 1 OF 1
JOB NO: 2022-028

Figure 4. Tentative Parcel Map

3.0 REGULATORY SETTING

3.1 Clean Water Act Sections 401, 402, 404 and Porter-Cologne Water Quality Act

Section 404 of the Clean Water Act (CWA) protects waters of the U.S., including wetlands and drainages, by requiring projects that would discharge dredge or fill material into them to obtain a permit or authorization, to minimize the fill of waters of the U.S., and when impacts cannot be avoided, requires compensatory mitigation.

Section 401 of the CWA requires any applicant for a federal license or permit that could result in any discharge into waters of the U.S., to obtain water quality certification.

Section 402 of the CWA requires projects that disturb 1 acre or more or are part of a larger project to notify the State Water Resources Control Board (SWRCB) and to prepare a Storm Water Pollution Prevention Plan (SWPPP) that will minimize construction and storm water related impacts to waterways.

The Porter-Cologne Water Quality Act extends jurisdiction over waters of the State, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code Section 13050[e]). In the absence of CWA Section 404 jurisdiction over isolated waters or other waters of the State, California retains authority to regulate discharges of wastes into any waters of the State.

Permits/certifications for impacts to may be obtained from the U.S. Army Corps of Engineers (Corps) for CWA Section 404, from Regional Water Quality Control Board for CWA Section 401 and/or Porter-Cologne Water Quality Control Act, or for each of these from the SSHCP Aquatic Resource Program.

3.2 California Department of Fish and Game Code Section 1600

Under California Fish and Game Code (CFGC) Sections 1600–1610 (1600) a Streambed Alteration Agreement (SAA) is required if a project would divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake. Streambed Alteration Agreements may be obtained from CDFW or through the SSHCP Aquatic Resource Program.

3.3 Migratory Bird Treaty Act and California Fish and Game Code Sections 3503.5, 3511, and 3513

The federal Migratory Bird Treaty Act (MBTA) (16 United State Code [USC], Sec. 703, 1989) prohibits killing, possessing, or trading migratory birds except in accordance with regulations

prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, bird nests, and eggs. The MBTA is administered by the U.S. Fish and Wildlife Service (USFWS) and special permits from the agency are generally required for the take of any migratory birds. This act applies to all persons and agencies in the U.S., including federal agencies. Under CFGC, eggs and nests of all birds are protected from take under CFGC Section 3503. Raptors and raptor nests or eggs are protected from take under CFGC Section 3503.5. Migratory birds are expressly prohibited from take under CFGC Section 3513 and species designated by CDFW as fully protected species are protected from take under CFGC Sections 3511, 4700, 5050, and 5515.

3.4 Federal and State Endangered Species Acts

The USFWS and CDFW are the federal and state agencies responsible for the protection of endangered and threatened plants, fish, and wildlife and for the regulation of activities that could affect those species. The regulatory vehicles that protect sensitive species are administered by these two agencies and include the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA).

Section 7 of the federal ESA provides a means for authorizing incidental take of federally endangered or threatened species that result from federally conducted, permitted, or funded projects. Similarly, Section 10 authorizes incidental take of federally endangered or threatened species by non-federal agencies.

In exchange for habitat conservation and other commitments, the USFWS and CDFW will each issue an Incidental Take Permit (ITP) that grants take for Covered Species resulting from the implementation of Covered Activities, including urban development and infrastructure construction and maintenance activities. Through the SSHCP, Incidental take authorization will be granted to the Plan Permittees by the USFWS and CDFW ITPs.

Through the SSHCP, the USFWS and CDFW facilitate permits that allow incidental take of Covered Species. Activities, avoidance and minimization, and mitigation must be consistent with the provisions of the SSHCP, the Implementing Agreement and the terms and conditions of the ITPs. The SSHCP includes a Conservation Strategy to compensate for impacts to Covered Species. The Conservation Strategy also provides for the conservation and management of Covered Species and their habitats within the areas designated by the SSHCP (SSHCP 2018).

3.5 Sensitive Natural Communities

Sensitive natural communities include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by CDFW. Natural Communities are evaluated using NatureServe's Heritage Methodology, the same system used to assign global and state rarity ranks for plant and animal species in the California Natural Diversity Database (CNDDB). Threat scope (typically assessed

within a 20-year timeframe for vegetation) and severity are used to calculate an overall threat score, which is added to the overall rarity score for a single rank of 1 through 5. Evaluation is done at both the Global (full natural range within and outside of California) and State (within California) levels resulting in a single G (global) and S (state) rank ranging from 1 (very rare and threatened) to 5 (demonstrably secure). CNDDB vegetation alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. (CDFW 2022b)

Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or USFWS must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). In addition, this general class includes oak woodlands that are protected by local ordinances under the Oak Woodlands Protection Act.

3.6 Sacramento County Tree Preservation Ordinance

Sacramento County (County) seeks to preserve native oak tree species for their ecological, environmental, and aesthetic qualities on both public and private land. Sacramento County Tree Preservation Ordinance (SSC 480 § 1, 1981.) provides the following definitions.

- Public Land: Shall include all lands in public trust, federal, state, and local, including but not limited to, public rights of way, easements, and parks.
- Private Land: Shall include all land owned by private interest, and not designated public land.
- Tree: As used in this ordinance, a "tree" shall mean any living native oak tree having at least 1 trunk of 6 inches or more in diameter at breast height (dbh) (measured four and one-half feet above the ground), or a multi-trunked native oak tree having an aggregate diameter of 10 inches or more dbh.
- Native Oak Tree: Shall include any of the following: valley oak (*Quercus lobata*), interior live oak (*Quercus wislizenii*), blue oak (*Quercus douglasii*), or oracle oak (*Quercus morehus*).
- Drip Line: An area delineated by projection of the periphery of the crown area of a tree down to the ground surface.

Under this ordinance, no person shall trench, grade or fill within the dripline of any tree or destroy, kill or remove any tree as defined, on any property, public or private, without a tree permit.

3.7 Special-status Species

For the purpose of this technical memorandum, special-status species are generally defined as follows:

- Plants that meet the definitions of rare or endangered species under the California Environmental Quality Act (CEQA) (CEQA Guidelines, Section 15380).

- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered" in California (Lists 1B and 2B [CNPS 2022).
- Plants listed or proposed for listing by the State of California as threatened or endangered under California Endangered Species Act (CESA) (14 California Code of Regulations [CCR] 670.5).
- Plants listed under the California Native Plant Protection Act (CFGC 1900 et seq.).
- Wildlife species that are listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA).
- Wildlife species that are listed or proposed for listing under CESA (CFGC 1992 Sections 2050 et seq.; 14 CCR Sections 670.1 et seq.).
- Wildlife species that are designated as Species of Special Concern by California Department of Fish and Wildlife (CDFW).
- Wildlife species that are designated as Fully Protected by CDFW (CFGC, Sections 3511, 4700, 5050, and 5515).
- Wildlife species that meet the definition of rare or endangered under CEQA (14 CCR Section 15380).
- Covered species under the SSHCP that are included in Table ES-1: SSHCP Covered Species and Current Listing Status, as listed in the SSHCP, included in Appendix A.

4.0 METHODS

This section describes the methods used in the preparation of this technical memorandum and includes a list of resources reviewed, field survey dates and personnel, and problems and limitations encountered during the study that may influence the conclusions reached in this technical memorandum.

4.1 Project Site

The limits of the Project site are the Project site boundary as shown on Figure 3. The biological study area (BSA) is the Project site plus a 250-foot buffer to account for potential indirect impacts to adjacent biological resources. The boundary of the BSA is shown on Figure 3. The Project site is approximately 20 +/- acres and the BSA is approximately 47.60 acres.

4.2 Pre-field Survey Investigation

Prior to conducting field surveys, available information regarding biological resources with potential to occur within the Project site was gathered and reviewed, including information on special-status plant and wildlife species with potential to occur on the site. Several data sources were reviewed, including:

- general topography obtained from the Elk Grove USGS 7.5-minute topographic quadrangle map (Figure 2);
- a records search of the CNDDB for a 5-mile buffer of the Project site and for the Elk Grove and 8 surrounding USGS quadrangles (CNDDB 2022) (Figure 5) (Appendix A);
- a search of the CNPS Inventory of Rare and Endangered Plants Database for the Elk Grove and 8 surrounding USGS quadrangles (CNPS 2022) (Appendix A); and
- a species list from the USFWS Information for Planning and Consultation (IPaC) tool for the Project site (USFWS 2022a) (Appendix A).
- Covered species under the SSHCP that are included in Table ES-1: SSHCP Covered Species and Current Listing Status, as listed in the SSHCP (SSHCP 2018) (Appendix A).
- Modeled habitat for SSHCP covered species, Figures 3-3 through 3-30 (SSHCP 2018) (Appendix A).

A list of special-status plant and wildlife species known from the vicinity of the Project area was developed based on the review of existing information. This list was used to focus the site investigation on the special-status species and associated habitats with potential to be present at the Project site.

To assess the site for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2022a). Additionally, aerial imagery from Google Earth dated June 4, 2021 was reviewed for the local area to assess if local core habitat areas were present within, or connected to the BSA. This assessment was refined based on observations of on-site physical and/or biological conditions, including topographic and vegetative factors that can facilitate wildlife movement, as well as on-site and off-site barriers to connectivity. The potential presence of native wildlife nursery sites is evaluated as part of the site visit and discussion of individual wildlife species below. Examples of native wildlife nursery sites include nesting sites for native bird species (particularly colonial nesting sites), marine mammal pupping sites, and colonial roosting sites for other species (such as for monarch butterfly).

4.3 Field Surveys

A biological survey (field survey) was conducted on August 16 and 24, 2022, by Area West Environmental, Inc. biologists Samantha Morford and Matthew Howe. Appendix B provides representative photographs of the Project site taken during the survey.

GAY ROAD, WILTON, SACRAMENTO COUNTY, CALIFORNIA

Project Site
USGS 7.5-Minute Quadrangle
5-Mile Buffer of Project Site

Map Code Scientific Name (Common Name) (Fed/State/CNPS)

Plants

1 - *Downingia pusilla* (dwarf downingia) (--/--/2B.2)
2 - *Gratiola heterosepala* (Boggs Lake hedge-hyssop) (--/SE/1B.2)
3 - *Legenere limosa* (legenere) (--/--/1B.1)
4 - *Orcuttia tenuis* (slender Orcutt grass) (FT/SE/1B.1)
5 - *Sagittaria sanfordii* (Sanford's arrowhead) (--/--/1B.2)

Invertebrates

6 - *Branchinecta lynchi* (vernal pool fairy shrimp) (FT/--/--)
7 - *Branchinecta mesovallensis* (midvalley fairy shrimp) (--/--/--)
8 - *Lepidurus packardi* (vernal pool tadpole shrimp) (FE/--/--)
9 - *Linderiella occidentalis* (California linderiella) (--/--/--)

Insects

10 - *Desmocerus californicus dimorphus* (valley elderberry longhorn beetle) (FT/--/--)

Fish

11 - *Oncorhynchus mykiss irideus pop. 11* (steelhead - Central Valley DPS) (FT/--/--)

Reptiles

12 - *Thamnophis gigas* (giant gartersnake) (FT/ST/--)

Birds

13 - *Agelaius tricolor* (tricolored blackbird) (--/ST, SSC/--)
14 - *Athene cunicularia* (burrowing owl) (--/SSC/--)
15 - *Buteo swainsoni* (Swainson's hawk) (--/ST/--)

Federal Status:

FE = Federal Endangered
FT = Federal Threatened

State Status:

SE = State Endangered
ST = State Threatened
SSC = Species of Special Concern

CNPS Status:

1B.1 = Rare, Threatened or Endangered in California and elsewhere; Seriously Threatened in California
1B.2 = Rare, Threatened or Endangered in California and elsewhere; Moderately Threatened in California
2B.2 = Rare, Threatened, or Endangered in California but more common elsewhere; Moderately Threatened in California

AREA WEST ENVIRONMENTAL, INC.

Data Source:
Area West Environmental, Inc. 2022; CNDDB May 2022;
ESRI Basemaps World Topo Map Accessed May 2022;
USGS 2013 Date: 8-31-22

0 4,000 8,000 feet

Document Path: D:\AWE\22-025 Gay Road Wilton\mxd\22-025_GayRoad_CNDDB.mxd

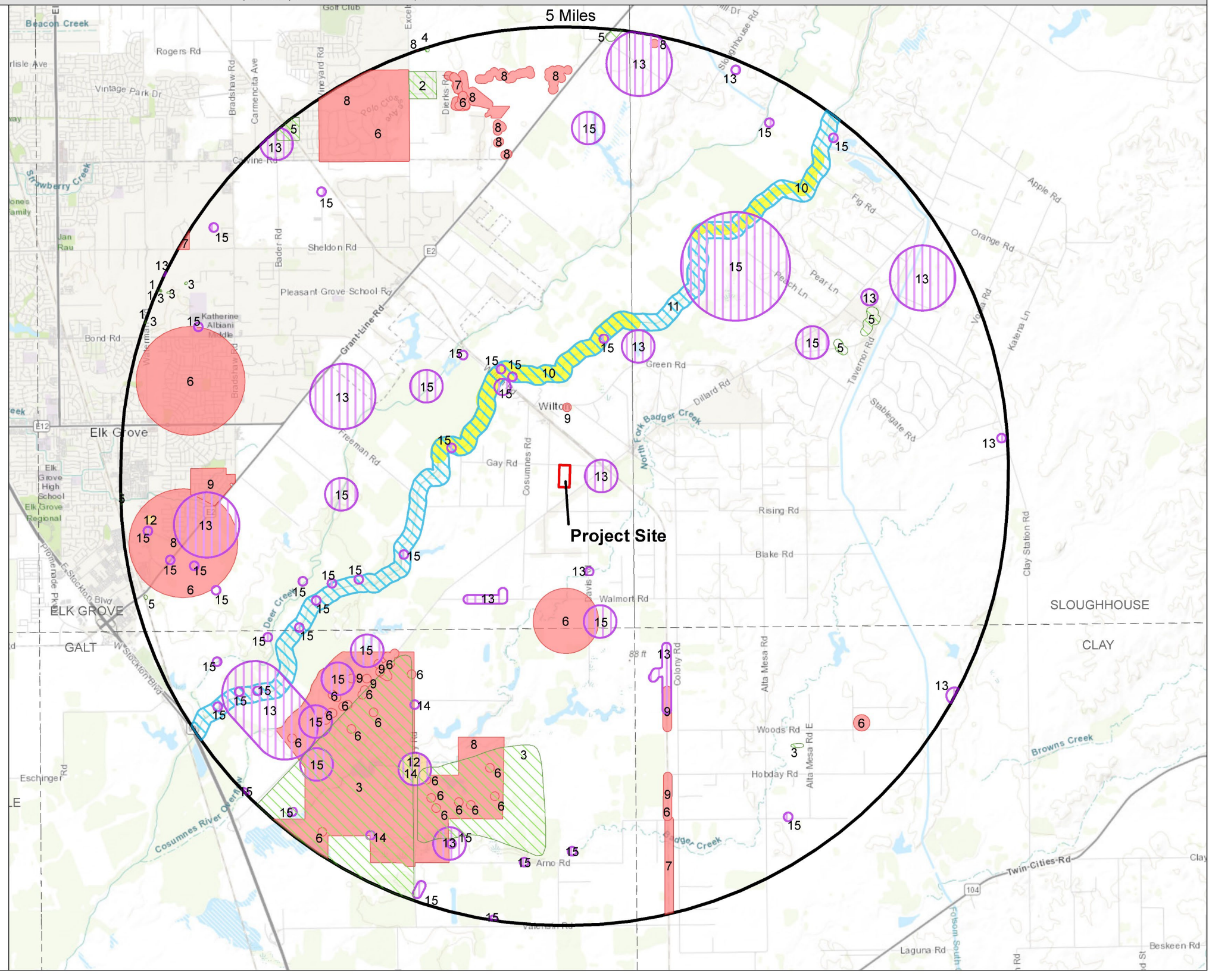


Figure 5. 5-Mile Radius CNDDB Map

Field surveys focused on:

- describing and mapping vegetation communities (common and sensitive);
- identifying special-status and common plant and wildlife species' occurrences; and
- conducting an assessment of vegetation community suitability to support special-status species.

The specific methods employed for each of these elements is described below.

Vegetation Community and Tree Mapping

Biologists walked meandering transects throughout the entire Project site and delineated all community types, including aquatic resources. All vegetation communities were noted, mapped, and evaluated. Upland community types were based on observed dominant vegetation composition and density, in contrast to aquatic resource types which were based primarily on hydrology and soils, correlated to observed dominant vegetation composition and density. Upland habitat types were digitized on a 1 inch = 250 feet aerial photograph in GIS (Figure 6). The upland communities were classified using the CNPS A Manual of California Vegetation, online edition (CNPS 2022). The locations of trees with a dbh of 4 inches or more were collected with a GPS and the dbh and species were noted. Aquatic features habitats on the Project site were mapped in the field with a GPS while aquatic resources within the 250-foot buffer were identified from the SSHCP GIS habitat layer. Features potentially jurisdictional under CWA Section 401 and CFGC 1600 were mapped to the top of bank or outer edge of riparian whichever was furthest from the aquatic feature centerline. Features potentially jurisdictional under CWA Section 404 were mapped at the features ordinary high water mark for other waters of the U.S. or edge of area the contained the three required parameters for a wetland (dominance by hydrophytic vegetation, hydric soils, and wetland hydrology).

SSHCP Land Cover Geographic Information Systems (GIS) data (Figure 7) was then compared to existing habitat conditions, which were determined from direct observations during field visits and aerial photography of the site and adjacent areas.

Special-status Species Surveys and Assessment

The field survey of the Project site was conducted to assess habitat quality for special-status plant and wildlife species identified during the pre-survey investigation (Appendix A).

No protocol-level plant or wildlife surveys have been conducted within the Project site to date. A list of all plant and wildlife species observed during the August 16 and 24, 2022, field surveys is included in Appendix C.

Survey Limitations

Biologists did not have the rights to enter adjacent parcels, therefore, the majority of the BSA outside of the Project site could not be transected. However, these areas were surveyed using binoculars and aerial photography to look for special habitat features. The survey was conducted outside of the blooming period for several special-status plant species that were on the species lists (Appendix A). However, potentially suitable habitat was only observed for eight of the special-status plant species that were on the species lists. The survey was conducted within the blooming period for four of these species. Additionally, due to the timing of the survey and what appeared to be recently mowing, many of the herbaceous species were difficult to identify.

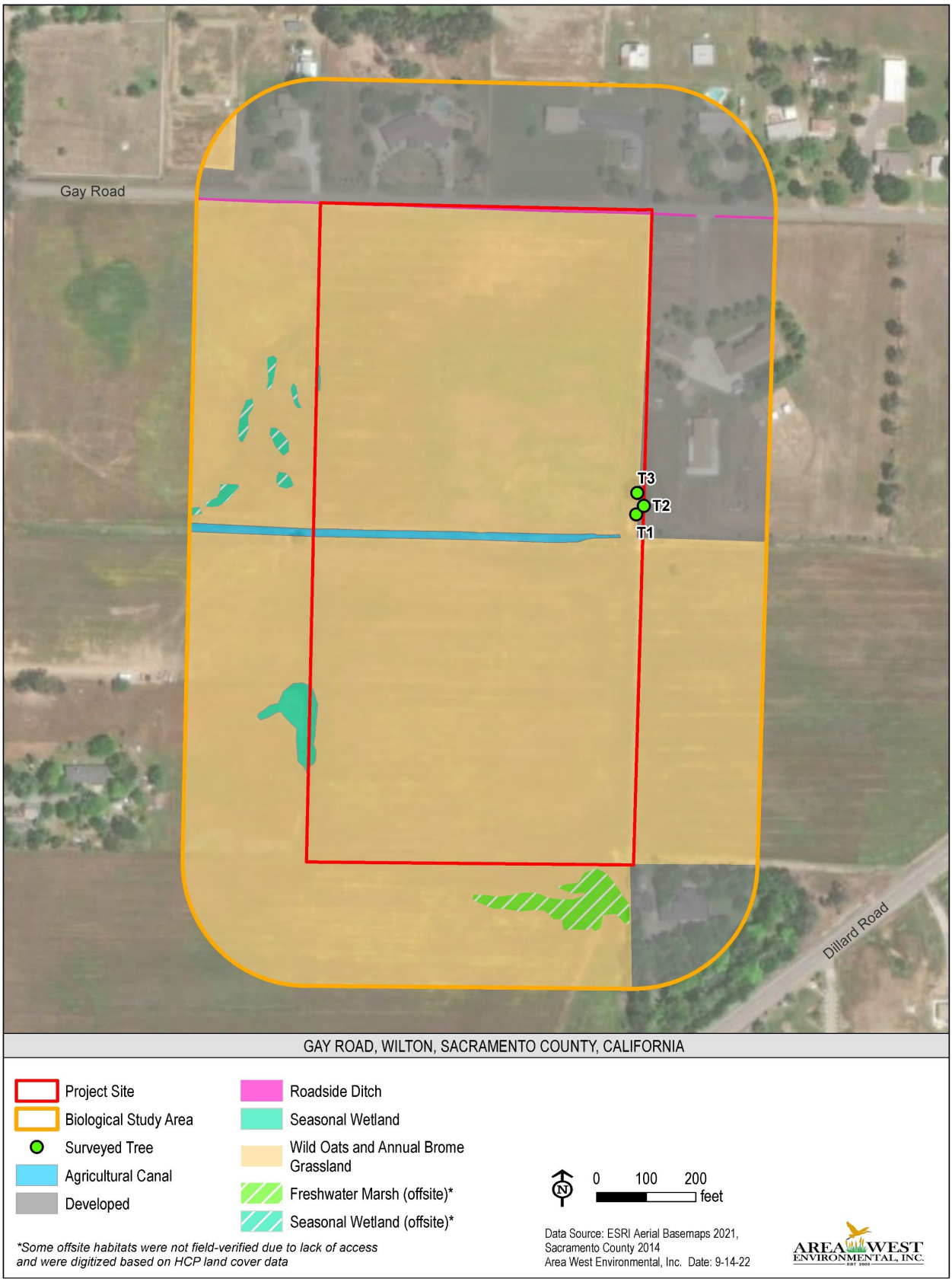


Figure 6. Field Verified Habitat Map

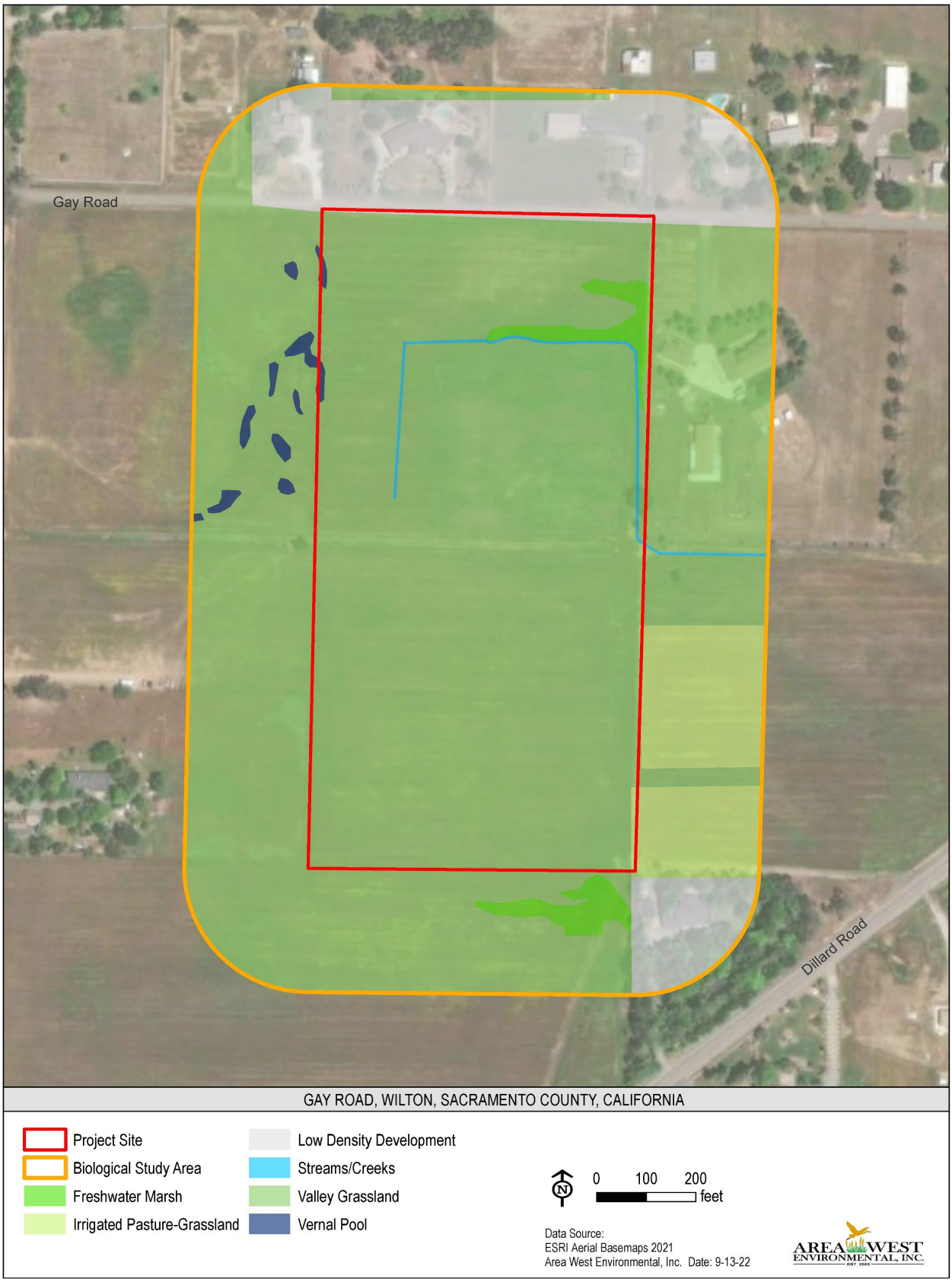


Figure 7. SSHCP Land Cover Map

5.0 RESULTS

The following sections provide a summary of the field survey results.

5.1 Environmental Setting

The Project site is located in the community of Wilton in a rural setting, it is surrounded by single family residences and agricultural lands. Elevation within the Project area is approximately 79 feet above mean sea level (Figure 2). The BSA consists of non-native grassland habitat, small seasonal wetland, an agricultural canal, and a roadside ditch. Representative photographs of the Project site are provided in Appendix B.

The BIOS searches for wildlife connectivity resulted in identifying the Project site as an area that has low connectivity for wildlife. Google Earth imagery shows barriers to wildlife movement from single family residences surrounding the Project site. Wildlife corridors do exist approximately 0.6 mile northwest of the Project site, along the Consumnes River and its' riparian habitat and approximately 0.9 mile southwest along the Badger Creek corridor.

5.2 Vegetation Communities

The SSHCP identified low-density development, vernal pools, valley grassland, stream or creek, irrigated pasture grassland, and freshwater marsh within the BSA. Field surveys identified the following generalized vegetation communities are present at the BSA (Figure 6):

- Wild oats and annual brome grassland
- Seasonal wetland
- Agricultural canal
- Roadside ditch
- Developed

Acreages of each community within the Project site and within the BSA are provided in Table 1. No sensitive natural communities were identified within the Project site.

Table 1. Vegetation Communities in the Project Site and BSA

Vegetation Community	Acreage within the Project site	Acreage within the BSA
Wild oats and annual brome grassland	19.79	35.38
Seasonal wetland	0.05	0.38*
Freshwater marsh	0.00	0.39*
Agricultural canal	0.21	0.31
Roadside ditch	0.05	0.09
Developed	0.13	11.05

*All or a portion of this habitat was located outside of the Project site. The acreage and community type were gathered from the SSHCP land cover map, however, these areas could not be verified in the field because access to the parcels adjacent to the Project site was not granted to the biologists.

Wild Oats and Annual Brome Grassland

The wild oats and annual brome grasslands community occurs throughout the entire BSA and is the dominant habitat. This habitat type occurs in the area that the SSHCP land coverage identified as being a valley grassland habitat (Figure 7). The majority of this habitat consists of non-native herbaceous species and is characterized by a Semi-natural Alliance between *Avena* spp. and *Bromus* spp. A small portion of this habitat is within the top of bank of the agricultural canal. Based on field observations, this area is consistent with the valley grassland land coverage type defined by the SSHCP.

Identifiable grass species that were dominate in this habitat included slender oat (*Avena barbata*), perennial ryegrass (*Festuca perennis*), ripgut grass (*Bromus diandrus*), foxtail brome (*Bromus madritensis*), hare barley (*Hordeum murinum*), and soft chess (*Bromus hordeaceus*). Additional herbaceous species included redroot pigweed (*Amaranthus retroflexus*), stinking goosefoot (*Chenopodium vulvaria*), field mustard (*Brassica rapa*), common tarweed (*Centromadia pungens*), and bindweed (*Convolvulus arvenis*). There were three trees within this habitat; these were valley oak (*Quercus lobata*), and black walnut (*Juglans hindsii*).

Seasonal Wetland

There are two small disturbed seasonal wetlands within the Project site. The first one occurs on the western edge of the northern portion of the Project site and was identified in the SSHCP as vernal pool. This wetland may be part of a large complex according to the SSHCP (SSHCP 2018), however, these additional potential wetlands are on private property and were not accessible (Figure 7). The second one occurs near the southwest corner of the Project site and was identified in the SSHCP as valley grassland (Figure 7). This second seasonal wetland within the Project site appears to be the outer edge of a slightly larger wetland that occurs on the west of the western fence line of the Project site (on private property).

Both wetlands are shallow and appear to have a short hydro period. A review of the USFWS National Wetland Inventory for the BSA shows that the southern wetland is part of what was historically mapped as a freshwater emergent wetland (USFWS 2022b). The USFWS National Wetland Inventory for the BSA did not show any features being mapped in the location of the northern wetland. Within the Project site, both wetlands were dominated by perennial ryegrass, common tarweed, hare barley, and dense-flower willowherb (*Epilobium densiflorum*). Two narrow-leaved willow (*Salix exigua*) saplings were present within the southern wetland at the southern end of the feature.

The seasonal wetlands appear to be isolated and therefore are not likely to be regulated by CWA 401 or 404, but would be regulated under the Porter-Cologne Water Quality Control Act. Based on

observed field conditions, the seasonal wetland designation in the SSHCP land cover types is more consistent with this habitat type.

Agricultural Canal

An agricultural canal bisects the Project site. The canal is ephemeral, only holding water during storm events. Review of aerial photography shows that this canal does not connect to another water source (i.e., another canal or a creek). This canal occurs in the area that is labeled as a valley grassland on the SSHCP habitat map (Figure 7). The majority of this canal is vegetated. The margins of the canal were dominated by slender oat, prickly lettuce (*Lactuca serriola*), Canada horseweed (*Erigeron canadensis*), and narrow-leaved milkweed (*Asclepias fascicularis*). In the canal, dominate plant species include; swamp prickle grass (*Crypsis schoenoides*), prostrate knotweed (*Polygonum aviculare ssp. aviculare*), curly dock (*Rumex crispus*), and cocklebur (*Xanthium strumarium*). The agricultural canal appears to be isolated and therefore is not likely to be regulated by CWA 401 or 404, but is likely to be regulated under the Porter-Cologne Water Quality Control Act and CFGC 1600. Based on observed field conditions and species composition this habitat type qualifies as disturbed habitat coverage under the SSHCP.

Roadside Ditch

The SSHCP Land Cover data identified the roadside ditch as low-density development. There is a roadside ditch that occurs at the northern edge of the Project site, along the southern shoulder of Gay Road. This ditch appears to run the entire length of Gay Road. Within the Project site, the margins of the ditch were dominated by slender oat, foxtail brome, prickly lettuce, curly dock, and dense-flower willowherb. The majority of the roadside ditch was unvegetated and contained leaf litter. The roadside ditch appears to be isolated and does not have channel or banks and therefore is not likely to be regulated by CWA 401, CWA 404, or CFGC 1600, but is likely to be regulated under the Porter-Cologne Water Quality Control Act. Based on observed field conditions and species composition this habitat type qualifies as disturbed habitat coverage under the SSHCP.

Developed

Developed habitat within the BSA includes single-family residences, roads, and driveways. The verified developed habitat found at the Project site coincides with the Low-Density Development habitat type that was anticipated within the SSHCP.

Trees

Three tree species were observed within the Project site. Two narrow-leaf willow saplings were observed in the southern wetland feature. These saplings each had several stems, all of which had a dbh less than 3 inches. Due to the dbh being less than 4 inches, the willow saplings were not mapped. Two valley oak trees and one black walnut tree were observed near the center of the eastern boundary of the Project site. Only the black walnut and valley oak trees had a dbh greater than 4 inches and were therefore mapped and are summarized in Table 2 below. Of the trees within

the Project site, only the two native valley oak trees would qualify for protection under the Sacramento County Code Tree Preservation Ordinance (SSC 480 § 1, 1981.).

Table 2. Trees Identified at the Project Site

Tree #	Species	Common Name	DBH*	Protected? (Yes/No)
1	*Quercus lobata*	Valley oak	8,4,6,3	Yes
2	*Juglans hindsii*	Black walnut	12	No
3	*Quercus lobata*	Valley oak	18.5, 18	Yes

*The dbh of each trunk is listed in the table above and separated by commas for each multi-trunk tree. The dbh of each trunk on muti-trunk trees was added together to determine if the tree would be considered a protected tree by the County.

5.3 Special-status Species

A preliminary review of CNPS, SSHCP, USFWS, and 5-mile radius CNDDB species lists identified 19 special-status plants and 22 special-status wildlife species with potential to be present within the geographic region (Appendix A). The special-status plant and wildlife with potential to occur onsite are discussed below.

Special-status Plants

Of the 19 special-status plant species listed in Appendix A, there is potentially suitable habitat for 8 species within the BSA. These species are summarized in Table 3 below.

Table 3. Special-status Plant Species with Potential to Occur in the BSA

Common Name	Scientific Name	Listing Status ESA/CESA/CRPR	SSHCP Covered Species
Big tarplant	*Blepharizonia plumosa*	--/--/1B.1	
Dwarf downingia	*Downingia pusilla*	--/--/2B.2	X
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	--/Endangered/1B.2	X
Ahart's dwarf rush	*Juncus leiospermus var. ahartii*	--/--/1B.2	X
Legenere	*Legenere limosa*	--/--/1B.1	X
Pincushion navarretia	*Navarretia myersii ssp. myersii*	--/--/1B.1	X
Slender Orcutt grass	*Orcuttia tenuis*	Threatened/Endangered/1B.1	X
Sacramento Orcutt grass	*Orcuttia viscida*	Endangered/Endangered /1B.1	X

The other 11 plant species listed in Appendix A were determined to have no potential to occur within the BSA because the species required specific habitats such as marshes or alkaline soils, which do not exist in the BSA. A list of all plant species encountered during the field surveys is provided in Appendix C.

Big Tarplant

Big tarplant occurs on dry hills and plains in annual grasslands, usually on slopes. It prefers clay to clay-loam soils. This species' bloom period is July through October. The wild oat and annual brome grassland in the BSA is suitable habitat for this species. However, this species was not observed within the Project site during the survey, which was conducted during the species' blooming period, therefore, is unlikely to occur onsite.

Dwarf Downingia

Dwarf Downingia occurs along the margins of vernal lakes and pools in valley and foothill grasslands. This species' bloom period is March through May. The seasonal wetlands within the BSA have potential to provide marginal habitat for this species. This species has a moderate potential to occur.

Boggs Lake Hedge-hyssop

Boggs lake hedge-hyssop usually occurs in vernal pools and sometimes on lake margins. This species prefers clay soils. This species' bloom period is April through August. The seasonal wetlands within the BSA have potential to provide marginal habitat for this species. However, this species was not observed within the Project site during the survey, which was conducted during the species' blooming period, therefore, is unlikely to occur onsite.

Ahart's Dwarf Rush

Ahart's dwarf rush is restricted to the edges of vernal pools in grasslands. This species' bloom period is March through May. The seasonal wetlands within the BSA have potential to provide marginal habitat for this species. This species has a moderate potential to occur.

Legenere

Legenere occurs in the beds of vernal pools. This species' bloom period is April through June. The seasonal wetlands within the BSA have potential to provide marginal habitat for this species. This species has a moderate potential to occur.

Pincushion Navarretia

Pincushion Navarretia occurs within vernal pools with clay soils in non-native grasslands. This species' bloom period is April through May. The seasonal wetlands within the BSA have potential to provide marginal habitat for this species, however, the soil within the BSA is not mapped has clay. This species has a low potential to occur.

Slender Orcutt Grass

Slender Orcutt grass occurs in vernal pools, often in gravelly substrate. This species' bloom period is March through September and sometimes into October. The seasonal wetlands within the BSA have potential to provide marginal habitat for this species. However, this species was not observed within the Project site during the survey, which was conducted during the species' blooming period, therefore, is unlikely to occur onsite.

Sacramento Orcutt Grass

Sacramento Orcutt grass occurs in deep vernal pools. This species' bloom period is April through July and sometimes into September. The seasonal wetlands within the BSA have potential to provide marginal habitat for this species. Although the survey was conducted outside of this species blooming period, the species would have been identifiable during the survey therefore, is unlikely to occur onsite.

Special-status Wildlife

Of the 22 special-status wildlife species listed in Appendix A, 12 species have potential to occur within the BSA. These species are summarized in Table 4 below.

Table 4. Special-status Wildlife Species with Potential to Occur in the BSA

Common Name	Scientific Name	Listing Status ESA/CESA	SSHCP Covered Species
Midvalley fairy shrimp	*Branchinecta mesovallensis*	--/--	X
Monarch butterfly	*Danaus plexippus*	Candidate/--	
Vernal pool fairy shrimp	*Branchinecta lynchi*	Threatened/--	X
Vernal pool tadpole shrimp	*Lepidurus packardi*	Endangered/--	X
Burrowing owl	*Athene cunicularia hypugaea*	--/Species of Special Concern (SSC)	X
Cooper's hawk	*Accipiter cooperii*	--/SSC	X
Ferruginous hawk	*Buteo regalis*	--/--	X
Loggerhead shrike	*Lanius ludovicianus*	--/SSC	X
Northern harrier	*Circus cyaneus*	--/SSC	X
Swainson's hawk	*Buteo swainsoni*	--/Threatened	X
White-tailed kite	*Elanus leucurus*	--/Fully protected	X
Western red bat	*Lasiurus blossevillii*	--/SSC	X

The other 13 special-status species were determined to have no potential to occur within the BSA because the species required specific habitats such as elderberry shrubs, or perennial waters. The seasonal wetland within the Project has a short hydro-period which would not support special-status amphibians (such as California tiger salamander and western spadefoot). The agricultural canal is ephemeral, and review of aerial photography shows that this canal does not connect to another water source (i.e., another canal or a creek), making unsuitable habitat suitable for special-status fish and reptiles (such as giant garter snake and western pond turtle).

Freshwater Crustaceans

Midvalley fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp are all freshwater crustaceans that occur in vernal pool and wetland habitats in the California valley. The seasonal wetlands within the BSA may provide suitable habitat for these species. There is moderate potential for these species to occur.

Monarch Butterfly

The monarch butterfly relies on milkweed to act as a host plant for its larvae (Nial et al. 2019). Narrow-leafed milkweed was observed within the top of bank of the agricultural canal. Monarch butterflies may use the Project site for breeding or foraging. There is moderate potential for this species to occur within the BSA.

Burrowing Owl

Burrowing owl are small, ground-dwelling owls found throughout most of the western U.S. Burrowing owl inhabit open areas with sparse or non-existent tree or shrub canopies. Burrowing owl are dependent upon burrows created by other animals (burrowing mammals) or suitable surrogate burrows (e.g. rock/concrete piles, culverts).

The wild oats and annual brome grasslands community at the Project site provides suitable foraging habitat for burrowing owl. No burrows were observed within the BSA at the time of the survey. The grassland within and adjacent to the Project site could provide suitable habitat. Per CNDDB there have been 21 occurrences within 10 miles of the Project site. None of the occurrences identify an active reporting of burrowing owl within last 5 years. There is a low potential for burrowing owl to occur within the Project site and the BSA.

Swainson's Hawk

While Swainson's hawk was listed in the species lists in Appendix A, a specific CNDDB search for Swainson's hawk nests that have been active in the last five years within a 10-mile radius was conducted per the *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California* (CDFW 1994). No occurrences of active nests within the last 5 years were identified during this search. Suitable habitat is present within the BSA, therefore there is a moderate potential for Swainson's hawk to occur.

Suitable Swainson's hawk foraging habitat includes open fields and pastures within an energetically efficient flight distance from active nest sites. CDFW considers impacts to foraging habitat greater than 5 acres within 10 miles of an active nest (used during one or more of the last 5 years).

No nests were observed within the BSA, however, the grassland within and adjacent to the Project site could provide suitable foraging habitat and large trees within the BSA could provide suitable nesting habitat. There is a moderate potential for Swainson's hawk to occur within the BSA.

Other Migratory Birds and Raptors

There is suitable habitat for other migratory birds and raptors, including Cooper's hawk, ferruginous hawk, northern harrier, loggerhead shrike, and whited tailed-kite within and adjacent

to the BSA. No nests were observed during onsite surveys. The grassland within and adjacent to the Project site could provide suitable foraging habitat and trees and shrubs within and adjacent to the BSA could provide suitable nesting habitat for migratory birds and raptors.

Bats

Trees in and adjacent to the Project site provide roosting habitat for special-status bats, such as western red bat, and bats protected by California Fish and Game Code Section 4150. There is moderate potential for bats to occur within the BSA.

6.0 POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

This biological resources assessment has been prepared in support of CEQA, therefore potential adverse impacts on biological resources are evaluated in the context of the State CEQA Guidelines and consistent with the SSHCP.

The Project site supports aquatic resources potentially regulated under Section 401 and 404 of the Clean Water Act and CFGC 1600 and special-status species that require evaluation under CEQA and/or state and federal ESAs (Table 5). The Project site does not support riparian habitat or serve as an important migration or movement corridor for any wildlife species; these issues are not addressed further. Although no special-status plant species and their habitat was observed during the survey, the survey was conduct outside of the blooming period for many of the species listed in Appendix A. Therefore, a rare plant survey, during the appropriate blooming periods shall be conducted prior to development.

The following discussion provides an analysis of potential impacts on sensitive biological resources from development of the Project site. While the approval of the Tentative Parcel Map would not result in any biological resource impacts, future development of the site could. The analysis below identifies potential impacts and proposes mitigation measures if impacts will occur. Acreages presented below are not independent (e.g., impacts to 0.26 acre of RWQCB habitats and 0.21 acre of CDFW habitats would only require mitigating for 0.26 acre of impact).

Table 5. Resource and Potential Agency Jurisdiction within the Project Site

Species or Habitat		Roadside Ditch/Agricultural Canal	Seasonal Wetland	Wild Oat and Annual Brome Grassland	Developed
Aquatic Resources	Corps	0	0	0	0
	RWQCB	0.26 acre	0.05 acre	0.15	0
	CDFW	0.21 acre	0	0	0
Special-status Species	Dwarf downingia	0	0.05 acre	0	0
	Ahart's dwarf rush	0		0	0
	Legenere	0		0	0
	Pincushion navarretia	0		0	0
	Monarch butterfly	23 square feet	0	0	0
	Midvalley fairy shrimp	0	0.05 acre	0	0
	Vernal pool fairy shrimp	0		0	0
	Vernal pool tadpole shrimp	0		0	0
	Burrowing owl	0	0	19.79 acre	0
	Cooper's hawk				
	Ferruginous hawk				
	Loggerhead shrike				
	Northern harrier				
	Swainson's hawk				
	White-tailed kite				
	Western red bat				

6.1 General Avoidance and Minimization Measures

During development design and construction at the Project site, the following general avoidance and minimization measures from section 5.4.1 of the SSHCP shall be implemented whether the Project is permitted through the SSHCP or individually.

- Condition 1. Avoid and Minimize Urban Development Impacts to Watershed Hydrology and Water Quality
- Condition 3. Implement Construction Best Management Practices
- Condition 4. Avoid and Minimize Impacts that May Result from Implementation of Covered Transportation Projects
- Condition 7. Avoid and Minimize Impacts to Streams and Creeks
- Condition 8. Avoid and Minimize Impacts to Covered Species from Utility and Utility Maintenance Covered Activities

6.2 Aquatic Resources

During development design and construction at the Project site, the general avoidance and minimization measures from section 5.4.1 of the SSHCP, and listed above, shall be implemented for aquatic resources whether the Project is permitted through the SSHCP or individually.

Mitigation Measures for Aquatic Resources

- BIO-1. Mitigate for Aquatic Resources. If aquatic resources will be affected, the project proponent shall mitigate though the SSHCP and/or through state and federal processes to re-establish habitat at minimum of a 1:1 ratio.

6.3 Special-status Species

Avoidance and Minimization Measures for SSHCP Covered Species

During development design and construction at the Project site, the covered species take avoidance and minimization measures from section 5.4.2 of the SSHCP shall be implemented for habitats and species included in Table 5 whether the Project is permitted through the SSHCP or individually. Mitigation measures from the SSHCP will also avoid and minimize impacts to non-covered special-status species. The following covered species take avoidance and minimization measure apply to the Project.

- General Covered Species Take Avoidance and Minimization Measures
  - Species-1 (Litter Removal Program)
  - Species-2 (No Pets in Construction Areas)

- Species-3 (Take Report)
- Species-4 (Post-Construction Compliance Report)
- Plant-1 (Rare Plant Surveys)
- Plant-2 (Rare Plant Protection)

- Swainson's Hawk
  - SWHA-1 (Swainson's Hawk Surveys)
  - SWHA-2 (Swainson's Hawk Pre-Construction Surveys)
  - SWHA-3 (Swainson's Hawk Nest Buffer)
  - SWHA-4 (Swainson's Hawk Nest Buffer Monitoring)
  - SWHA-5 (Swainson's Hawk Nest Tree Avoidance)
- Burrowing Owl
  - WBO-1 (Western Burrowing Owl Surveys)
  - WBO-2 (Western Burrowing Owl Pre-Construction Surveys)
  - WBO-3 (Burrowing Owl Avoidance)
  - WBO-4 (Burrowing Owl Construction Monitoring)
  - WBO-5 (Burrowing Owl Passive Relocation)
  - WBO-6 (Burrowing Owl Timing of Maintenance Activities
  - WBO-7 (Rodent Control)
- Covered Raptors (Cooper's Hawk, Ferruginous Hawk, Northern Harrier, White-tailed kite and Loggerhead Shrike)
  - RAPTOR-1 (Raptor Surveys)
  - RAPTOR-2 (Raptor Pre-Construction Surveys)
  - RAPTOR-3 (Raptor Nest/Roost Buffer)
  - RAPTOR-4 (Raptor Nest/Roost Buffer Monitoring)
- Western Red Bat
  - BAT-1 (Maternity Roost Surveys)
  - BAT-2 (Maternity Roost Pre-Construction Surveys)
  - BAT-3 (Maternity Roost Buffer)
  - BAT-4 (Bat Eviction Methods for Non-Maternity and Non-Hibernaculum Roosts)

Avoidance and Minimization Measures for Other Special-status Species

During development design and construction at the Project site, in addition to the SSHCP avoidance and minimization measures, the following measure shoall be implemented for monarch butterfly.

- BIO-2. Avoid Monarch Butterfly Host Plant. Milkweed plants within the Project site shall be protected. No pesticides or mowing shall be implemented in the vicinity of the milkweed plants. If this species becomes listed under the ESA and the milkweed plants are impacted then state and/or federal mitigation may be required.

Mitigation Measures for Special-status Species

- BIO-3. Mitigate for Special-status Species. During development design and construction at the Project site, if special-status species or their habitats will be affected, the project proponent shall mitigate though the SSHCP and/or through state and federal processes to re-establish habitat at minimum of a 1:1 ratio.

6.4 Protected Trees

During development design, it will be determined if trenching, grading or adding fill within the dripline of or removal of any protected trees (native oak trees with a dbh of 6 inches or greater), would be required to complete construction. If the activities listed above are unavoidable, the project would be required to obtain a Tree Permit from the County before proceeding.

During development design and construction at the Project site, implementation of the following measures, pulled from the County's Tree Protection Ordinance, would reduce impacts to protected trees that are to remain in place.

- BIO-4. Development Control Measures. The approving body may mandate any or all the following control measures to mitigate damage to oak trees caused by land development:
    - No grade cuts greater than 1 foot shall occur within the driplines of oak trees, and no grade cuts whatsoever shall occur within 5 feet of their trunks;
    - No fill greater than 1 foot shall be placed within the driplines of oak trees and no fill whatsoever shall be placed within 5 feet of their trunks;
    - No trenching whatsoever shall be allowed within the driplines of oak trees. If it is absolutely necessary to install underground utilities within the driplines of an oak tree, the trench shall be either bored or drilled;
    - No irrigation system shall be installed within the driplines of oak tree(s) which may be detrimental to the preservation of the oak tree(s) unless specifically authorized by the approving body or the Director of Public Works.

- Landscaping beneath oak trees may include non-plant materials such as boulders, cobbles, wood chips, etc. The only plant species which shall be planted within the driplines of oak trees are those which are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants.

Mitigation Measures for Trees

- BIO-5. Mitigate for Trees. Prior to removal of a protected tree, the applicant shall obtain a County tree removal permit and compensate by planting a minimum of one native tree for each tree removed or pay into the County's Tree Preservation Fund.

7.0 LITERATURE CITED

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CDFW. See California Department of Fish and Wildlife.

CFGC. See California Fish and Game Code.

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Appendix A.

Special-status Species Lists

(CNDDB, CNPS, USFW, SSHCP)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Project Code: 2022-0073894
Project Name: Gay Road Rezoning Project

August 11, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Project Code: 2022-0073894
Project Name: Gay Road Rezoning Project
Project Type: Residential Construction
Project Description: A single 20 acre parcel located at APN 134-0333-0230, on Gay Road in Wilton California is currently zoned as agricultural. The project would split and rezone this parcel into five acres parcels. These five acre parcels would have their zoning changed to agricultural-residential

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.400115549999995,-121.26553155821708,14z

Counties: Sacramento County, California

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4482

Amphibians

NAME	STATUS
California Tiger Salamander *Ambystoma californiense*	Threatened

Population: U.S.A. (Central CA DPS)
There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/321

Insects

NAME | STATUS

Monarch Butterfly *Danaus plexippus* — Candidate

No critical habitat has been designated for this species.

Species profile: https://ecos.fws.gov/ecp/species/9743

Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* — Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.

Species profile: https://ecos.fws.gov/ecp/species/7850

Crustaceans

NAME | STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi* — Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.

Species profile: https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp *Lepidurus packardi* — Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.

Species profile: https://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME | STATUS

Sacramento Orcutt Grass *Orcuttia viscida* — Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.

Species profile: https://ecos.fws.gov/ecp/species/5507

Slender Orcutt Grass *Orcuttia tenuis* — Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.

Species profile: https://ecos.fws.gov/ecp/species/1063

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Area West Environmental, Inc.
Name: Becky Rozumowicz
Address: 6248 Main Avenue, Suite C
City: Orangevale
State: CA
Zip: 95662
Email frontdesk@areawest.net
Phone: 9169873362

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Manteca (3712172) OR Lathrop (3712173) OR Stockton West (3712183) OR Stockton East (3712182) OR Lodi South (3812113) OR Waterloo (3812112) OR Union Island (3712174) OR Terminous (3812114) OR Holt (3712184))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex cordulata var. cordulata heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
Blepharizonia plumosa big tarplant	PDAST1C011	None	None	G1G2	S1S2	1B.1
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G2	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Brasenia schreberi watershield	PDCAB01010	None	None	G5	S3	2B.3
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
Chloropyron palmatum palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1	1B.1
Cirsium crassicaule slough thistle	PDAST2E0U0	None	None	G1	S1	1B.1
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2T3	S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eryngium racemosum Delta button-celery	PDAPI0Z0S0	None	Endangered	G1	S1	1B.1
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S1S2	
Great Valley Valley Oak Riparian Forest Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
Hypomesus transpacificus Delta smelt	AFCHB01040	Threatened	Endangered	G1	S1	
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S1	FP
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Limosella australis Delta mudwort	PDSCR10030	None	None	G4G5	S2	2B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Lytta moesta moestan blister beetle	IICOL4C020	None	None	G2	S2	
Melospiza melodia pop. 1 song sparrow ("Modesto" population)	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Perognathus inornatus San Joaquin pocket mouse	AMAFD01060	None	None	G2G3	S2S3	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Scutellaria lateriflora side-flowering skullcap	PDLAM1U0Q0	None	None	G5	S2	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Sylvilagus bachmani riparius riparian brush rabbit	AMAEB01021	Endangered	Endangered	G5T1	S1	
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Trichocoronis wrightii var. wrightii Wright's trichocoronis	PDAST9F031	None	None	G4T3	S1	2B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tropidocarpum capparideum caper-fruited tropidocarpum	PDBRA2R010	None	None	G1	S1	1B.1
Valley Oak Woodland Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 51

CNPS Rare Plant Inventory

California Native Plant Society

Search Results

11 matches found. Click on scientific name for details

Search Criteria: G Rank is one of [**G1:G2**], S Rank is one of [**S1:S2**], 9-Quad include [**3712172:3712173:3712183:3712182:3812113:3812112:3712174:3812114:3712184**]

SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	CA RARE PLANT RANK	FED LIST	▲ STATE LIST
Chloropyron palmatum	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct	1B.1	FE	CE
Eryngium racemosum	Delta button-celery	Apiaceae	annual/perennial herb	(May)Jun-Oct	1B.1	None	CE
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	1B.1	None	CR
Astragalus tener var. *tener*	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	None	None
Blepharizonia plumosa	big tarplant	Asteraceae	annual herb	Jul-Oct	1B.1	None	None
Cirsium crassicaule	slough thistle	Asteraceae	annual/perennial herb	May-Aug	1B.1	None	None
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	1B.2	None	None
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	None	None
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	1B.2	None	None
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	None	None
Tropidocarpum capparideum	caper-fruited tropidocarpum	Brassicaceae	annual herb	Mar-Apr	1B.1	None	None

Showing 1 to 11 of 11 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [accessed 11 August 2022].

CONTACT US

Send questions and comments to rareplants@cnps.org.

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CONTRIBUTORS

The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
CalPhotos

Developed by Rincon Consultants, Inc.

related to roadway improvements and recycled water delivery. Covered Activities also include actions within the proposed SSHCP Preserve System that are required to manage, monitor, enhance, and re-establish or establish habitat.

The SSHCP Covered Activities fall into eight general categories:

- Urban development in the UDA
- Mining in the UDA
- Rural transportation projects
- Recycled water projects
- Covered Activities in Preserve Setbacks in the UDA
- Covered Activities in Stream Setbacks in the UDA
- SSHCP Preserve System Covered Activities
- Covered Activities in the Laguna Creek Wildlife Corridor of the Preserve System.

ES.5 Covered Species

The Plan provides take authorization for 28 Covered Species, of which, 11 are currently listed as threatened or endangered under the California ESA or the federal ESA (Table ES-1). The 28 species were identified through an evaluation process that began with a list of 90 species. Species were selected for coverage based on their potential to occur within the Plan Area, their potential to be adversely affected by Covered Activities in the Plan Area, the availability of information to adequately evaluate impacts to the species, and the ability to adequately protect the species. The Plan includes conservation actions to protect all 28 Covered Species whether or not they are currently listed. As SSHCP Covered Species, any currently non-listed species that is covered under the Plan will not require additional conservation within the Plan Area should the species become listed under the federal ESA during the Plan's Permit Term.

Table ES-1
SSHCP Covered Species and Current Listing Status

Scientific Name Common Name	Status		
	Federal	*State*	*CRPR*
Invertebrates			
Lepidurus packardi Vernal pool tadpole shrimp	E*	—	—
Branchinecta lynchi Vernal pool fairy shrimp	T*	—	—

Table ES-1
SSHCP Covered Species and Current Listing Status

Scientific Name Common Name	Status		
	Federal	*State*	*CRPR*
Branchinecta mesovallensis Mid-valley fairy shrimp	—	—	—
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	T	—	—
*Hydrochara ricksecker*i Ricksecker's water scavenger beetle	—	—	—
Amphibians			
Ambystoma californiense California tiger salamander, (Central Valley population)	T*	T	—
Spea hammondii Western spadefoot	—	CSC	—
Reptiles			
Actinemys marmorata Western pond turtle	—	CSC	—
Thamnophis gigas Giant gartersnake	T	T	—
Birds			
Accipiter cooperii Cooper's hawk	—	WL	—
Agelaius tricolor Tricolored blackbird	BCC	T (Emergency Listed)	—
Athene cunicularia hypugaea Western burrowing owl	BCC	CSC	—
Buteo regalis Ferruginous hawk	BCC	—	—
Buteo swainsoni Swainson's hawk	BCC	T	—
Circus cyaneus Northern harrier	—	CSC	—
Elanus leucurus White-tailed kite	—	CFP	—
Grus canadensis tabida Greater sandhill crane	—	T; CFP	—
Lanius ludovicianus Loggerhead shrike	BCC	CSC	—
Mammals			
Lasiurus blossevillii Western red bat	—	CSC	—
Taxidea taxus American badger	—	CSC	—
Plants			
Downingia pusilla Dwarf downingia	—	—	2.2
Gratiola heterosepala Boggs Lake hedge-hyssop	—	E	1B.2
Juncus leiospermus var. *ahartii* Ahart's dwarf rush	—	—	1B.2

Table ES-1
SSHCP Covered Species and Current Listing Status

Scientific Name Common Name	Status		
	Federal	*State*	*CRPR*
Legenere limosa Legenere	—	—	1B.1
Navarretia myersii Pincushion navarretia	—	—	1B.1
Orcuttia tenuis Slender Orcutt grass	T*	E	1B.1
Orcuttia viscida Sacramento Orcutt grass	E*	E	1B.1
Sagittaria sanfordii Sanford's arrowhead	—	—	1B.2

Status Definitions
Federal:
E = Listed as endangered under the federal ESA
T = Listed as threatened under the federal ESA
* = Species has designated Critical Habitat located within the Plan Area.
— = No federal ESA listing
BCC = Bird of Conservation Concern, USFWS 2008.

State:
E = Listed as endangered under CESA
T = Listed as threatened under CESA
CFP = Fully protected under the California Fish and Game Code
CSC = Species of special concern in California
WL = Watch List
— = No state status

California Native Plant Society California Rare Plant Rank (CRPR)
1B = Rare, threatened, or endangered in California and elsewhere
2 = Rare, threatened, or endangered in California but more common elsewhere

CRPR Threat Ranks
0.1 = Seriously threatened in California (high degree/immediacy of threat)
0.2 = Fairly threatened in California (moderate degree/immediacy of threat)
0.3 = Not very threatened in California (low degree/immediacy of threat)

ES.6 Conservation Strategy

The SSHCP Conservation Strategy mitigates to the maximum extent practicable the impacts of Covered Activities, including all direct and indirect impacts on Covered Species and their habitats. The SSHCP Conservation Strategy provides for conservation of 28 Covered Species and 17 land cover types, avoids or minimizes impacts of Covered Activities, mitigates for the impacts of Covered Activities on the Covered Species and their habitats on the basis of species and habitat needs, provides a regional approach to the mitigation of impacts and the conservation of species and their habitats, protects wetlands and waters of the Plan Area, and conserves natural communities in the Plan Area.

Appendix B. Representative Project Photographs

Seasonal wetland in southwestern portion of Project site. Facing north.

Drainage canal in center of Project site. Take on the dirt road crossing the canal, facing west.

Example of the narrow-leaf milkweed observed within the top of bank of the agricultural canal.

Drainage canal in center of Project area. Take within the canal at the culvert that occurs under the dirt road crossing the canal, facing west.

Northeast corner of Project site Facing south.

Center point of north boundary of Project site. Facing south.

Center of Project site, facing northwest.

Southeastern corner of Project site facing north.

Eastern boundary in northern portion of Project site. The SSHCP land cover map shows a drainage here, however, there was no trace of a drainage. Facing west.

Eastern boundary in northern portion of Project site. The SSHCP land cover map shows a drainage and an emergent wetland here, however, there was no trace of either of these features. Facing southwest.

Seasonal wetland on the western boundary of property. Facing north.

Dirt road that passes over the agricultural canal. One of the trees in the Project site can be seen on the right side of photograph. Taken facing northwest.

Roadside ditch along northern boundary of Project site. Facing west.

Appendix C.

Plant and Wildlife Species Observed at the Project Site

Plant Species Observed at the Project

Scientific Name[1]	Common Name	Family	Nativity	Wetland Indicator Status[2]
Trees				
Juglans hindsii	Northern California black walnut	Juglandaceae	Native	FAC
Salix exigua	Narrowleaf willow	Salicaceae	Native	FACW
Quercus lobata	Valley oak	Fagaceae	Native	FACU
Herbaceous				
Amaranthus retroflexus	Redroot pigweed	Amaranthaceae	Naturalized	FACU
Asclepias fascicularis	Narrow-leaf milkweed	Apocynaceae	Native	FAC
Avena barbata	Slender oat	Poaceae	Naturalized	--
Brassica rapa	Field mustard	Brassicaceae	Naturalized	FACU
Bromus diandrus	Ripgut grass	Poaceae	Naturalized	--
Bromus hordeaceus	Soft chess	Poaceae	Naturalized	--
Bromus madritensis	Foxtail brome	Poaceae	Naturalized	UPL
Centromadia pungens	Common tarweed	Asteraceae	Native	FAC
Chenopodium vulvaria	Stinking goosefoot	Chenopodiaceae	Naturalized	--
Convolvulus arvensis	Bindweed, orchard morning-glory	Convolvulaceae	Naturalized	--
Crypsis schoenoides	Swamp prickle grass	Poaceae	Naturalized	FACW
Cynosurus echinatus	Bristly dogstail grass	Poaceae	Naturalized	--
Elymus caput-medusae	Medusa head	Poaceae	Naturalized	--
Epilobium densiflorum	Dense-flower willowherb	Onagraxeae	Native	FACW
Erigeron canadensis	Canada horseweed	Asteraceae	Native	FACU
Festuca perennis	Perennial rye grass, Italian ryegrass	Poaceae	Naturalized	FAC
Hordeum murinum	Hare barely	Poaceae	Naturalized	FACU
Lactuca serriola	Prickly lettuce	Asteraceae	Naturalized	FACU
Malva neglecta	Common mallow	Malvaceae	Naturalized	--
Polygonum aviculare ssp. aviculare	Prostrate knotweed	Polygonaceae	Naturalized	FAC
Rumex crispus	Curly dock	Polygonaceae	Naturalized	FAC
Solanum americanum	White nightshade	Solanaceae	Native	FACU
Triticum aestivum	Common wheat	Poaceae	Native	--
Xanthium strumarium	Cocklebur	Asteraceae	Native	FAC

1 Jepson Flora Project (eds.) 2022, Jepson eFlora, https://ucjeps.berkeley.edu/eflora/, accessed on August 17, 2022.

2 U.S. Army Corps of Engineers 2022. National Wetland Plant List, version 3.5. http://wetland-plants.usace.army.mil/. Accessed August 17, 2022.

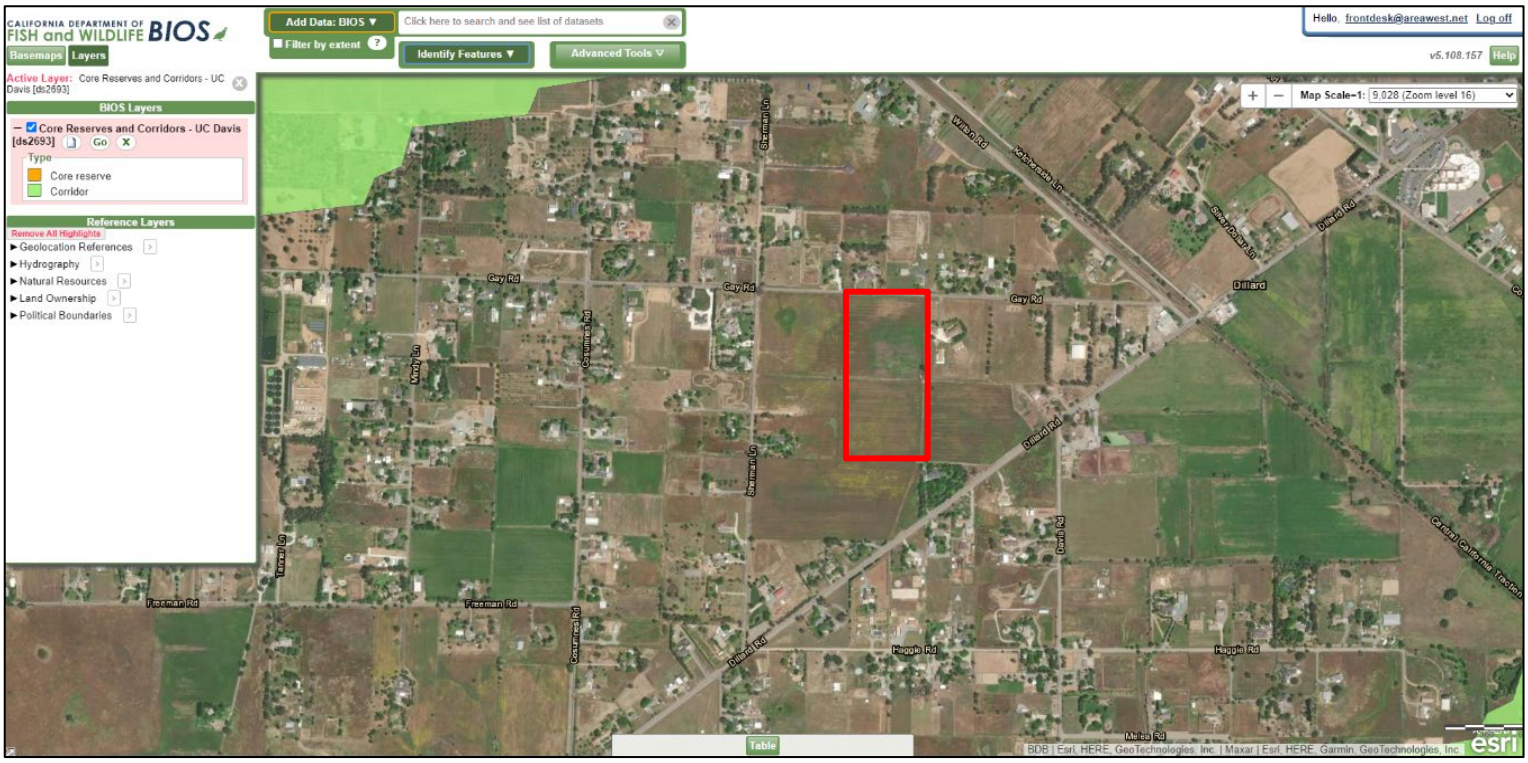
OBL = Obligate wetland
FACW = Facultative wetland
FAC = Facultative
FACU = Facultative upland
UPL = Upland obligate
-- = No indicator status listed on 2020 National Wetland Plant List

Wildlife Species Observed at the Project Site

Common Name	Scientific Name
Birds	
American white pelican	*Pelecanus erythrorhynchos*
Black phoebe	*Sayornis nigricans*
Killdeer	*Charadrius vociferus*
Mourning dove	*Zenaida macroura*
Sharp-shinned hawk	*Accipiter striatus*
Turkey vulture	*Cathartes aura*
Western kingbird	*Tyrannus verticalis*
Mammals	
Black-tailed jack rabbit	*Lepus californicus*
Reptiles	
Western fence lizard	*Sceloporus occidentalis*

Appendix D.

BIOS Connectivity Data for the Project Sit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Hydrography
Natural Resources
Land Ownership
Political Boundaries
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Gay Rd
Dillard
Dillard Rd
Freeman Rd
Haggie Rd
Melba Rd
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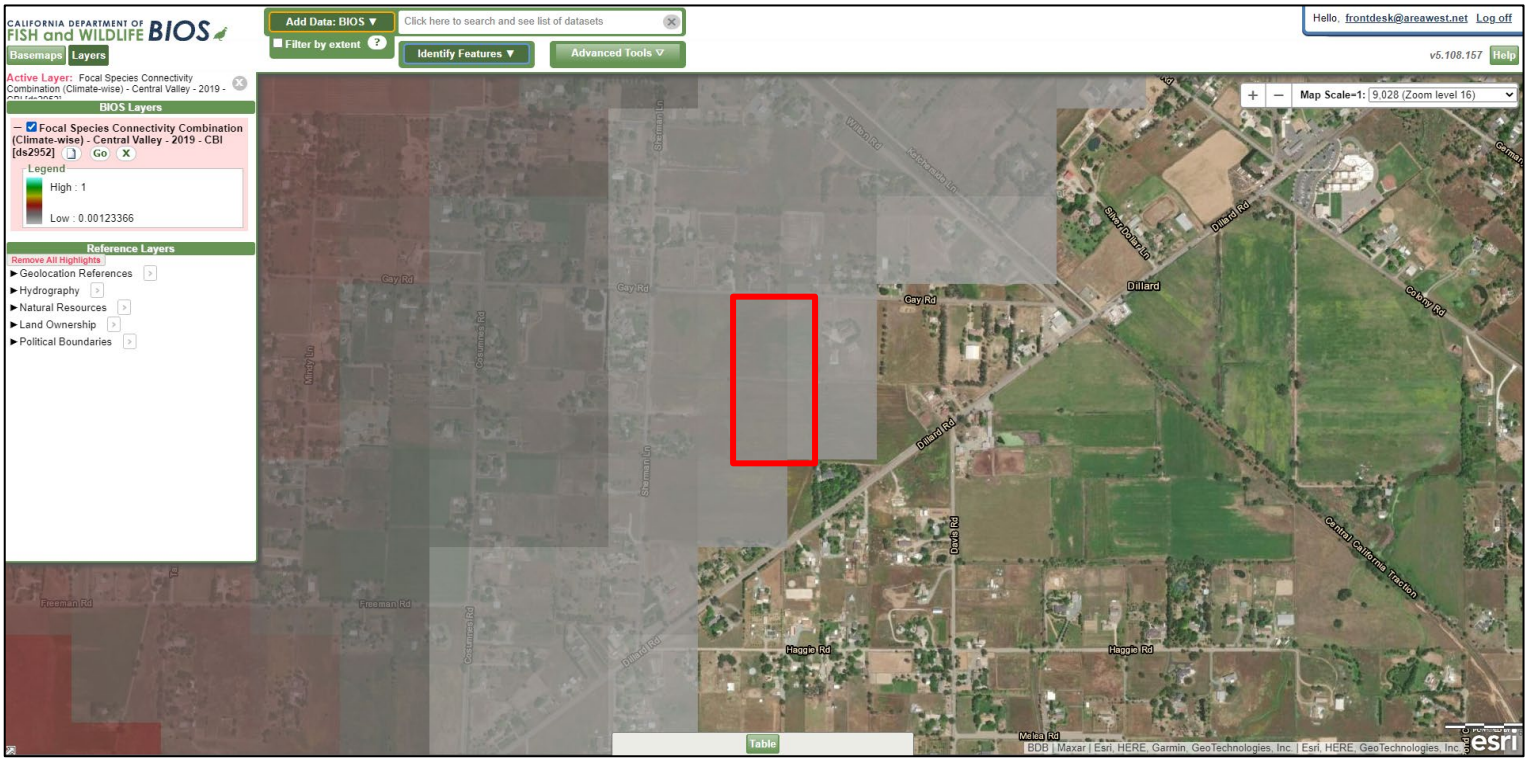
esri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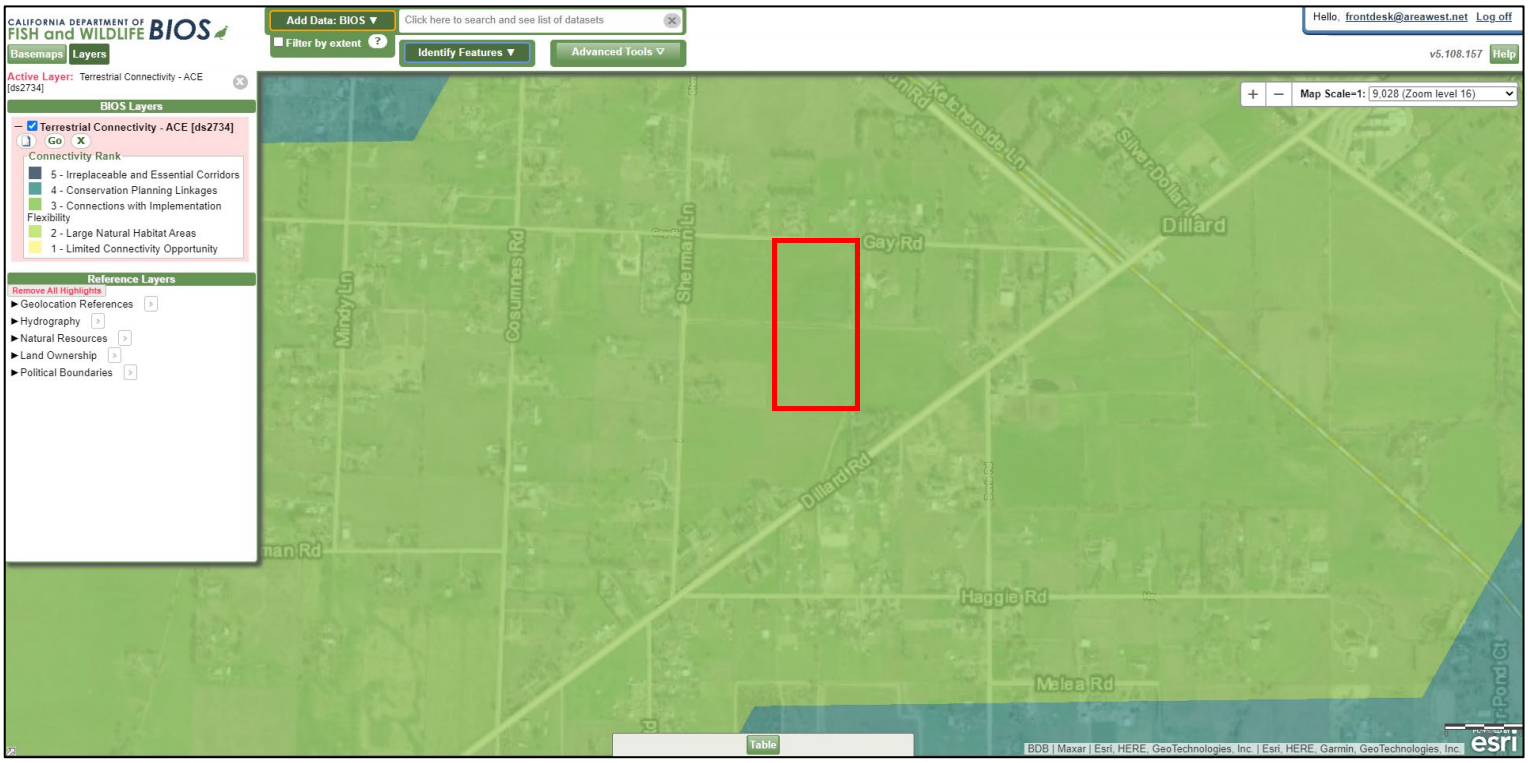
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5 - Irreplaceable and Essential Corridors
4 - Conservation Planning Linkages
3 - Connections with Implementation
Flexibility
2 - Large Natural Habitat Areas
1 - Limited Connectivity Opportunity
Reference Layers
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Geolocation References
Hydrography
Natural Resources
Land Ownership
Political Boundaries
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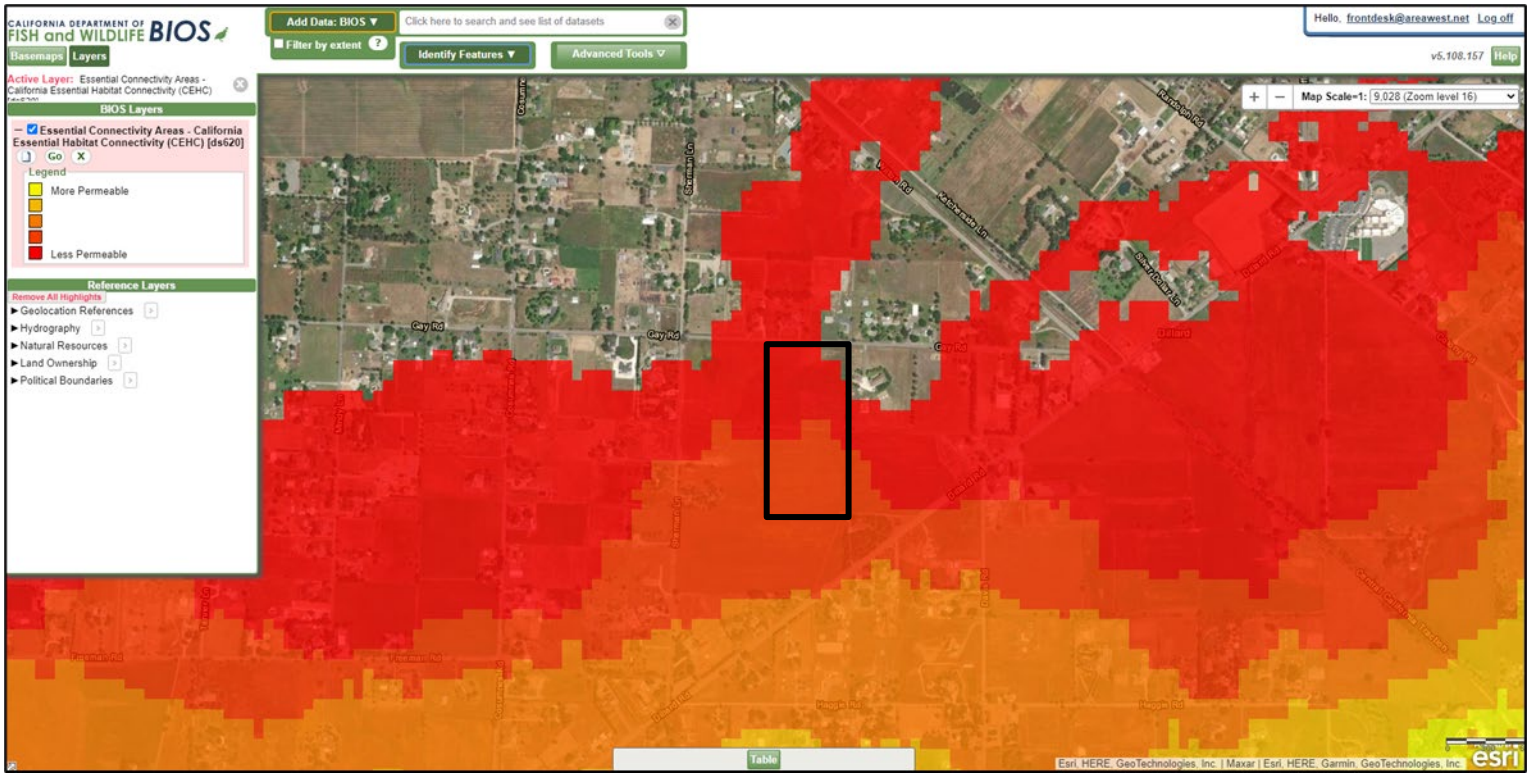
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Map Scale=1: 9,028 (Zoom level 16)
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APPENDIX C

September 15, 2022

Marshall Congdon
West Fork Construction
6050 Warehouse Way
Sacramento, California 95826
Email: mcongdon@wfcsac.com

SUBJECT: Aquatic Resources Delineation Report for the Gay Road Parcel Division Project, Sacramento County, California

To Whom it May Concern,

On behalf of the West Fork Construction (WFC), Area West Environmental, Inc. (AWE) prepared this aquatic resource delineation report to document potential aquatic resources delineated at the Gay Road Parcel Division Project (Project). The Project Site is located at APN 134-0333-0230, within the Community of Wilton, Sacramento County, California (Attachment A, Figure 1). The Project site is located within the *Elk Grove* U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Attachment A, Figure 2). The Project Site occurs in Township 6 North, Range 6 East, Section 1, Coordinates for the center point of the Project site (NAD 1983) are Latitude: 38.39990, Longitude: -121.26567.

The purpose of this letter is to provide information consistent with the U.S. Army Corps of Engineers (Corps) Minimum Standards for Aquatic Resources Delineations. Results of this delineation are considered preliminary, subject to review by the Corps during the verification process. The following information is provided in this submittal:

- Summary of the proposed Project (provided below);
- Summary of the methods used to delineate jurisdictional features and the results of the delineation (provided below);
- Figures showing the Project vicinity and location (Attachment A - Figures 1 and 2);
- Aquatic Resources Map (Attachment A - Figure 3);
- National Wetlands Inventory Map (Attachment A - Figure 4);
- Representative site photographs (Attachment B);
- List of vascular plants observed within the Project Site (Attachment C);
- National Resources Conservation Service (NRCS) Web Soil Survey Report (NRCS 2022) (Attachment D); and

- Arid West Ephemeral and Intermittent Streams Ordinary High Water Mark (OHWM) Datasheet and U.S. Army Corps of Engineers Wetland Determination Datasheets (Attachment E).
- ORM Upload Sheet (Attachment F)
- Shapefiles

Proposed Project

Project Background and Setting

The Project is a 20 +/- acre parcel in rural Sacramento County in the community of Wilton. Currently the Project area is fallow agricultural land. The Project is surrounded by single family residences on multi-acre parcels, and other agricultural lands.

The current parcel is zoned as agricultural and rezoning the Project site is proposed. The tentative parcel map and the rezone would change the zoning to agricultural-residential, and divide the 20 +/- acres into four parcels.

Directions to the Project

From 1325 J Street, Sacramento, California, 95814:

1. Get on Interstate-80 (I-80) Business Loop East from 15th Street
    a. Head east on J Street toward 14th Street
    b. Use the right two lanes to turn right (south) onto 15th Street
    c. Use the left two lanes to turn left (east) onto X Street
    d. Use the middle 2 lanes to turn slightly left onto the I-80 East ramp.
2. Follow California Highway-99 (CA-99) South to Dillard Road, take exit 281
    a. Use right three lanes to merge onto CA-99 south towards Fresno
    b. Take exit 281 for Dillard Road
3. Continue on Dillard Road Drive to Gay Road in Wilton
    a. Continue onto Dillard Road
    b. Turn south onto Cosumnes Road
    c. Turn west onto Gay Road
    d. Destination is on the south side of road
4. Project will be visible from Gay Road.

Access to the Site

The Project site can be accessed from Gay Road. There are no barriers to entry into the Project site.

Aquatic Resources Delineation Methods

The aquatic resource delineation includes the entire Project site. The Project site consists primarily of the existing agricultural field. The field is bisected by an irrigation ditch that flows east to west.

AWE Biologists Samantha Morford and Matthew Howe conducted the field delineation on August 16 and 24, 2022. Representative site photographs are included as Attachment B and a list of vascular plants observed is included as Attachment C. Surveys were conducted using the 1987 *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Corps 2008a). The boundaries of potential aquatic features were recorded using a handheld iPad paired to a Bad Elf Flex Geographic Positioning System (GPS) unit with sub-meter accuracy. Data was collected in latitude/longitude in the NAD83 datum. The approximately 20 +/- acre Project site was surveyed for potentially jurisdictional aquatic features. The ordinary high-water mark (OHWM) along each bank of potential other waters, were mapped with a handheld GPS based on evidence such as change in the plant community, sediment marks on vegetation, and debris wrack lines. The accessible portions of the Project site were walked by the biologists and the vegetation communities and potentially jurisdictional features were mapped using the GPS unit. Special attention was given to locating areas with a prevalence of hydrophytic vegetation or drainages defined by an OHWM. Typically, an area must meet criteria for hydrophytic vegetation, hydric soils, and wetland hydrology to be identified as a potential wetland under Corps jurisdiction. Features that did not meet the hydrophytic vegetation wetland criteria were reviewed to determine if they met the definition of other waters of the U.S. (i.e., had evidence of an OHWM) using the 2008 *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Corps 2008b). Paired soil test pits were completed to assess if hydric soil indicators were present.

Results

According to the NRCS, see soils report in Attachment D, there are two soil map units within the Project site:

- San Joaquin silt loam, leveled, 0 to 1 percent slopes (93.0% of Project site). This soil is an alluvium derived from granite rock. It is moderately-well drained and has high runoff. This soil map unit is not listed as a hydric soil, however one minor component of this map unit is considered to be hydric.
- San Joaquin silt loam, 0 to 3% slopes (7.0% of Project site). This soil is an alluvium derived from granite. It is moderately well drained and has high runoff potential. (NRCS 2022)

The U.S. Fish and Wildlife Service National Wetland Inventory (NWI) Map identifies freshwater emergent wetland habitat type along the southeast corner of the Project site (Attachment A, Figure 4.).

Two disturbed seasonal wetlands, an agricultural canal, a roadside ditch, wild oats and annual brome grassland, and developed habitat types were identified within the Project site. The following sections describe each habitat type observed within the Project site.

Seasonal Wetland

There are two small disturbed seasonal wetlands within the Project site (SW-1 and SW-2) that account for 0.054 acre of the Project site (Attachment A, Figure 3). The first one occurs on the

western edge of the northern portion of the Project site. This wetland may be part of a large complex according to the habitat map layer of the South Sacramento Habitat Conservation Plan (SSHCP 2018), however, these additional potential wetlands are on private property and were not accessible. The second one occurs near the southwest corner of the Project site. This second seasonal wetland within the Project site appears to be the outer edge of a slightly larger wetland that occurs on the western side of the fence (on private property). From review of aerial photographs, the USGS National Hydrography Dataset (USGS 2022), and existing aquatic resources (CWMW 2022) these wetlands do not appear to have any hydrological connection any other water body, and are therefore isolated.

Two wetland determination datasheets (Test Pit [TP] -1 and -3) were collected in this habitat and are included in Attachment E.

Vegetation. Both seasonal wetlands were disturbed (regular vegetation maintenance) and were dominated by non-native facultative grasses. Within the Project site, this habitat the herbaceous species were difficult to identify due to timing of the survey and the recent mowing of vegetation, however, it appeared to be dominated by perennial ryegrass (*Festuca perennis*) (FAC) and hare barely (*Hordeum murinum*) (FACU). The seasonal wetland near the southwest corner of the Project site also contained common tarweed (FAC) and dense-flower willowherb (*Epilobium densiflorum*) (FACW), with a cluster of narrow-leaved willow (*Salix exigua*) (FACW) saplings at the southern end of the feature.

Soils. Soil data taken at TP-1 and -3, taken in the seasonal wetland, contained hydric soils. Soils at TP-1 and -3 showed a loamy texture with obvious redox concentrations in the matrix. The observed hydric soil indicator at TP-1 was redox depressions (F8) and at TP-3 was redox dark surface (F6) (Attachment E).

Hydrology. At the northwestern seasonal wetland, oxidized rhizospheres on living roots (C3) and biotic crust (B12) were observed. The biotic crust was matted grasses from last season or older that were water stained. The only wetland hydrology observed in the southwestern seasonal wetland was surface soils cracks (B6). Surface water was not present within the feature during the time of the survey.

Due to the presence of presence of facultative wetland vegetation, hydric soil indicators, and wetland hydrology, these features qualify as wetlands. However, these wetlands are isolated with no hydrological connection to waters of the U.S. and therefore are not expected to qualify as waters of the U.S. The wetland features do qualify as a potential waters of the state.

Wild Oats and Annual Brome Grassland

The wild oats and annual brome grasslands community occurs throughout the Project site and is the dominant habitat. The majority of this habitat consists of non-native herbaceous species and is characterized by a Semi-natural Alliance between *Avena* spp. and *Bromus* spp. Two wetland determination datasheets (TP-2 and -4) were collected in this habitat and are included in Attachment E.

Vegetation. Identifiable grass species that were dominate in this habitat included slender oat (*Avena barbata*), perennial ryegrass (FAC), ripgut grass (*Bromus diandrus*), foxtail brome (*Bromus madritensis*) (UPL), hare barely (FACU), and soft chess (*Bromus hordeaceus*). Additional herbaceous species included redroot pigweed (*Amaranthus*

retroflexus) (FACU), stinking goosefoot (*Chenopodium vulvaria*), field mustard (*Brassica rapa*) (FACU), common tarweed (FAC), and bindweed (*Convolvulus arvenis*) (--). There were three trees within this habitat; these were valley oak (*Quercus lobata*) (FACU), and black walnut (*Juglans hindsii*) (FAC).

Soils. Soil data taken at TP-2 and -4, taken in the seasonal wetland, contained hydric soils. Soils at TP-2 and -4 showed a loamy texture with obvious redox concentrations in the matrix. The observed hydric soil indicator was redox dark surface (F6) at both TPs.

Hydrology. No wetland hydrology indicators were observed in this habitat.

The absence of hydrophytic vegetation and wetland hydrology in this habitat indicate that these areas do not qualify as wetlands.

Agricultural Canal

An agricultural canal bisects the Project site (AC-1) and accounts for 0.212 acre of the Project site (Attachment A, Figure 3). Water appears to flow east to west through the canal. The canal does not extend past Sherman Lane to the west and Dillard Road to the east. From review of aerial photographs, the USGS National Hydrography Dataset (USGS 2022), and existing aquatic resources (CWMW 2022) this canal does not appear to have any hydrological connection any other potential waters of the U.S. and is therefore isolated. Water enters the Project site through a 12-inch plastic culvert that passes under a dirt access road. The canal channel at the culvert outlet (western end of the culvert) is narrower than the rest of the canal due to sediment runoff from the dirt access road. After approximately 30 feet from the culvert outlet, the canal channel widens. An OHWM datasheet (OHWM-1) was completed in this habitat type and is included in Attachment E.

Vegetation. The majority of this canal is vegetated. The margins of the canal were dominated by slender oat, prickly lettuce (*Lactuca serriola*) (FACU), Canada horseweed (*Erigeron canadensis*) (FACU), and narrow-leaved milkweed (*Asclepias fascicularis*) (FAC). In canal, dominate plant species included; swamp prickle grass (*Crypsis schoenoides*) (FACW), prostrate knotweed (*Polygonum aviculare ssp. aviculare*) (FAC), curly dock (*Rumex crispus*) (FAC), and cocklebur (*Xanthium strumarium*) (FAC).

Soils. Due to the presence of bed and bank and OHWM indicators, no soils data was collected in this habitat type.

Hydrology. OHWM indicators present within the channel included a change in bank slope, changes in vegetation species composition, and change of vegetation cover. No water was observed in the canal during the survey.

Although this feature has a well-defined OHWM and there are distinct changes in topography and vegetation, it is isolated from any other waterways. Therefore, this agricultural canal is not expected to qualify as a waters of the U.S. however, it would potentially qualify as a water of the state.

Roadside Ditch

There is a roadside ditch that occurs at the northern edge of the Project site, along the southern shoulder of Gay Road (RD-1) (Attachment A, Figure 3). The roadside ditch accounts for 0.052

acre of the Project site. This ditch appears to run the entire length of Gay Road, flowing generally from east to west. From review of aerial photographs, the USGS National Hydrography Dataset (USGS 2022), and existing aquatic resources (CWMW 2022) this roadside ditch does not appear to have any hydrological connection with any other potential waters of the U.S., and is therefore isolated.

Vegetation. Within the Project site, the margins of the ditch were dominated by slender oat, foxtail brome (UPL), prickly lettuce (FACU), curly dock (FAC), and dense-flower willowherb (FACW). The majority of the roadside ditch channel was unvegetated and contained leaf litter.

Soils. Due to the presence of bed and bank and OHWM indicators, no soils data was collected in this habitat type.

Hydrology. OHWM indicators present within the channel included a change in bank slope, changes in vegetation species composition, and change of vegetation cover.

Although this feature has a well defined OHWM and there is a distinct change in topography and vegetation, it is isolated from any other waterways. Therefore, this agricultural canal is not expected to qualify as a waters of the U.S. however, it would potentially qualify as a water of the state.

Developed

Developed portions of the Project site are characterized by the presence of anthropogenic features, including Gay Road and one single family residence just outside of the Project site, to the east.

Vegetation. Within the Project site, this habitat is void of vegetation.

Soils. Due to the lack of hydrophytic vegetation, no soils data was collected.

Hydrology. No wetland hydrology indicators were observed within this habitat.

The absence of hydrophytic vegetation and wetland hydrology in this habitat indicate that these areas do not qualify as wetlands.

Please contact me at (916) 987-3362 if you have any questions or require additional information. Otherwise, we look forward to receiving written confirmation of the Corps' preliminary jurisdictional determination at your earliest convenience.

Sincerely,

Becky Rozumowicz

Becky Rozumowicz-Kodsuntie
Project Manager

Attachments:

- Attachment A. Figures

    - Figure 1. Project Vicinity
    - Figure 2. Project Location
    - Figure 3. Aquatic Resources Delineation Map
    - Figure 4. National Wetlands Inventory Map
- Attachment B. Site Photographs
- Attachment C. List of Vascular Plants Observed
- Attachment D. NRCS Web Soil Survey Report
- Attachment E. OHWM Datasheets and Wetland Determination Datasheets
- Attachment F. ORM Upload Sheet
- Shapefiles

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Corps. See U.S. Army Corps of Engineers.

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Attachment A. Figures

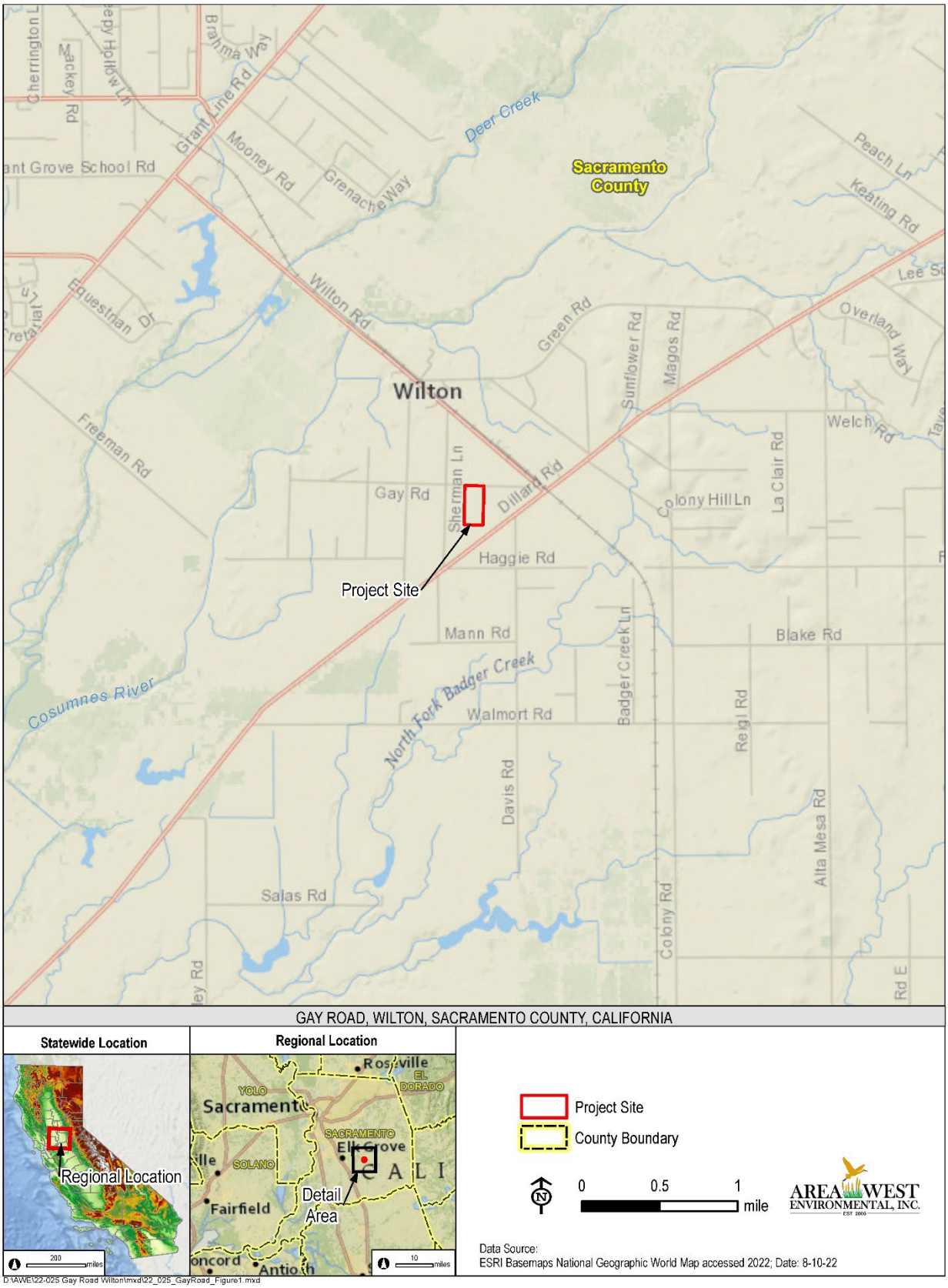


Figure 1. Project Vicinity

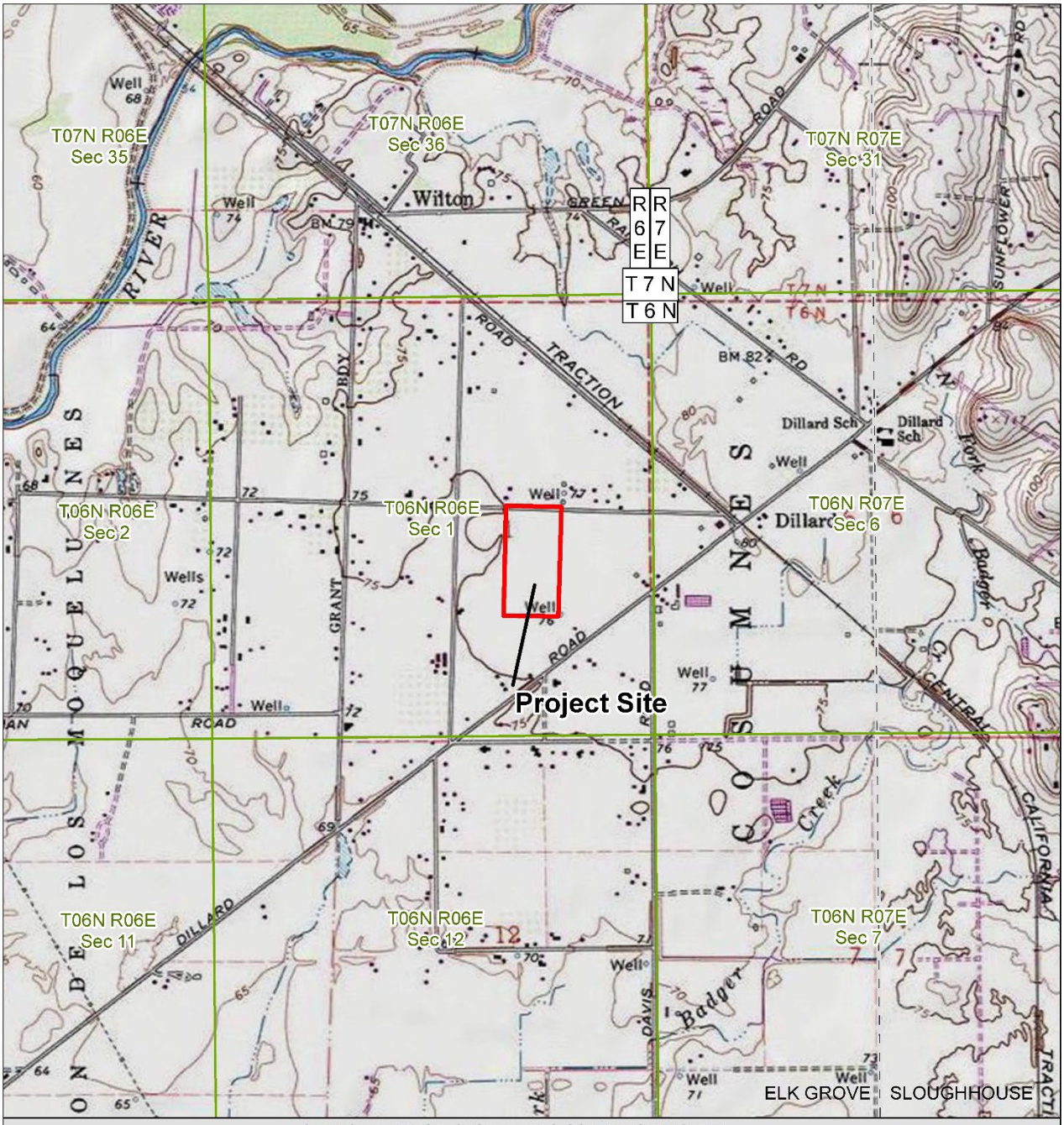


Figure 2. Project Location

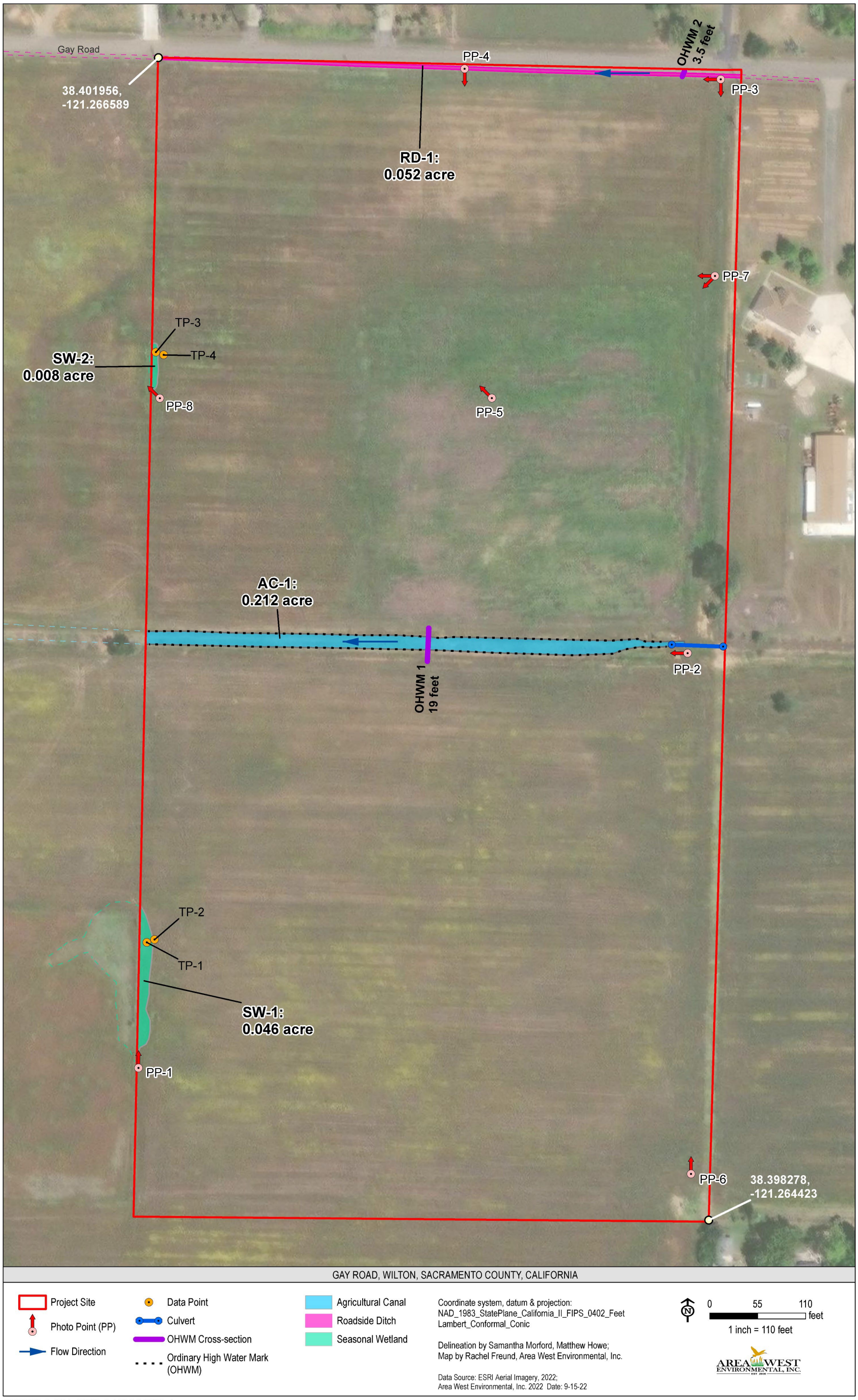
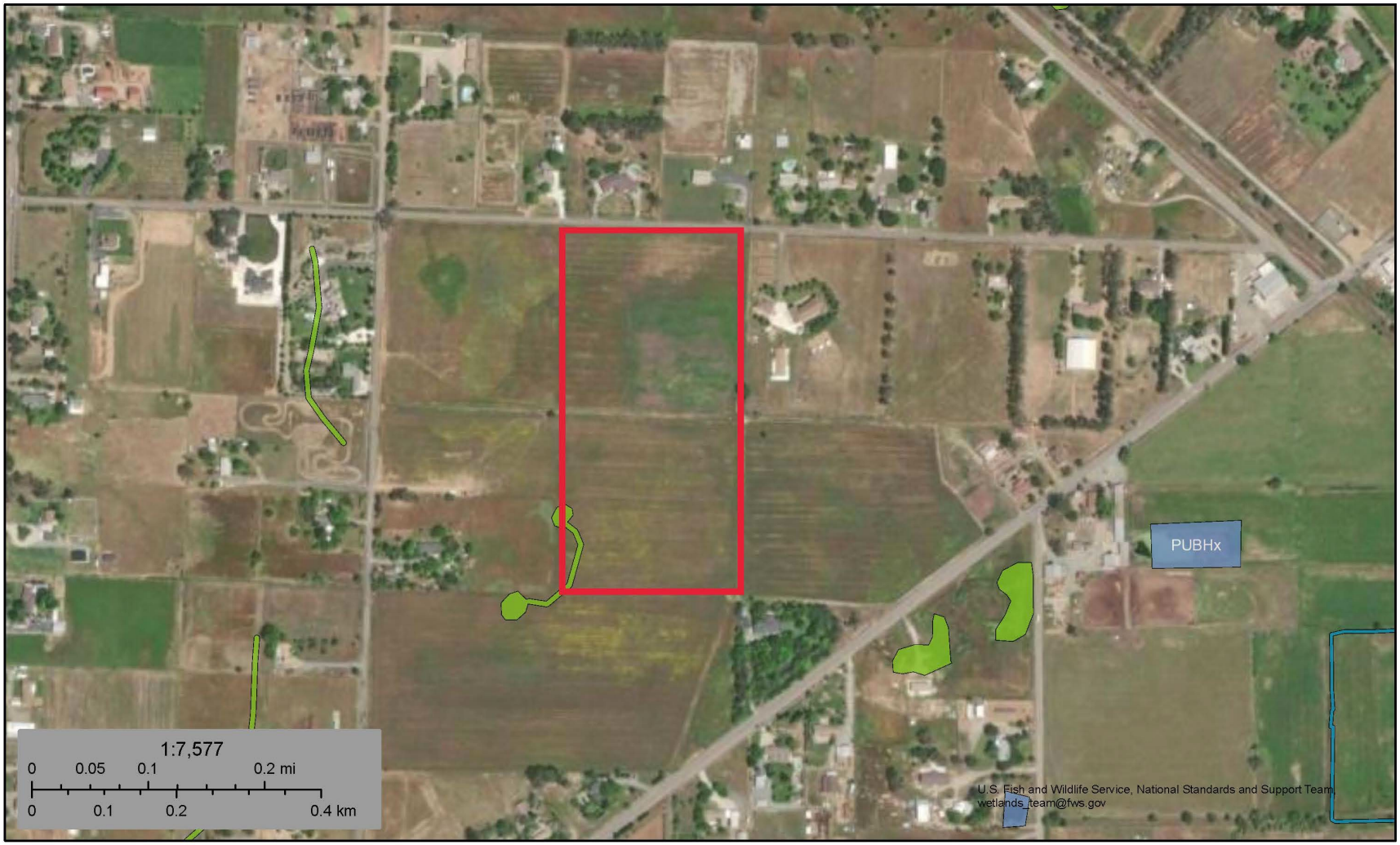


Figure 3. Aquatic Resource Delineation Map

U.S. Fish and Wildlife Service
National Wetlands Inventory

Gay Road Rezone Project



August 15, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Figure 4. National Wetlands Inventory Map

Attachment B. Site Photographs

Photo Point 1. Seasonal wetland in southwestern portion of Project site. Facing north.

Photo Point 2. Drainage canal in center of Project site. Take on the dirt road crossing the canal, facing west.

Photo Point 3. Northeast corner of Project site Facing south.

Photo Point 4. Center point of north boundary of Project site. Facing south.

Photo Point 5. Near the center of Project site facing northwest.

Photo Point 6. Southeastern corner of Project site facing north.

Photo Point 7. Roadside ditch along northern boundary of Project site. Facing west.

Photo Point 8. Eastern boundary in northern portion of Project site. Facing west.

Photo Point 8. Eastern boundary in northern portion of Project site. Facing southwest.

Photo Point 9. Seasonal wetland on the western boundary of Project site. Facing north.

Attachment C. List of Vascular Plants Observed

Plant Species Observed at the Project

Scientific Name[1]	Common Name	Family	Nativity	Wetland Indicator Status[2]
Trees				
Juglans hindsii	Northern California black walnut	Juglandaceae	Native	FAC
Salix exigua	Narrowleaf willow	Salicaceae	Native	FACW
Quercus lobata	Valley oak	Fagaceae	Native	FACU
Herbaceous				
Amaranthus retroflexus	Redroot pigweed	Amaranthaceae	Naturalized	FACU
Asclepias fascicularis	Narrow-leaf Milkweed	Apocynaceae	Native	FAC
Avena barbata	Slender oat	Poaceae	Naturalized	--
Brassica rapa	Field Mustard	Brassicaceae	Naturalized	FACU
Bromus diandrus	Ripgut grass	Poaceae	Naturalized	--
Bromus hordeaceus	Soft chess	Poaceae	Naturalized	--
Bromus madritensis	Foxtail brome	Poaceae	Naturalized	UPL
Centromadia pungens	Common tarweed	Asteraceae	Native	FAC
Chenopodium vulvaria	Stinking goosefoot	Chenopodiaceae	Naturalized	--
Convolvulus arvensis	Bindweed, orchard morning-glory	Convolvulaceae	Naturalized	--
Crypsis schoenoides	Swamp prickle grass	Poaceae	Naturalized	FACW
Cynosurus echinatus	Bristly dogstail grass	Poaceae	Naturalized	--
Elymus caput-medusae	Medusa head	Poaceae	Naturalized	--
Epilobium densiflorum	Dense-flower willowherb	Onagraxeae	Native	FACW
Erigeron canadensis	Canada horseweed	Asteraceae	Native	FACU
Festuca perennis	Perennial rye grass, Italian ryegrass	Poaceae	Naturalized	FAC
Hordeum murinum	Hare barely	Poaceae	Naturalized	FACU
Lactuca serriola	Prickly Lettuce	Asteraceae	Naturalized	FACU
Malva neglecta	Common mallow	Malvaceae	Naturalized	--
Polygonum aviculare ssp. aviculare	Prostrate knotweed	Polygonaceae	Naturalized	FAC
Rumex crispus	Curly dock	Polygonaceae	Naturalized	FAC
Solanum americanum	White nightshade	Solanaceae	Native	FACU
Triticum aestivum	Common wheat	Poaceae	Native	--
Xanthium strumarium	Cocklebur	Asteraceae	Native	FAC

1 Jepson Flora Project (eds.) 2022, Jepson eFlora, https://ucjeps.berkeley.edu/eflora/, accessed on August 17, 2022.

2 U.S. Army Corps of Engineers 2022. National Wetland Plant List, version 3.5. http://wetland-plants.usace.army.mil/. Accessed August 17, 2022.

OBL = Obligate wetland
FACW = Facultative wetland
FAC = Facultative
FACU = Facultative upland
UPL = Upland obligate
-- = No indicator status listed on 2020 National Wetland Plant List

Attachment D. NRCS Web Soil Survey Report

Attachment E. OHWM and Wetland Determination Datasheets

Attachment F. ORM Upload Sheet

Attachment D. NRCS Web Soil Survey Report

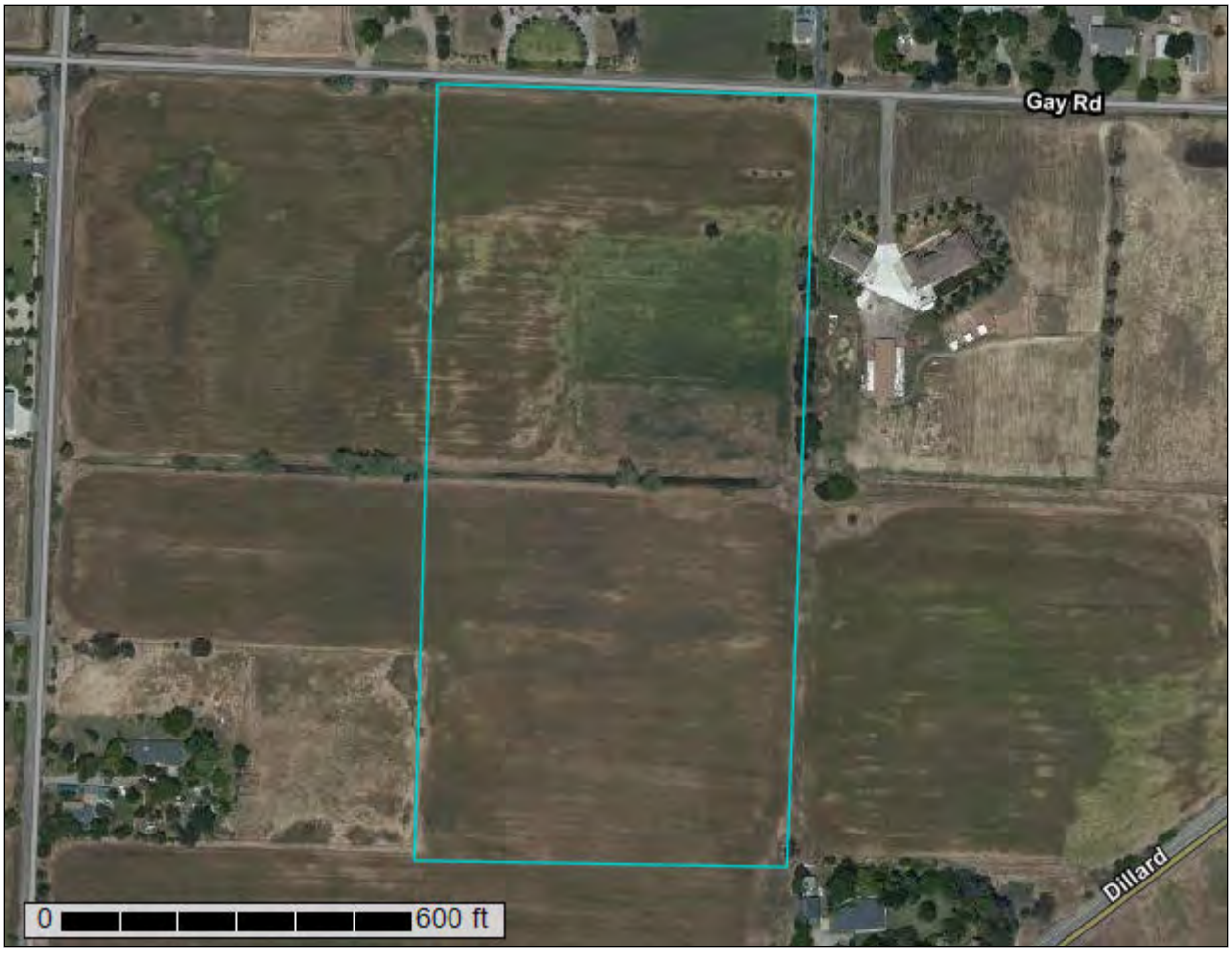
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Sacramento County, California



August 11, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Soil Map

Map Scale: 1:2,390 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 35 70 140 210

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sacramento County, California
Survey Area Data: Version 20, Sep 3, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 12, 2019—May 30, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
213	San Joaquin silt loam, leveled, 0 to 1 percent slopes	18.3	93.0%
214	San Joaquin silt loam, 0 to 3 percent slopes	1.4	7.0%
Totals for Area of Interest		**19.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Sacramento County, California

213—San Joaquin silt loam, leveled, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: hhpv
Elevation: 20 to 500 feet
Mean annual precipitation: 10 to 22 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

San joaquin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of San Joaquin

Setting

Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

H1 - 0 to 23 inches: silt loam
H2 - 23 to 28 inches: clay loam
H3 - 28 to 54 inches: indurated
H4 - 54 to 60 inches: stratified sandy loam to loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches; 28 to 54 inches to duripan
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Bruella

Percent of map unit: 3 percent
Hydric soil rating: No

Durixeralfs
Percent of map unit: 3 percent
Hydric soil rating: No

Xerarents
Percent of map unit: 2 percent
Hydric soil rating: No

Kimball
Percent of map unit: 2 percent
Hydric soil rating: No

Galt
Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

Hedge
Percent of map unit: 2 percent
Hydric soil rating: No

Unnamed, rarely flooded
Percent of map unit: 1 percent
Hydric soil rating: No

214—San Joaquin silt loam, 0 to 3 percent slopes

Map Unit Setting
National map unit symbol: hhpw
Elevation: 20 to 500 feet
Mean annual precipitation: 10 to 22 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
San joaquin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of San Joaquin

Setting
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile
H1 - 0 to 23 inches: silt loam

H2 - 23 to 28 inches: clay loam
H3 - 28 to 54 inches: indurated
H4 - 54 to 60 inches: stratified sandy loam to loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches; 28 to 54 inches to duripan
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Ecological site: R017XD045CA - LOAMY
Hydric soil rating: No

Minor Components

Galt

Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Bruella

Percent of map unit: 4 percent
Hydric soil rating: No

Kimball

Percent of map unit: 3 percent
Hydric soil rating: No

Hedge

Percent of map unit: 3 percent
Hydric soil rating: No

Unnamed, rarely flooded

Percent of map unit: 1 percent
Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Hydric Soil List - All Components

This table lists the map unit components and their hydric status in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the

upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
    B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
    B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
    A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or

B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Soil List - All Components

Hydric Soil List - All Components–CA067-Sacramento County, California					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
213: San Joaquin silt loam, leveled, 0 to 1 percent slopes	San Joaquin	85	Terraces	No	—
	Bruella	3	—	No	—
	Durixeralfs	3	—	No	—
	Xerarents	2	—	No	—
	Kimball	2	—	No	—
	Galt	2	Depressions	Yes	3
	Hedge	2	—	No	—
	Unnamed-Rarely flooded	1	—	No	—
214: San Joaquin silt loam, 0 to 3 percent slopes	San Joaquin	85	Terraces	No	—
	Galt	4	Depressions	Yes	3
	Bruella	4	—	No	—
	Kimball	3	—	No	—
	Hedge	3	—	No	—
	Unnamed-Rarely flooded	1	—	No	—

Taxonomic Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2003). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series.

Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. This table shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol.* An example is Alfisols.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udalfs (*Ud*, meaning humid, plus *alfs*, from Alfisols).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalfs*, the suborder of the Alfisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludalfs.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, active, mesic Typic Hapludalfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

References:
Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. (The soils in a given survey area may have been classified according to earlier editions of this publication.)

Report—Taxonomic Classification of the Soils

[An asterisk by the soil name indicates a taxadjunct to the series]

Taxonomic Classification of the Soils–Sacramento County, California	
Soil name	**Family or higher taxonomic classification**
San Joaquin	Fine, mixed, thermic Abruptic Durixeralfs

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Attachment E. OHWM and Wetland Determination Datasheets

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Gay Road Rezone	**Date:08/16/2022**	**Time: 11:00**
Project Number: Stream:	**Town: Wilton**	**State: Ca**
Investigator(s): S. Morford, M. Howe	**Photo begin file#:**	**Photo end file#:**

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☑ Is the site significantly disturbed?

Location Details: Middle of agricultural ditch. Located in center of the property.

Projection: **Datum: NAD83**

Coordinates: 38.400109, -121.265540

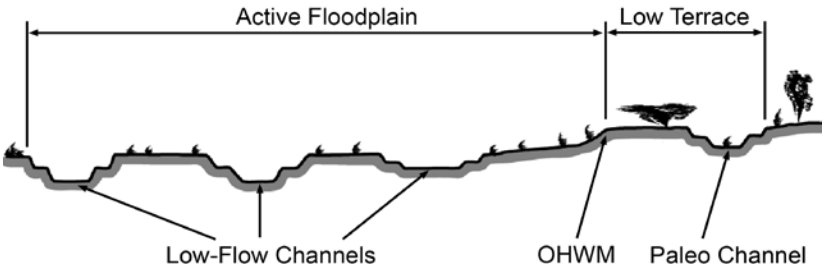
Potential anthropogenic influences on the channel system: Human made agricultural canal. Displays channelization.

Brief site description: Agricultural canal in middle of property. At culvert water is confined to narrow flow channels (OHWM=6ft), after 30 feet the channel widens. Narrowing of channel appears to be caused by sediment build up from road crossing. Channel is highly vegetated in the widened areas.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☐ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☑ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

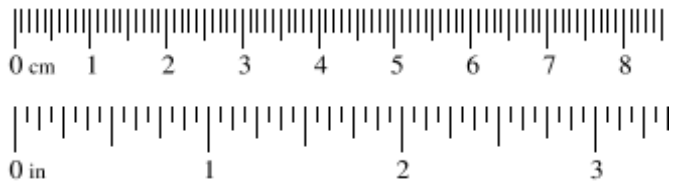


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☑ GPS
   - ☐ Other:

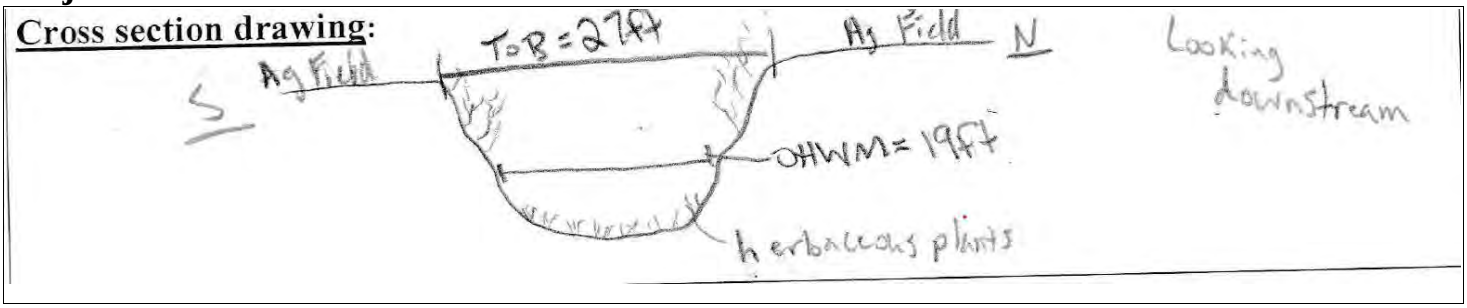
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	Gravel
2.56	64	Cobble	Gravel
0.157	4	Pebble	Gravel
0.079	2.00	Granule	Gravel
0.039	1.00	Very coarse sand	Sand
0.020	0.50	Coarse sand	Sand
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	Sand
1/8 0.0025	0.0625	Very fine sand	Sand
1/16 0.0012	0.031	Coarse silt	Silt
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	Silt
1/128 0.00015	0.0039	Very fine silt	Silt
		Clay	Mud



Project ID: **Cross section ID:** OHWM-1 **Date:** 08/16/22 **Time:**

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☑ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: Fine Silt

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: 95 % Tree: _____% Shrub: _____% Herb: 95 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Project ID: **Cross section ID:** OHWM-1 **Date:** 08/16/22 **Time:**

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Fine Silt

Total veg cover: 100 % Tree: _____% Shrub: _____% Herb: 100 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☑ Soil development
- ☑ Surface relief
- ☑ Other: Change in species composition
- ☐ Other: _____
- ☐ Other: _____

Comments:

Agricultural field.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Gay Road Rezone	**Date:08/16/2022**	**Time: 11:50**
Project Number: Stream:	**Town: Wilton**	**State: Ca**
Investigator(s): S. Morford, M. Howe	**Photo begin file#:**	**Photo end file#:**

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☑ Is the site significantly disturbed?

Location Details: Ditch on south side of Gay Road.

Projection: **Datum: NAD83**
Coordinates: 38.401878, -121.264351

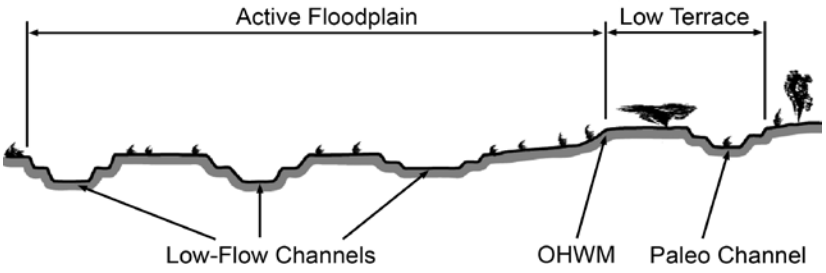
Potential anthropogenic influences on the channel system: Roadside ditch located on the south side of Gay Road. Ditch captures runoff from road.

Brief site description: Ditch occurs at the northern edge of property. Ditch looks to extend the entire length of Gay Road.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☐ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☑ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

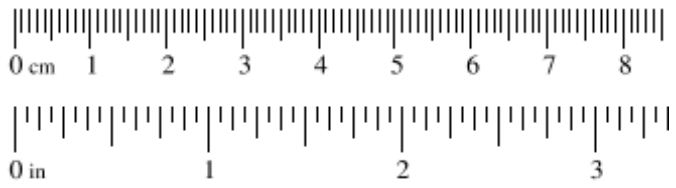


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☑ GPS
   - ☐ Other:

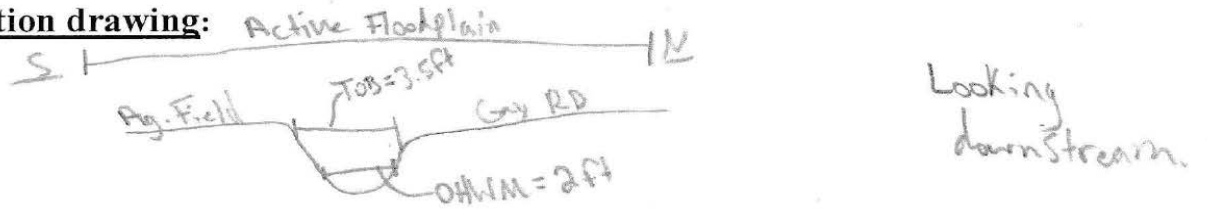
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	Gravel
2.56	64	Cobble	Gravel
0.157	4	Pebble	Gravel
0.079	2.00	Granule	Gravel
0.039	1.00	Very coarse sand	Sand
0.020	0.50	Coarse sand	Sand
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	Sand
1/8 0.0025	0.0625	Very fine sand	Sand
1/16 0.0012	0.031	Coarse silt	Silt
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	Silt
1/128 0.00015	0.0039	Very fine silt	Silt
		Clay	Mud



Project ID: **Cross section ID:** OHWM-2 **Date:** 8/16/2022 **Time:** 11:50

Cross section drawing:



OHWM

GPS point: OHWM-2

Indicators:

- ☐ Change in average sediment texture
- ☑ Change in vegetation species
- ☑ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Fine Silt

Total veg cover: 30 % Tree: _____% Shrub: _____% Herb: 30 %

Community successional stage:

- ☐ NA
- ☑ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☑ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Channel contains leaf litter

Project ID: **Cross section ID:** **Date:** **Time:**

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Fine Silt

Total veg cover: 100 % Tree: _____% Shrub: _____% Herb: 100 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☑ Soil development
- ☑ Surface relief
- ☑ Other: Change in species composition
- ☑ Other: Change in vegetation species
- ☐ Other: _____

Comments:

Agricultural field to the south and Gay Road to the north.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	***OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)***

Project/Site: Gay Road Rezone City/County: Wilton. Sacramento County Sampling Date: 08/16/2022

Applicant/Owner: West Fork Construction State: CA Sampling Point: TP-1

Investigator(s): Samantha Morford, Matthew Howe Section, Township, Range: section 1, township 6N, Range 6E

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): <.5%

Subregion (LRR): LRR C Lat: 38.399173 N Long: -121.26676 W Datum: NAD83

Soil Map Unit Name: San Joaquin silt loam, leveled, 0 to 1 percent slopes NWI classification: Frewshwater Emergant

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Edge of agricultural field, southwestern corner of study area

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5x5 ft)			
1. *Centromadia pungens*	2	No	FAC
2. *Cynosurus echinatus*	3	No	--
3. *Epilobium densiflorum*	15	Yes	FACW
4. *Hordeum murinum*	15	Yes	FACU
5. *Festuca perennis*	25	Yes	FAC
6.			
7.			
8.			
	60	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	27	x 3 =	81
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	57 (A)		171 (B)

Prevalence Index = B/A = 3.0

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Herbs difficult to identify due to timing of survey and vegetation maitnence activities. The site was mowed at the end of growing season.

SOIL

Sampling Point: TP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	7.5YR 3/4	95	5YR 5/8	5	C	PL/M	Loamy/Clayey	Prominent redox concentrations
5-18	10YR 3/4	90	7.5YR 5/8	5	C	PL/M	Loamy/Clayey	Prominent redox concentrations
			7.5YR 3/4	5		M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- X Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

In 5-18 inch layer: 7.5YR 3/4 is a second matrix color. Magnesium concentrations were observed throughout this layer.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- x Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	***OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)***

Project/Site: Gay Road Rezone City/County: Wilton. Sacramento County Sampling Date: 08/16/2022

Applicant/Owner: West Fork Construction State: CA Sampling Point: TP-2

Investigator(s): Samantha Morford, Matthew Howe Section, Township, Range: section 1, township 6N, Range 6E

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): LRR C Lat: 38.399182 N Long: 121.266645 W Datum: NAD83

Soil Map Unit Name: San Joaquin silt loam, leveled, 0 to 1 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
TP-2, taken approximately 10 feet east of TP-1. Herbs disturbed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5x5 ft)			
1. *Centromadia pungens*	85	Yes	FAC
2. *Festuca perennis*	15	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		300 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Herb species difficult to identify due to survey timing and mowing at the end of growth season.

SOIL

Sampling Point: TP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	7.5YR 3/4	95	5YR 5/8	5	C	PL/M	Loamy/Clayey	Prominent redox concentrations
5-18	10YR 4/4	99	7.5YR 5/8	1	C	PL/M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Redox tapered off in bottom layer, soil became more clay.
Test point not taken within a closed depression or basin.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology indicators observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Gay Road Rezone City/County: Wilton. Sacramento County Sampling Date: 08/24/2022

Applicant/Owner: West Fork Construction State: CA Sampling Point: TP-3

Investigator(s): Samantha Morford Section, Township, Range: section 1, township 6N, Range 6E

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): slightly concave Slope (%): 0%

Subregion (LRR): LRR C Lat: 38.401033 N Long: -121.266621 W Datum: NAD83

Soil Map Unit Name: San Joaquin silt loam, 0 to 3 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____	**Is the Sampled Area within a Wetland?** **Yes** x **No** ____
Hydric Soil Present?	Yes x	No ____	
Wetland Hydrology Present?	Yes x	No ____	

Remarks:
Edge of very slight depression that holds water in winter months according to aerial photography of site. Located on western boundary in northern portion of project site.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5x5 ft)			
1. *Centromadia pungens*	85	Yes	FAC
2. *Hordeum murinum*	10	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	85	x 3 =	255
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	95 (A)		295 (B)

Prevalence Index = B/A = 3.11

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Herbs difficult to identify due to mowing. The site was mowed at the end of growing season.

SOIL

Sampling Point: TP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	7.5YR 3/4	97	7.5YR 4/6	3	C	PL/M	Loam	Loamy soil with many roots
4-6	10YR 3/2	97	7.5YR 4/6	3	C	PL/M	Loamy	Loamy soil with many roots
6-16	10YR 3/2	95	7.5YR 4/6	3	C	PL/M	Loam	Loamy with some clay. High Mn deposits
			5YR 5/8	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- x Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Mn=Magnesium

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Biotic crust = matted grasses from last season or older. That have been inundated in water (grayed and stained).

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R	***OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)***

Project/Site: Gay Road Rezone City/County: Wilton. Sacramento County Sampling Date: 08/24/2022

Applicant/Owner: West Fork Construction State: CA Sampling Point: TP-4

Investigator(s): Samantha Morford Section, Township, Range: Section 1, Township 6N, Range 6E

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0%

Subregion (LRR): LRR C Lat: 38.401024 N Long: -121.266590 W Datum: NAD83

Soil Map Unit Name: San Joaquin silt loam, 0 to 3 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** x **No** X
Hydric Soil Present?	Yes x	No X	
Wetland Hydrology Present?	Yes x	No X	

Remarks:
Test pit taken approximately 5 feet east of TP-3.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5x5 ft)			
1. *Festuca perennis*	80	Yes	FAC
2. *Centromadia pungens*	15	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		285 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Herbs difficult to identify due to mowing. The site was mowed at the end of growing season.

SOIL

Sampling Point: TP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 3/4	100					Loam	Loamy soil with living roots
2-6	10YR 4/3	95	7.5YR 4/6	5	C	PL/M	Loam	
6-16	10YR 4/3	98	7.5YR 4/6	2	C	M	Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Test point not taken within a closed depression or basin.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ___ Depth (inches): ___

Saturation Present? Yes ___ No ___ Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No wetland hydrology indicators observed.

Attachment F. ORM Upload Sheet