INITIAL STUDY/NOTICE OF PREPARATION

Neves Residential Project

Prepared for:

City of Hanford - Community Development Department
317 N. Douty Street
Hanford, CA 93230
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TABLE OF CONTENTS

PROJECT INFORMATION **4**

Project title 4

Lead agency name and address 4

Contact person and phone number 4

Project location 4

Project sponsor's name/address 5

General plan designation 5

Zoning 5

Project Description 5

Surrounding Land Uses/Existing Conditions 6

Other Project Approvals 6

Tribal Consultation 6

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED **11**

DETERMINATION **12**

ENVIRONMENTAL CHECKLIST **13**

I. AESTHETICS 13

II. AGRICULTURE AND FOREST RESOURCES 17

III. AIR QUALITY 20

IV. BIOLOGICAL RESOURCES 26

V. CULTURAL RESOURCES 33

VI. ENERGY 36

VII. GEOLOGY AND SOILS 40

VIII. GREENHOUSE GAS EMISSIONS....45

IX. HAZARDS AND HAZARDOUS MATERIALS....48

X. HYDROLOGY AND WATER QUALITY....53

XI. LAND USE AND PLANNING....59

XII. MINERAL RESOURCES....61

XIII. NOISE....62

XIV. POPULATION AND HOUSING....66

XV. PUBLIC SERVICES....68

XVI. RECREATION....71

XVII. TRANSPORTATION/TRAFFIC....73

XVIII. TRIBAL CULTURAL RESOURCES....76

XX. WILDFIRE....84

XXI. MANDATORY FINDINGS OF SIGNIFICANCE....86

LIST OF PREPARERS....88

PROJECT INFORMATION

This document is the Initial Study for the potential environmental effects of the Neves Residential Project (Project) proposed in the City of Hanford (City). To accommodate this Project, the City will need to approve a Planned Unit Development and Tentative Subdivision Map. The City of Hanford will act as the Lead Agency for this project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. Copies of all materials referenced in this report are available for review in the project file during regular business hours at the Hanford Community Development Department at 317 N. Douty Street, Hanford, CA 93230.

Project title

Neves Residential Project

Lead agency name and address

City of Hanford - Community Development Department

317 N. Douty Street

Hanford, CA 93230

Contact person and phone number

Gabrielle Myers
City of Hanford
(559) 585-2500
Email: gmyers@hanford.ca.gov

Project location

The City of Hanford lies in the Central San Joaquin Valley region, in the eastern portion of Kings County (see Figure 1). State Route (SR) 198 runs east-west through the southern portion of the City and SR 43 runs north-south around the eastern boundary. The proposed Project site is located within the City of Hanford limits, near the northern City limit boundary. The proposed development is located on an approximately 135.28-acre site on Assessor's Parcel Numbers 009-020-021, -047, -023 and -046.

Project sponsor's name/address

San Joaquin Valley Homes
5607 Avenida De Los Robles
Visalia, CA 93291

General plan designation

Low, Medium and High Density Residential

Zoning

R-L-5 (Low Density Residential), R-M (Medium Density Residential, and R-H (High Density Residential)

Project Description

The Project Applicant intends to develop up to 615 single-family residential units on an approximately 135.28-acre site. The development will also include a 5.87-acre storm basin and a seven-acre park along with access roads, lighting, landscaping and other associated improvements, per City Standards (see Figures 3 and 4). Entitlements needed to accommodate the proposed Project include a Tentative Subdivision Map and a Planned Unit Development to accommodate smaller lot sizes and reduced setbacks.

The proposed Project site is currently an active orchard.

Site Circulation

Access to and from the Project site will be from four full access points at buildout. The site will be accessed to the south along Fargo Avenue, to the east along 12th Avenue, and to the north and west along unnamed streets.

Construction Phasing

The Project will be developed in four phases and is broken down below:

- Phase I (44.63 acres)
    - Construction of 140 lots

    - Construction of a 7-acre park
    - Construction of 5,87-acre storm basin
- Phase 2 (44.49 acres)
    - Construction of 229 lots
- Phase 3 (34.57 acres)
    - Construction of 185 lots
- Phase 4 (11.59 acres)
    - Construction of 57 lots

Surrounding Land Uses/Existing Conditions

The Project site currently supports an active orchard. Lands surrounding the proposed Project are described as follows:

- North: Orchards, Ponding basin, Unnamed and unpaved road and Rural residences
- South: Fargo Avenue, Rural residences, Housing development
- East: 12th Avenue, Agricultural row crops
- West: Unnamed and unpaved road, Rural residence, Orchards and Drainage ditch

Other Project Approvals

- Approval of a Tentative Subdivision Map by the City of Hanford
- Approval of a Planned Unit Development by the City of Hanford
- Approval of Building Permits by the City of Hanford
- Certification of an Environmental Impact Report by the City of Hanford
- Compliance with Rule 9510 by the San Joaquin Valley Air Pollution Control District
- Storm Water Pollution Prevention Plan by the Central Valley Regional Water Quality Control Board
- Compliance with other federal, state and local requirements

Tribal Consultation

The City of Hanford has not received any Project-specific requests from any Tribes in the geographic area with which it is traditionally and culturally affiliated with or otherwise to be notified about projects in the City of Hanford.

Figure 1 – Location

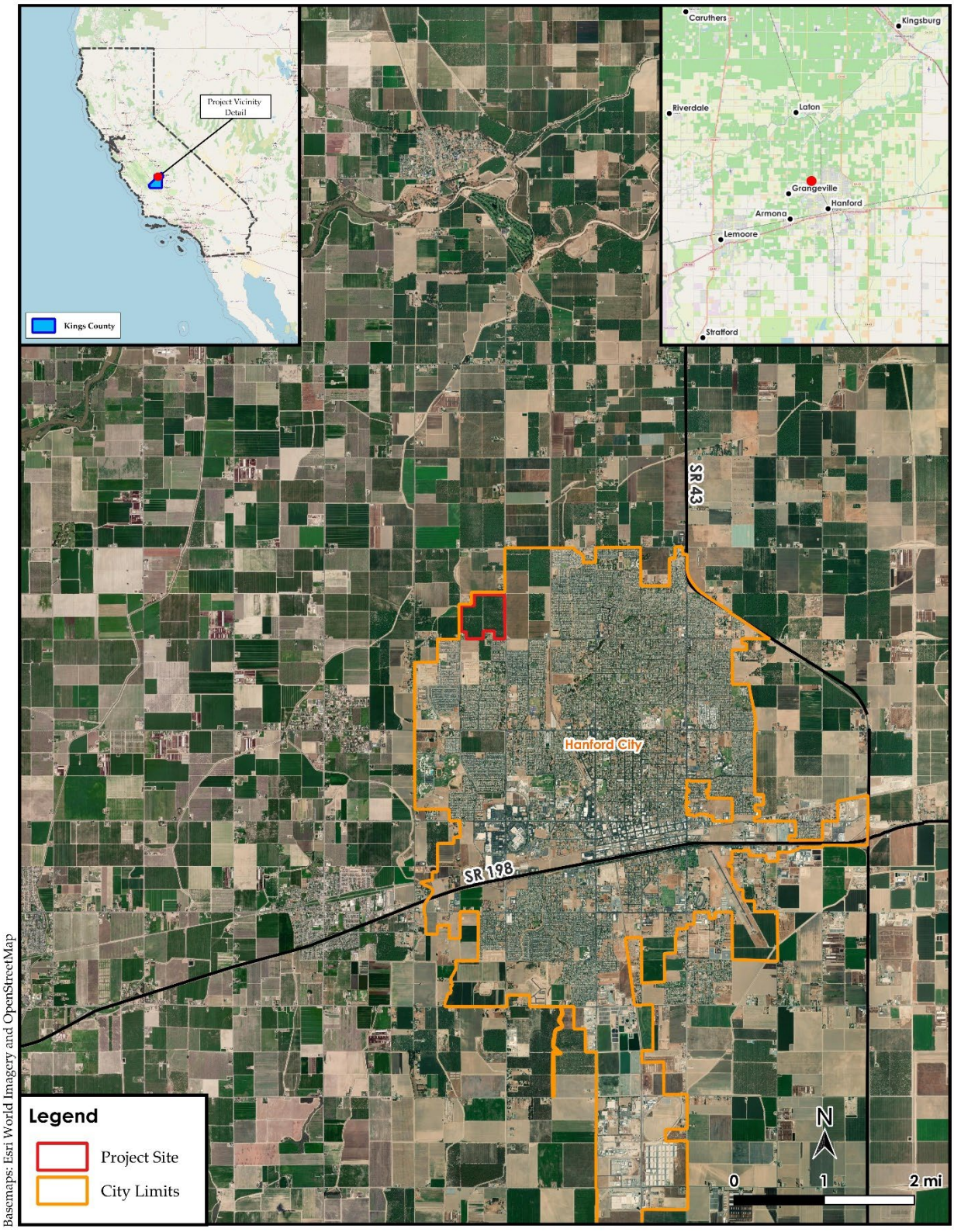


Figure 2 – Site Aerial

Figure 3 – Site Plan Over Aerial

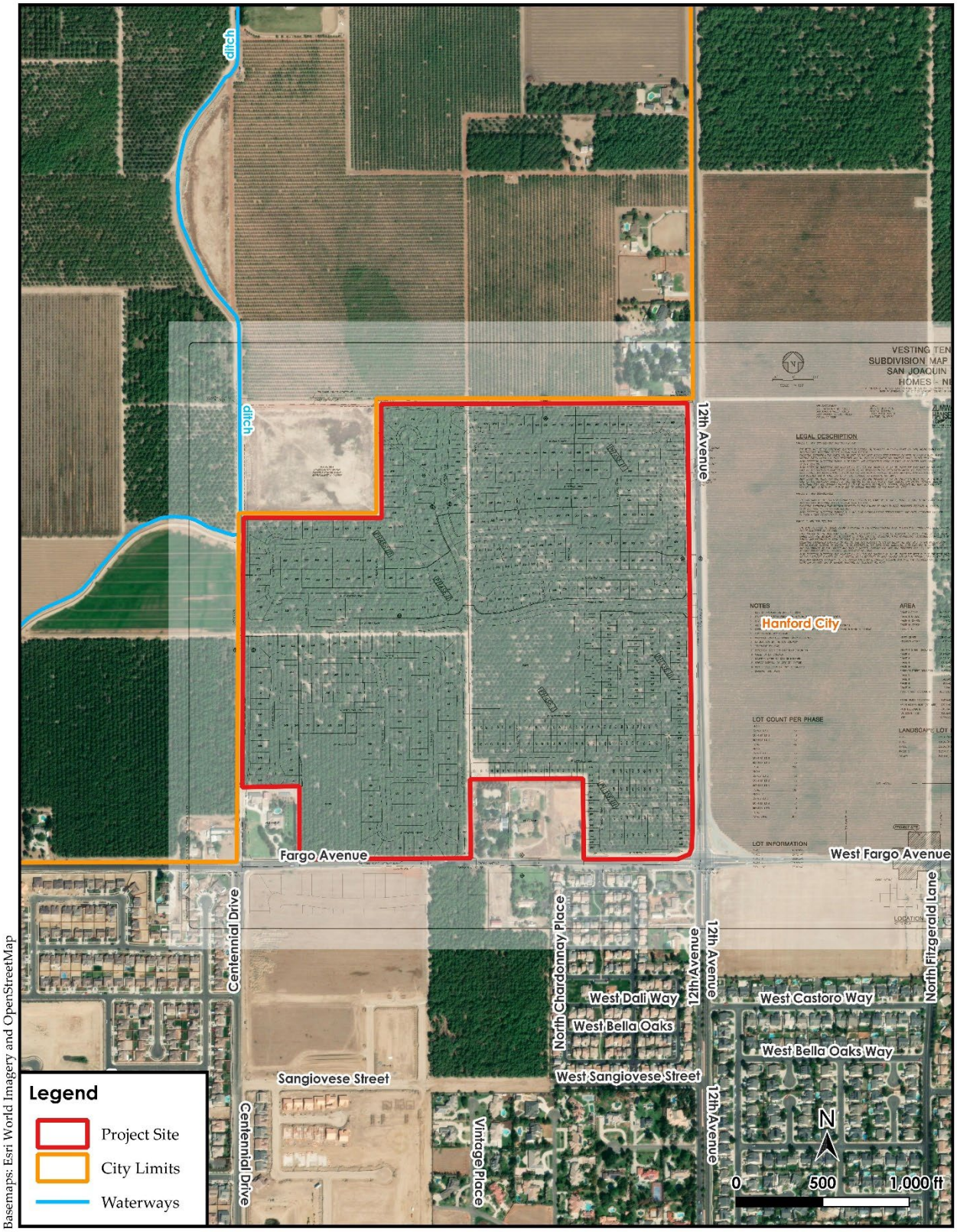
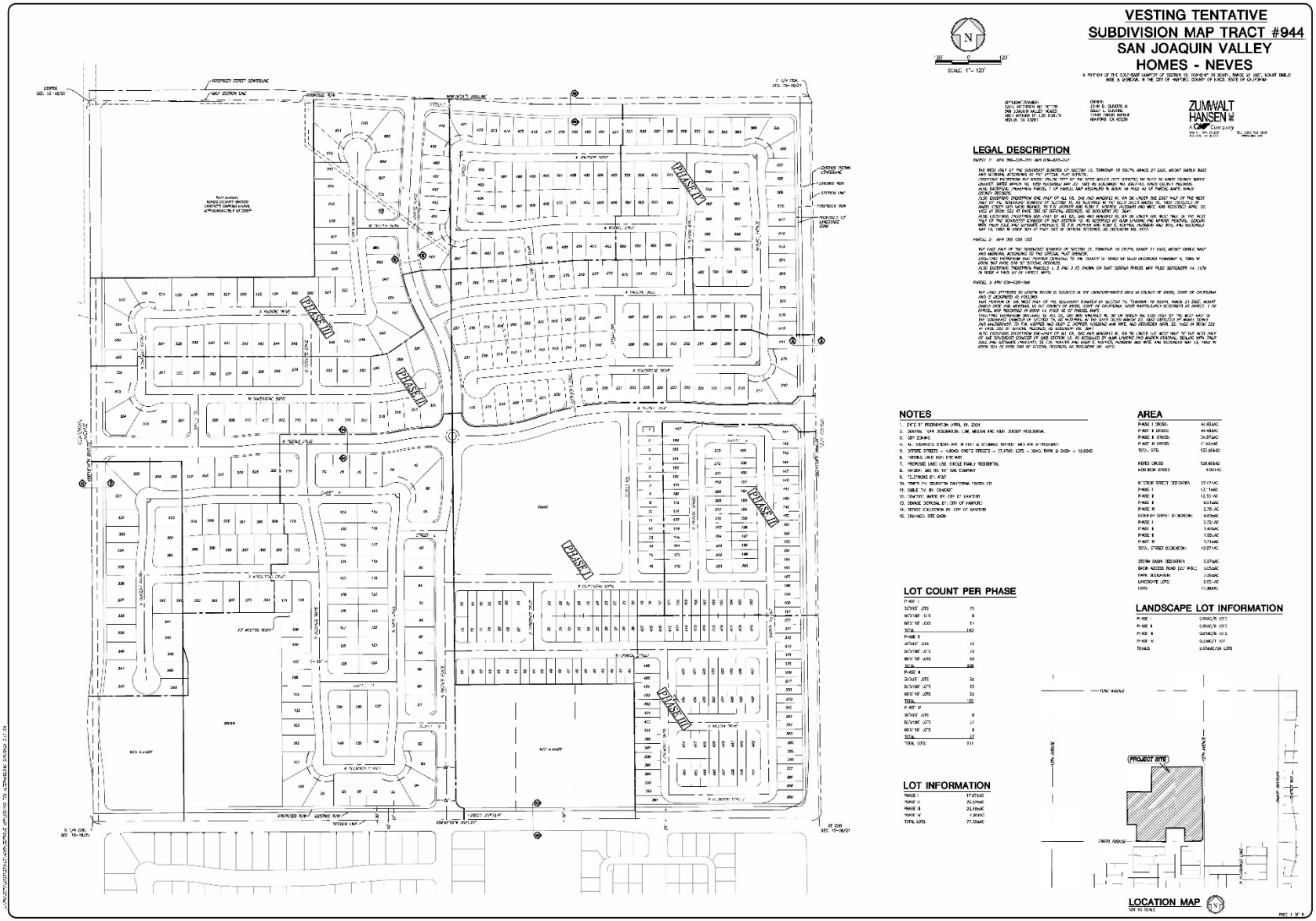


Figure 4 – Site Plan



ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

DETERMINATION

On the basis of this initial evaluation:

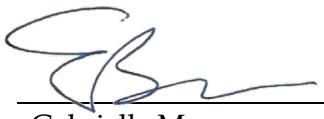
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

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



for Gabrielle Myers

Gabrielle Myers
City of Hanford

12/05/2024

Date

ENVIRONMENTAL CHECKLIST

I. AESTHETICS

Would the project:

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

ENVIRONMENTAL SETTING

The Project site currently supports an active orchard. Lands surrounding the proposed Project are orchards, a ponding basin, an unnamed and unpaved road and rural residences to the north; Fargo Avenue, rural residences, and an in-progress housing development to the south; 12th Avenue and agricultural row crops to the east; and an unnamed and unpaved road, rural residence, orchards and a drainage ditch to the west.

RESPONSES

a) Have a substantial adverse effect on a scenic vista?
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The Project Applicant intends to develop 615 single-family residential units on an approximately 135.28-acre site. The site is currently inside the City's northwestern City Limits.

A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. The site consists of an active orchard. The City of Hanford is located in the northern portion of Kings County and is composed of 16.6 square miles of flat land, not covered by water. The only natural waterway is Mussel Slough, remnants of which still exist on the City's western boundary. The People's Ditch, an irrigation canal dug in the 1870's, spans Hanford from north to south. The City does not identify any scenic vistas within the Project area; views consist primarily of broad panoramas of agricultural land.

The land has been designated for High-, Medium- and Low-Density Residential. There are no officially designated or eligible State Scenic Highways near the Project area. There are also no rock outcroppings within the City's General Plan Study Area. The City does have an ordinance protecting trees in Chapter 12.12, Street Trees and Shrubs, of the Municipal Code. However, the Project would be consistent with the tree ordinance. The Project would not substantially damage scenic resources, including, but not limited to, rock outcroppings, trees and historical buildings within a State Scenic Highway. Impacts would be ***less than significant.***

Mitigation Measures: None are required.

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

Less than Significant Impact. The proposed Project would alter the existing visual character of public views of the site from agricultural orchards to fully developed single-family residences. Upon approval of the Planned Unit Development and Tentative Subdivision Map, the Project design is subject to the City's Design Guidelines adopted for the City's General Plan which apply to site layout, building design, landscaping, interior street design, lighting, parking and signage. Per the City's Design Guidelines,

detailed architectural plans, color palettes and building materials as well as landscaping plans will be submitted by the Project developer to the City of Hanford. The plans shall be required prior to issuance of any building permits. The review shall be substantially based on the building plans and elevations illustrated within this document.

The improvements such as those proposed by the Project are typical of City urban areas and are generally expected from residents of the City. The development will be required to comply with the General Plan, proposed zoning, R-H High-Density Residential, R-M Medium-Density Residential, and R-L-5 Low-Density Residential, and the Tree Ordinance. The proposed improvements would not substantially degrade the visual character of the area and would not diminish the visual quality of the area, as they would be consistent with the existing urban visual setting. The proposed Project itself is not visually imposing against the scale of the existing nearby residential buildings and nature of the surrounding area.

Therefore, the Project would have ***less than significant impacts*** on the visual character of the area.

Mitigation Measures:

None Required.

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

Less Than Significant Impact with Mitigation Incorporation. Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as "light trespass". Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Spillover light is light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it travels from the source, the intensity of a light fixture is often increased at the source to compensate for the dissipated light. This can further increase the amount of light that illuminates adjacent uses. Spillover light can be minimized by using only the level of light necessary, and by using cutoff type fixtures or shielded light fixtures, or a combination of fixture types.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Current sources of light in the Project area are from adjacent roadways and nearby residential and agricultural uses. The Project would necessitate street lighting and such lighting that would be subject to City standards, as outlined in the Hanford Municipal Code, Section 17.50.140 – Outdoor Lighting Standards which would reduce regulate light and glare generated from the Project. Accordingly, potential impacts would be considered ***less than significant.***

Mitigation Measures:

None required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project site is located in northwestern Hanford, inside the City limits in Kings County within the San Joaquin Valley, California.

RESPONSES

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

No Impact. The proposed site is designated as *Unique Farmland* and *Confined Animal Agriculture* by the State Farmland Mapping and Monitoring Program (FMMP).[1] No land under Williamson Act contracts occur in the proposed Project area.

The proposed Project site is currently planned for urban development in the General Plan. The General Plan EIR evaluated the full build-out of the Planning Area and determined that over the 2014-2035 planning period, approximately 2,706 acres of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland would be converted to nonagricultural uses with General Plan buildout. In accordance with the General Plan EIR, the Project would be required to adhere to the Hanford Municipal Code 16.40.110 (Right to Farm) and the proposed goals and agriculture-related policies of the General Plan. However, the loss of farmland as a result of the General Plan Update was determined to be significant and unavoidable. A statement of overriding considerations was adopted for the significant and unavoidable impacts resulting from agriculture conversion. As such, no new impacts resulting from the conversion of agricultural land will occur with Project implementation.

Mitigation Measures:

None Required.

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

[1] California Important Farmland Finder, Department of Conservation. https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed June 2024.

No Impact. The Project is currently zoned R-H (High-Density Residential), R-M (Medium-Density Residential) and R-L-5 (Low-Density Residential). The Project parcels are not under Williamson Act Contracts, thus, there is ***no impact***.

Mitigation Measures: None are required.

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

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

No Impact. The proposed Project site is currently an active agricultural orchard. The land immediately surrounding the site are residential and agricultural. No forestland is on-site or in the vicinity. The Project would not conflict with existing zoning for, or cause rezoning of, Forest Land, Timberland or Timberland Zoned Timberland Production, as these designations do not exist within the City. The Project would not result in the loss of forest land or conversion of forest land to non-forest use, as these designations also do not exist within the City. There is ***no impact.***

Mitigation Measures: None are required.

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

No Impact. Project development is site specific and will not involve other changes to the existing environment. The site is designated for residential development and agricultural conversion impacts in the City's projected development areas were assessed in the Hanford General Plan EIR, planning period 2014 -2035. Impacts were considered significant and unavoidable and a Statement of Overriding Considerations was adopted. There would be *no impact.*

Mitigation Measures: None are required.

III. AIR QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☒	☐	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d. Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people)?	☒	☐	☐	☐

ENVIRONMENTAL SETTING

The climate of the San Joaquin Valley is characterized by long, hot summers and stagnant, foggy, winters. Precipitation is low and temperature inversions are common. These characteristics are conducive to the formation and retention of air pollutants and are in part influenced by the surrounding mountains which intercept precipitation and act as a barrier to the passage of cold air and air pollutants.

The proposed Project lies within the San Joaquin Valley Air Basin, which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents within that air basin. Areas are classified under the Federal Clean Air Act as either "attainment", "non-

attainment", or "extreme non-attainment" areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is designated as a State and Federal extreme non-attainment area for O_3, a State and Federal non-attainment area for $PM_{2.5}$, a State non-attainment area for PM_{10}, and Federal and State attainment area for CO, SO_2, NO_2, and Pb.[2]

Regulatory Setting

Federal

Clean Air Act

The federal Clean Air Act of 1970 (as amended in 1990) required the U.S. Environmental Protection Agency (EPA) to develop standards for pollutants considered harmful to public health or the environment. Two types of National Ambient Air Quality Standards (NAAQS) were established. Primary standards protect public health, while secondary standards protect public welfare, by including protection against decreased visibility, and damage to animals, crops, landscaping and vegetation, or buildings. NAAQS have been established for six "criteria" pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb).

State

California Air Resources Board

The California Air Resources Board (CARB) is the state agency responsible for implementing the federal and state Clean Air Acts. CARB has established California Ambient Air Quality Standards (CAAQS), which include all criteria pollutants established by the NAAQS, but with additional regulations for Visibility Reducing Particles, sulfates, hydrogen Sulfide (H_2S), and vinyl chloride.

The proposed Project is located within the San Joaquin Valley Air Basin, which includes San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and parts of Kern counties and is managed by the SJVAPCD.

Air basins are classified as attainment, nonattainment, or unclassified. Attainment is achieved when monitored ambient air quality data is in compliance with the standards for a specified pollutant. Non-compliance with an established standard will result in a nonattainment designation and an

[2] San Joaquin Valley Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. http://www.valleyair.org/aqinfo/attainment.htm. Accessed June 2024.

unclassified designation indicates insufficient data is available to determine compliance for that pollutant.

Standards and attainment status for listed pollutants in the Air District can be found in Table 1. Note that both state and federal standards are presented.

Table 1
Standards and Attainment Status for Listed Pollutants in the Air District[3]

	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.30 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	0.03 ppm (annual avg) 0.14 ppm (24-hr avg) 0.5 ppm (3-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1hr avg)
Lead	1.5 µg/m3 (calendar quarter) 0.15 µg/m3 (rolling 3-month avg)	1.5 µg/m3 (30-day avg)
Particulate Matter (PM10)	150 µg/m3 (24-hr avg)	20 µg/m3 (annual avg) 50 µg/m3 (24-hr avg)
Particulate Matter (PM2.5)	15 µg/m3 (annual avg)	35 µg/m3 (24-hr avg) 12 µg/m3 (annual avg)

µg/m3 = micrograms per cubic meter

Additional State regulations include:

CARB Portable Equipment Registration Program – This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

[3] San Joaquin Valley Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. http://www.valleyair.org/aqinfo/attainment.htm. Accessed June 2024.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program – The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off- road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently developing a control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act – Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which will be phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions levels.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the local agency charged with preparing, adopting, and implementing mobile, stationary, and area air emission control measures and standards. The SJVAPCD has several rules and regulations that may apply to the Project:

Rule 3135 (Dust Control Plan Fees) – This rule requires the project applicant to submit a fee in addition to a Dust Control Plan. The purpose of this rule is to recover the SJVAPCD's cost for reviewing these plans and conducting compliance inspections.

Rules 4101 (Visible Emissions) and 4102 (Nuisance) – These rules apply to any source of air contaminants and prohibits the visible emissions of air contaminants or any activity which creates a public nuisance.

Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations) – This rule applies to use of asphalt for paving new roadways or restoring existing roadways disturbed by project activities.

Regulation VIII (Fugitive PM_{10} Prohibitions) – This regulation, a series of eight regulations, is designed to reduce PM_{10} emissions by reducing fugitive dust. Regulation VIII requires implementation of control measures to ensure that visible dust emissions are substantially reduced. The control measures are summarized in Table 2.

Table 2
San Joaquin Valley Air Pollution Control District
Regulation VIII Control Measures for Construction Related Emissions of PM_{10}[4]

The following are required to be implemented at all construction sites:
All disturbed areas, including storage piles, which are not actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizers/suppressants, covered with a tarp or other similar cover, or vegetative
All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions during construction using water or chemical stabilizer
All land clearing, grubbing, scraping, excavation, land leveling, grading cut and fill, and demolition activities during construction shall be effectively controlled of fugitive dust emissions utilizing application of water or pre-soaking.
When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from top of container shall be maintained.
All operations shall limit, or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of
Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site at the end of each workday.
Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.

RESPONSES

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

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

c) Expose sensitive receptors to substantial pollutant concentrations?

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

Potentially Significant Impact. The San Joaquin Valley Air Basin (SJVAB) is designated nonattainment of state and federal health-based air quality standards for ozone and $PM_{2.5}$. The SJVAB is designated

[4] San Joaquin Valley Air Pollution Control District. Current District Rules and Regulations. http://www.valleyair.org/rules/1ruleslist.htm#reg8. Accessed June 2024.

nonattainment of state PM_{10}. To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM_{10} Maintenance Plan and Request for Redesignation; and
- 2008 $PM_{2.5}$ Plan.

Because of the region's non-attainment status for ozone, $PM_{2.5}$, and PM_{10}, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NOx), PM_{10}, or $PM_{2.5}$ were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

Predicted construction and operational emissions may exceed the SJVAPCD's significance thresholds for ROG, NOx, PM_{10}, and $PM_{2.5}$, and could potentially create a cumulatively considerable net increase of these pollutants, could potentially expose sensitive receptors to substantial pollutant concentrations and could result in other emissions. Therefore, this impact is ***potentially significant.***

This topic will be addressed in the Project's forthcoming EIR.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project site is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural and urban disturbances. Current agricultural endeavors in the region include dairy, cattle, groves, and row crops.

Like most of California, the Central San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures usually exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely raise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region.

A Biological Resource Evaluation (BRE) was performed on behalf of the Project by Colibri Ecological Consulting in June 2024 and is the basis of the impact analysis. The BRE report can be found in its entirety in Appendix A.

A search of the California Natural Diversity Database (CNDDB) and a field reconnaissance survey of the Project site was conducted as part of the BRE. The Project site and a 50-foot buffer surrounding the Project site were walked and thoroughly inspected to evaluate and document the potential for the area to support state- or federally protected resources. The Project site consisted of an irrigated, maintained walnut orchard (see Figures 5–7 of Appendix A). Ruderal herbaceous vegetation was sparsely distributed throughout the Project site. The site was bordered by rural residential development and an almond orchard to the north, 12th Avenue and a vineyard to the east, rural and urban residential development

to the south, and a hayfield and walnut orchards and to the west. Historical aerial imagery indicates the Project site has been used for agricultural production since at least 1994.

All plants except those under cultivation or planted in residential areas and all vertebrate wildlife species observed within the survey area were identified and documented. The survey area was evaluated for the presence of regulated habitats, including lakes, streams, and other waters as defined by the United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW) and under the Porter-Cologne Water Quality Act. An additional buffer of 0.5 miles around the Project site was inspected for potential nesting sites for special-status raptors. The 0.5-mile buffer was surveyed by driving public roads and identifying the presence of large trees or other potentially suitable substrates for nesting raptors as well as open areas that could provide foraging habitat.

RESPONSES

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

Less Than Significant Impact with Mitigation. A CNDDB search for records of special-status species from the Hanford 7.5- minute USGS topographic quadrangle and the eight surrounding quadrangles produced 92 records of 29 species (see Table 1 of Appendix A). Of those 29 species, four were not considered further because they are not CEQA-recognized as special-status species by state or federal regulatory agencies or public interest groups or are considered extirpated in California. Of the remaining 25 species, five are known from within 5 miles of the Project site. Of those seven species, only one could occur on or near the Project site (Table 1 of Appendix B). That species is the state listed as threatened Swainson's hawk (*Buteo swainsoni*—State Threatened). Potential impacts to this species are further discussed below.

Swainson's Hawk

Swainson's hawk is a state listed as threatened raptor in the family Accipitridae. It is a migratory breeding resident of Central California. It uses open areas including grassland, sparse shrubland, pasture, open woodland, and annual agricultural fields such as grain and alfalfa to forage on small mammals, birds, and reptiles. After breeding, it eats mainly insects, especially grasshoppers. Swainson's hawks build small to medium-sized nests in medium to large trees near foraging habitat. The nesting season begins in March or April in Central California when this species returns to its breeding grounds from wintering areas in Mexico and Central and South America. Nest building commences within one

to two weeks of arrival to the breeding area and lasts about one week. One to four eggs are laid and incubated for about 35 days. Young typically fledge in about 38–46 days and tend to leave the nest territory within 10 days of fledging. Swainson's hawks depart for the non-breeding grounds between August and September.[5]

There is one CNDDB occurrence record of Swainson's hawk, from 2016, from within 5 miles of the Project site (Figure 4 of Appendix A). An additional 20 CNDDB occurrence records were found in the nine-quad search. Although no Swainson's hawk habitat was present on the Project site, a hayfield, containing a mix of alfalfa and other grasses bordering the west side of the Project site, and the water storage basin and surrounding area bordering the northwest corner of the Project site, provide potential foraging habitat (Figures 11 and 12 of Appendix A). Potential nest trees were observed within 0.5 miles of the Project site (Figure 7 of Appendix A).

Conclusion

Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species or substantially modifies its habitat could constitute a significant impact. Mitigation Measure BIO-1 is required to reduce the potential impacts to ***less than significant*** levels.

Mitigation Measures:

BIO-1. Protect nesting Swainson's hawks.

1. To the extent practicable, construction shall be scheduled to avoid the Swainson's hawk nesting season, which extends from March through August.

2. If it is not possible to schedule construction between September and February, a qualified biologist shall conduct surveys for Swainson's hawk in accordance with the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. These methods require six surveys, three in each of the two survey periods, prior to project initiation. Surveys shall be conducted within a minimum 0.5-mile radius around the Project site.

3. If an active Swainson's hawk nest is found within 0.5 miles of the Project site, and the qualified biologist determines that Project activities would disrupt the nesting birds, a construction-free buffer or limited operating period shall be implemented in consultation with the CDFW.

[5] Ibid.

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

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact. The site consists of an actively maintained walnut orchard and does not include riparian habitat or recognized sensitive natural communities. An agricultural water storage basin was found in the 50-foot survey buffer at the northwest corner of the Project site, and an approximately 130-foot section of a canal (Peoples Ditch) was found in the 50-foot survey buffer along the western Project site boundary during the reconnaissance survey. The agricultural water storage basin is listed in the National Wetlands Inventory as a freshwater pond with a classification of PUSCx, which means palustrine, unconsolidated shore, seasonally flooded, and excavated. The canal is listed in the National Wetlands Inventory as riverine with a classification of R5UBFx, which means unknown perennial, unconsolidated bottom, semipermanently flooded, and excavated. Both features were dry during the 30 April 2024 reconnaissance survey. If these features contain surface water, they are likely regulated by the State Water Resources Control Board (SWRCB). As the canal is classified as a stream, it would be regulated by the CDFW under California Fish and Game Code. Section 1600 et sec. However, as the water storage basin is not classified as a lake or stream, this feature is not regulated by the CDFW under California Fish and Game Code Section 1600 et sec. As neither of these features is a tributary or adjacent waters of a water of the United States, neither would be considered federally protected wetlands as defined by Section 404 of the Clean Water Act and fall under the regulatory jurisdiction of the USACE.

In conclusion, the proposed Project will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or United States Fish and Wildlife Service (USFWS) as no riparian habitat or other sensitive natural community is present in the survey area. The proposed Project will not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means as no impacts to wetlands will occur. As such, there will be ***less than significant impacts.***

Mitigation Measures: None are required.

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

Less than Significant Impact with Mitigation. The Project has the potential to impede the use of nursery sites for native birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC). Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort can be considered 'take' under the MBTA and CFGC. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Construction activities such as excavating, trenching, and grading that disturb a nesting bird on the Project site or immediately adjacent to the construction zone could constitute a significant effect. Implementation of Mitigation Measure BIO-2 will reduce the potential impact to a ***less than significant*** level.

Mitigation Measures:

BIO-2. Protect nesting birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.

2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during the implementation of the Project. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

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

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

No Impact. According to the BRE, the proposed Project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance as no trees or

biologically sensitive areas will be impacted. The development will also not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan as no such plan has been adopted. As such, there is ***no impact***.

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:

		Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c.	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

A Phase I Cultural Resource Survey was performed on behalf of the Project by Hudlow Cultural Resource Associates on June 2024 (See Appendix B).

RESPONSES

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

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

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

Less Than Significant Impact With Mitigation. A record search of the Project area and the environs within one half-mile was conducted at the Southern San Joaquin Archaeological Information Center. Scott M. Hudlow conducted the record search, RS# 24-224, on May 14, 2024 (see Appendix B). The record search revealed that two cultural resource surveys have been conducted within one half-mile of the Project area. No previous surveys have addressed the parcel in question. Two cultural resources are located within one half-mile of the current project area, both are canals. No cultural resources have previously been identified within the current project area.

Additionally, between June 2 and 5, 2024, Scott M. Hudlow conducted a pedestrian archaeological survey of the entire proposed Project area. Hudlow surveyed in both east/west and north/south transects across the entire lot in 15-meter (33 feet) intervals depending on the field patterns. No cultural resources were identified.

Although no significant cultural or archaeological resources, paleontological resources or human remains have been identified in the project area, the possibility exists that such resources or remains may be discovered during Project site preparation, excavation and/or grading activities. Mitigation Measures CUL – 1 and CUL – 2 will be implemented to ensure that Project will result in ***less than significant impacts with mitigation***.

Mitigation Measures:

CUL – 1

Should evidence of prehistoric archeological resources be discovered during construction, the contractor shall halt all work within 25 feet of the find and the resource shall be evaluated by a qualified archaeologist. If evidence of any archaeological, cultural, and/or historical deposits is found, hand excavation and/or mechanical excavation shall proceed to evaluate the deposits for determination of significance as defined by the CEQA guidelines. The archaeologist shall submit reports, to the satisfaction of the City of Hanford, describing the testing program and subsequent results. These reports shall identify any program mitigation that the project proponent shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of archaeological resources).

CUL – 2

In order to ensure that the proposed project does not impact buried human remains during construction, the project proponent shall be responsible for on-going monitoring of project construction. Prior to the issuance of any grading permit, the project proponent shall provide the City

of Hanford with documentation identifying construction personnel that will be responsible for on-site monitoring. If buried human remains are encountered during construction, further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall be halted until the Kings County coroner is contacted and the coroner has made the determinations and notifications required pursuant to Health and Safety Code Section 7050.5. If the coroner determines that Health and Safety Code Section 7050.5(c) require that he give notice to the Native American Heritage Commission, then such notice shall be given within 24 hours, as required by Health and Safety Code Section 7050.5(c). In that event, the NAHC will conduct the notifications required by Public Resources Code Section 5097.98. Until the consultations described below have been completed, the landowner shall further ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices where Native American human remains are located, is not disturbed by further development activity until the landowner has discussed and conferred with the Most Likely Descendants on all reasonable options regarding the descendants' preferences and treatments, as prescribed by Public Resources Code Section 5097.98(b). The NAHC will mediate any disputes regarding treatment of remains in accordance with Public Resources Code Section 5097.94(k). The landowner shall be entitled to exercise rights established by Public Resources Code Section 5097.98(e) if any of the circumstances established by that provision become applicable.

VI. ENERGY

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☒	☐	☐	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☒	☐	☐	☐

ENVIRONMENTAL SETTING

California's total energy consumption is second-highest in the nation, after Texas, but its per capita energy consumption ranked the fourth-lowest.[6] In 2023, California was the fourth-largest producer of electricity in the nation; it's also the nation's third-largest electricity consumer and imports more electricity than any other state.[7]

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximately amounts of energy contained in common energy sources are as follows:

Energy Source	BTUs[8]
Gasoline	120,429 per gallon
Natural Gas	1,037 per cubic foot
Electricity	3,412 per kilowatt-hour

[6] U.S. Energy Information Administration. California State Profile and Energy Estimates. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed June 2024.

[7] Ibid.

[8] U.S. Energy Information Administration. Energy Units and Calculators Explained. https://www.eia.gov/energyexplained/index.php?page=about_energy_units. Accessed June 2024.

California electrical consumption in 2022 was 6,851.9 trillion BTU[9], as provided in Table 3, while total electrical consumption by Kings County in 2022 was 6.883 trillion BTU.[10]

Table 3 – 2018 California Energy Consumption[11]

End User	BTU of energy consumed (in trillions)	Percentage of total consumption
Residential	1,203.7	17.6
Commercial	1,193.1	17.4
Industrial	1,539.3	22.5
Transportation	2,915.8	42.6
Total	**6,851.9**	--

The California Department of Transportation (Caltrans) reports that approximately 35.7 vehicles were registered in the state in 2022, while in 2022 a total estimated 310.9 billion vehicles miles were traveled (VMT).[12]

Applicable Regulations

California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)

California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design and installation achieve energy efficiency. The California Energy Code was first established in 1978 by the CEC in response to a legislative mandate to reduce California's energy consumption, and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The standards are updated periodically to increase the baseline energy efficiency requirements. The 2013 Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations. Although it was not originally intended to reduce greenhouse gas (GHG) emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

[9] U.S. Energy Information Administration. California State Profile and Energy Estimates. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed June 2024.
[10] California Energy Commission. Electricity Consumption by County. http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed June 2024.
[11] U.S. Energy Information Administration. California State Profile and Energy Estimates. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed June 2024.
[12] Caltrans Facts, June 2023. https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/caltrans-fact-booklets/caltransfacts2023a11y.pdf. Accessed June 2024.

California Green Building Standards Code (Title 24, Part II, CALGreen)

The California Building Standards Commission adopted the California Green Buildings Standards Code (CALGreen in Part 11 of the Title 24 Building Standards Code) for all new construction statewide on July 17, 2008. Originally a volunteer measure, the code became mandatory in 2010 and the most recent update (2022) went on January 1, 2023. CALGreen sets targets for energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including eco-friendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. The 2022 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality. Mandatory measures for residential development pertain to green building; planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; environmental quality; and installer and special inspector qualifications.

Clean Energy and Pollution Reduction Act (SB 350)

The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.

Renewable Portfolio Standard (SB 1078 and SB 107)

Established in 2002 under SB 1078, the state's Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopt the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board,

under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

RESPONSES

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

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

Potentially Significant Impact. The proposed Project consists of the development of 615 single-family residential units. The Project would introduce energy usage on a site that is currently demanding minimal energy. By comparison, at buildout, the Project would consume amounts of energy in both the short-term during Project construction and in the long-term during Project operation. Therefore, this impact is ***potentially significant.***

This topic will be addressed in the Project's forthcoming EIR.

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code	☐	☐	☒	☐

	creating substantial risks to life or property?				
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Hanford is located in the center of the Central Valley, which is a nearly flat northwest-southeast trending basin approximately 450 miles long and approximately 75 miles wide. The City of Hanford is located on soil types characterized by a thick section of sedimentary rock overlying a granitic basement layer. The soil types found in Hanford are not subject to annual flooding or ponding and are considered well-drained. The hazards due to ground-shaking are considered low due to the relative distance of the City from seismic faults. The nearest faults are the San Andreas Fault (approximately 46.5 miles to the southwest of the western boundary of the City) and the White Wolf Fault, located near Arvin and Bakersfield to the southwest in Kern County. The City of Hanford is located in Seismic Zone III, as defined by the California Uniform Building Code.

RESPONSES

a-i) Expose people or structures to potential substantial adverse effects, including the 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? Refer to Division of Mines and Geology Special Publication 42.

a-ii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

a-iii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

a-iv) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Less Than Significant Impact. The proposed Project site is located on an approximately 135.28-acre site, in northern Hanford, northwest of Fargo Avenue and 12th Avenue. The proposed site is not located in an earthquake fault zone as delineated by the 1972 Alquist-Priolo Earthquake Fault Zoning Map Act.[13] The nearest known potentially active fault is the San Andreas Fault, which is approximately 46.5 miles to the southwest of the western boundary of the City. No active faults have been mapped within the Project boundaries, so there is no potential for fault rupture. It is anticipated that the proposed Project site would be subject to some ground acceleration and ground shaking associated with seismic activity during its design life. The proposed Project site would be engineered and constructed in strict accordance with the earthquake resistant design requirements contained in the latest edition of the California Building Code (CBC) for Seismic Zone III, as well as Title 24 of the California Administrative Code, and therefore would avoid potential seismically induced hazards on planned structures.

The proposed Project site has a generally flat topography, which would preclude the likeliness of a landslide. The impact of seismic or landslide hazards on the Project would be ***less than significant.***

Mitigation Measures: None are required.

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

Less Than Significant Impact. The Project Applicant intends to develop 615 single-family residential units on an approximately 135.28-acre site. The site is currently within the City's limits. The development will also include access roads, parking, lighting and other associated improvements.

Construction activities associated with the Project involves ground preparation work for the new housing development and associated improvements. These activities could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the Project site. During construction, nuisance flow caused by minor rain could flow off-site. The City and/or contractor would be required to employ appropriate sediment and erosion control BMPs as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required in the California National Pollution Discharge Elimination System (NPDES). As such, any impacts would be considered ***less than significant.***

[13] Earthquake Hazard Zones, California Department of Conservation. https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed June 2024.

Mitigation Measures: None are required.

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

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

Less Than Significant Impact. See Section VI a. above. The site is not at significant risk from ground shaking, liquefaction, or landslide and is otherwise considered geologically stable. The City of Hanford sits on top of a mix of different loam classifications; with the predominant soils in the proposed Project area being Nord fine sandy loam and Nord complex.[14] These soil types are characterized as well drained, with low runoff. These soils also have low shrink/swell potential, which is generally not conducive to liquefaction or expansion. Additionally, liquefaction typically occurs when there is shallow groundwater, low-density non-plastic soils, and high-intensity ground motion. The proposed Project is located on relatively flat agricultural fields and the threat of a landslide occurring on or adjacent to the Project site is considered low.

Subsidence is typically related to over-extraction of groundwater from certain types of geologic formations where the water is partly responsible for supporting the ground surface. The City of Hanford is recognized by the U.S. Geological Service as being in an area of subsidence.[15] The site would be designed in accordance with engineering design standards and structural improvement requirements to withstand the effects of soil settlement and collapsible soils. Engineered compacted fill would likely be used during construction in accordance with building code requirements, which would reduce the potential for lateral spreading or collapse of soils from Project construction.

Impacts are considered ***less than significant***.

Mitigation Measures:

None required.

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[14] U.S. Department of Agriculture. Natural Resource Conservation Service. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx. Accessed June 2024.

[15] U.S. Geological Service. Areas of Land Subsidence in California. https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html Accessed June 2024.

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

No Impact. The proposed Project does not include the construction, replacement, or disturbance of septic tanks or alternative wastewater disposal systems. The Project will be required to tie into the existing City sewer system (See Utilities section for more details). Therefore, there is ***no impact.***

Mitigation Measures: None are required.

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

Less Than Significant Impact. As identified in the cultural studies performed for the Project site (see Appendix B), there are no known paleontological resources on or near the site. Mitigation measures have been added that will protect unknown (buried) resources during construction, including paleontological resources. There are no unique geological features on site or in the area. Therefore, there is a ***less than significant impact***.

Mitigation Measures: None are required.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

ENVIRONMENTAL SETTING

Various gases in the earth's atmosphere play an important role in moderating the earth's surface temperature. Solar radiation enters earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs are transparent to solar radiation, but are effective in absorbing infrared radiation. Consequently, radiation that would otherwise escape back into space is retained, resulting in a warming of the earth's atmosphere. This phenomenon is known as the greenhouse effect. Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO_2), methane (CH_4), ozone, Nitrous Oxide (NO_x), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Global climate change is, indeed, a global issue. GHGs are global pollutants, unlike criteria pollutants and TACs (which are pollutants of regional and/or local concern). Global climate change, if it occurs, could potentially affect water resources in California. Rising temperatures could be anticipated to result in sea-level rise (as polar ice caps melt) and possibly change the timing and amount of precipitation, which could alter water quality. According to some, climate change could result in more extreme weather patterns; both heavier precipitation that could lead to flooding, as well as more extended drought periods. There is uncertainty regarding the timing, magnitude, and nature of the potential changes to water resources as a result of climate change; however, several trends are evident.

Snowpack and snowmelt may also be affected by climate change. Much of California's precipitation falls as snow in the Sierra Nevada and southern Cascades, and snowpack represents approximately 35 percent of the state's useable annual water supply. Snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended. As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt.

Regulatory Setting

Federal

The USEPA Mandatory Reporting Rule (40 CFR Part 98), which became effective December 29, 2009, requires that all facilities that emit more than 25,000 metric tons CO_2-equivalent per year beginning in 2010, report their emissions on an annual basis. On May 13, 2010, the USEPA issued a final rule that established an approach to addressing GHG emissions from stationary sources under the CAA permitting programs. The final rule set thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration and title V Operating Permit programs are required for new and existing industrial facilities.

In addition, the Supreme Court decision in Massachusetts v. EPA (Supreme Court Case 05-1120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the CAA. On April 17, 2009, the USEPA found that CO_2, CH_4, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. This finding may result in the USEPA regulating GHG emissions; however, to date the USEPA has not proposed regulations based on this finding.

State

California is taking action to reduce GHG emissions. In June 2005, Governor Schwarzenegger signed Executive Order S-3-05 to address climate change and GHG emissions in California. This order sets the following goals for statewide GHG emissions:

- Reduce to 2000 levels by 2010
- Reduce to 1990 levels by 2020
- Reduce to 80 percent below 1990 levels by 2050

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

San Joaquin Valley Air Pollution Control District (SJVAPCD)

In August 2008, the SJVAPCD adopted the Climate Change Action Plan, which directed the SJVAPCD to develop guidance to assist lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project specific greenhouse gas emissions on global climate change.

In 2009, the SJVAPCD adopted the guidance document: Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA. This document recommends the usage of performance-based standards, otherwise known as Best Performance Standards (BPS), to assess the significance of project-specific greenhouse gas emissions on global climate change during the environmental review process. Projects implementing BPS in accordance with SJVAPCD's guidance would be determined to have a less than significant individual and cumulative impact on greenhouse gas emissions and would not require project specific quantification of greenhouse gas emissions.[16]

RESPONSES

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

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

Potentially Significant Impact. Greenhouse gas emissions would generate from long-term area and mobile sources as well as indirectly from energy consumption. Mobile sources would include residential vehicle trips and area source emissions would result from consumption of natural gas and electricity. Potential impacts to greenhouse gas emissions are ***potentially significant*** and as such, will be analyzed in the forthcoming EIR.

[16] SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. February 19, 2015. Page 112. https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed June 2024.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f. Impair implementation of or physically interfere with an adopted emergency	☐	☐	☒	☐

	response plan or emergency evacuation plan?				
g.	Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project site is located in the northern portion of the City of Hanford. The site currently supports active orchards.

RESPONSES

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

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

Less Than Significant Impact. The Project Applicant intends to develop 615 single-family residential units on an approximately 135.28-acre site. The site is currently within the City limits, on the northwest corner of Fargo Avenue and 12th Avenue. The development will also include access roads, parking, lighting and other associated improvements.

Lands surrounding the proposed Project are orchards, a ponding basin, an unnamed and unpaved road and rural residences to the north; Fargo Avenue, rural residences, and an in-progress housing development to the south; 12th Avenue and agricultural row crops to the east; and an unnamed and unpaved road, rural residence, orchards and a drainage ditch to the west.

Proposed Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the submission and implementation of a Stormwater Pollution

Prevention Plan during construction activities to prevent contaminated runoff from leaving the Project site. Therefore, no significant impacts would occur during construction activities.

The operational phase of the proposed Project would occur after construction is completed and residents move in to occupy the residential structures. The proposed Project will include land uses that are considered compatible with the surrounding uses. None of these land uses routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential grade hazardous materials such as household and commercial cleaners, paint, etc. The proposed Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur. Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be ***less than significant***.

Mitigation Measures: None are required.

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

Less Than Significant Impact. There are no schools located within the 0.25-mile radius of the proposed Project site. The closest school is Hanford Christian School, located approximately 0.8 miles to the northeast. As the proposed Project includes the development of single-family residences, it is not reasonably foreseeable that the proposed Project will cause a significant impact by emitting hazardous waste or bringing hazardous materials within one-quarter mile of an existing or proposed school. Residential land uses do not generate, store, or dispose of significant quantities of hazardous materials. See also Responses *a.* and *b.* above regarding hazardous material handling. There would be a ***less than significant impact.***

Mitigation Measures: None are required.

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

No Impact. A database search was conducted to identify recorded hazardous materials incidents in the Project area. The search included cleanup sites under Federal Superfund (National Priorities List), State Response, and other federal, state, and local agency lists. The proposed Project site is not located on a list

of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Geotracker[17] and Envirostor[18] databases). There is ***no impact.***

Mitigation Measures: None are required.

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

Less Than Significant Impact. There are no private or public airstrips in the Project vicinity. The Hanford Municipal Airport is located approximately 3.6 miles to the southeast of the proposed Project site. Thus, any impacts are ***less than significant***.

Mitigation Measures: None are required.

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

Less than Significant Impact. The Project has been designed for adequate emergency access and has been reviewed by the City. The internal roadways will be designed with sufficient clearances for emergency vehicles to access the entire site. Therefore, the Project will not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Any impacts are ***less than significant***.

Mitigation Measures: None are required.

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

[17] Geotracker Database, California State Water Resources Control Board. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Hanford. Accessed June 2024.

[18] EnviroStor Database, California Department of Toxic Control Substances. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Hanford. Accessed June 2024.

No Impact. The site is completely surrounded by actively managed agricultural land or residential development and the site itself is an actively maintained orchard. There are no wildlands on or near the Project site. There is ***no impact***.

Mitigation Measures: None are required.

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i. Result in substantial erosion or siltation on- or off- site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City of Hanford is located in the Tulare Lake hydrologic region, specifically within the Kings Sub-basin of the San Joaquin Valley groundwater basin.[19] The Kings Subbasin encompasses approximately 1,530 square miles within Fresno, Tulare and Kings counties. The Kings Subbasin is designated as a critically over-drafted high priority basin by the Department of Water Resources. The existence of overdraft in the Kings Subbasin is documented by historical decline in ground water levels and is confirmed by the historical water budgets presented by the Kings River East Groundwater Sustainability Agency and the Alta Irrigation District.[20] Hanford has a groundwater depth of approximately 50 feet below the surface.

A Water Supply Assessment (WSA) was performed on behalf of the Project by Akel Engineering Group, Inc., report dated June 2024 (See Appendix C) and is the basis of analysis for the impact assessment presented in b), below.

RESPONSES

[19] City of Hanford, General Plan Update Draft Environmental Impact Report, December 2006. Page 3 – 74.

[20] City of Hanford 2020 Urban Water Management Plan. October 2021. https://www.cityofhanfordca.com/DocumentCenter/View/567/2020-Urban-Water-Management-Plan-PDF. Accessed June 2024.

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

Less Than Significant Impact. The proposed Project site is currently comprised of an active orchard. Grading, excavation and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed Project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of common sense, "good housekeeping" procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These Best Management Practices (BMPs) would be required in theStormwater Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction. When properly designed and implemented, these "good-housekeeping" practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the National Pollution Discharge Elimination System (NPDES) Stormwater Program, the Project will be required to comply with existing regulatory requirements to prepare a SWPPP designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the Regional Water Quality Control Board (RWQCB) has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement.

The City of Hanford will provide water to the Project site and the Project will be required to tie into the City's existing water service infrastructure. The Project will comply with all City ordinances and standards to assure proper grading and drainage. Compliance with all local, state, and federal regulations

will prevent violation of water quality standards or waste discharge requirements. The Project will be required to prepare a grading and drainage plan for review and approval by the City Engineer, prior to issuance of building permits. Therefore, any impacts will be ***less than significant***.

Mitigation Measures: None are required.

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

Less Than Significant Impact. Site development will result in an increased demand for water. The City of Hanford relies on groundwater as its sole water supply source. The City currently operates eight drinking water wells that are located throughout the PWS service area. In addition to the groundwater wells, the City maintains two elevated storage tanks with a capacity of 1.25 million gallons and the 2.0 MG Northeast Water Reservoir, a ground level tank and booster pump station.[21]

The City of Hanford is part of the Kings River East Groundwater Sustainability Agency (KREGSA) which prepared a Groundwater Sustainability Plan (GSP) of which the City of Hanford is a participant. The City adopted its latest Urban Water Management Plan (UWMP) in December 2021. The UWMP states that with implementation of the projects and management actions identified in the KREGSA GSP, the City's groundwater supplies are anticipated to be sustainable and available to meet the projected demands of its Public Water System service area.[22]

The site has been planned for residential development in the General Plan and as such, has been accounted for in the City's infrastructure planning documents, including the 2020 UWMP. The WSA estimated that water demand for the Project was calculated at 275 acre-feet/year(afy). The 2020 UWMP estimated demand of 285 afy for the site; this represents a 3.5 percent reduction in anticipated water demand. Thus, the Project demands for groundwater resources would not substantially deplete groundwater supplies and/or otherwise interfere with groundwater recharge efforts being implemented by the City of Hanford. Future demand can be met with continued groundwater pumping and conservation measures. Additionally, compliance with existing State regulations will ensure that impacts to groundwater supply will be ***less than significant.***

Mitigation Measures: None are required.

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[21] City of Hanford 2020 Urban Water Management Plan, December 2021. Pg 6-1.

[22] Ibid.

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

i. result in substantial erosion or siltation on- or offsite;

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv. impede or redirect flood flows?

Less Than Significant Impact. Lands surrounding the proposed Project are orchards, a ponding basin, an unnamed and unpaved road and rural residences to the north; Fargo Avenue, rural residences, and an in-progress housing development to the south; 12th Avenue and agricultural row crops to the east; and an unnamed and unpaved road, rural residence, orchards and a drainage ditch to the west.

The proposed Project will change drainage patterns of the site through the installation of impervious surfaces and structures (houses, driveways, streets, etc.) and will be required by the City to be graded to facilitate proper stormwater drainage into the storm basin included with the Project. Storm water during construction will be managed as part of the Storm Water Pollution Prevention Plan (SWPPP). A copy of the SWPPP will be retained on-site during construction.

The proposed Project site is located outside of any Special Flood Hazard Areas or Other Areas of Flood Hazard, as indicated by FEMA flood hazard map 06031C0185C, effective 6/16/2009. The proposed development will be built in accordance with the current City ordinances and California Building Code regarding construction in flood zones. The Project will be designed for adequate storm drainage. Accordingly, the chance of flooding (and therefore the release of pollutants due to flooding) at the site is remote. Impacts are ***less than significant.***

Mitigation Measures: None are required.

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

Less Than Significant Impact. As discussed in Impact X(c), the proposed Project site is located outside of any Special Flood Hazard Areas or Other Areas of Flood Hazard. The Project includes development of adequate storm drainage. The proposed development will be required to prepare and submit a water quality control plan to be implemented during construction, as required by the National Pollutant Discharge Elimination System. This plan will be reviewed and approved by the City Engineer prior to the start of construction.

There are no inland water bodies that could be potentially susceptible to a seiche in the Project vicinity. This precludes the possibility of a seiche inundating the Project site. The Project site is more than 100 miles from the Pacific Ocean, a condition that precludes the possibility of inundation by tsunami. There are no steep slopes that would be susceptible to a mudflow in the Project vicinity, nor are there any volcanically active features that could produce a mudflow in the City of Hanford. This precludes the possibility of a mudflow inundating the Project site. Any impacts are ***less than significant***.

Mitigation Measures: None are required.

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

No Impact. The Project will not conflict with any water quality control plans or sustainable groundwater management plan. However, as mentioned in Section c., all new development within the City of Hanford Planning Area must conform to standards and plans contained in the Hanford Stormwater Drainage Master Plan. By conforming to all standards and policies as outlined, there will be ***no impacts*** associated with the Project.

Mitigation Measures: None are required.

XI. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☒	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proposed Project site is inside the northern City limit of Hanford. The City of Hanford lies in the Central San Joaquin Valley region, in the northwestern portion of Kings County. State Route (SR) 198 runs east-west through the southern portion of the City and SR 43 runs north-south around the eastern boundary.

RESPONSES

a) Physically divide an established community?

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The proposed Project includes development of 615 single-family residential units on an approximately 135.28-acre site. The site is currently inside the northern City limits of Hanford and has been designated and zoned for residential development. Entitlements needed to accommodate the proposed Project include a Planned Unit Development and a Tentative Subdivision Map.

Lands surrounding the proposed Project are orchards, a ponding basin, an unnamed and unpaved road and rural residences to the north; Fargo Avenue, rural residences, and an in-progress housing

development to the south; 12th Avenue and agricultural row crops to the east; and an unnamed and unpaved road, rural residence, orchards and a drainage ditch to the west.

The Project would provide housing opportunities to the residents of Hanford and improve access to existing surrounding areas. The proposed development has no characteristics that would physically divide the City of Hanford. Any impacts will be ***less than significant impact.***

Mitigation Measures: None are required.

XII. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Resource extraction involves the removal of natural resources from their place of discovery. The only significant mineral commodities that have been found within the Hanford Planning Area are sand and gravel for road and building construction. There are no known significant deposits and no active mines.[23]

RESPONSES

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

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

No Impact. There are no known mineral resources in the proposed Project area and the site is not included in a State classified mineral resource zones. No mineral resource locations are within the vicinity of the City of Hanford.[24] Therefore, there is ***no impact***.

Mitigation Measures: None are required.

[23] City of Hanford General Plan Update Background Report. March 2014. Page 5-11.

[24] City of Hanford General Plan Update Background Report, March 2014. Page 9-12.

XIII. NOISE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Noise is often described as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. The City of Hanford is impacted by a multitude of noise sources. Principal noise sources include traffic on roadways, agricultural noise and industrial noise. Mobile sources of noise, especially cars and trucks, are the most common and significant sources of noise in most communities, and they are predominant sources of noise in the City. The Project site is located in an area with a mix of uses. The predominant noise sources in the Project area include traffic on local roadways, residential noise (lawn movers, audio equipment, voices, etc.), and potential noise from the nearby agricultural land uses.

RESPONSES

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

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

Less Than Significant Impact.

Short-term (Construction) Noise Impacts

Proposed Project construction related activities will involve temporary noise sources. Typical construction related equipment include graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Table 14 indicates the anticipated noise levels of the typical construction-related equipment (i.e., graders, trenchers, tractors) based on a distance of 50-feet between the equipment and the sensitive noise receptor.[25]

Table 14
Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) 50 ft from Source
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Dozer	85
Generator	82
Grader	85
Jack Hammer	88
Loader	85
Paver	85
Truck	84

[25] The Noise and Vibration Impact Assessment Manual, Federal Transit Administration, U.S. Department of Transportation. September 2018. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Table 7-1. Accessed June 2024.

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in urban environments. Most residents of urban areas recognize this reality and expect to hear construction activities on occasion.

Long-term (Operational) Noise Impacts

The primary source of on-going noise from the Project will be from vehicles traveling on internal access roads and from traffic traveling along Fargo Avenue and 12th Avenue. The Project will result in an increase in traffic on some roadways in the Project area. However, the relatively low number of new trips associated with the Project is not likely to increase the ambient noise levels by a significant amount. The area is active with vehicles, residential housing, and agricultural land uses, so the proposed Project will not introduce a new significant source of noise that isn't already occurring in the area.

Vibration Levels

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. Construction associated with the proposed Project includes construction of 615 single-family residence. The site construction will also include internal access roads, street lighting, site landscaping and additional related improvements.

The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day. Table 15 describes the typical construction equipment vibration levels.[26]

Table 15
Typical Construction Vibration Levels

Equipment	VdB at 25 ft
Small Bulldozer	58
Jackhammer	79

[26] Ibid.

Vibration from construction activities will be temporary and not exceed the Federal Transit Administration (FTA) threshold for the nearest rural residences which are located to the north, south, and west of the Project site.

Therefore, the impact is considered ***less than significant.***

Mitigation Measures: None are required.

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

No Impact. The Project is not located within an airport land use plan, and the City of Hanford does not contain any airport or airstrip. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XIV. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Hanford's population has exhibited major growth since 2000. In 2000, Hanford had 41,687 residents while in 2013, there were 55,860 residents, which is a 32% increase in population.[27] Growth in the City has slowed somewhat as the 2024 population is estimated to be 59,286[28] , which represents a 6.1% increase from 2013. Estimates for 2024 shows that the City has 20,713 housing units with an average of 2.92 people per household.[29]

RESPONSES

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

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

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[27] City of Hanford General Plan Update Background Report, March 2014. Page 2-5.

[28] E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2023. California Department of Finance, January 2024. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/ Accessed June 2024.

[29] Ibid.

Less Than Significant Impacts. There will be 615 new homes associated with the proposed Project. The site would provide additional housing for approximately 2,202 people. The site is currently inside the northern City limits of Hanford and is designated and zoned for residential development. As such, the increase in population has been accounted for in the City's General Plan and associated General Plan Environmental Impact Report. Entitlements needed to accommodate the proposed Project include Planned Unit Development and a Tentative Subdivision Map.

The City of Hanford's primary industry is agriculture, but there is a sufficient labor force in the area to support many other types of industries, as the regional unemployment rate as of October, 2024 is 7.7%.[30]

The proposed Project will alleviate some overcrowding in the regional population by contributing reliable housing and will additionally provide temporary construction jobs to the local workforce.

The site is currently in agricultural production and does not contain any houses, as such, no houses will be displaced with Project implementation.

In conclusion, the Project implementation will not displace people and instead provide needed housing. Any impacts are considered ***less than significant***.

Mitigation Measures: None are required.

[30] California Employment Development Department. Kings County Profile. https://labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileQSResults.asp?selectedarea=Kings+County&selectedindex=16&menuChoice=localareapro&state=true&geogArea=0604000031&countyName=&submit1=View+Local+Area+Profile. Accessed November 2024.

XV. PUBLIC SERVICES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The Hanford Fire Department is located at 350 W, Grangeville Boulevard in Hanford, approximately 1.8 miles southeast of the Project site. The Hanford Fire Department offers a full range of services including fire/rescue, emergency medical treatment and transport, fire prevention, and hazardous materials first response.

Police protection services are provided by the Hanford Police Department, which is approximately 2.7 miles southeast of the Project site at 680 South Alta Avenue, Hanford. The Hanford Police Department provides a full range of police services.

Educational services are provided by the Hanford Unified School District (DUSD). Hanford Unified School District operates eleven schools within the planning area; six elementary schools, one middle

school, one traditional high school, one continuing education school, one independent study school, and one adult education school.

RESPONSES

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

Fire protection?

Less Than Significant Impact.

The proposed Project would be required to comply with all applicable fire and building safety codes (California Building Code and Uniform Fire Code) to ensure fire safety elements are incorporated into final Project design, including the providing designated fire lanes marked as such. Proposed interior streets will be required to provide appropriate widths and turning radii to safely accommodate emergency response and the transport of emergency/public safety vehicles. The proposed Project will also be designed to meet Fire Department requirements regarding water flow, water storage requirements, hydrant spacing, infrastructure sizing, and emergency access. As a result, appropriate fire safety considerations will be included as part of the final design of the Project. The proposed Project at full buildout will add to the number of "customers" served, however, the Fire Department has capacity for the additional service need. No additional fire equipment, personnel, or services are anticipated to be required by Project implementation. In addition, the Project applicant will be required to pay all associated impact fees related to public services. As such, any impacts are ***less than significant***.

Police Protection?

Less Than Significant Impact. Implementation of the proposed Project would result in an increase in demand for police services; however, this increase would be minimal compared to the number of officers currently employed by the Hanford Police Department and would not trigger the need for new or physically altered police facilities. No additional police personnel or equipment is anticipated. In addition, each home will be assessed a public safety impact fee by the City that is used to make capital improvements for the Police Department. The proposed site has been designated by the General Plan and zoned for residential purposes. Impacts are ***less than significant.***

Schools?

Less Than Significant Impact. Since the proposed Project includes the addition of approximately 615 residential units, the number of students in the school district will increase. New development projects are required by state law to pay development impact fees to the school districts at the time of building permit issuance. These impact fees are used by the school districts to maintain existing and develop new facilities, as needed.

While development of the 615 residential units alone is not expected to require the alteration of existing or construction of new school facilities, the development will contribute to the cumulative need for increased school facilities. The timing of when new school facilities would be required or details about size and location cannot be known until such facilities are planned and proposed, and any attempt to analyze impacts to a potential future facility would be speculative. As the future new school facilities are further planned and developed, they would be subject to their own separate CEQA environmental review in order to identify and mitigate any potential environmental impacts. Therefore, the impact is ***less than significant.***

Parks?

Less Than Significant Impact. The proposed Project includes the construction of a 7-acre park. However, the closest park to the proposed Project is Quail Run Park, located approximately 1.1 miles northeast of the Project. Additional nearby parks include Silver Oaks Park, which is approximately 1.2 miles south, and Hidden Valley Park, which is approximately 1.2 miles southeast of the Project site. The Project will be required to pay City Park facility impact fees to compensate for any service demand increase on existing parks within the Hanford area. The Project applicant would be required to comply with the Municipal Code and Ordinances. Impacts are ***less than significant.***

Other public facilities?

Less Than Significant Impact. The proposed Project is within the land use and growth projections identified in the City's General Plan and other infrastructure studies. The Project, therefore, would not result in increased demand for, or impacts on, other public facilities such as library services. Any impacts would be ***less than significant***.

Mitigation Measures: None are required.

XVI. RECREATION

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The City has a total of twenty-one parks available for use. These include neighborhood parks, such as Coe Park, community parks, such as Hidden Valley Park, and special use parks, such as the Harris Street Ball Park. These parks are managed by the City of Hanford's Parks and Community Services Department. This department also supervises and coordinates a wide variety of community programs and activities.

RESPONSES

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

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

Less Than Significant Impact. The Project Applicant intends to develop 615 single-family residential units on an approximately 135.28-acre site, which includes the construction of a seven-acre park. The site is located within the northern boundary of the City limits. To accommodate this Project, the City will need to approve a Planned Unit Development and Tentative Subdivision Map. In order to implement

the goals and objectives of the City's General Plan, and to reduce the impacts caused by future development in the City, park facilities must be constructed. The City Council has determined that a Park Facilities Fee is needed in order to finance these public facilities and to pay for each development's fair share of the construction and acquisition costs. The Project Applicant may be required to pay development impact fees as determined by the City of Park Facilities Fees. The Project will still be required to pay City park facility impact fees, as required. Therefore, impacts are considered ***less than significant impacts***.

Mitigation Measures: None are required.

XVII. TRANSPORTATION/TRAFFIC

Would the project:

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

ENVIRONMENTAL SETTING

The proposed Project site is located in the northwest corner of Fargo Avenue and 12th Avenue, on APNs 009-020-021, -047, -023, and -046. Lands surrounding the proposed Project are orchards, a ponding basin, an unnamed and unpaved road and rural residences to the north; Fargo Avenue, rural residences, and an in-progress housing development to the south; 12th Avenue and agricultural row crops to the east; and an unnamed and unpaved road, rural residence, orchards and a drainage ditch to the west.

Regulatory Setting

Federal

Federal Transit Administration.

The Federal Transit Administration (FTA) is an authority that provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys, and ferries. The FTA is funded by Title 49 of the United States Code, which states the FTA's interest in fostering the development and revitalization of public transportation.

Americans with Disabilities Act of 1990.

Titles I, II, III, IV, and V of the ADA have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination on the basis of disability in "places of public accommodation" (businesses and nonprofit agencies that serve the public) and "commercial facilities" (other businesses). The regulation includes Standards for Accessible Design, which establish minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility.

State

Senate Bill (SB) 743.

On September 27, 2013, Governor Jerry Brown signed SB 743 into law and codified a process that changed transportation impact analysis as part of CEQA compliance. SB 743 directs the California Office of Planning and Research (OPR) to administer new CEQA guidance for jurisdictions that removes automobile vehicle delay and LOS or other similar measures of vehicular capacity or traffic congestions from CEQA transportation analysis. Rather, it requires the analysis of VMT or other measures that "promote the reduction of greenhouse gas emissions, the development of multi-modal transportation networks, and a diversity of land uses," to be used as a basis for determining significant impacts to circulation in California. The goal of SB 743 is to appropriately balance the needs of congestion management with statewide goals related to reducing GHG emissions, encourage infill development, and promote public health through active transportation.

RESPONSES

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

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

Potentially Significant Impact. Project related traffic generation could potentially have significant impacts to local and regional transportation systems. Additionally, VMT generation could potentially conflict with CEQA Guidelines section 15064.3 and as such, these impact areas will be analyzed in the forthcoming EIR.

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

Less Than Significant Impact. The proposed Project has been designed for ease of access, adequate circulation/movement, and is typical of residential developments in the City of Hanford. On-site circulation patterns do not involve high speeds, sharp curves or dangerous intersections. Although there will be an increase in the volume of vehicles accessing the site and surrounding areas, the proposed Project will not present a substantial increase in hazards. Any impacts are considered ***less than significant.***

Mitigation Measures: None are required.

d) Result in inadequate emergency access?

Less Than Significant Impact. The proposed Project does not involve a change to any emergency response plan. The site will remain accessible to emergency vehicles of all sizes. As such, potential impacts are ***less than significant.***

Mitigation Measures: None are required.

XVIII. TRIBAL CULTURAL RESOURCES

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

RESPONSES

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

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

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

Less Than Significant Impact with Mitigation Incorporation. In accordance with Assembly Bill (AB) 52, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project. The City contacted the Native American Heritage Commission, requesting a contact list of applicable Native American Tribes, which was provided to the City. The City provided letters to the listed Tribes on July 28, 2024, notifying them of the Project and requesting consultation, if desired. Outreach letters were sent to the following tribes:

- Kitanemuk & Yowlumne Tejon Indians
- Santa Rosa Rancheria Tachi Yokut Tribe
- Table Mountain Rancheria
- Tule River Indian Tribe
- Wuksachi Indian Tribe/Eshhom Valley Band

According to AB 52, the tribes had 30 days from the receipt of the letter to request consultation with the City of Hanford. Of the tribes that were notified in July 2024, the City received one response from the Santa Rosa Rancheria Tachi Yokut Tribe, who requested a cultural presentation occur prior to construction and that a Tribal and archeological representative be present for all ground disturbance related to the Project and any findings be reported to the Tribe. As such, mitigation measures TRI-1 and TRI-2 have been included to accommodate this request. Therefore, there is a ***less than significant impact with the incorporation of mitigation***.

Mitigation Measures:

TRI-1.

Prior to any ground disturbance, the Santa Rosa Rancheria Tachi Yokut Tribe shall be offered the opportunity to provide a Cultural Presentation to all construction personnel.

TRI-2.

Prior to any ground disturbance, a surface inspection of the site shall be conducted by a Tribal and Archaeological Monitor. The Tribal Cultural Staff shall monitor the site during grading activities. The Tribal Staff shall provide pre-project-related information to supervisory personnel and any excavation contractor, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. Prior to any ground disturbance, the applicant shall offer the Santa Rosa Indian Community of the Santa Rosa Rancheria the opportunity to provide a Native American Monitor during ground-disturbing activities. Should any discoveries be found, the Tribe shall be notified. Tribal participation would be dependent upon the availability and interest of the tribe.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

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

ENVIRONMENTAL SETTING

The proposed Project will be required to connect to water, sewer, stormwater and wastewater services provided by the City of Hanford and may be subject to water use fees and/or development fees to be provided such service. In addition, the Project will require solid waste disposal services.

RESPONSES

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

Less than Significant Impact. The Project site is located within the service territory of the City of Hanford and is currently designated for residential development in the City of Hanford General Plan. Operational discharge flows treated at the City's wastewater treatment facility would be required to comply with applicable water discharge requirements issued by the Central Valley Regional Water Quality Control Board (RWQCB). Compliance with conditions or permit requirements established by the City as well as water discharge requirements outlined by the Central Valley RWQCB would ensure that wastewater discharges coming from the proposed Project site and treated by the WWTF system would not exceed applicable Central Valley RWQCB wastewater treatment requirements.

As discussed in Section X, Hydrology and Water Quality, with an increase in the area of impervious surfaces on the Project site, an increase in the amount of storm water runoff is anticipated. The site will be designed so that storm water is collected and deposited in the on-site seven-acre storm basin. Any additional runoff infrastructure will tie into the City's existing storm drain system. The storm water collection system design will be subject to review and approval by the City Public Works Department. Storm water during construction will be managed as part of the Storm Water Pollution Prevention Plan (SWPPP). A copy of the SWPPP is retained on-site during construction.

Additionally, as the site is designated and zoned for residential development, water usage, electricity and natural gas usage and the use of telecommunications facilities has been accounted for is the City's and utility providers long-range planning documents.

Thus, the proposed Project would have a ***less than significant impact.***

Mitigation Measures: None are required.

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

Less Than Significant Impact. Water service would be provided to the Project by the City of Hanford. The City of Hanford relies on groundwater as its sole water supply source. The system has a capacity of approximately 11 million gallons per day (7,600 GPM), and average daily demand is 4.2 million gallons per day (or 2,900 GPM).[31] According to the City's 2020 Urban Water Management Plan, the City currently operates eight drinking water wells that are located throughout the PWS service area. In addition to the groundwater wells, the City maintains two elevated storage tanks with a capacity of 1.25 million gallons and the 2.0 MG Northeast Water Reservoir, a ground level tank and booster pump station in the northeast section of the City.[32] The City is a member of the Kings River East Groundwater Sustainability Agency (KREGSA). The City's main water supply comes from eight active underground water wells distributed throughout the City. The water is treated and delivered to the community by the City of Hanford water system. The most recent KREGSA GSP Annual Report indicates that groundwater levels at Representative Monitoring Sites near the City are above their designated Minimum Thresholds and on track to meet the forecast groundwater level projections and Interim Milestones established for these wells.[33]

The Water Supply Assessment performed on behalf of the Project (see Appendix C) estimated that water demand for the Project would be approximately 275 acre-feet/year (afy), which is 3.5 percent lower than the UWMP's estimate of 285 afy. Overall, the City's total water supplies are sufficient to meet the City's water demands with the addition of the Project. It should be noted that the basin is not adjudicated, and the projected supply volumes do not determine or limit the amount of groundwater pumped under the Mid-Kings River Groundwater Sustainability Agency's (MKR GSA) GSP.

Additionally, the City anticipates that its sources of supplies will be available to meet demands on a consistent basis for all year types throughout the planning horizon of the UWMP, as the site is within the adopted Sphere of Influence and has been included in the City's infrastructure planning documentation. The proposed development will be required to follow the City's General Plan and Zoning Ordinances which include land use goals, policies, and implementation measures for developments regarding water use. The Project developer will also be required to pay the City of Hanford's water system impact fees.

[31] City of Hanford 2015-2023 Housing Element. Pg 6-9. Accessed June 2024.

[32] City of Hanford 2020 Urban Water Management Plan. Pg 6-1. Accessed June 2024.

[33] Ibid. Pg 1-3.

Funds accrued under this fee are used to make capital improvements to the City's water system, including conservation improvements. Impacts are ***less than significant impact.***

Mitigation Measures: None are required.

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

Less Than Significant Impact. The proposed Project will result in wastewater from residential units that will be discharged into the City's existing wastewater treatment system. The wastewater will be typical of other residential developments consisting of bathrooms, kitchen drains, and other similar features. The Project will not discharge any unusual or atypical wastewater that would violate the City's waste discharge requirements. Therefore, assuming compliance with applicable standards and payment of required impact fees and connection charges, the Project would not result in a significant impact related to construction or expansions of existing wastewater treatment facilities. The impact of the Project on wastewater treatment is ***less than significant***.

Mitigation Measures: None are required.

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

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

Less Than Significant Impact. The City of Hanford provides weekly curbside solid waste collection services to all households, businesses, and industries within City limits. Solid waste is taken by transfer trucks from the Material Recover Facility to the State-permitted Chemical Waste Management Landfill site in Kettleman Hills, approximately 45 miles west of the Material Recover Facility.[34] The proposed Project would be required to comply with all standards related to solid waste diversion, reduction, and recycling during Project construction and operation. The Project is not expected to generate an excess of solid waste beyond what is considered typical of residential land uses. The proposed Project will comply

[34] Hanford General Plan Update Background Report. March 2014. Page 6-19.

with all federal, state and local statutes and regulations related to solid waste. As such, any impacts would be ***less than significant.***

Mitigation Measures: None are required.

XX. WILDFIRE

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

ENVIRONMENTAL SETTING

The City of Hanford's planning area is composed of urbanized portions of land and the surrounding agricultural fields. The Project site has ensured fire protection by the Hanford Fire Department, located at 350 W. Grangeville Boulevard, approximately 1.8 miles southeast of the site. Given the location of the nearest fire station, response time is expected to be extremely quick in the rare event of a fire event.

The proposed Project site's elevation is approximately 245 feet above sea level in an area of intense urban and agricultural development. Lands surrounding the proposed Project are orchards, a ponding basin, an unnamed and unpaved road and rural residences to the north; Fargo Avenue, rural residences, and

an in-progress housing development to the south; 12th Avenue and agricultural row crops to the east; and an unnamed and unpaved road, rural residence, orchards and a drainage ditch to the west.

RESPONSES

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

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

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

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

Less Than Significant Impact. The proposed Project is located in an area developed with rural residential, residential and agricultural uses, which precludes the risk of wildfire. The area is flat in nature which would limit the risk of downslope flooding and landslides, and limit any wildfire spread. The proposed Project does not require the installation or maintenance of associated infrastructure that would increase wildfire risk or result in impacts to the environment. To receive building permits, the proposed Project would be required to be in compliance with the adopted emergency response plan. As such, any wildfire risk to the project structures or people would be ***less than significant.***

Mitigation Measures: None are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Does the project 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. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

RESPONSES

a) Does the project 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?

Potentially Significant Impact. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project may have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the project design, however some impacts remain ***potentially significant***. Therefore, an EIR will be prepared for those impact areas.

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

Potentially Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. The proposed Project may contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc). Mitigation measures have been incorporated in the project design, however some impacts remain ***potentially significant***. Therefore, an EIR will be prepared for those impact areas.

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

Potentially Significant Impact. The analyses of environmental issues contained in this Initial Study indicate that the project may have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the project design, however some impacts remain ***potentially significant***. Therefore, an EIR will be prepared for those impact areas.

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Appendix A

Biological Resource Evaluation

Colibri
Ecological Consulting

Biological Resource Evaluation

June 2024

Hanford Residential Development Project
Kings County, California

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Executive Summary

The project applicant proposes to construct a residential development in northern Kings County, California. The proposed residential development project (Project) will involve annexing 130 acres into the City of Hanford for a 615-unit single-family residential development. The Project site is on the northwest corner of 12th Avenue and Fargo Avenue.

To evaluate whether the Project may affect biological resources under California Environmental Quality Act (CEQA) purview, we (1) obtained lists of special-status species from the United States Fish and Wildlife Service, the California Department of Fish and Wildlife, and the California Native Plant Society; (2) reviewed other relevant background information such as aerial imagery and topographic maps; and (3) conducted a field reconnaissance survey at the Project site.

This biological resource evaluation summarizes (1) existing biological conditions on the Project site, (2) the potential for special-status species and regulated habitats to occur on or near the Project site, (3) the potential impacts of the proposed Project on biological resources and regulated habitats, and (4) measures to reduce those potential impacts to less-than-significant levels under CEQA.

We concluded the Project could affect the state listed as threatened Swainson's hawk (*Buteo swainsoni*) and nesting migratory birds. However, effects can be reduced to less-than-significant levels with mitigation.

Contents

Abbreviations 6
1.0 Introduction 7
1.1 Background 7
1.2 Project Description 7
1.3 Project Location 7
1.4 Regulatory Framework 10
1.4.1 State Requirements 10
1.4.2 Federal Requirements 12
2.0 Methods 14
2.1 Desktop Review 14
2.2 Reconnaissance Survey 14
2.3 Significance Criteria 15
3.0 Results 17
3.1 Desktop Review 17
3.2 Reconnaissance Survey 26
3.2.1 Land Use and Habitats 26
3.2.2 Plant and Animal Species Observed 32
3.2.3 Nesting Birds 34
3.2.4 Regulated Habitats 34
3.3 Special-Status Species 35
3.3.1 Swainson's Hawk 35
4.0 Environmental Impacts 36
4.1 Significance Determinations 36
4.1.1 Direct and Indirect Effects 37
5.0 Literature Cited 39

Figures

Figure 1. Project site vicinity map. 8
Figure 2. Project site map. 9
Figure 3. Reconnaissance survey area map. 16
Figure 4. CNDDB occurrence map. 25
Figure 5. Photograph from the northeast corner of the Project site, looking south, showing a walnut orchard. 27
Figure 6. Photograph from the west-central portion of the Project site, looking east, showing a walnut orchard. 27
Figure 7. Photograph from the northeastern portion of the Project site (right), looking east, showing an almond orchard and rural residence (left) to the north. 28
Figure 8. Photograph showing 12th Avenue and a vineyard east of the Project site, looking northeast. 28
Figure 9. Photograph showing Fargo Avenue and residential development south of the Project site, looking southwest. 29
Figure 10. Photograph showing rural residential development south of the Project site, looking southwest. 29
Figure 11. Photograph showing a hayfield west of the Project site, looking west. 30
Figure 12. Photograph showing the agricultural storage basin immediately northwest of the Project site, looking northeast. 30
Figure 13. Photograph showing a canal (Peoples Ditch) along the western boundary of the Project site, looking north. 31
Figure 14. Photograph showing gopher burrows in the 50-foot survey buffer near the agricultural water storage basin. 31

Tables

Table 1. Special-status species, their listing status, habitats, and potential to occur on or near the Project site. 18
Table 2. Plant and animal species observed during the reconnaissance survey. 32

Appendices

Appendix A. USFWS list of threatened and endangered species.....41
Appendix B. CNDDB occurrence records.....50
Appendix C. CNPS plant list.....53
Appendix D. Recommended timing and methodology for Swainson's hawk nesting surveys in California's Central Valley.....56

Abbreviations

Abbreviation	Definition
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
FE	Federally listed as Endangered
FC	Federal Candidate for listing under the FESA
FESA	Federal Endangered Species Act
FP	State Fully Protected
FPT	Federally proposed as Threatened
FT	Federally listed as Threatened
MBTA	Migratory Bird Treaty Act
NRCS	Natural Resources Conservation Service
SC	State Candidate for listing under the CESA
SE	State listed as Endangered
SSSC	State Species of Special Concern
ST	State listed as Threatened
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 Introduction

1.1 Background

The applicant proposes to construct a residential development (the Project) on approximately 130 acres in northern Kings County, California. The Project site currently supports a walnut orchard.

The purpose of this biological resource evaluation is to assess whether the Project will affect protected biological resources pursuant to California Environmental Quality Act (CEQA) guidelines. Such resources include species of plants or animals listed or proposed for listing under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA) as well as those covered under the Migratory Bird Treaty Act (MBTA), the California Native Plant Protection Act, and various other sections of California Fish and Game Code (CFGC). This biological resource evaluation also addresses Project-related impacts to regulated habitats, which are those under the jurisdiction of the United States Army Corps of Engineers (USACE), State Water Resources Control Board (SWRCB), or California Department of Fish and Wildlife (CDFW).

1.2 Project Description

This Project will involve annexing approximately 130 acres into the City of Hanford for a 615-unit single-family residential development. The subdivision will include new residential streets, a park, and a detention basin.

1.3 Project Location

The approximately 130-acre Project site is north of Fargo Avenue and west of 12th Avenue in north-central Kings County, California (Figures 1 and 2).

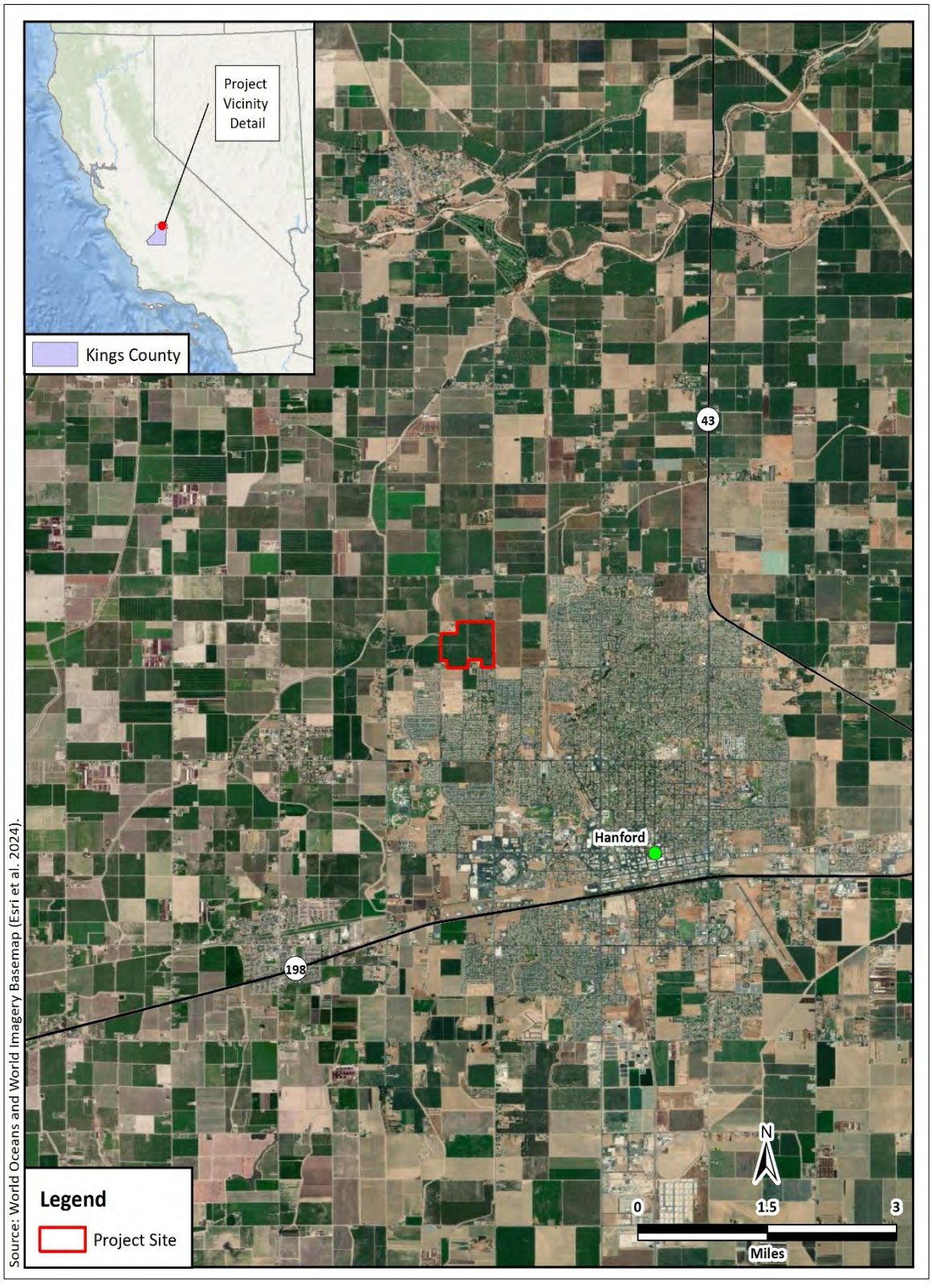

Figure 1. Project site vicinity map.

Figure 2. Project site map.

1.4 Regulatory Framework

The relevant regulatory requirements and policies that guide the impact analysis of the Project are summarized below.

1.4.1 State Requirements

California Department of Fish and Wildlife Jurisdiction. The CDFW has regulatory jurisdiction over lakes and streams in California. Activities that divert or obstruct the natural flow of a stream; substantially change its bed, channel, or bank; or use any materials (including vegetation) from the streambed may require that the project applicant enter into a Lake and Streambed Alteration Agreement with the CDFW in accordance with California Fish and Game Code [CFGC] Section 1602.

California Endangered Species Act. The CESA of 1970 (CFGC Section 2050 et seq. and California Code of Regulations (CCR) Title 14, Subsections 670.2 and 670.51) prohibits the take of species listed under CESA (14 CCR Subsections 670.2 and 670.5). Take is defined as hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill. Under CESA, state agencies are required to consult with the CDFW when preparing CEQA documents. Consultation ensures that proposed projects or actions do not adversely affect state listed species. During consultation, CDFW determines whether take would occur and identifies "reasonable and prudent alternatives" for the project and conservation of special-status species. CDFW can authorize take of state listed species under Sections 2080.1 and 2081(b) of the CFGC in those cases where it is demonstrated the impacts are minimized and mitigated. Take authorized under section 2081(b) must be minimized and fully mitigated. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Under CESA, CDFW is responsible for maintaining a list of threatened and endangered species designated under state law (CFGC Section 2070). CDFW also maintains lists of species of special concern, which serve as "watch lists." Pursuant to the requirements of CESA, a state or local agency reviewing a proposed project within its jurisdiction must determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation. Impacts to species of concern or fully protected species would be considered significant under certain circumstances.

California Environmental Quality Act. The California Environmental Quality Act (CEQA) of 1970 (Subsections 21000–21178) requires that CDFW be consulted

during the CEQA review process regarding impacts of proposed projects on special-status species. Special-status species are defined under CEQA Guidelines subsection 15380(b) and (d) as those listed under FESA and CESA and species that are not currently protected by statute or regulation but would be considered rare, threatened, or endangered under these criteria or by the scientific community. Therefore, species considered rare or endangered are addressed in this biological resource evaluation regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity (CNPS 2024). Plants with Rare Plant Ranks 1A, 1B, 2A, or 2B are considered special-status species under CEQA.

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the FESA and the section of the CFGC dealing with rare and endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the United States Fish and Wildlife Service (USFWS) or CDFW (i.e., candidate species) would occur. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agency has an opportunity to designate the species as protected, if warranted.

California Native Plant Protection Act. The California Native Plant Protection Act of 1977 (CFGC Sections 1900–1913) requires all state agencies to use their authority to carry out programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require the project proponent to notify CDFW at least 10 days in advance of any change in land use, which allows CDFW to salvage listed plants that would otherwise be destroyed.

Nesting birds. CFGC Sections 3503, 3503.5, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. CFGC Section 3511 lists birds that are “Fully Protected” as those that may not be taken or possessed except under specific permit.

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et. sec.) was established in 1969 and entrusts the SWRCB and nine Regional Water Quality Control Boards (collectively Water Boards) with the responsibility to preserve and enhance all

beneficial uses of California's diverse waters. The Act grants the Water Boards authority to establish water quality objectives and regulate point- and nonpoint-source pollution discharge to the state's surface and ground waters. Under the auspices of the United States Environmental Protection Agency, the Water Boards are responsible for certifying, under Section 401 of the federal Clean Water Act, that activities affecting waters of the United States comply with California water quality standards. The Porter-Cologne Water Quality Control Act addresses all "waters of the State," which are more broadly defined than waters of the Unites States. Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state. They include artificial as well as natural water bodies and federally jurisdictional and federally non-jurisdictional waters. The Water Boards may issue a Waste Discharge Requirement permit for projects that will affect only federally non-jurisdictional waters of the State.

1.4.2 Federal Requirements

Federal Endangered Species Act. The USFWS and the National Oceanographic and Atmospheric Administration's National Marine Fisheries Service enforce the provisions stipulated in the FESA of 1973 (FESA, 16 United States Code [USC] Section 1531 et seq.). Threatened and endangered species on the federal list (50 Code of Federal Regulations [CFR] 17.11 and 17.12) are protected from take unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. Pursuant to the requirements of the FESA, an agency reviewing a proposed action within its jurisdiction must determine whether any federally listed species may be present in the proposed action area and determine whether the proposed action may affect such species. Under the FESA, habitat loss is considered an effect to a species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species that is listed or proposed for listing under the FESA (16 USC Section 1536[3], [4]). Therefore, proposed action-related effects to these species or their habitats would be considered significant and would require mitigation.

Migratory Bird Treaty Act. The federal MBTA (16 USC Section 703, Supp. I, 1989) prohibits killing, possessing, trading, or other forms of take of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. "Take" is defined as the pursuing, hunting, shooting, capturing, collecting, or killing of birds, their nests, eggs, or young (16 USC Section 703 and Section 715n).

This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA specifically protects migratory bird nests from possession, sale, purchase, barter transport, import, and export, and take. For nests, the definition of take per 50 CFR 10.12 is to collect. The MBTA does not include a definition of an "active nest." However, the "Migratory Bird Permit Memorandum" issued by the USFWS in 2003 and updated in 2018 clarifies the MBTA in that regard and states that the removal of nests, without eggs or birds, is legal under the MBTA, provided no possession (which is interpreted as holding the nest with the intent of retaining it) occurs during the destruction (USFWS 2018).

United States Army Corps of Engineers Jurisdiction. Areas meeting the regulatory definition of "waters of the United States" (jurisdictional waters) are subject to the jurisdiction of the USACE under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, the territorial seas, all interstate waters, all impoundments of waters otherwise defined as waters of the United States, tributaries of waters otherwise defined as waters of the United States that are relatively permanent, standing, or continuously flowing bodies of water, and relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to waters of the United States (33 CFR part 328.3). Waters of the United States do not include prior converted cropland, waste treatment systems, ditches, artificially irrigated areas, artificial lakes or ponds, artificial reflecting pools or swimming pools, waterfilled depressions, and swales and erosional features. Under the 2006 Supreme Court ruling *Rapanos v. United States*, waters of the United States include non-navigable tributaries of traditional navigable waters that are relatively permanent. The 2023 Supreme Court ruling *Sackett v. Environmental Protection Agency* removed the significant nexus standard for tributaries and adjacent waters of the United States and requires tributaries and adjacent waters to have a continuous surface connection to a water of the United States. Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual and related Regional Supplement* (USACE 1987 and 2008). Construction activities, including direct removal, filling, hydrologic disruption, or other means in jurisdictional waters are regulated by the USACE. The placement of dredged or fill material into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The State Water Resources Control Board is the state agency, together with the Regional Water Quality Control Boards, charged with implementing water quality certification in California.

2.0 Methods

2.1 Desktop Review

As a framework for the evaluation and reconnaissance survey, we obtained a USFWS species list for the Project (USFWS 2024a, Appendix A). In addition, we searched the California Natural Diversity Database (CNDDB, CDFW 2024, Appendix B) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2024, Appendix C) for records of special-status plant and animal species from the vicinity of the Project site. Regional lists of special-status species were compiled using CNDDB and CNPS database searches confined to the Hanford 7.5-minute United States Geological Survey (USGS) topographic quadrangle, which encompasses the Project site, and the eight surrounding quadrangles (Burris Park, Guernsey, Laton, Lemoore, Remnoy, Riverdale, Stratford, and Waukena). A local list of special-status species was compiled using CNDDB records from within 5 miles of the Project site. Species that lacked a CEQA-recognized special-status designation by state or federal regulatory agencies or public interest groups were omitted from the final list. Species for which the Project site does not provide habitat were eliminated from further consideration. We also reviewed aerial imagery from Google Earth (Google 2024) and other sources, USGS topographic maps, the Web Soil Survey (NRCS 2024), the National Wetlands Inventory (USFWS 2024b), and relevant literature.

2.2 Reconnaissance Survey

Colibri Senior Technical Specialist Randy Sisk conducted a field reconnaissance survey at the Project site on 30 April 2024. The Project site and a 50-foot buffer (Figure 3) surrounding the Project site were walked and thoroughly inspected to evaluate and document the potential for the area to support state or federally protected resources. All plants except those under cultivation or planted in residential areas and all vertebrate wildlife species observed within the survey area were identified and documented. The survey area was evaluated for the presence of regulated habitats, including lakes, streams, and other waters as defined by the USACE, CDFW, and under the Porter-Cologne Water Quality Control Act. An additional buffer of 0.5 miles around the Project site was inspected for potential nesting habitat for special-status raptors. The 0.5-mile buffer was surveyed by driving public roads and identifying the presence of large trees or other potentially suitable substrates for nesting raptors as well as open areas that could provide foraging habitat.

2.3 Significance Criteria

CEQA defines "significant effect on the environment" as "a substantial, or potentially substantial, adverse change in the environment" (California Public Resource Code § 21068). Under CEQA Guidelines Section 15065, a Project's effects on biological resources are deemed significant where the Project would do the following:

a) Substantially reduce the habitat of a fish or wildlife species,
b) Cause a fish or wildlife population to drop below self-sustaining levels,
c) Threaten to eliminate a plant or animal community, or
d) Substantially reduce the number or restrict the range of a rare or endangered plant or animal.

In addition to the Section 15065 criteria, Appendix E within the CEQA Guidelines includes six additional impacts to consider when analyzing the effects of a project. Under Appendix E, a project's effects on biological resources are deemed significant where the project would do any of the following:

e) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
f) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS;
g) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
h) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
i) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
j) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

These criteria were used to determine whether the potential effects of the Project on biological resources qualify as significant.

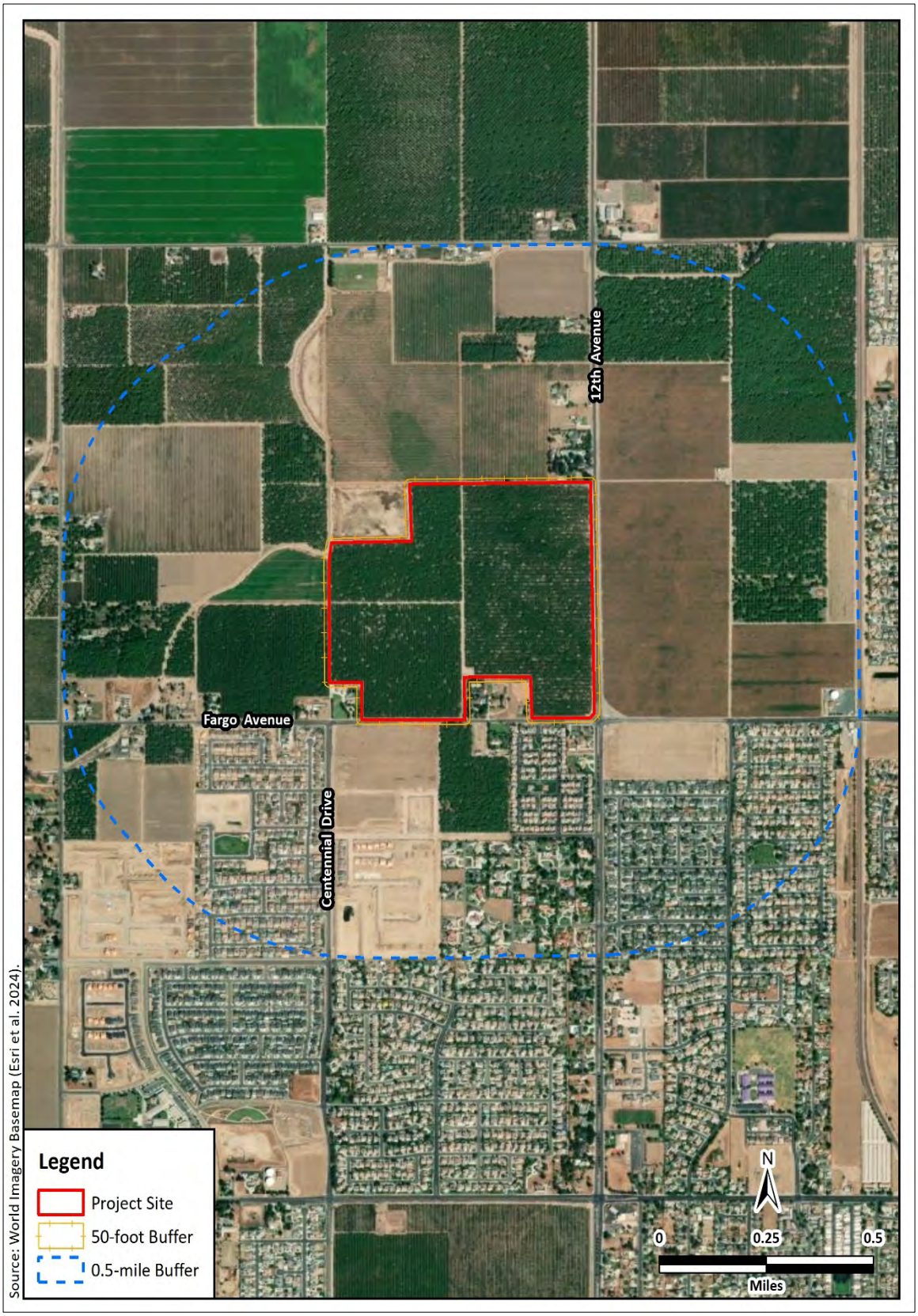

Figure 3. Reconnaissance survey area map.

3.0 Results

3.1 Desktop Review

The USFWS species list for the Project included 10 species listed as threatened, endangered, or proposed for listing under the FESA (USFWS 2024a, Table 1, Appendix A). None of those species could occur on or near the Project site due to the lack of habitat or because the Project site is outside the known range of the species (Table 1). As stated in the species list, the Project site occurs outside any proposed or designated USFWS critical habitat (USFWS 2024a, Appendix A).

Searching the CNDDB for records of special-status species from the Hanford 7.5-minute USGS topographic quadrangle and the eight surrounding quadrangles produced 92 records of 29 species (Table 1, Appendix B). Of those 29 species, four were not considered further because they are not CEQA-recognized as special-status species by state or federal regulatory agencies or public interest groups or are considered extirpated in California (Appendix B). Of the remaining 25 species, five are known from within 5 miles of the Project site (Table 1, Figure 4). Of those species, only one, the state listed as threatened Swainson's hawk (*Buteo swainsoni*), could occur on or near the Project site (Table 1).

Searching the CNPS inventory of rare and endangered plants of California yielded 12 species (CNPS 2024, Appendix C), 11 of which have a CRPR of 1 or 2 and none of which are also state or federally listed (Table 1). Of those 11 plant species, none could occur on or near the Project site due to the lack of habitat (Table 1).

The Project site is underlain by Nord complex, 0 to 2 percent slopes (99.9%) and Nord fine sandy loam, 0 to 1 percent slopes (0.2%) (NCRS 2024). The Project site has little topographic relief and is at an elevation of 238–243 feet above mean sea level (Google 2024).

Table 1. Special-status species, their listing status, habitats, and potential to occur on or near the Project site.

Species	Status[1]	Habitat	Potential to Occur[2]
Federally and State-Listed Endangered or Threatened Species			
Monarch – California overwintering population (*Danaus plexippus*)	FC	Groves of trees within 1.5 miles of the ocean that produce suitable micro-climates for overwintering such as high humidity, dappled sunlight, access to water and nectar, and protection from wind.	**None.** Habitat lacking; the Project site is not within 1.5 miles of the ocean.
Valley elderberry longhorn beetle[3] (*Desmocerus californicus dimorphus*)	FT	Elderberry (*Sambucus* sp.) plants having basal stem diameter greater than 1" at ground level.	**None.** Habitat lacking; no elderberry shrubs were found in the survey area; the Project site is outside the currently recognized range of this species.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Vernal pools; some artificial depressions, ditches, stock ponds, vernal swales, ephemeral drainages, and seasonal wetlands.	**None.** Habitat lacking; no vernal pool or other aquatic habitat was present in the survey area.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE	Vernal pools, clay flats, alkaline pools, and ephemeral stock tanks.	**None.** Habitat lacking; no vernal pool or other aquatic habitat was present in the survey area.

Species	Status[1]	Habitat	Potential to Occur[2]
California tiger salamander (*Ambystoma californiense*)	FT, ST	Vernal pools or seasonal ponds for breeding; small mammal burrows for upland refugia in natural grasslands.	**None.** Habitat lacking; the Project site lacked natural grasslands; the large water storage basin near the northwest corner of the survey area appears to be used for water storage related to agricultural irrigation, and according to historic Google Earth imagery (Google 2024), is inundated irregularly and usually dry during the California tiger salamander breeding and larval period; the Project site is outside the current know local range of this species
Western spadefoot (*Spea hammondii*)	FPT, SSSC	Open areas with sandy or gravelly soil that allow rain pools to gather for breeding.	**None.** Habitat lacking; no vernal pool or other breeding habitat was present in the survey area.
Blunt-nosed leopard lizard (*Gambelia sila*)	FE, SE, FP	Upland scrub and sparsely vegetated grassland with small mammal burrows.	**None.** Habitat lacking; the Project site lacked the upland scrub or sparsely vegetated grassland this species requires.
Northwestern pond turtle (*Actinemys marmorata*)	FPT, SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation. Basking sites and suitable upland areas for egg laying.	**None.** Habitat lacking; the Project site and surrounding areas lacked the permanent or nearly permanent aquatic habitat this species requires.

Species	Status[1]	Habitat	Potential to Occur[2]
Swainson's hawk[3] (*Buteo swainsoni*)	ST	Large trees for nesting with adjacent alfalfa fields, or grain fields for foraging.	**Low.** Potential nest trees and limited foraging habitat were within the 0.5-mile survey area.
Tricolored blackbird (*Agelaius tricolor*)	ST, SSSC	Freshwater emergent wetlands, some agricultural fields, grassland, and silage fields near dairies.	**None.** Habitat lacking; the Project site lacked freshwater emergent wetlands, agricultural fields, grassland, and silage fields.
Western snowy plover (*Charadrius nivosus nivosus*)	FT, SSSC	Sandy beaches, salt pond levees, and shores of large alkali lakes.	**None.** Habitat lacking; the Project site is a walnut orchard.
Buena Vista Lake ornate shrew (*Sorex ornatus relictus*)	FE, SSSC	Moist riparian, wetlands, grasslands, and upland scrub with abundant leaf litter and dense herbaceous cover.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
Fresno kangaroo rat (*Dipodomys nitratoides exilis*)	FE, SE	Sandy, alkaline, saline, and clay-based soils in upland scrub and grassland.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
San Joaquin kit fox[3] (*Vulpes macrotis mutica*)	FE, ST	Grassland and upland scrub and fallowed agricultural lands adjacent to natural grasslands or upland scrub.	**None.** Habitat lacking; the Project site is a walnut orchard and lacked burrows and adjacent natural grassland or upland scrub.

Species	Status[1]	Habitat	Potential to Occur[2]
Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*)	FE, SE	Grassland and upland scrub with sparse to moderate shrub cover and saline soils; also fallowed agricultural fields adjacent to natural grasslands or upland scrub.	**None.** Habitat lacking; the Project site is a walnut orchard and lacked adjacent natural grasslands or upland scrub.
State Species of Special Concern			
California glossy snake (*Arizona elegans occidentalis*)	SSSC	Arid scrub, rocky washes, grasslands, chapparal.	**None.** Habitat lacking; the Project site is a walnut orchard.
Burrowing owl (*Athene cunicularia*)	SSSC	Grassland and upland scrub with friable soil; some agricultural or other developed and disturbed areas with ground squirrel burrows.	**None.** Habitat lacking; the Project site lacked grassland and upland scrub with friable soil. Suitable burrows were not present in the survey area during the 30 April 2024 reconnaissance survey.
Yellow-headed blackbird (*Xanthocephalus xanthocephalus*)	SSSC	Freshwater marsh with emergent vegetation.	**None.** Habitat lacking; the Project site is a walnut orchard.
California Rare Plants			
Alkali sink goldfields (*Lasthenia chrysantha*)	1B.1	Vernal pools and wet saline flats below 320 feet elevation.	**None.** No vernal pool or wet saline flat habitats were present in the survey area.

Species	Status[1]	Habitat	Potential to Occur[2]
Brittlescale[3] (*Atriplex depressa*)	1B.2	Alkaline or clay soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools below 1000 feet elevation.	**None.** Habitat lacking; the Project site is a walnut orchard.
California alkali grass[3] (*Puccinellia simplex*)	1B.2	Saline flats and mineral springs below 3000 feet elevation.	**None.** Habitat lacking; the Project site is a walnut orchard and lacked saline flats and mineral springs.
Earlimart orache (*Atriplex cordulata* var. *erecticaulis*)	1B.2	Saline or alkaline soils in Central Valley and foothill grassland below 230 feet elevation.	**None.** Habitat lacking; the Project site is a walnut orchard.
Lesser saltscale (*Atriplex minuscula*)	1B.1	Sandy, alkaline soils in chenopod scrub, playa, and grassland in the San Joaquin Valley below 328 feet elevation.	**None.** Habitat lacking; the Project site is a walnut orchard and lacked sandy, alkaline soils in chenopod scrub, playa, or grassland.
Mud nama (*Nama stenocarpa*)	2B.2	Intermittently wet areas below 2700 feet elevation.	**None.** Habitat lacking; the Project site is a walnut orchard.
Panoche pepper-grass (*Lepidium jaredii* ssp. *album*)	1B.2	Alkaline soils in grassland, bottom lands, slopes, washes, and dry hillsides at 1640–2300 feet elevation.	**None.** Habitat lacking; the Project site is a walnut orchard.

Species	Status[1]	Habitat	Potential to Occur[2]
Recurved larkspur (*Delphinium recurvatum*)	1B.2	Poorly drained, fine, alkaline soils in grassland and saltbush scrub at 98–1969 feet elevation.	**None.** Habitat lacking; the Project site is a walnut orchard and lacked poorly drained, fine, alkaline soils in grassland.
Sanford's arrowhead (*Sagittaria sanfordii*)	1B.2	Ponds, sloughs, and ditches at sea level to 650 feet elevation.	**None.** Habitat lacking; the Project site is a walnut orchard, and no freshwater marshes or other suitable aquatic features were present on the Project site.
Subtle orache (*Atriplex subtilis*)	1B.2	Saline depressions below 230 feet elevation.	**None.** Habitat lacking; the Project site is a walnut orchard, lacked saline depressions, and is above the known elevational range of this species.

CDFW (2024), CNPS (2024), USFWS (2024a).

Status[1]

FC = Federal Candidate for listing

FE = Federally listed as Endangered

FT = Federally listed as Threatened

FPT = Federally Proposed Threatened

FP = State Fully Protected

SC = State Candidate for listing

SE = State listed as Endangered

ST = State listed as Threatened

SSSC = State Species of Special Concern

Potential to Occur[2]

None: Species or sign not observed; conditions unsuitable for occurrence.

Low: Neither species nor sign observed; conditions marginal for occurrence.

Moderate: Neither species nor sign observed; conditions suitable for occurrence.

High: Neither species nor sign observed; conditions highly suitable for occurrence.

Present: Species or sign observed; conditions suitable for occurrence.

CNPS California Rare Plant Rank[1]:

1B – plants rare, threatened, or endangered in California and elsewhere.

Threat Ranks[1]:

0.1 – seriously threatened in California (> 80% of occurrences).

CNPS California Rare Plant Rank[1]:	**Threat Ranks[1]:**
2B – plants rare, threatened, or endangered in California but more common elsewhere.	0.2 – moderately threatened in California (20-80% of occurrences).
3 – plants about which more information is needed.	0.3 – not very threatened in California (<20% of occurrences).
4 – plants have limited distribution in California.	

[3]Record from within 5 miles of the Project site.

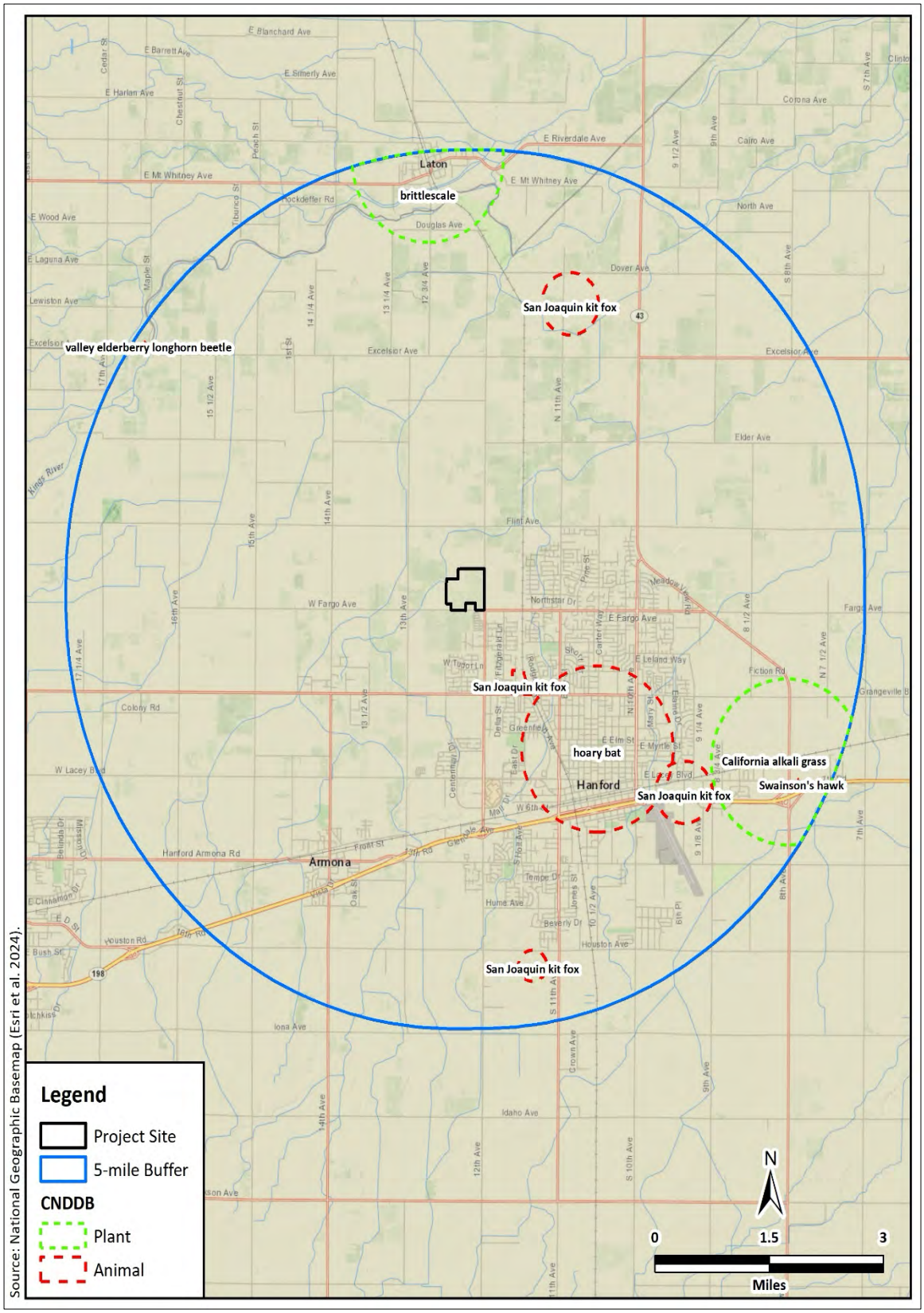

Figure 4. CNDDB occurrence map.

3.2 Reconnaissance Survey

3.2.1 Land Use and Habitats

The Project site consisted of an irrigated, maintained walnut orchard (Figures 5–7). Ruderal herbaceous vegetation was sparsely distributed throughout the Project site. The site was bordered by rural residential development and an almond orchard to the north (Figure 7), 12th Avenue and a vineyard to the east (Figure 8), rural and urban residential development to the south (Figures 9 and 10), and a hayfield and walnut orchards and to the west (Figure 11). Historical aerial imagery indicates the Project site has been used for agricultural production since at least 1994 (Google 2024).

An agricultural water storage basin, measuring approximately 765 feet x 610 feet, bordered the northwestern corner of the Project site. A small portion of the upper banks of this basin were within the 50-foot survey buffer. This basin was completely dry at the time of the 30 April 2024 reconnaissance survey. This portion of the survey area supported herbaceous vegetation consisting of ruderal upland plants (Figure 12). An approximately 130-foot section of a canal (Peoples Ditch) was within the 50-foot survey buffer along the western Project site boundary (Figure 13). The Kings River, north of the Project site, appears to be the source of the water diverted into the Peoples Ditch (Google 2024). The canal was dry at time of the 30 April 2024 reconnaissance survey, and no wetland plants were present in this reach of the canal. The canal appears to terminate abruptly near an agricultural storage basin about 0.7 miles southwest of the Project site (Google 2024).

Only a few small rodent burrows were found during the 30 April 2024 reconnaissance survey (Figure 14). These burrows were within the 50-foot survey area buffer near the agricultural water storage basin at the northwestern corner of the Project site. They all had vertical shafts and were mostly occluded, characteristic of Botta's pocket gopher (*Thomomys bottae*).

Figure 5. Photograph from the northeast corner of the Project site, looking south, showing a walnut orchard.

Figure 6. Photograph from the west-central portion of the Project site, looking east, showing a walnut orchard.

Figure 7. Photograph from the northeastern portion of the Project site (right), looking east, showing an almond orchard and rural residence (left) to the north.

Figure 8. Photograph showing 12th Avenue and a vineyard east of the Project site, looking northeast.

Figure 9. Photograph showing Fargo Avenue and residential development south of the Project site, looking southwest.

Figure 10. Photograph showing rural residential development south of the Project site, looking southwest.

Figure 11. Photograph showing a hayfield west of the Project site, looking west.

Figure 12. Photograph showing the agricultural storage basin immediately northwest of the Project site, looking northeast.

Figure 13. Photograph showing a canal (Peoples Ditch) along the western boundary of the Project site, looking north.

Figure 14. Photograph showing gopher burrows in the 50-foot survey buffer near the agricultural water storage basin.

3.2.2 Plant and Animal Species Observed

A total of 15 plant species (four native and 11 nonnative), 15 bird species, one reptile species, and two mammal species were detected during the survey (Table 2).

Table 2. Plant and animal species observed during the reconnaissance survey.

Common Name	Scientific Name	Status
Plants		
Family Amaranthaceae		
Pigweed amaranth	*Amaranthus albus*	Nonnative
Family Asteraceae		
Canada horseweed	*Erigeron canadensis*	Native
Common sow thistle	*Sonchus oleraceus*	Nonnative
Prickly lettuce	*Lactuca serriola*	Nonnative
Family Boraginaceae		
Common fiddleneck	*Amsinckia menziesii*	Native
Family Brassicaceae		
Lesser swine cress	*Lepidium didymum*	Nonnative
London rocket	*Sisymbrium irio*	Nonnative
Shepherd's purse	*Capsella bursa-pastoris*	Nonnative
Family Caryophyllaceae		
Annual pearlwort	*Sagina apeltala*	Nonnative
Family Malvaceae		
Cheeseweed mallow	*Malva parviflora*	Nonnative
Family Poaceae		
California bromegrass	*Bromus carinatus*	Native
Farmer's foxtail	*Hordeum murinum*	Nonnative
Foxtail brome	*Bromus madritensis*	Nonnative
Ripgut brome	*Bromus diandrus*	Nonnative
Family Solanaceae		

Common Name	Scientific Name	Status
Sacred datura	*Datura wrightii*	Native
Birds		
Family Accipitridae		
Red-tailed hawk	*Buteo jamaicensis*	MBTA, CFGC
Family Cathartidae		
Turkey vulture	*Cathartes aura*	MBTA, CFGC
Family Columbidae		
Eurasian collared-dove	*Streptopelia orientalis*	Nonnative
Family Corvidae		
Common raven	*Corvus corax*	MBTA, CFGC
California scrub-jay	*Aphelocoma californica*	MBTA, CFGC
Family Emberizidae		
White-crowned sparrow	*Zonotrichia leucophrys*	MBTA, CFGC
Family Fringillidae		
House finch	*Haemorhous mexicanus*	MBTA, CFGC
Lesser goldfinch	*Spinus psaltria*	MBTA, CFGC
Family Icteridae		
Great-tailed grackle	*Quiscalus mexicanus*	MBTA, CFGC
Family Passeridae		
House sparrow	*Passer domesticus*	Nonnative
Family Picidae		
Northern flicker	*Colaptes auratus*	MBTA, CFGC
Family Sturnidae		
European starling	*Sturnus vulgaris*	Nonnative
Family Trochilidae		
Anna's hummingbird	*Calypte anna*	MBTA, CFGC
Family Turdidae		
American robin	*Turdus migratorius*	MBTA, CFGC

Common Name	Scientific Name	Status
Family Tyrannidae		
Black phoebe	*Sayornis nigricans*	MBTA, CFGC
Reptiles		
Family Phrynosomatidae		
Side-blotched lizard	*Uta stansburiana*	--
Mammals		
Family Geomyidae		
Botta's pocket gopher	*Thomomys bottae*	--
Family Leporidae		
Desert cottontail	*Sylvilagus audubonii*	--

MBTA = Protected under the MBTA (16 USC § 703 et seq.); CFGC = Protected under CFGC §§ 3503 and 3513

3.2.3 Nesting Birds

Migratory birds could nest on or near the Project site. Bird species that may nest on or near the property include, but are not limited to, California scrub-jay (*Aphelocoma californica*) and house finch (*Haemorhous mexicanus*). Large trees within 0.5 miles of the Project site could provide nesting substrates for raptors, including Swainson's hawk.

3.2.4 Regulated Habitats

An agricultural water storage basin was found in the 50-foot survey buffer at the northwest corner of the Project site (Figure 12), and an approximately 130-foot section of a canal (Peoples Ditch) was found in the 50-foot survey buffer along the western Project site boundary (Figure 13). The agricultural water storage basin is listed in the National Wetlands Inventory as a freshwater pond with a classification of PUSCx, which means palustrine, unconsolidated shore, seasonally flooded, and excavated (USFWS 2024b). The canal is listed in the National Wetlands Inventory as riverine with a classification of R5UBFx, which means unknown perennial, unconsolidated bottom, semipermanently flooded, and excavated (USFWS 2024b). Both features were dry during the 30 April 2024 reconnaissance survey (Figures 12 and 13). If these features contain surface water, they are likely regulated by the SWRCB. As the canal is classified as a stream, it would be regulated by the CDFW under California Fish and Game Code

Section 1600 et sec. However, as the water storage basin is not classified as a lake or stream, this feature is not regulated by the CDFW under California Fish and Game Code Section 1600 et sec. As neither of these features is a tributary or adjacent waters of a water of the United States, neither would fall under the regulatory jurisdiction of the USACE.

3.3 Special-Status Species

The following special-status species could occur on or near the Project site based on the presence of habitat:

3.3.1 Swainson's Hawk

Swainson's hawk is a state listed as threatened raptor in the family Accipitridae. It is a migratory breeding resident of Central California. It uses open areas including grassland, sparse shrubland, pasture, open woodland, and annual agricultural fields such as grain and alfalfa to forage on small mammals, birds, and reptiles. After breeding, it eats mainly insects, especially grasshoppers (Bechard et al. 2020). Swainson's hawks build small to medium-sized nests in medium to large trees near foraging habitat. The nesting season begins in March or April in Central California when this species returns to its breeding grounds from wintering areas in Mexico and Central and South America. Nest building commences within one to two weeks of arrival to the breeding area and lasts about one week (Bechard et al. 2020). One to four eggs are laid and incubated for about 35 days. Young typically fledge in about 38–46 days and tend to leave the nest territory within 10 days of fledging (Bechard et al. 2020). Swainson's hawks depart for the non-breeding grounds between August and September.

There is one CNDDB occurrence record of Swainson's hawk, from 2016, from within 5 miles of the Project site (Figure 4). An additional 20 CNDDB occurrence records were found in the nine-quad search (CDFW 2024). Although no Swainson's hawk habitat was present on the Project site, a hayfield, containing a mix of alfalfa and other grasses bordering the west side of the Project site, and the water storage basin and surrounding area bordering the northwest corner of the Project site, provide potential foraging habitat (Figures 11 and 12). Potential nest trees were observed within 0.5 miles of the Project site (e.g., Figure 7).

4.0 Environmental Impacts

4.1 Significance Determinations

This Project, which will result in temporary and permanent impacts to orchards, will not: (1) substantially reduce the habitat of a fish or wildlife species (criterion a) as no such habitat is present on the Project site; (2) cause a fish or wildlife population to drop below self-sustaining levels (criterion b) as no such potentially vulnerable population is known from the area; (3) threaten to eliminate a plant or animal community (criterion c) as no such potentially vulnerable communities are known from the area; (4) substantially reduce the number or restrict the range of a rare or endangered plant or animal (criterion d) as no such potentially vulnerable species are known from the area; (5) have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS (criterion f) as no riparian habitat or other sensitive natural community was present in the survey area; (6) have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (criterion g) as no impacts to wetlands will occur; (7) conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (criterion i) as no such ordinances are pertinent to the Project; or (8) conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan (criterion j) as no such plan has been adopted. Thus, these significance criteria are not analyzed further.

The remaining statutorily defined criteria provide the framework for Criterion BIO1 and Criterion BIO2 below. These criteria are used to assess the impacts to biological resources stemming from the Project and provide the basis for determinations of significance:

- Criterion BIO1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS (significance criterion e).

- Criterion BIO2: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native

resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (significance criterion h).

4.1.1 Direct and Indirect Effects

4.1.1.1 Potential Effect #1: Have a Substantial Effect on Any Special-Status Species (Criterion BIO1)

The Project could adversely affect, either directly or through habitat modifications, one special-status animal species that occurs or may occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species or substantially modifies its habitat could constitute a significant impact. We recommend that Mitigation Measure BIO1 (below) be included in the conditions of approval to reduce the potential impacts to less-than-significant levels.

Mitigation Measure BIO1. Protect nesting Swainson's hawks.

1. To the extent practicable, construction shall be scheduled to avoid the Swainson's hawk nesting season, which extends from March through August.
2. If it is not possible to schedule construction between September and February, a qualified biologist shall conduct surveys for Swainson's hawk in accordance with the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (SWTAC 2000, Appendix D). These methods require six surveys, three in each of the two survey periods, prior to project initiation. Surveys shall be conducted within a minimum 0.5-mile radius around the Project site.
3. If an active Swainson's hawk nest is found within 0.5 miles of the Project site, and the qualified biologist determines that Project activities would disrupt the nesting birds, a construction-free buffer or limited operating period shall be implemented in consultation with the CDFW.

4.1.1.2 Potential Effect #2: Interfere Substantially with Native Wildlife Movements, Corridors, or Nursery Sites (Criterion BIO2)

The Project has the potential to impede the use of nursery sites for native birds protected under the MBTA and CFGC. Migratory birds are expected

to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort can be considered take under the MBTA and CFGC. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Construction activities such as excavating, trenching, and grading that disturb a nesting bird on the Project site or immediately adjacent to the construction zone could constitute a significant effect. We recommend that the mitigation measure BIO2 (below) be included in the conditions of approval to reduce the potential effect to a less-than-significant level.

Mitigation Measure BIO2. Protect nesting birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.

2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during the implementation of the Project. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

5.0 Literature Cited

Bechard, M. J., C. S. Houston, J. H. Saransola, and A. S. England. 2020. Swainson's Hawk (*Buteo swainsoni*), version 1.0. *In* Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.swahaw.01.

California Department of Fish and Wildlife (CDFW). 2024. California Natural Diversity Database (CNDDB) RareFind 5. https://apps.wildlife.ca.gov. Accessed 22 April 2024.

California Native Plant Society, Rare Plant Program (CNPS). 2024. Inventory of Rare and Endangered Plants (online edition, v9.5). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org. Accessed 22 April 2024.

Google. 2024. Google Earth Pro. Version 7.3.6.9796 (https://www.google.com/earth/download/gep/agree.html). Accessed 22 April 2024.

Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture. 2024. Web Soil Survey, National Cooperative Soil Survey: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed 3 May 2024.

Swainson's Hawk Technical Advisory Committee (SWTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. 5 pages.

United States Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetlands Delineation Manual. Wetland Research Program Technical Report Y-87-1.

_____. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). ERDC/EL TR-08-28. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046489.pdf. Accessed 2 May 2024.

United States Fish and Wildlife Service (USFWS). 2018. Migratory Bird Permit Memorandum: Destruction and Relocation of Migratory Bird Nest Contents. FWS/DMBM/AMB/068029, 4 pages.

_____. 2024a. IPaC: Information for Planning and Conservation. https://ecos.fws.gov/ipac/. Accessed 3 May 2024.

_____. 2024b. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands/. Accessed 2 May 2024.

Appendix A. USFWS list of threatened and endangered species.

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: 05/03/2024 19:35:02 UTC
Project Code: 2024-0085815
Project Name: Hanford Residential Devlopment Project

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 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 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:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.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/program/migratory-bird-permit/what-we-do.

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/library/collections/threats-birds.

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/partner/council-conservation-migratory-birds.

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: 2024-0085815
Project Name: Hanford Residential Devlopment Project
Project Type: Residential Construction
Project Description: The project applicant proposes to construct a residential development in northern Kings County, California. The proposed residential development project (Project) will involve annexing 130 acres into the City of Hanford for a 615-unit single-family residential development. The project site is on the northwest corner of 12th Avenue and Fargo Avenue.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.3608403,-119.67753591909985,14z

Counties: Kings County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 11 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.

MAMMALS

NAME	STATUS
Buena Vista Lake Ornate Shrew *Sorex ornatus relictus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1610	Endangered
Fresno Kangaroo Rat *Dipodomys nitratoides exilis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5150	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered
Tipton Kangaroo Rat *Dipodomys nitratoides nitratoides* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7247	Endangered

REPTILES

NAME	STATUS
Blunt-nosed Leopard Lizard *Gambelia silus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot *Spea hammondii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat.	Threatened

NAME	STATUS
Species profile: https://ecos.fws.gov/ecp/species/498	
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

FLOWERING PLANTS

NAME	STATUS
Lassics Lupine *Lupinus constancei* Population: There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7976	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency:	Colibri Ecological Consulting, LLC
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Appendix B. CNDDB occurrence records.

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Hanford (3611936) OR Burris Park (3611945) OR Guernsey (3611926) OR Laton (3611946) OR Lemoore (3611937) OR Remnoy (3611935) OR Riverdale (3611947) OR Stratford (3611927) OR Waukena (3611925))
 AND (Federal Listing Status IS (Endangered OR Threatened OR Proposed Endangered OR Proposed Threatened OR Candidate OR All CNDDB element occurrences OR Delisted) OR State Listing Status IS (Endangered OR Threatened OR Rare OR All CNDDB element occurrences OR Delisted OR Candidate Endangered OR Candidate Threatened))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
alkali-sink goldfields *Lasthenia chrysantha*	PDAST5L030	None	None	G2	S2	1B.1
blunt-nosed leopard lizard *Gambelia sila*	ARACF07010	Endangered	Endangered	G1	S2	FP
brittlescale *Atriplex depressa*	PDCHE042L0	None	None	G2	S2	1B.2
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S2	SSC
California alkali grass *Puccinellia simplex*	PMPOA53110	None	None	G2	S2	1B.2
California glossy snake *Arizona elegans occidentalis*	ARADB01017	None	None	G5T2	S2	SSC
California linderiella *Linderiella occidentalis*	ICBRA06010	None	None	G2G3	S2S3	
California tiger salamander - central California DPS *Ambystoma californiense pop. 1*	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Earlimart orache *Atriplex cordulata var. erecticaulis*	PDCHE042V0	None	None	G3T1	S1	1B.2
hoary bat *Lasiurus cinereus*	AMACC05032	None	None	G3G4	S4	
lesser saltscale *Atriplex minuscula*	PDCHE042M0	None	None	G2	S2	1B.1
mud nama *Nama stenocarpa*	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2
Panoche pepper-grass *Lepidium jaredii ssp. album*	PDBRA1M0G2	None	None	G2G3T2T3	S2S3	1B.2
recurved larkspur *Delphinium recurvatum*	PDRAN0B1J0	None	None	G2?	S2?	1B.2
San Joaquin kit fox *Vulpes macrotis mutica*	AMAJA03041	Endangered	Threatened	G4T2	S3	
San Joaquin tiger beetle *Cicindela tranquebarica joaquinensis*	IICOL0220E	None	None	G5T1	S1	
Sanford's arrowhead *Sagittaria sanfordii*	PMALI040Q0	None	None	G3	S3	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
subtle orache *Atriplex subtilis*	PDCHE042T0	None	None	G1	S1	1B.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S4	
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	AMAFD03152	Endangered	Endangered	G3T1T2	S2	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G1G2	S2	SSC
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T3	S3	
Valley Sacaton Grassland *Valley Sacaton Grassland*	CTT42120CA	None	None	G1	S1.1	
Valley Sink Scrub *Valley Sink Scrub*	CTT36210CA	None	None	G1	S1.1	
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp *Lepidurus packardi*	ICBRA10010	Endangered	None	G3	S3	
western pond turtle *Emys marmorata*	ARAAD02030	Proposed Threatened	None	G3G4	S3	SSC
western ridged mussel *Gonidea angulata*	IMBIV19010	None	None	G3	S2	
western snowy plover *Charadrius nivosus nivosus*	ABNNB03031	Threatened	None	G3T3	S3	SSC
western spadefoot *Spea hammondii*	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
yellow-headed blackbird *Xanthocephalus xanthocephalus*	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 31

Appendix C. CNPS plant list.

CNPS Rare Plant Inventory

Search Results

12 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [1A:1B:2A:2B:3:4] , Quad is one of [3611936:3611945:3611926:3611946:3611937:3611935:3611947:3611927:3611925]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Atriplex cordulata var. *cordulata*	heartscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G3T2	S2	1B.2	Yes	1988-01-01	 © 1994 Robert E. Preston, Ph.D.
Atriplex cordulata var. *erecticaulis*	Earlimart orache	Chenopodiaceae	annual herb	Aug-Sep(Nov)	None	None	G3T1	S1	1B.2	Yes	2001-01-01	 © 2009 Robert E. Preston, Ph.D.
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G2	S2	1B.2	Yes	1994-01-01	 © 2009 Zoya Akulova
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	None	None	G2	S2	1B.1	Yes	1994-01-01	 © 2000 Robert E. Preston, Ph.D.
Atriplex subtilis	subtle orache	Chenopodiaceae	annual herb	(Apr)Jun-Sep(Oct)	None	None	G1	S1	1B.2	Yes	1994-01-01	 © 2000 Robert E. Preston, Ph.D.

Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	None	None	G2?	S2?	1B.2	Yes	1988-01-01	No Photo Available
Lasthenia chrysantha	alkali-sink goldfields	Asteraceae	annual herb	Feb-Apr	None	None	G2	S2	1B.1	Yes	2019-09-30	 © 2009 California State University, Stanislaus
Lasthenia ferrisiae	Ferris' goldfields	Asteraceae	annual herb	Feb-May	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2009 Zoya Akulova
Lepidium jaredii ssp. *album*	Panoche pepper-grass	Brassicaceae	annual herb	Feb-Jun	None	None	G2G3T2T3	S2S3	1B.2	Yes	1994-01-01	 © 2015 Debra L. Cook
Nama stenocarpa	mud nama	Namaceae	annual/perennial herb	Jan-Jul	None	None	G4G5	S1S2	2B.2		1994-01-01	No Photo Available
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	None	None	G2	S2	1B.2		2015-10-15	 © 2017 Chris Winchell
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook

Showing 1 to 12 of 12 entries

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Appendix D. Recommended timing and methodology for Swainson's hawk nesting surveys in California's Central Valley.

RECOMMENDED TIMING AND METHODOLOGY FOR SWAINSON'S HAWK NESTING SURVEYS IN CALIFORNIA'S CENTRAL VALLEY

Swainson's Hawk Technical Advisory Committee

May 31, 2000

This set of survey recommendations was developed by the Swainson's Hawk Technical Advisory Committee (TAC) to maximize the potential for locating nesting Swainson's hawks, and thus reducing the potential for nest failures as a result of project activities/disturbances. The combination of appropriate surveys, risk analysis, and monitoring has been determined to be very effective in reducing the potential for project-induced nest failures. As with most species, when the surveyor is in the right place at the right time, Swainson's hawks may be easy to observe; but some nest sites may be very difficult to locate, and even the most experienced surveyors have missed nests, nesting pairs, mis-identified a hawk in a nest, or believed incorrectly that a nest had failed. There is no substitute for specific Swainson's hawk survey experience and acquiring the correct search image.

METHODOLOGY

Surveys should be conducted in a manner that maximizes the potential to observe the adult Swainson's hawks, as well as the nest/chicks second. To meet the California Department of Fish and Game's (CDFG) recommendations for mitigation and protection of Swainson's hawks, surveys should be conducted for a ½ mile radius around all project activities, and if active nesting is identified within the ½ mile radius, consultation is required. In general, the TAC recommends this approach as well.

Minimum Equipment

Minimum survey equipment includes a high-quality pair of binoculars and a high quality spotting scope. Surveying even the smallest project area will take hours, and poor optics often result in eye-strain and difficulty distinguishing details in vegetation and subject birds. Other equipment includes good maps, GPS units, flagging, and notebooks.

Walking vs Driving

Driving (car or boat) or "windshield surveys" are usually preferred to walking if an adequate roadway is available through or around the project site. While driving, the observer can typically approach much closer to a hawk without causing it to fly. Although it might appear that a flying bird is more visible, they often fly away from the observer using trees as screens; and it is difficult to determine from where a flying bird came. Walking surveys are useful in locating a nest after a nest territory is identified, or when driving is not an option.

Angle and Distance to the Tree

Surveying subject trees from multiple angles will greatly increase the observer's chance of detecting a nest or hawk, especially after trees are fully leafed and when surveying multiple trees

in close proximity. When surveying from an access road, survey in both directions. Maintaining a distance of 50 meters to 200 meters from subject trees is optimal for observing perched and flying hawks without greatly reducing the chance of detecting a nest/young: Once a nesting territory is identified, a closer inspection may be required to locate the nest.

Speed
Travel at a speed that allows for a thorough inspection of a potential nest site. Survey speeds should not exceed 5 miles per hour to the greatest extent possible. If the surveyor must travel faster than 5 miles per hour, stop frequently to scan subject trees.

Visual and Aural Ques
Surveys will be focused on both observations and vocalizations. Observations of nests, perched adults, displaying adults, and chicks during the nesting season are all indicators of nesting Swainson's hawks. In addition, vocalizations are extremely helpful in locating nesting territories. Vocal communication between. hawks is frequent during territorial displays; during courtship and mating; through the nesting period as mates notify each other that food is available or that a threat exists; and as older chicks and fledglings beg for food.

Distractions
Minimize distractions while surveying. Although two pairs of eyes may be better than one pair at times, conversation may limit focus. Radios should be off, not only are they distracting, they may cover a hawk's call.

Notes and Species Observed
Take thorough field notes. Detailed notes and maps of the location of observed Swainson's hawk nests are essential for filling gaps in the Natural Diversity Data Base; please report all observed nest sites. Also document the occurrence of nesting great homed owls, red-tailed hawks, red-shouldered hawks and other potentially competitive species. These species will infrequently nest within 100 yards of each other, so the presence of one species will not necessarily exclude another.

TIMING

To meet **the minimum level** of protection for the species, surveys should be completed for **at least** the two survey periods immediately prior to a project's initiation. For example, if a project is scheduled to begin on June 20, you should complete 3 surveys in Period III and 3 surveys in Period V. However, it is always recommended that surveys be completed in Periods II, III and V. **Surveys should not be conducted in Period IV.**

The survey periods are defined by the timing of migration, courtship, and nesting in a "typical" year for the majority of Swainson's hawks from San Joaquin County to Northern Yolo County. Dates should be adjusted in consideration of early and late nesting seasons, and geographic differences (northern nesters tend to nest slightly later, etc). If you are not sure, contact a TAC member or CDFG biologist.

Survey dates **Justification and search image**	**Survey time**	**Number of Surveys**
I. *January-March 20 (recommended optional)*	*All day*	*1*

Prior to Swainson's hawks returning, it may be helpful to survey the project site to determine potential nest locations. Most nests are easily observed from relatively long distances, giving the surveyor the opportunity to identify potential nest sites, as well as becoming familiar with the project area. It also gives the surveyor the opportunity to locate and map competing species nest sites such as great homed owls from February on, and red-tailed hawks from March on. After March 1, surveyors are likely to observe Swainson's hawks staging in traditional nest territories.

II. *March 20 to April 5*	*Sunrise to 1000* *1600 to sunset*	*3*

Most Central Valley Swainson's hawks return by April 1, and immediately begin occupying their traditional nest territories. For those few that do not return by April 1, there are often hawks ("floaters") that act as place-holders in traditional nest sites; they are birds that do not have mates, but temporarily attach themselves to traditional territories and/or one of the site's "owners." Floaters are usually displaced by the territories' owner(s) if the owner returns.

Most trees are leafless and are relatively transparent; it is easy to observe old nests, staging birds, and competing species. The hawks are usually in their territories during the survey hours, but typically soaring and foraging in the mid-day hours. Swainson's hawks may often be observed involved in territorial and courtship displays, and circling the nest territory. Potential nest sites identified by the observation of staging Swainson's hawks will usually be active territories during that season, although the pair may not successfully nest/reproduce that year.

III. *April 5 to April 20*	*Sunrise to 1200* *1630 to Sunset*	***3***

Although trees are much less transparent at this time, 'activity at the nest site increases significantly. Both males and females are actively nest building, visiting their selected site frequently. Territorial and courtship displays are increased, as is copulation. The birds tend to vocalize often, and nest locations are most easily identified. This period may require a great deal of "sit and watch" surveying.

IV. *April 21 to June 10*	*Monitoring known nest sites only* ***Initiating Surveys is not recommended***	

Nests are extremely difficult to locate this time of year, and even the most experienced surveyor will miss them, especially if the previous surveys have not been done. During this phase of nesting, the female Swainson's hawk is in brood position, very low in the nest, laying eggs, incubating, or protecting the newly hatched and vulnerable chicks; her head may or may not be visible. Nests are often well-hidden, built into heavily vegetated sections of trees or in clumps of mistletoe, making them all but invisible. Trees are usually not viewable from all angles, which may make nest observation impossible.

Following the male to the nest may be the only method to locate it, and the male will spend hours away from the nest foraging, soaring, and will generally avoid drawing attention to the nest site. Even if the observer is fortunate enough to see a male returning with food for the female, if the female determines it is not safe she will not call the male in, and he will not approach the nest; this may happen if the observer, or others, are too close to the nest or if other threats, such as rival hawks, are apparent to the female or male.

V. ***June 10 to JuIy 30 (post-fledging)*** ***Sunrise to 1200*** ***3***
1600 to sunset

Young are active and visible, and relatively safe without parental protection. Both adults make numerous trips to the nest and are often soaring above, or perched near or on the nest tree. The location and construction of the nest may still limit visibility of the nest, young, ‘and adults.

DETERMINING A PROJECT'S POTENTIAL
FOR IMPACTING SWAINSON'S HAWKS

LEVEL OF RISK	REPRODUCTIVE SUCCESS (Individuals)	LONGTERM SURVIVABILITY (Population)	NORMAL SITE CHARACTERISTICS (Daily Average)	NEST MONI-TORING
HIGH	Direct physical contact with the nest tree while the birds are on eggs or protecting young. (Helicopters in close proximity)	Loss of available foraging area.	Little human-created noise, little human use: nest is well away from dwellings, equipment yards, human access areas, etc. *Do not include general cultivation practices in evaluation.*	**MORE**
		Loss of nest trees.		
	Loss of nest tree after nest building is begun prior to laying eggs.	Loss of potential nest trees.		
	Personnel within 50 yards of nest tree (out of vehicles) for extended periods while birds are on eggs or protecting young that are < 10 days old.	Cumulative: Multi-year, multi-site projects with substantial noise/personnel disturbance.		
	Initiating construction activities (machinery and personnel) within 200 yards of the nest after eggs are laid and before young are > 10 days old.	Cumulative: Single-season projects with substantial noise/personnel disturbance that is greater than or significantly different from the daily norm.		
	Heavy machinery only working within 50 yards of nest.		Substantial human-created noise and occurrence: nest is near roadways, well-used waterways, active airstrips, areas that have high human use. *Do not include general cultivation practices in evaluation.*	
	Initiating construction activities within 200 yards of nest before nest building begins or after young > 10 days old.	Cumulative: Single-season projects with activities that "blend" well with site's "normal' activities.		
LOW	All project activities (personnel and machinery) greater than 200 yards from nest.			**LESS**

Appendix B

CHRIS Cultural Resources Records Search

A
PHASE I CULTURAL RESOURCE SURVEY
FOR PROPERTY LOCATED AT FARGO AND 12TH AVENUES,
CITY OF HANFORD, CALIFORNIA

Submitted to:

Crawford and Bowen Planning, Inc.
113 N. Church Street, Suite #302
Visalia, California 93291

Keywords:
Hanford 7.5' Quadrangle, City of Hanford,
California Environmental Quality Act

Submitted by:
Hudlow Cultural Resource Associates
1405 Sutter Lane
Bakersfield, California 93309

Author:
Scott M. Hudlow

June 2024

Management Summary

At the request of Crawford and Bowen Planning, Inc., a Phase I Cultural Resource Survey was conducted on an approximate 140-acre parcel, located at the northwest corner of Fargo and 12th Avenues in the City of Hanford, California. The Phase I Cultural Resource Survey consisted of an archaeological survey and a cultural resource record search.

No cultural resources were identified. No further work is required. If archaeological resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

If human remains or potential human remains are observed during construction, work in the vicinity of the remains will cease, and they will be treated in accordance with the provisions of State Health and Safety Code Section 7050.5. The protection of human remains follows California Public Resources Codes, Sections 5097.94, 5097.98, and 5097.99.

Table of Contents

Management Summary 2

Table of Contents 3

List of Figures 3

1.0 Introduction 4

2.0 Project Location 5

3.0 Record Search 5

4.0 Environmental Background 6

5.0 Prehistoric Archaeological Context 6

6.0 Ethnographic Background 8

7.0 Historic Context. 12

8.0 Field Procedures and Methods. 13

9.0 Report of Archaeological Findings. 13

10.0 Management Recommendations 13

11.0 References 14

Appendix I 17

Appendix II 21

List of Figures

1 Project Area Location Map 7

2 Project Area, View to the Southeast 9

3 Project Area, Interior of the Orchard, View to the South 10

4 Project Area, View to the Northwest 10

1.0 Introduction

At the request of Crawford and Bowen Planning, *Hudlow Cultural Resource Associates* conducted a Phase I Cultural Resource Survey in accordance with the California Environmental Quality Act for a proposed single-family residential development for San Joaquin Valley Homes. The approximate 140-acre tract lies at the northwest corner of Fargo and 12th Avenues Dairy in the City of Hanford, California. This project is being undertaken in accordance with the California Environmental Quality Act (CEQA) with the City of Hanford responsible as Lead Agency to implement CEQA. The Phase I Cultural Resource Survey consisted of a pedestrian survey and a cultural resource record search.

CEQA is a California statute passed in 1970. Governor Ronald Reagan signed it into law, after the federal government passed the National Environmental Policy Act (NEPA). CEQA institutes a statewide policy of environmental protection. CEQA does not directly regulate land uses, but instead requires state and local agencies within California to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects and, in a departure from NEPA, adopt all feasible measures to mitigate those impacts. CEQA makes environmental protection a mandatory part of every California state and local agency's decision making process.

CEQA was signed into law in 1970, in a time of increasing public concern for the environment. The statute required that for any public project, the government must conduct an environmental study to examine what impacts the project might have on things like air/water quality, noise, transportation, biological resources, or cultural resources, and generate an Environmental Impact Report (EIR) documenting the impacts as well as any potential and planned mitigations. In 1972, state courts interpreted a public project as a development project that needed government approval.

In 1969, NEPA passed into law. It is similar to CEQA in that both statutes set forth a policy of environmental protection, and a protocol by which all agencies in their respective jurisdictions make environmental protection part of their decision making process. NEPA is narrower in scope than CEQA. NEPA applies only to projects receiving federal funding or approval by federal agencies, while CEQA applies to projects receiving any form of state or local approval, permit, or oversight. Thus, development projects in California funded only by private sources and not requiring approval by a federal agency would be exempt from NEPA; but would likely be subject to CEQA.

The CEQA statute, California Public Resources Code § 21000 et seq., codifies a statewide policy of environmental protection. According to CEQA, state and local agencies must give consideration to environmental protection

in regulating public and private activities and should not approve projects for which feasible and environmentally superior mitigation measures or alternatives exist.

CEQA mandates actions that all state and local agencies must do to advance this policy. Specifically, for any project under CEQA's jurisdiction with potentially significant environmental impacts, agencies must identify mitigation measures and alternatives by preparing an Environmental Impact Report and must approve projects with feasible mitigation measures and the environmentally superior alternative. The California Natural Resources Agency promulgates the CEQA Guidelines, California Code of Regulations Title 14 § 15000 et seq., which detail the protocol by which state and local agencies must comply with CEQA requirements. CEQA originally applied to only public projects, but California Supreme Court interpretation of the statute, as well as later revisions, expanded CEQA's jurisdiction to nearly all projects within California, including those proposed by private businesses and individuals. § 21002.1 states "Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so." For private projects, CEQA applies when a discretionary government permit or other entitlement for use is necessary.

The lead agency, the City of Hanford, is responsible for conducting the CEQA review and has final approval of the project. The City of Hanford is also responsible for coordinating with the project applicant, public, and associated agencies during the CEQA process.

2.0 Project Location

The project area is in the City of Hanford, California. It is a majority of the SE ¼ of Section 15, T.21S., R.18E., Mount Diablo Baseline and Meridian, as displayed on the United States Geological Survey (USGS) Hanford 7.5-minute quadrangle map (Figure 1). The proposed single-family residential development is located at the northwest corner of 12th and Fargo Avenues, in the City of Hanford, California.

3.0 Record Search

A record search of the project area and the environs within one half-mile was conducted at the Southern San Joaquin Valley Information Center. Scott M. Hudlow conducted the record search, RS# 24-224, on May 14, 2024. The record search revealed that two cultural resource surveys have been conducted within one half-mile of the project area. No previous surveys have addressed the parcel in question. Two cultural resources are located within one half-mile of the current project area, both are canals (Appendix II). No cultural resources have previously identified within the current project area.

4.0 Environmental Background

The project area is located at elevations between 200 and 205 feet above mean sea level in the Great Central Valley, which is composed of two valleys-the Sacramento Valley and the San Joaquin Valley. The parcel is located south of the Kings River. The project area is a walnut orchard, comprising three separate blocks. No native vegetation survives (Figures 2-4).

5.0 Prehistoric Archaeological Context

A limited amount of archaeological research has been conducted in the southern San Joaquin Valley. Thus, consensus on a generally agreed upon regional cultural chronology has yet to be developed. Most cultural sequences can be summarized into several distinct time periods: Early, Middle, and Late. Sequences differ in their inclusion of various "horizons," "technologies," or "stages." A prehistoric archaeological summary of the southern San Joaquin Valley is available in Moratto (Moratto 1984).

Despite the preoccupation with chronological issues in most of the previous research, most suggested chronological sequences are borrowed from other regions with minor modifications based on sparse local data.

The following chronology is based on Parr and Osborne's Paleo-Indian, Proto-Archaic, Archaic, Post-Archaic periods (Parr and Osborne 1992:44-47). Most existing chronologies focus on stylistic changes of time-sensitive artifacts such as projectile points and beads rather than addressing the socioeconomic factors, which produced the myriad variations. In doing so, these attempts have encountered similar difficulties. These cultural changes are implied as environmentally determined, rather than economically driven.

Paleo-Indians, whom roamed the region approximately 12,000 years ago, were highly mobile individuals. Their subsistence is assumed to have been primarily big game, which was more plentiful 12,000 years ago than in the late twentieth century. However, in the Great Basin and California, Paleo people were also foragers who exploited a wide range of resources. Berries, seeds, and small game were also consumed. Their technology was portable, including manos (Parr and Osborne 1992:44). The paleo period is characterized by fluted Clovis and Folsom points, which have been identified throughout North America. The Tulare Lake region in Kings County has yielded several Paleo-Indian sites, which have included fluted points, scrapers, chipped crescents, and Lake Mojave-type points (Morratto 1984:81-2).

The Proto-Archaic period, which dates from approximately 11,000 to 8,000 years ago, was characterized by a reduction in mobility and conversely an increase in sedentism. This period is classified as the Western Pluvial Lake Tradition or the Proto-Archaic, of which the San Dieguito complex is a major aspect (Moratto 1984: 90-99; Warren 1967). An archaeological site along Buena

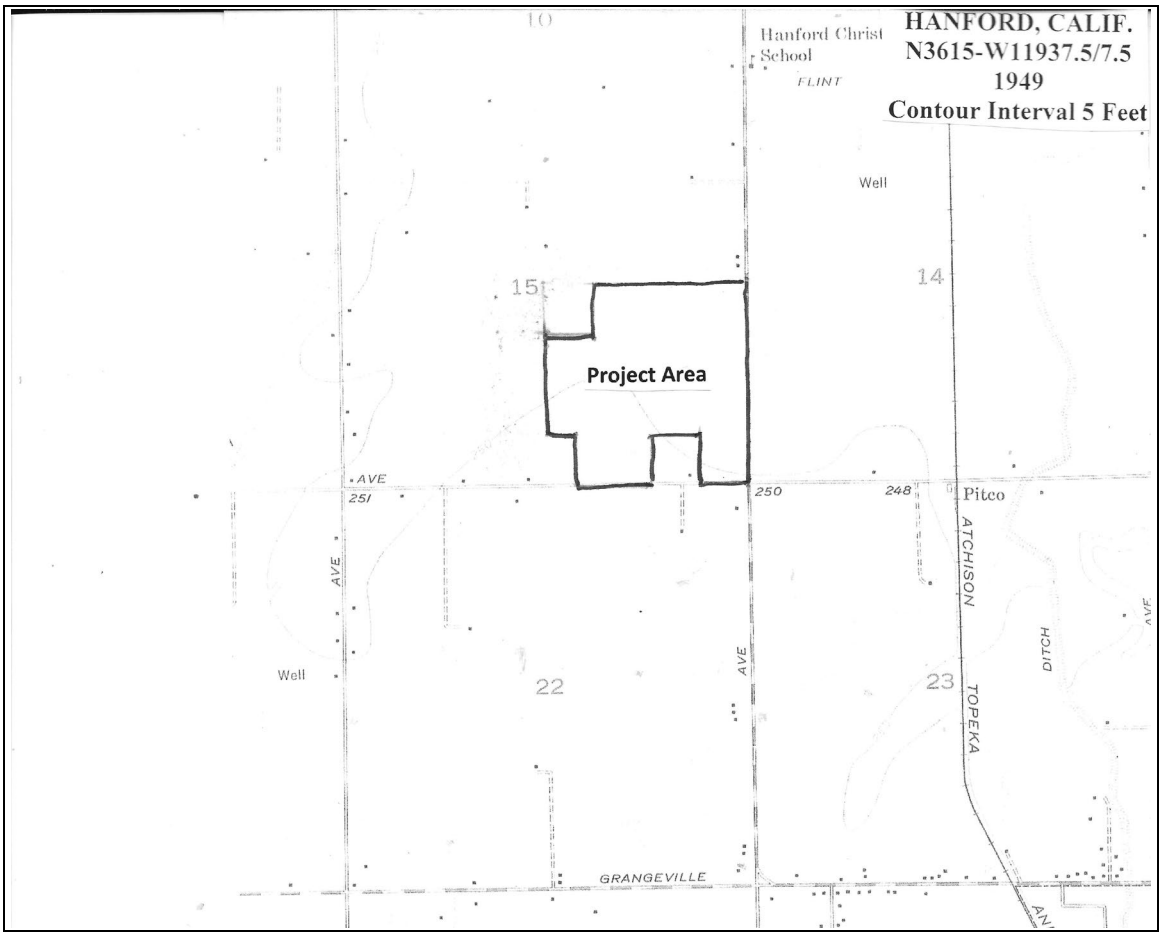

Figure 1
Project Area Location Map

Vista Lake in southwestern Kern County displays a similar assemblage to the San Dieguito type site. Claude Warren proposes that a majority of Proto-Archaic southern California could be culturally classified as the San Dieguito Complex (Warren 1967). The Buena Vista Lake site yielded manos, millingstones, large stemmed and foliate points, a mortar, and red ochre. During this period, subsistence patterns began to change. Hunting focused on smaller game and plant collecting became more integral. Large stemmed, lancelote (foliate) projectile points represents lithic technology. Millingstones become more prevalent. The increased sedentism possibly began to create regional stylistic and cultural differences not evident in the paleo period.

The Archaic period persisted in California for the next 4000 years. In 1959, Warren and McKusiak proposed a three-phase chronological sequence based on a small sample of burial data for the Archaic period (Moratto 1984:189; Parr and Osborne 1992:47). It is distinguished by increased sedentism and extensive seed and plant exploitation. Millingstones, shaped through use, were abundant. Bedrock manos and metates were the most prevalent types of millingstones (Parr and Osborne 1992:45). The central valley began to develop distinct cultural variations, which can be distinguished by different regions throughout the valley, including Madera County.

In the Post-Archaic period enormous cultural variations began manifesting themselves throughout the entire San Joaquin Valley. This period extends into the contact period in the seventeenth, eighteenth and nineteenth centuries. Sedentary village life was emblematic of the Post-Archaic period, although hunting and gathering continued as the primary subsistence strategy. Agriculture was absent in California, partially due to the dense, predictable, and easily exploitable natural resources. The ancestral Yokuts have possibly been in the valley for the last three thousand years, and by the eighteenth century were the largest pre-contact population, approximately 40,000 individuals, in California (Moratto 1984).

6.0 Ethnographic Background

The Yokuts are a Penutian-speaking, non-political cultural group. Penutian speakers inhabited the San Joaquin Valley, the Bay Area, and the central Sierra Nevada Mountains. The Yokuts are split into three major groups, the Northern Valley Yokuts, the Southern Valley Yokuts, and the Foothill Yokuts.

The southern San Joaquin Valley in the Hanford area was home to the Yokuts tribelet, Tachi. The tribelet had approximately 550 people, had a special name for themselves, and spoke a unique dialect of Yokuts. Land was owned, collectively, and every group member enjoyed the right to utilize food resources. The Tachi occupied the area surrounding the now-extinct Tulare Lake (Latta 1999).

The Southern Valley Yokuts had a mixed economy emphasizing fishing, hunting, fowling, and collecting shellfish, roots, and seeds. Fish were the most

Figure 2
Project Area, View to the Southeast

prevalent resource and was a productive activity throughout the entire year. Fish were caught in many different manners, including nets, conical basket traps, catching with bare hands, shooting with bows and arrows, and stunning fish with mild floral toxins. Geese, ducks, mud hens and other waterfowl were caught in snares, long-handled nets, stuffed decoys, and brushing brush to trick the birds to fly low into waiting hunters. Mussels were gathered and steamed on beds of tule. Turtles and dogs were consumed (Wallace 1978:449-450).

Wild seeds and roots provided a large portion of the Yokuts' diet. Tule seeds, grass seeds, fiddleneck, alfilaria were also consumed. Acorns, the staple crop for many California native cultures, were not common in the San Joaquin Valley. Acorns were traded into the area. Land mammals, such as rabbits, ground squirrels, antelope and tule elk, were not taken often (Wallace 1978:450).

The Yokuts occupied permanent structures in permanent villages for most of the year. During the late and early summer, families left for several months to gather seeds and plant foods, shifting camp locations when changing crops. Several different types of fiber-covered structures were common in Yokuts settlements. The largest was a communal tule mat-covered, wedge-shaped

Figure 3
Project Area, Interior of the Orchard, View to the South

structure, which could house upward of ten individuals. These structures were established in a row, with the village chief's house in the middle and his messenger's houses were located at the ends of the house row. Dance houses and assembly buildings were located outside the village living area (Nabokov and Easton 1989:301).

The Yokuts also built smaller, oval, single-family tule dwellings. These houses were covered with tall mohya stalks or with sewn tule mats. Bent-pole ribs that met a ridgepole held by two crotched poles framed these small houses. The Yokuts also built a cone-shaped dwelling, which was framed with poles tied together with a hoop and then covered with tule or grass. These cone-shaped dwellings were large enough to contain multiple fireplaces

Figure 4
Project Area, View to the Northwest

(Nabokov and Easton 1989:301). Other structures included mat-covered granaries for storing food supplies, and a dirt-covered, communally owned sweathouse.

Clothing was minimal, men wore a breechclout or were naked. Women wore a narrow-fringed apron. Cold temperatures brought out rabbitskin or mud hen blankets. Moccasins were worn in certain places; however, most people went barefoot. Men wore no head coverings, but women wore basketry caps when they carried burden baskets on their heads. Hair was worn long. Women wore tattoos from the corners of the mouth to the chin; both men and women had ear and nose piercings. Bone, wood or shell ornaments were inserted (Wallace 1978:450-451).

Tule dominated the Yokut's material culture. It was used for many purposes, including sleeping mats, wall coverings, cradles, and basketry. Ceramics are uncommon to Yokuts culture as is true throughout most California native cultures. Basketry was common to Yokuts culture. Yokuts made cooking containers, conical burden baskets, flat winnowing trays, seed beaters, and necked water bottles. Yokuts also manufactured wooden digging sticks, fire drills, mush stirrers, and sinew-backed bows. Knives, projectile points, and

scraping tools were chipped from imported lithic materials including obsidian, chert, and chalcedony. Stone mortars and pestles were secured in trade. Cordage was manufactured from milkweed fibers, animal skins were tanned, and awls were made from bone. Marine shells, particularly olivella shells, were used in the manufacture of money and articles of personal adornment. Shells were acquired from the Chumash along the coast (Wallace 1978:451-453).

The basic social and economic unit was the nuclear family. Lineages were organized along patrilineal lines. Yokuts fathers transmitted totems, particular to each paternal lineage, to each of his children. The totem was an animal or bird that no member would kill or eat and that was dreamed of and prayed to. The mother's totem was not passed to her offspring; but was treated with respect. Families sharing the same totem formed an exogamous lineage. The lineage had no formal leader nor did it own land. The lineage was a mechanism for transmitting offices and performing ceremonial functions. The lineages formed two moieties, East and West, which consisted of several different lineages. Moieties were customarily exogamous. Children followed the paternal moiety. Certain official positions within the villages were associated with certain totems. The most important was the Eagle lineage from which the village chief was appointed. A member of the Dove lineage acted as the chief's assistant. He supervised food distribution and gave commands during ceremonies. Another hereditary position was common to the Magpie lineage, was that of spokesman or crier.

7.0 Historical Overview

Kings County was formed from Fresno County in 1893; however, it was settled in the 1850s, soon after California joined the United States after the passage of the Compromise of 1850. The Compromise of 1850 allowed California to join the Union as a free state even though a major portion of the state lied beneath the Missouri Compromise line; and was potentially subject to southern settlement and slavery. Americans had long been visiting and working in California prior to the admission of California into the Union.

The European settlement of California began in 1769, after the Spanish moved north from Baja California into Alta California. Father Junipero Serra, a Franciscan friar founded Mission San Diego de Alcala, beginning California active European settlement. However, Spanish mission efforts were focused on California's coastal regions. Spanish exploration of the San Joaquin Valley region begins in the 1770s. In 1772, Pedro Fages arrived in the San Joaquin Valley searching for army deserters. Father Francisco Garces, a Franciscan priest, soon visited the vicinity in 1776. The Spanish empire collapsed in 1820; Spain's former Central and South American colonies became independent nations. As a result, California became Mexican territory. California stayed in Mexican hands until the Mexican-American War. Mexican California remained a coastal society with little interest in settling in California's hot, dry interior valleys.

American exploration of the San Joaquin Valley begins in the 1820s with Jedediah Smith, Kit Carson, and Joseph Walker looking for commercial opportunities. The United States government began exploring California in the 1830s. Soon, the Americans will be searching for intercontinental railroad routes to link the eastern and western halves of the continent.

The defeat of the Mexicans during the Mexican-American War and the subsequent discovery of gold will drastically alter the complicated political realities of the west. The Mexican-American War was ostensible fought to settle a boundary dispute with the Mexicans over the western boundary of the newly-annexed state of Texas, which had fought a successful rebellion against the Mexican Army in the mid-1830s. The Republic of Texas was an independent country for nine years until Texas was annexed by the United States in 1845. One major outcome of the Mexican-American War was that Mexico rescinded its claims to much of the American southwest. In 1848 these territories were folded into the United States, including California.

In January 1848, the discovery of gold in Coloma, California changed the settlement of California, forever. In the summer of 1848, when the gold strike was publicly announced, the overnight settlement of California began. The Mexican population of California was small and limited to the coasts and a few of southern California's interior valleys. A sizable native population settled the remainder of California; Fresno County was Yokuts territory. The Gold Rush tipped the balance of native communities throughout California, as many of California's natives were decimated.

In 1856, Fresno County was created from the northern half of Tulare County. The original county seat was at Millerton. The west side of Fresno County was largely the northern half of Tulare Lake, which no longer exists, due to farming and damming of the rivers, which fed the lake. Settlement of the western portion of Fresno County was abetted by the arrival of the Southern Pacific (SP) Railroad in 1877. The Southern Pacific was originally built from San Francisco to Bakersfield. The Hanford townsite was named for the SP paymaster, James Madison Hanford, who was originally from New York. Hanford made his way to California during the Gold Rush. The city of Hanford was oriented along the rail line. Hanford was incorporated in 1891; and became the county seat of Kings County in 1893.

Hanford sits at the center of a rich agricultural region, farming the former Tulare Lake basin and the region. Farmers and cattle ranchers settled the valley. Wheat was originally the major agricultural crop. H.G. Lacey built an early flour processing mill in Hanford. Cattle ranchers and shepherds grazed their animals throughout the region until 1903, when the laws changed.

8.0 Field Procedures and Methods

Between June 2 and 5, 2024, Scott M. Hudlow (for qualifications see Appendix I) conducted a pedestrian archaeological survey of the entire

proposed project area. Hudlow surveyed in both east/west and north/south transects across the entire lot in 15-meter (33 feet) intervals depending on the field patterns.

9.0 Report of Archaeological Findings

No cultural resources were identified.

10.0 Management Recommendations

At the request of Crawford and Bowen Planning, Inc., a Phase I Cultural Resource Survey was conducted on an approximate 140-acre parcel, located at the northwest corner of Fargo and 12th Avenues in the City of Hanford, California. The Phase I Cultural Resource Survey consisted of an archaeological survey and a cultural resource record search.

No cultural resources were identified. No further work is required. If archaeological resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

If human remains or potential human remains are observed during construction, work in the vicinity of the remains will cease, and they will be treated in accordance with the provisions of State Health and Safety Code Section 7050.5. The protection of human remains follows California Public Resources Codes, Sections 5097.94, 5097.98, and 5097.99.

11.0 References

Latta, Frank F.
1999 *Handbook of Yokuts Indians*. Coyote Press, Salinas, California.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press, Orlando, Florida.

Nabokov, Peter and Robert Easton
1989 *Native American Architecture*. Oxford University Press, New York, New York.

Parr, Robert E. and Richard Osborne
1992 *Route Adoption Study for Highway 58, Kern County, California.* Report on file, Southern San Joaquin Archaeological Information Center, California State University, Bakersfield, Bakersfield, California.

Wallace, William J.
1978 "Southern Valley Yokuts" in *Handbook of North American Indians*. Vol. 8, California, Robert F. Heizer, ed. Washington, D.C.: Smithsonian Institution, pp. 437-445.

Warren, Claude N. and M. B. McKusiak
1959 A Burial Complex from the southern San Joaquin Valley. Los Angeles: *University of California, Los Angeles, Archaeological Survey Annual Report, 1959*: 17-26.

Warren, Claude N.
1967 "The San Dieguito Complex: A Review and Hypothesis" *American Antiquity* 32(2): 168-185.

Appendix I

Scott M. Hudlow
1405 Sutter Lane
Bakersfield, California 93309
(661) 834-9183

Education

The George Washington University
M.A. American Studies, 1993
Specialization in Historical Archaeology
and Architectural History

University of California, Berkeley
B.A. History, 1987
B.A. Anthropology, 1987
Specialization in Historical Archaeology
and Colonial History

Public Service

3/94-12/02 *Historic Preservation Commission.* City of Bakersfield, Bakersfield, California 93305.

7/97-12/01 *Newsletter Editor. California History Action,* newsletter for the California Council for the Promotion of History.

Relevant Work Experience

8/96- *Adjutant Faculty.* Bakersfield College, 1801 Panorama Drive, Bakersfield, California, 93305. Teach History 17A, Introduction to American History and Anthropology 5, Introduction to North American Indians.

Owner, Sole Proprietorship. Hudlow Cultural Resource Associates. 1405 Sutter Lane, Bakersfield California 93309. Operate small cultural resource management business. Manage contracts, respond to RFP's, bill clients, manage temporary employees. Conduct Phase I archaeological and architectural surveys for private and public clients; including the cultural resource survey, documentary photography, measured drawings, mapping of structures, filing of survey forms, historic research, assessing impact and writing reports. Evaluated archaeological and architectural sites and properties in lieu of their eligibility for the National Register of Historic Places in association with Section 106 and 110 requirements of the National Historic Preservation Act of 1966 and CEQA (California Environmental Quality Act).

Full resume is available upon request.

Appendix II

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KI-00016	NADB-R - 1141357	1977	Davis, Alan	Assessment of Archaeological Resources for the Proposed Installation of Collection Systems in Corcoran, California	California State University, Fresno	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-16-000128	CA-KIN-000191H	Resource Name - CRM TECH 675-6H; Last Chance Ditch	Structure	Historic	HP20	2001 (Bai "Tom" Tang, Daniel Ballester, CRM Tech); 2017 (Jessica Jones, Applied EarthWorks, Inc)	KI-00109, KI-00310
P-16-000246	CA-KIN-000097H	Other - JKI-002, CRM TECH 675-5H, CRM TECH 607-8H; Resource Name - People's Ditch; OTIS Resource Number - 666092	Structure	Historic	HP20	2001 (Bai "Tom" Tang, Daniel Ballester, CRM TECH); 2001 (Bai "Tom" Tang, Daniel Ballester, CRM TECH); 2009 (Joseph Freeman, Jarma Jones, JRP Historical Consulting, LLC); 2017 (Jessica Jones, Applied EarthWorks, Inc.); 2019 (R. Azpitarte, ASM Affiliates, Inc.)	KI-00196, KI-00310, KI-00334

Appendix C

Water Supply Assessment

City of Hanford

WATER SUPPLY ASSESSMENT

FOR

SAN JOAQUIN VALLEY HOMES - NEVES

DRAFT

June 2024

Prepared for:

CRAWFORD & BOWEN PLANNING, INC.

Prepared by:

AKEL ENGINEERING GROUP, INC.

AKEL
ENGINEERING GROUP, INC.

Smart Planning Our Water Resources

June 6, 2024

Crawford & Bowen Planning, Inc.
113 N. Church St, Suite 310
Visalia, CA 93291

Draft

Attention: Emily Bowen, LEED AP
Principle Environmental Planner

Subject: Water Supply Assessment for San Joaquin Valley Homes - Neves Development – Draft
(SB 610 Requirements)

Dear Emily:

We are pleased to submit this Water Supply Assessment (WSA) draft report for the San Joaquin Valley Homes - Neves Development. This report is intended to satisfy the requirements of SB 610 by evaluating the impact of this project on existing and future water supplies.

This report quantifies the project's water supply requirements, identifies the potential impact on the City's supply availability, includes discussions on the supply reliability, and provides supply vs. demand comparisons, along with conclusions on supply availability to meet the project. The report concludes that the City's total projected water supply availability during normal, single-dry, and multiple-dry water years will meet the projected water demand for the Project over the next 22 years (through 2045).

We are extending our thanks to you for the guidance and valuable input and reviews during the completion of this study.

Sincerely,

AKEL ENGINEERING GROUP, INC.

Tony Akel, P.E.
Principal

Enclosure: Report

City of Hanford
Water Supply Assessment
For San Joaquin Valley Homes – Neves Development

Table of Contents

Page No.

1.0 PURPOSE 1
2.0 PROJECT BACKGROUND 2
2.1 Project Description 2
2.2 Relevant Documentation 3
3.0 REQUIRED SB 610 DETERMINATIONS 4
3.1 SB 610 Determinations 4
3.2 SB 221 Determinations 4
3.3 Identified Public Water System 5
3.4 City of Hanford's UWMP and Proposed Project Demand 5
4.0 CITY OF HANFORD WATER SERVICE AREA 6
4.1 City of Hanford Service Area 6
4.2 Population 6
4.3 Climate 6
5.0 WATER DEMANDS 6
5.1 Water Duty Factor 6
5.1.1 2017 WSMP Water Duty Factor 6
5.1.2 Project's Water Duty Factor 7
5.2 Project's Water Demand 7
5.3 Estimated Demand Comparison 7
6.0 CITY OF HANFORD WATER SUPPLIES 7
6.1 City of Hanford Water Supply (Normal Year) 7
6.1.1 Groundwater 8
6.1.2 Wastewater and Recycled Water 9
6.1.3 Demand and Supply Comparison (Normal Year) 9
6.2 Drought Planning 9
6.2.1 Response to Climate Change 9
6.2.2 Water Supply (Dry-Years) 9
6.2.3 Demand and Supply Comparison (Dry Years) 10
6.2.4 Water Shortage Contingency Plan 10
7.0 SUMMARY 10

Tables

Table 1 Future Land Use Inventory
Table 2 Future Land Use Inventory in 5-year Increments
Table 3 Population - Current and Projected
Table 4 Average Climate Data
Table 5 Proposed Development and Projected Potable Water Demand
Table 6 Comparison of 2020 UWMP Demand and 2024 WSA Projected Demand at Buildout
Table 7 Future Water Demand Projections
Table 8 Future Water Supply Projections for Normal Year
Table 9 Normal Year Demand and Supply Comparison
Table 10 Single Dry Year Demand and Supply Comparison
Table 11 Multiple Dry Years Demand and Supply Comparison
Table 12 Water Shortage Plan Response Levels
Table 13 Demand Reduction Actions

Figures

Figure 1 Project Site
Figure 2 On-Site Land Use Plans
Figure 3 Groundwater Basins

Appendices

APPENDIX A – Vesting Tentative Subdivision Map Tract #944

Definitions and Abbreviations

af	acre-foot/feet
afy	acre-foot/feet per year
afy/ac	acre-foot/feet per year per acre
Akel	Akel Engineering Group, Inc.
CEQA	California Environmental Quality Act
City	City of Hanford
DWR	Department of Water Resources
EIR	Environmental Impact Report
SGMA	Sustainable Groundwater Management Act
GP	General Plan
gpcd	gallons per capita per day
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
KCWD	Kings County Water District
LIWD	Lakeside Irrigation Water District
MRP	Monitoring Report Programs
MKR	Mid-Kings River
ROW	Right of Way
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
sqft	square foot
UWMP	Urban Water Management Plan
WWTF	Wastewater Treatment Facility
WWTP	Wastewater Treatment Plant
WSMP	Water System Master Plan
WSA	Water Supply Assessment

1.0 PURPOSE

Law

10910 (a) *…Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.*

10912 (a)(5) *… "Project" means any of the following:*
(1) A proposed residential development of more than 500 dwelling units.
(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
(4) A proposed hotel or motel, or both, having more than 500 rooms.
(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
(6) A mixed-use project that includes one or more of the projects specified in this subdivision.
(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

SB 610 (2) *…The bill would require the assessment to include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts. The bill would require the city or county, if it is not able to identify any public water system that may supply water for the project, to prepare the water supply assessment after a prescribed consultation.*

This Water Supply Assessment (WSA) report is intended to satisfy the requirements of Water Senate Bill (SB) 610, which was adopted by the California State Legislature to address some of the uncertainties in the water supply and gain a more detailed understanding of the water availability for different projects.

The study objective of this WSA is the proposed San Joaquin Valley Homes – Neves Development within the City of Hanford (City). This WSA assesses the water supply sufficiency to the projected water demands by evaluating the impact of the development's water demands on the water supply through 2045, as stipulated in the SB 610 requirements.

Pursuant to the California Water Code Division 6, Part 2.10, Sections 10910-10915, any city or county, which has proposed larger developments or land use plans that are subject to California Environmental Quality Act (CEQA), is required to prepare a WSA to document potential environmental impacts of the projects.

The total area of the proposed development is estimated at 135.3 acres. Since the development's area exceeds 40 acres, it qualifies as a *Project* and requires a WSA pursuant to Sections 10912(a)(5). The WSA must be included in the environmental document addressing the potential environmental impacts of the project. To ensure project approval, the WSA must conclude that the supply of domestic water available to the development is adequate and will continue to be adequate over the next 20 years during normal, single-dry, and multiple-dry years.

This WSA is developed with the objective of aiding the City of Hanford in meeting the requirements of SB 610.

2.0 PROJECT BACKGROUND

The following section includes a description of the proposed San Joaquin Valley Homes – Neves Development (Project) as well as the relevant documentation.

2.1 Project Description

The Project is a proposed development of 135.3 acres, located in Kings County. The Project is bounded between Centennial Drive on the west and 12th Avenue on the east, just north of Fargo Avenue (**Figure 1**). The project site was included in the 2020 UWMP and was designed as a low-density residential land use type in the 2020 UWMP.

Based on the Project's vesting tentative map tract #944 provided by Crawford and Bowen Planning, Inc. in May 2024 (**Appendix A**), the Project has been identified as a low-density residential land use and was analyzed in this 2024 WSA. The Project site includes the development of 615 residential lots (77.4 acres), 24 landscape lots (2.7 acres), interior streets (37.5 acres), exterior streets (4.8 acres), a storm basin (5.9 acres), and a Park (7.1 acres) built over the course of four phases as shown on **Figure 2**. Four additional residential lots were added to phase IV based on the assumption from Crawford & Bowen Planning, Inc. on April 19th, 2024, which is noted in **Table 1**.

A 15-year buildout with construction beginning in 2030 is assumed by Akel Engineering Group, Inc, where Phase I will be completed between 2025 and 2030, Phase II between 2030 and 2035, and both Phase III and Phase IV between 2035 and 2040, as shown on **Table 2**.

2.2 Relevant Documentation

The City has either completed or participated in studies intended to document water supply sufficiency. This section documents the reports that were consulted during the preparation of this water supply assessment.

- Urban Water Management Plan 2020, October 2021 (2021 UWMP): This report includes a summary of Hanford's current water supply and demand conditions, water shortage contingency plan, and a detailed documentation of their future water supply and demand strategies for Hanford. The report also includes the recycled water discussion and future planning.

- 2017 Water System Master Plan, June 2017 (2017 WSMP): This plan is based on the City's 2017 General Plan. It documents the City's existing and future water use, projected water duty factors, water supply, and water infrastructure. It evaluates the City's water system and recommends capacity improvements necessary to service the needs of existing users and for servicing the future growth of the City.

- Tulare Lake Groundwater Sustainability Plan, January 2020 (2020 GSP): This plan documents the latest groundwater basins' prioritization, adjudication, and overdraft conditions. It allows for multiple groundwater sustainability agencies coordinating under this single agreement to conduct groundwater sustainability projects and actions that cover the entire groundwater basin (Water Code §10727). The Tulare Lake GSP was first written in January 2020 but was required to make further amendments and was resubmitted in July 2022. However, the state is requiring further amendments and has therefore placed the Tulare Lake GSP under probation.

- Sustainable Groundwater Management Act 2019 Basin Prioritization, May 2020 (2019 SGMA-BP): This map documents the latest groundwater basins' prioritization, adjudication, and overdraft conditions.

- 2035 General Plan Policy Document, April 2017 (2035 GP): This plan documents the City's 2035 future growth, the guiding framework for land uses, the policies of public services and urban design, and the approaches of sustainable development.

- 2020 Water Shortage Contingency Plan, October 2021 (2021 WSCP): This plan builds on previous water shortage contingency planning efforts. It includes shortage response actions for multiple stages as well as an emergency response plan in case of natural disasters.

3.0 REQUIRED SB 610 DETERMINATIONS

3.1 SB 610 Determinations

Water Code Sections 10910 and 10912 state:

> *10910(a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.*
>
> *10912(a) "Project" means any of the following:*
> *(1) A proposed residential development of more than 500 dwelling units.*
> *(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.*
> *(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.*
> *(4) A proposed hotel or motel, or both, having more than 500 rooms.*
> *(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.*
> *(6) A mixed-use project that includes one or more of the projects specified in this subdivision.*
> *(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.*

Based on the following assumptions, SB 610 does apply to the Proposed Project.

- The Proposed Project is subject to the California Environmental Quality Act (CEQA); therefore, an Environmental Impact Report (EIR) is required.

- The Proposed Project entails 135.3 acres, and therefore meets the definition of a "Project" as specified in Water Code Section 10912(a) section (5).

3.2 SB 221 Determinations

SB 221 amended State law in 2001 where approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. California Government Code Section 66473.7(a)(1) defines a subdivision as a proposed residential development of more than 500 dwelling units. The Proposed Project, with its proposed 615 residential dwelling units, is therefore subject to the requirements of SB 221. A verification of sufficient water supply (SB 221) report is required prior to construction.

3.3 Identified Public Water System

Water Code Sections 10910 and 10912 states:

> *10910(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined by Section 10912, that may supply water for the project.*
>
> *1012(c) "Public water system" means a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections…*

The Project is located just outside of the City's limits but will be entirely within the expected 2035 growth boundary once it is approved to be added to the city limits. Therefore, the City of Hanford is identified as the public water system for this project.

3.4 City of Hanford's UWMP and Proposed Project Demand

Water Code Section 10910 states:

> *10910(c)(1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).*

The City of Hanford adopted their 2020 UWMP on November 8, 2021, and adopted the City's 2035 General Plan in April 2017. The updated General Plan includes the City's future growth through the year 2035 with the guiding framework for land uses, the policies of public services and urban design, and the approaches of sustainable development.

The UWMP includes the City's future water demands for future developments within the existing city limits, as well as future developments within future service areas currently outside the existing city limits. The water demand projections follow SB X7-7 and were calculated by multiplying 179 gpcd and the projected population.

The projected water demand of the City is noted in the 2020 UWMP. The total water demand is estimated to be 11,623 afy in 2025 and increases to 13,982 afy in 2045. The proposed projected water demand of 275 afy is included in the City's 2020 UWMP (see Section 5).

4.0 CITY OF HANFORD WATER SERVICE AREA

4.1 City of Hanford Service Area

Figure 1 details the City of Hanford's city limits, 2035 growth boundary, and the City's planned area boundary. The City of Hanford's current limits encompass approximately 11,000 acres, and their planned limits by 2035 will encompass approximately 18,300 acres.

4.2 Population

A population of 61,326 people in the City of Hanford were served water in 2020 and this is expected to increase to 77,265 people by 2040 with an assumed 0.9% growth rate (Table 3). An increase in population is likely to impact the City's climate conditions.

4.3 Climate

The City of Hanford's climate plays a role in the amount of supply available. They have a dry and warm climate during the summers, while the winters are dry and cool. The maximum average temperature ranges from 97.8°F in July to 54.7 °F in January. The City of Hanford typically receives 8.4 inches of rain per year. Table 4 displays the historical average temperature (including high and low), with higher records during summer months, as well as the historical average precipitation values. Warmer months typically have lower precipitation values and require a higher water demand for landscapes.

5.0 WATER DEMANDS

This section includes a summary of the water duty factors, the City's water demand, the Project's water demand estimation, and the comparison of the estimated demand in the 2020 UWMP and this 2024 WSA.

5.1 Water Duty Factor

Domestic water duty factors are coefficients commonly used in the planning level analysis to estimate future average daily demands for predetermined land uses of a specific area. The water duty factor is multiplied by the number of gross acres to yield the average daily demand projections.

5.1.1 2017 WSMP Water Duty Factor

Based on the total 615 dwelling units and 135.3 gross acres of the project, this projected land use type is designed as a low-density residential, which was derived from the 2035 GP. The total water duty factor was extracted from the 2017 WSMP as 2.03 afy/acre (1,810 gpd/acre).

5.1.2 Project's Water Duty Factor

In determining the projected indoor and outdoor water duty factors, Akel consulted several documents including the City's 2020 UWMP, the 2017 WSMP, other San Joaquin Valley water system master plans that document duty factors, as well as typical low-density residential water demand factors used by Akel Engineering Group. Thus, the Project's indoor water duty factor for low-density residential was estimated at 1.6 afy/ac, and the outdoor water duty factor for low-density residential was estimated at 0.4 afy/ac (**Table 5**).

5.2 Project's Water Demand

Based on applying the water duty factor for each land use type, which was received along with the other development information from the Crawford & Bowen Planning staff in May 2024, and multiplying them to their respective area, the total indoor water demand for this Project is calculated at 220 afy, and the outdoor water demand is calculated at 55 afy. The total water demand for this Project is calculated at 275 afy, as shown on **Table 5**.

5.3 Estimated Demand Comparison

The project site was included in the 2020 UWMP and was designed as a low-density residential land use area. Applying the yielded water duty factor of 2.03 afy/ac extracted from 2017 WSMP and multiplying it to the project site of 135.3 acres, the total water demand for this Project is calculated at 284.5 afy, as shown on **Table 6**.

Comparing the estimated water demand of the Project calculated from 2020 UWMP and the 2024 WSA, the UWMP projected demand has a 3.5 percent difference from this WSA, as shown on **Table 6**. Based on the conservative nature of the UWMP, it is concluded that Project will not affect the projected water demand estimations in the 2020 UWMP. Therefore, the City's water demand projection through 2040 is consistent with the 2020 UWMP, as shown on **Table 7**.

6.0 CITY OF HANFORD WATER SUPPLIES

This section includes the City's water supply projections under different water years (normal, single-dry, and multiple-dry years). Groundwater is currently the City's only supply of potable water. Drought planning efforts for the City are further discussed in this section.

6.1 City of Hanford Water Supply (Normal Year)

The City currently receives the entirety of their potable water supply from groundwater. The recycled water is used 100% for the City's irrigation. There is no supply from surface and stormwater, and no plans to participate in any transfer or exchange agreements (**Table 8**).

6.1.1 Groundwater

Groundwater is the only source of the City's potable water supply. The groundwater basin underlying the City is the Tulare Lake Subbasin (5.022-12) within the San Joaquin Valley Basin (5.022) (**Figure 3**). The principal groundwater management agency is the Kings County Water District (KCWD). Although the Tulare Lake Subbasin is not adjudicated, the Department of Water Resources (DWR) has identified the Tulare Lake Subbasin as a critically over-drafted basin and is classified as high priority, based on 2019 SGMA-BP. This subbasin has been identified as a 'Type B' groundwater budget, where the amount of groundwater extraction needed to meet the demand can be estimated, but no actual groundwater budget can be identified.

Historically, groundwater levels have decreased over time. On average, the subbasin's water level has declined by 17 feet from 1970 to 2000, and according to the Tulare Lake GSP, the subbasin's storage has had an average decline of 85,690 afy from 1990 to 2016. The overall trend for groundwater pumping has been increasing, as the UWMP documents that 10,910 af was pumped in 2016 and 11,714 af was pumped in 2020.

The Tulare Lake GSP divides portions of the subbasin to be managed by five GSAs. The part of the Tulare Lake Subbasin that the City extracts their groundwater from is managed by the Mid-Kings River GSA. The goal of the GSP is to implement projects and measures to manage the groundwater aquifer and maintain a sustainable groundwater yield. The Tulare Lake GSP was first written in January 2020 but was deemed incomplete and an updated GSP was submitted July 2022. However, the amended version requires further updates to meet the SGMA requirements, therefore, the state has placed The Tulare Lake GSP on probation. The City's only plan to manage groundwater and ensure that the supply meets the demand is to increase well production and construct an industrial park tank. However, the Mid-Kings Rivers GSA and KCWD plan to implement ongoing basin management and overdraft mitigation measures including the following:

- *Water Conservation Efforts*: Participates and contributes funds to water conservation and educational programs.
- *Increase Surface Water Imports*: KCWD to deliver surface water in hopes of offsetting the use of groundwater.
- *Increase Groundwater Recharge*: KCWD operates 25 groundwater recharge basins.

According to the 2020 UWMP, the City expects groundwater to continue to be the sole supply source for potable water supply and will contribute 10,033 afy through 2045 (**Table 8**).

6.1.2 Wastewater and Recycled Water

The City is responsible for the collection, treatment, and disposal of all wastewater within the city limits. Currently, treated wastewater is distributed to evaporation and percolation ponds or farmlands for agricultural irrigation. There are two monitoring report programs (MRP) from the Regional Water Quality Control Board (RWQCB) that allow the irrigation of private land. The first program allows private farms within the Lakeside Irrigation Water District (LIWD) to receive the treated wastewater for irrigation, while the second governs the use of treated wastewater on a site owned by the City as well as small farms near the Wastewater Treatment Facility (WWTF).

The amount of potable water is not directly offset by the use of this recycled water, but it can offset the amount of groundwater that would instead be used for their irrigation. LIWD has a large water demand, however, because it is located outside of the city limits, their demand is not included. The City does not have any future plans to expand or optimize their recycled water use. They plan to use 100% of their recycled water for agricultural irrigation. The recycled water supply projection is expected to be 5,077 afy in 2025 and 6,109 afy by 2045 (**Table 8**).

6.1.3 Demand and Supply Comparison (Normal Year)

The demand and supply comparison for a normal year is shown on **Table 9**. The City's total water supplies are sufficient to meet the City's water demands with the addition of the Project. It should be noted that the basin is not adjudicated, and the projected supply volumes do not determine or limit the amount of groundwater pumped under the Mid-Kings River Groundwater Sustainability Agency's (MKR GSA) GSP.

6.2 Drought Planning

This section summarizes the City's effort to increase drought resiliency, which includes the response to climate change by integrating mitigation programs. This section also summarizes the City's projected water supply under single and multiple-dry years.

6.2.1 Response to Climate Change

Due to the notable changes within the climate, the City's 2020 UWMP warns that the City is expecting changes in temperature, intensifying storm events, and extended droughts, which may impact the available water supply. The City plans to address these changes by constructing two new wells and an industrial park tank to meet the growing demand and changing climate.

6.2.2 Water Supply (Dry-Years)

According to the 2020 UWMP Update, the City's available water supply during a single dry year will be largely unaffected by dry weather conditions due to the City's reliance on groundwater. Therefore, the City's water supply will consistently meet the water demands through 2045, as

shown on Table 10. Similarly, the available water supply during multiple dry years will also be unaffected by dry weather conditions through 2045, as shown on Table 11. However, because the groundwater basins are deemed as critically over-drafted, caution is still advised.

6.2.3 Demand and Supply Comparison (Dry Years)

The total water supply and demand can be compared during single-dry and multiple-dry years. These results are summarized in Table 10, and Table 11. The tables verify that the City's total water supplies are sufficient to meet the City's water demands with the addition of the Project under different water years. It should be noted that the basin is not adjudicated, and the projected supply volumes do not determine or limit the amount of groundwater pumped under the Mid-Kings River Groundwater Sustainability Agency's (MKR GSA) GSP.

6.2.4 Water Shortage Contingency Plan

In the event of a water shortage, the City has outlined their response levels and their respective conservation targets (Table 12), as well as their specific actions that will be taken to meet that criterion (Table 13). Stage 1 entails a 10-20% reduction in supply, Stage 2 entails a 20-35% reduction in supply, while Stage 3 entails a 35-50% reduction in supply. Actions to meet these conservation targets include a variety of limitations on landscape water use.

7.0 SUMMARY

This water supply assessment was prepared for the Project with the intent of meeting the requirements of SB 610. The analysis and findings in this WSA indicate the following:

- The City has been identified as the public water distributor for San Joaquin Valley Homes – Neves Project. It should be noted that the Tulare Lake Subbasin, which underlies the City, is not adjudicated and the projected supply volumes do not comprise a determination of water rights or maximum allowable pumping.
- The proposed land use types, net acreage, and units for the project are extracted from the Project's vesting tentative subdivision map tract #944 provided by Crawford & Bowen Planning, Inc.
- A 15-year buildout with construction beginning in 2030 is assumed by Akel Engineering Group, Inc, where Phase I will be completed between 2025 and 2030, Phase II between 2030 and 2035, and both Phase III and Phase IV between 2035 and 2040.
- San Joaquin Valley Homes – Neves Project was designed as a low-density residential land use type and was accounted for in the 2020 UWMP.
- The estimated water demand of the project site was calculated as 275 afy. Compared with the estimated demand of 285 afy from the 2020 UWMP, the UWMP projected

demand has a 3.5 percent difference from the 2024 WSA. Therefore, the Development will not affect the projected water demand estimations in the 2020 UWMP.

- The City's total water supplies are sufficient to meet the City's water demands with the addition of the Project under different water years. It should be noted that the basin is not adjudicated, and the projected supply volumes do not determine or limit the amount of groundwater pumped under the Mid-Kings River Groundwater Sustainability Agency's (MKR GSA) GSP.

Tables

Table 1 Future Land Use Inventory

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

Phases[1]	Residential Lot		Landscape Lot		Street		Storm Basin Dedication[2]	Park Dedication	Gross Area
	Counts	Area (acre)	Counts	Area (acre)	Interior Street (acre)	Exterior Street (acre)	(acre)	(acre)	(acre)
Phase I	140	17.67	8	0.56	13.11	0.32	5.92	7.05	44.63
Phase II	229	29.52	9	0.95	12.60	1.42	-	-	44.49
Phase III	185	22.90	6	0.81	9.01	1.85	-	-	34.57
Phase IV[3]	61	7.30	1	0.33	2.75	1.21	-	-	11.59
Total									
	615	**77.39**	**24**	**2.65**	**37.47**	**4.80**	**5.92**	**7.05**	**135.28**

AKEL ENGINEERING GROUP, INC.

5/13/2024

Notes:

1. Phases information extracted from Vesting Tentative Subdivision Map Tract #944 provided by Crawford & Bowen Planning, Inc. on May 10, 2024.
2. Basin access road (20' wide) was included in the Storm Basin Dedication of Phase I.
3. Four additional residential lots were added into Phase IV based on the assumption from Crawford & Bowen Planning, Inc. on April 19, 2024.

Table 2 Future Land Use Inventory in 5-year Increments

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

Phases	Units	2025	2030	2035	2040	2045	Buildout
Phase I							
Residential Lot	acre		17.67				17.67
Landscape Lot	acre		0.56				0.56
Street (Interior)	acre		13.11				13.11
Street (Exterior)	acre		0.32				0.32
Storm Basin Dedication	acre		5.92				5.92
Park Dedication	acre		7.05				7.05
Phase II							
Residential Lot	acre			29.52			29.52
Landscape Lot	acre			0.95			0.95
Street (Interior)	acre			12.60			12.60
Street (Exterior)	acre			1.42			1.42
Phase III							
Residential Lot	acre				22.90		22.90
Landscape Lot	acre				0.81		0.81
Street (Interior)	acre				9.01		9.01
Street (Exterior)	acre				1.85		1.85
Phase IV							
Residential Lot	acre				7.30		7.30
Landscape Lot	acre				0.33		0.33
Street (Interior)	acre				2.75		2.75
Street (Exterior)	acre				1.21		1.21

AKEL ENGINEERING GROUP, INC.

5/14/2024

Notes:

1. A 15 year buildout with construction beginning in 2030 is assumed by Akel Engineering Group, Inc.

2. Phase I Development is assumed to be completely built between 2025 and 2030, Phase II Development is assumed to be completely built between 2030 and 2035, and Phase III and IV Developments are assumed to be completely built between 2035 and 2040.

Table 3 Population - Current and Projected

Water Supply Assessment for San Joaquin Valley Homes - Neves

City of Hanford

PRELIMINARY

Population	Current and Projected Years[1,2]				
	2020	2025	2030	2035	2040
Population Served	61,326	64,227	67,264	73,776	77,265

AKEL ENGINEERING GROUP, INC.

5/22/2024

Notes:

1. Source: 2020 Hanford UWMP, Table 3-2.
2. A 0.9% population growth rate assumption was extracted from the 2020 Hanford UWMP.

Table 4 Average Climate Data

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

Climate Data for Hanford													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Rainfall (inches)	1.6	1.5	1.5	0.8	0.3	0.1	0.0	0.0	0.2	0.4	0.8	1.2	8.4
Max. Daily Temp. (F)	54.7	61.9	67.5	74.9	83.6	91.4	97.8	96.0	90.5	80.0	66.2	55.4	76.7
Min. Daily Temp. (F)	35.2	38.6	42.1	46.4	52.5	58.3	62.5	60.4	55.5	47.4	38.8	34.6	47.7
Average Eto (inches)	1.3	2.2	4.2	6.1	8.1	9.0	9.0	8.1	6.1	4.2	2.2	1.2	61.7

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5/24/2024

Note:

1. Source: 2020 Hanford UWMP, Table 3-1.

Table 5 Proposed Development and Projected Potable Water Demand

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

Phases[1]	Lot Area (acre)	Water Duty Factor[2,3]			Water Demand		
		Indoor (afy/acre)	Outdoor (afy/acre)	Total (afy/acre)	Indoor (afy)	Outdoor (afy)	Total (afy)
Projected Water Demand							
Phase I	44.63	1.62	0.41	2.03	72.48	18.12	90.60
Phase II	44.49	1.62	0.41	2.03	72.25	18.06	90.31
Phase III	34.57	1.62	0.41	2.03	56.14	14.04	70.18
Phase IV[3]	11.59	1.62	0.41	2.03	18.82	4.71	23.53
Total Water Demand							
Total Water Demand					**220**	**55**	**275**

AKEL ENGINEERING GROUP, INC.

5/24/2024

Notes:

1. Phases information extracted from Vesting Tentative Subdivision Map Tract #944 provided by Crawford & Bowen Planning, Inc. on May 10, 2024.
2. The total water duty factor is extracted from 2017 Hanford WSMP based on the standards of the low-density residential land use in the 2035 General Plan.
3. The indoor and outdoor water duty factors are determined based on 2017 Hanford WSMP and Akel Engineering Group, Inc. experience.

Table 6 Comparison of 2020 UWMP Demand and 2024 WSA Projected Demand at Buildout

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

Category	2020 UWMP[1] (afy)	2024 WSA (afy)	Difference (afy)	Percent Difference (%)
Residential	284.53	274.62	-9.91	-3.48
Total	284.53	274.62	-9.91	-3.48

AKEL ENGINEERING GROUP, INC.

5/24/2024

Note:

1. Proposed project site is designed as residential land use type in 2020 UWMP.

Table 7 Future Water Demand Projections

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

Land Use	Projected Future Potable Water Demand				
	2025 (afy)	2030 (afy)	2035 (afy)	2040 (afy)	2045 (afy)
2020 UWMP[1]					
Single Family Residential	6,849	7,173	7,512	7,868	8,240
Multi Family Residential	994	1,041	1,090	1,142	1,196
Commercial / Institutional	997	1,044	1,093	1,145	1,199
Industrial	332	347	364	381	399
Landscape	744	780	817	855	896
Other	848	888	930	974	1,020
Other[2]	62	65	68	71	74
Losses (Non-revenue water)	797	834	874	915	959
Subtotal (Potable)	**11,623**	**12,172**	**12,748**	**13,351**	**13,982**
Recycled Water Demand	0	0	0	0	0
Total Water Demand of 2020 UWMP	**11,623**	**12,172**	**12,748**	**13,351**	**13,982**
Total Water Demand (2020 UWMP + San Joaquin Valley Homes - Neves)[3]					
Total	**11,623**	**12,172**	**12,748**	**13,351**	**13,982**

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5/23/2024

Notes:

1. Source: 2020 Hanford UWMP, Tables 4-2 and 4-3.
2. Construction Billing.
3. Demand of the proposed project is included in the 2020 UWMP, and a 15 year buildout with construction beginning in 2030 is assumed by Akel Engineering Group, Inc.

Table 8 Future Water Supply Projections for Normal Year

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

Water Supply Source[1]	Projected Future Potable Water Supply				
	2025 (afy)	2030 (afy)	2035 (afy)	2040 (afy)	2045 (afy)
Groundwater (not desalinated)	10,033	10,033	10,033	10,033	10,033
Recycled Water	5,077	5,318	5,569	5,833	6,109
Total	**15,110**	**15,351**	**15,602**	**15,866**	**16,142**

AKEL ENGINEERING GROUP, INC.

5/22/2024

Note:

1. Source: 2020 Hanford UWMP, Table 6-9.

Table 9 Normal Year Demand and Supply Comparison

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

	2025 (afy)	2030 (afy)	2035 (afy)	2040 (afy)	2045 (afy)
Demand[1,2]					
Hanford 2020 UWMP + San Joaquin Valley Homes - Neves	11,623	12,172	12,748	13,351	13,982
Supply					
Groundwater (not desalinated)	10,033	10,033	10,033	10,033	10,033
Recycled Water	5,077	5,318	5,569	5,833	6,109
Total	15,110	15,351	15,602	15,866	16,142
Demand vs. Supply					
Surplus (+) / Deficit (-)	**3,487**	**3,179**	**2,854**	**2,515**	**2,160**

AKEL ENGINEERING GROUP, INC.

5/24/2024

Notes:

1. Source: 2020 Hanford, Table 7-2.
2. Demand of the proposed project is included in the 2020 UWMP, and a 15 year buildout with construction beginning in 2030 is assumed by Akel Engineering Group, Inc.

Table 10 Single Dry Year Demand and Supply Comparison

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

	2025 (afy)	2030 (afy)	2035 (afy)	2040 (afy)	2045 (afy)
Demand[1,2]					
Hanford 2020 UWMP Update + Ave 17 Development	12,971	13,584	14,227	14,899	15,604
Supply					
Groundwater (not desalinated)	10,033	10,033	10,033	10,033	10,033
Recycled Water	5,077	5,318	5,569	5,833	6,109
Total	15,110	15,351	15,602	15,866	16,142
Demand vs. Supply					
Surplus (+) / Deficit (-)	**2,139**	**1,767**	**1,375**	**967**	**538**

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5/24/2024

Notes:

1. Source: 2020 Hanford UWMP, Table 7-3.
2. Demand of the proposed project is included in the 2020 UWMP, and a 15 year buildout with construction beginning in 2030 is assumed by Akel Engineering Group, Inc.

Table 11 Multiple Dry Years Demand and Supply Comparison

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

	2025 (afy)	2030 (afy)	2035 (afy)	2040 (afy)	2045 (afy)
First Year					
Demand totals	12,971	13,584	14,227	14,899	15,604
Supply totals	15,110	15,351	15,602	15,866	16,142
Surplus (+) / Deficit (-)	**2,139**	**1,767**	**1,375**	**967**	**538**
Second Year					
Demand totals	12,971	13,584	14,227	14,899	15,604
Supply totals	15,110	15,351	15,602	15,866	16,142
Surplus (+) / Deficit (-)	**2,139**	**1,767**	**1,375**	**967**	**538**
Third Year					
Demand totals	12,971	13,584	14,227	14,899	15,604
Supply totals	15,110	15,351	15,602	15,866	16,142
Surplus (+) / Deficit (-)	**2,139**	**1,767**	**1,375**	**967**	**538**
Fourth Year					
Demand totals	12,971	13,584	14,227	14,899	15,604
Supply totals	15,110	15,351	15,602	15,866	16,142
Surplus (+) / Deficit (-)	**2,139**	**1,767**	**1,375**	**967**	**538**
Fifth Year					
Demand totals	12,971	13,584	14,227	14,899	15,604
Supply totals	15,110	15,351	15,602	15,866	16,142
Surplus (+) / Deficit (-)	**2,139**	**1,767**	**1,375**	**967**	**538**

AKEL ENGINEERING GROUP, INC.

5/24/2024

Notes:

1. Source: 2020 Hanford UWMP, Table 7-4.
2. Demand of the proposed project is included in the 2020 UWMP, and a 15 year buildout with construction beginning in 2030 is assumed by Akel Engineering Group, Inc.

Table 12 Water Shortage Plan Response Levels

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

PRELIMINARY

Stage	Percent Supply Reduction	Water Supply Condition
1	10% - 20%	Minor Shortage Potential - Below average rainfall in the previous 12-24 months - 10 percent or more of municipal wells out of services - Warm weather patterns typical of summer months
2	20% - 35%	Moderate Shortage Potential - Below average rainfall in the previous 24-36 months - Prolonged periods of low water pressure - 10 percent or more of municipal wells out of services - Warm weather patterns typical of summer months
3	35% - 50% +	Critical Shortage Potential - Below average rainfall for over 36 months - Prolonged periods of low water pressure - 10 percent or more of municipal wells out of services - Warm weather patterns typical of summer months

AKEL ENGINEERING GROUP, INC.

5/31/2024

Note:

1. Source: 2020 Hanford UWMP, Table 8-1.

Table 13 Demand Reduction Actions

Water Supply Assessment for San Joaquin Valley Homes - Neves
City of Hanford

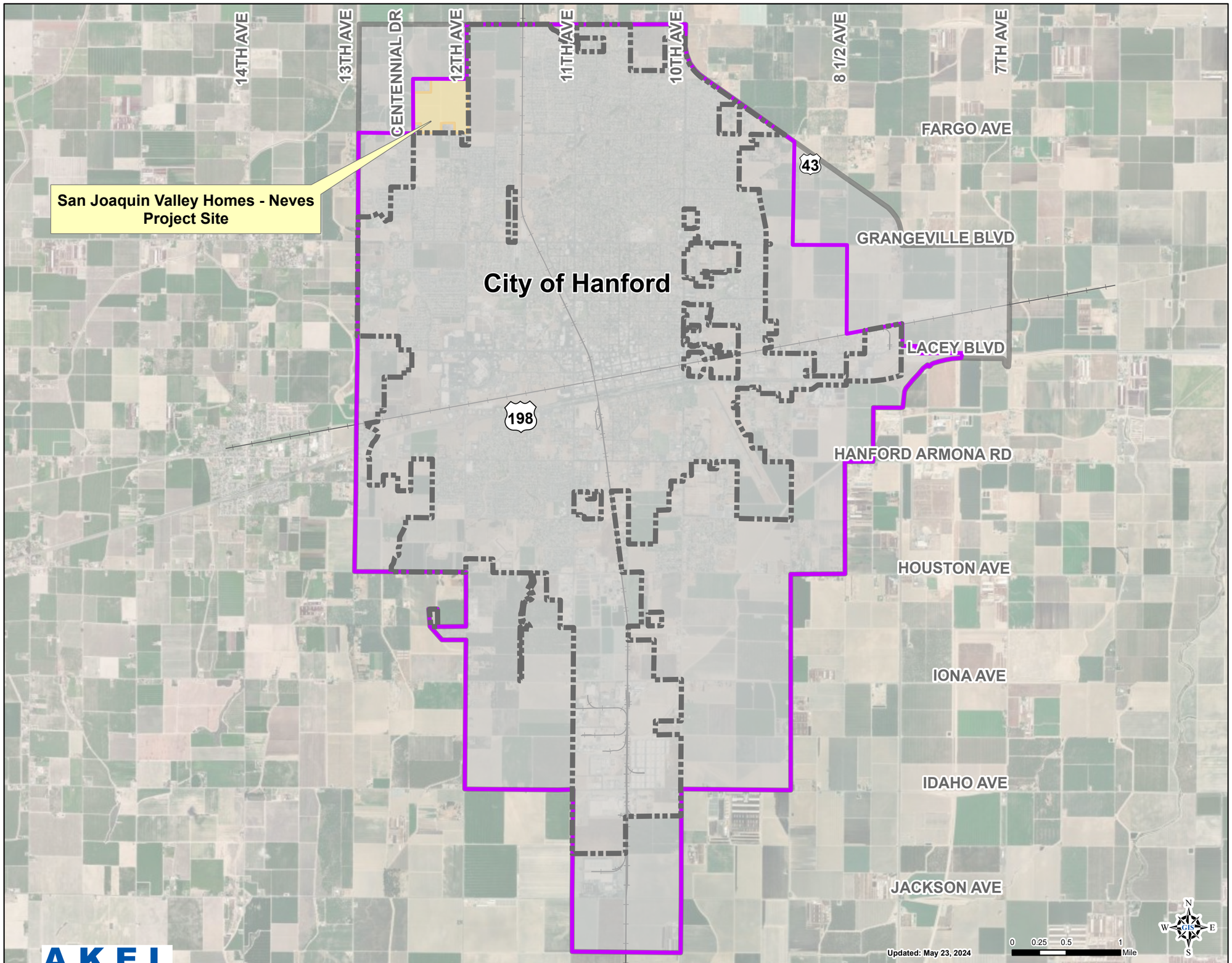
PRELIMINARY

Response Levels	Restrictions and Prohibitions on End Users Category	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement
1 - 3	Landscape - Limit landscape irrigation to specific days	Prohbit sprinkling, irritgating, or otherwise applying water to any yard, ground, premises, or vegetation except on the following designated days: - Properties ending with even-numbered addresses: Tuesday and Saturday - Properties ending with odd-numbered addresses: Wednesday and Sunday	Yes
1 - 3	Landscape - Limit landscape irrigation to specific days	Prohibiy sprinkling, irrigating, or otherwise applying water to any yard, ground, premises or vegetation on any day of the week between the hours of 10 a.m. and 6 p.m. during periods designated as "daylight savings time" (generally occuring between March and November).	Yes
1 - 3	Landscape - Other landscape restriction or prohibition	Prohibit sprinkling, irrigating, or otherwise applying water to any yard, ground, premises, or vegetation except by the use of hand-held hose, a sprinkling device or an approved sprinkler system controlled by an automatic shut-off device or a person who in immediate attendance of the sprinkling device or system.	Yes
1 - 3	Landscape - Other landscape restriction or prohibition	Prohbit sprinkling, irrigating, or otherwise applying water to any yard, ground, premises, or vegetation during and up to 48 hours after measurable rainfall.	Yes
1 - 3	Landscape - Prohibit cetain types of landscape irrigation	Prohibit sprinkling irrigating, or otherwise applying water to any ornamental turf or public street medians.	Yes
1 - 3	Landscape - Other landscape restriction or prohibition	Prohibit sprinkling, irrigating, or otherwise applying water to any yard, ground, landscaping or vegetation outside of a newly constructed home or a building in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission on the California Department of Housing and Community Development.	Yes
1 - 3	Landscape - Prohibit cetain types of landscape irrigation	Prohibit water used to irrigate any yard, ground, landscaping or vegetation to run or waste onto non-irrigated areas. Private or public walkways, sidewalks, driveways, streets, or adjoining or adjacent property.	Yes
1 - 3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Prohibit keeping, maintaining, operating, or using any water connection, hose,faucet, hydrant, pipe, outlet, or plumbing, fixture which is not tight and free from leakage and dripping.	Yes
1 - 3	Other	Prohibit washing any type of vehicle, boat, or trailer with water supplied by a hose unless the hose is fitted with shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use	Yes
1 - 3	Other - Prohibit use of potable water for washing hard surfaces	Prohibit use of water for sidewalk, driveway, or walkway washing cleaning, except as required to address an immediate public health or safety need.	Yes
1 - 3	Water features - Restrict water use for decorative water features, such as fountains	Prohibit operation of water fountains or other decorative water fixtures without recirculation pumps.	Yes
1 - 3	Other water features or swimming pool restriction	Prohibit draining and filling or a swimming pool or similar water feature more than once during a one year period (all pool drainage must occur pursuant to a permit issed by the City's public works department).	Yes
1 - 3	Other	Prohibit willful of negligent waste of water in any manner.	Yes
1 - 3	CII - Lodging establishment must offer opt out of linen service	Require operators of hotels and motels to provide guests with the option of choosing not to have towels and linens laundered daily. Each hotel and motel shall prominently display notice of this option in each bathroom using clear and easily understood language.	Yes
1 - 3	Landscape - Prohibit certain types of landscape irrigation	Prohibit the planting of rye grass on any property that is serviced by the city's water system.	Yes
1 - 3	Other	The city may issue Conditional Water Permits that allow the watering of new landscaping planted outside of newly-constructed buildings on days and/or times other than those consistent with the current use restrictions.	Yes
1 - 3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Prohibit charity and community vehicle wash events, including any event at which an individual or a group, which is not a commercial washing business operating legally in the city, offers to the general public or portion thereof the service of washing, with water, any type of vehicle, boat, or trailer in exchange for a fee, donation, other form of compensation, or for no compensation.	Yes
1 - 3	Landscape - Prohibit certain types of landscape irrigation	Eliminate watering of ornamental turf areas. Water only actively used turf areas no more than twice per week. Trees and shrubs may be water only twice per week using a handheld hose with a positive shutoff nozzle or drip irrigation. Use of reclaimed water (if available), is exempt.	Yes
1 - 3	Landscape - Limit landscape irrigation to specific days	Water no more than twice per week using only hand-held hoses with positive shutoff nozzle or drip irrigation systems. Eliminate sprinkler use.	Yes
1 - 3	CII - Restaurants many only serve water upon request	Prohibit the serving of drinking water, other than upon request, in eating or drinking establishment.	Yes

Note:

1. Source: 2020 Madera WSCP, Table 5-1.

Figures



Updated: May 23, 2024

File Path: P:\xGIS\GIS_Projects\Hanford\Water\240523-SJVHomesNeves_WSA\HF_Fig1_ProjectSite_052324.aprx

AKEL ENGINEERING GROUP, INC.

Legend

Development Site

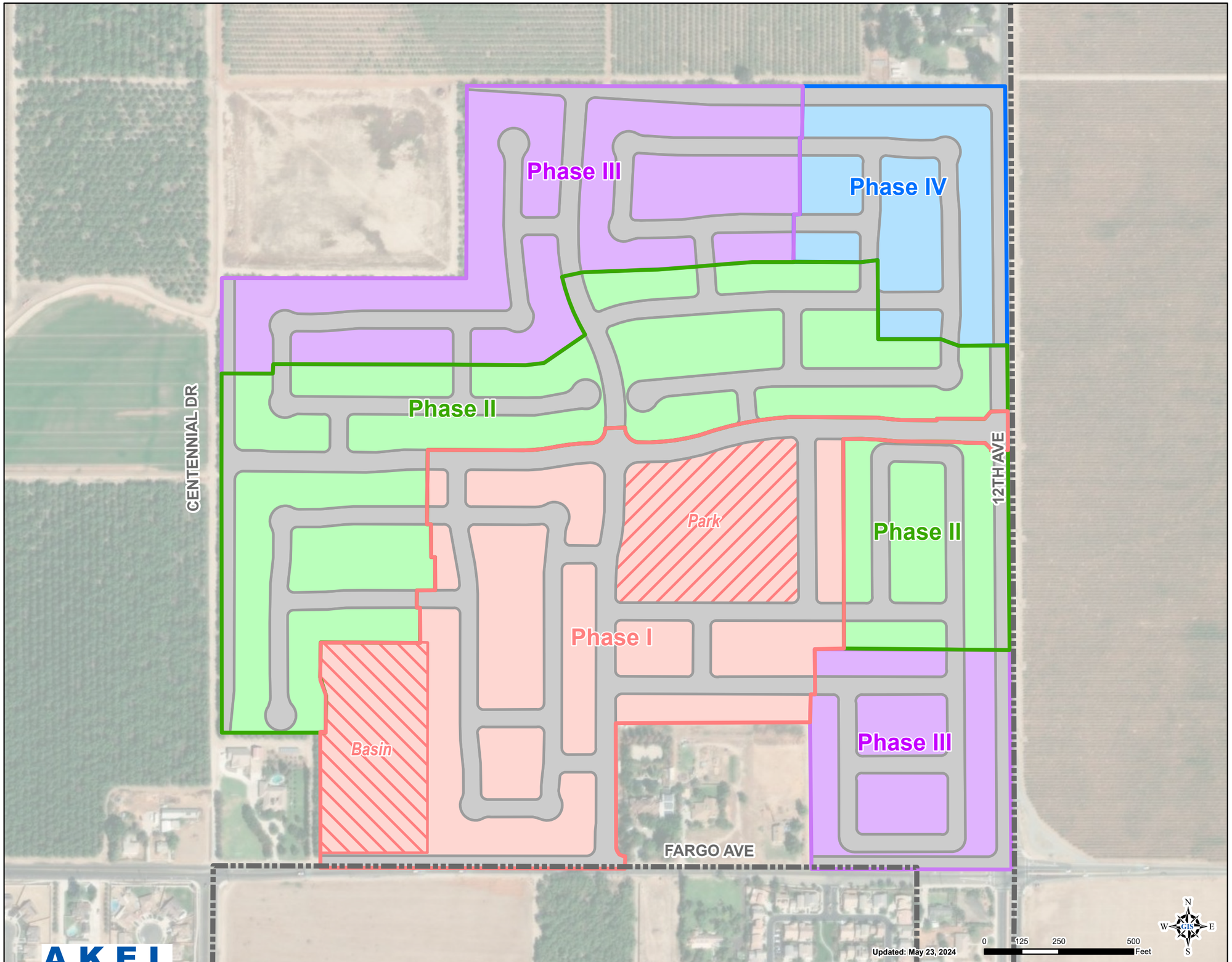
- San Joaquin Valley Homes - Neves Development Site

Other Features

- Railroads
- City Limits
- 2035 Growth Boundary
- Planned Area Boundary

PRELIMINARY

Figure 1
Project Site
San Joaquin Valley Homes - Neves
Water Supply Assessment
City of Hanford



Legend

San Joaquin Valley Homes - Neves Development Site

- Phase 1 - Park
- Phase 1 - Basin

Residential

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Streets

Other Features

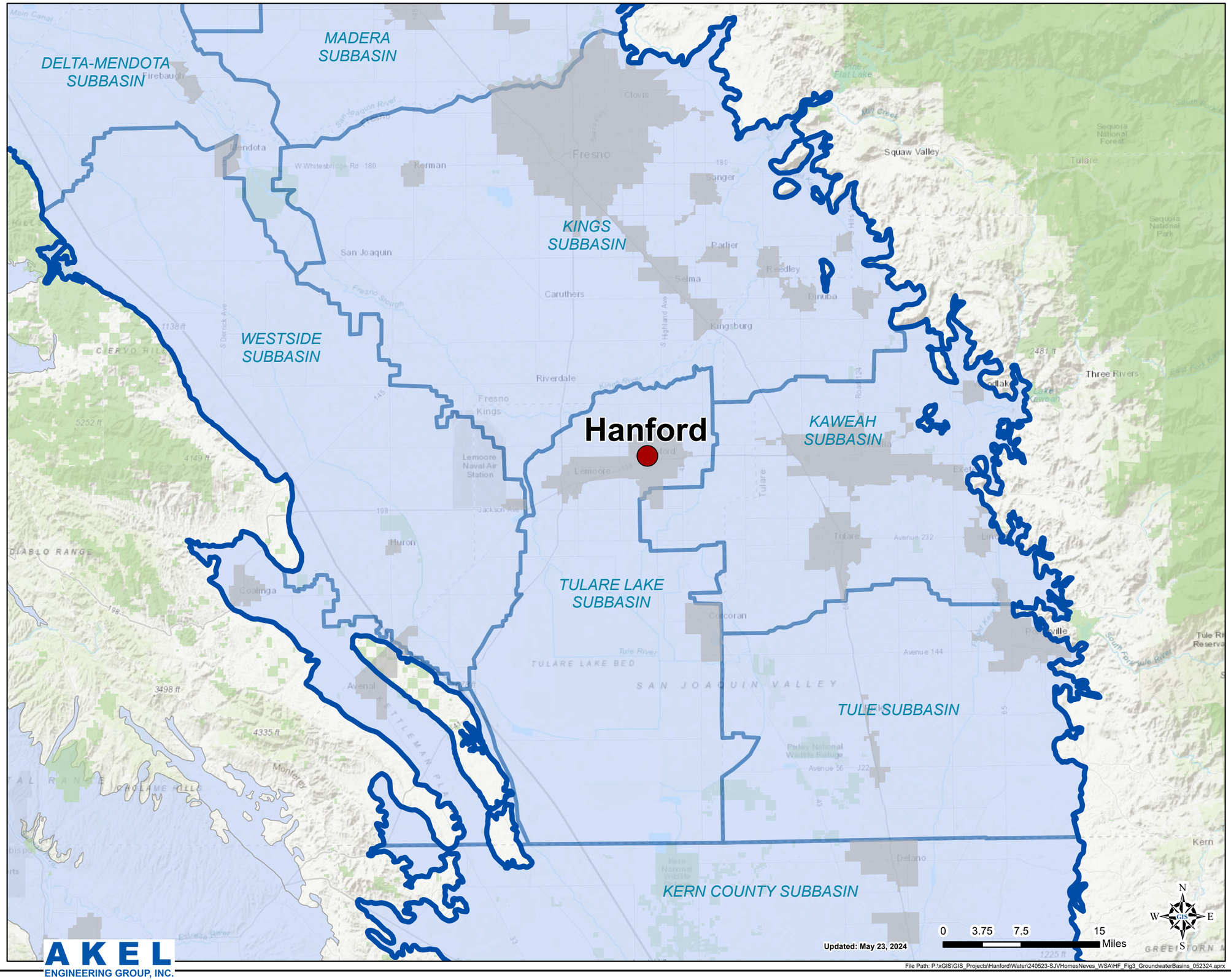
- Railroads
- City Limits

PRELIMINARY

Figure 2
On-Site Phase Plans
San Joaquin Valley Homes - Neves
Water Supply Assessment
City of Hanford

AKEL ENGINEERING GROUP, INC.

File Path: P:\xGIS\GIS_Projects\Hanford\Water\240523-SJVHomesNeves_WSA\HF_Fig2_OnSiteLU_052324.aprx



Legend

- DWR Groundwater Basins
- San Joaqin Valley Basin with Subbasins
- Protected Open Space
- Urbanized Areas

PRELIMINARY

Figure 3
Groundwater Basins
San Joaquin Valley Homes - Neves
Water Supply Assessment
City of Hanford

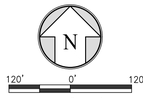
AKEL
ENGINEERING GROUP, INC.

File Path: P:\xGIS\GIS_Projects\Hanford\Water\240523-SJVHomesNeves_WSA\HF_Fig3_GroundwaterBasins_052324.aprx

Appendix A

Vesting Tentative Subdivision

Map Tract #944



VESTING TENTATIVE SUBDIVISION MAP TRACT #944
SAN JOAQUIN VALLEY HOMES - NEVES

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 15, TOWNSHIP 18 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE & MERIDIAN, IN THE CITY OF HANFORD, COUNTY OF KINGS, STATE OF CALIFORNIA.

APPLICANT/OWNER:
SJVH, ATTENTION NIC PETERS
SAN JOAQUIN VALLEY HOMES
5607 AVENIDA DE LOS ROBLES
VISALIA, CA 93291

OWNER:
JOHN D. OLIVEIRA &
SALLY L. OLIVEIRA
12446 FARGO AVENUE
HANFORD, CA 93230

ZUMWALT HANSEN INC.
A QK Company
609 N. IRWIN STREET
HANFORD, CA 93230
TEL: (559) 582-8898
WWW.QKINC.COM

LEGAL DESCRIPTION

PARCEL 1: APN 009-020-021 AND 009-020-047

THE WEST HALF OF THE SOUTHEAST QUARTER OF SECTION 15, TOWNSHIP 18 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF.
EXCEPTING THEREFROM THE NORTH 651.00 FEET OF THE WEST 826.00 FEET THEREOF, BY DEED TO KINGS COUNTY WATER DISTRICT, DATED MARCH 10, 1989 RECORDED MAY 30, 1989 AS DOCUMENT NO. 8907743, KINGS COUNTY RECORDS.
ALSO EXCEPTING THEREFROM PARCEL 1 OF PARCEL MAP RECORDED IN BOOK 16 PAGE 42 OF PARCEL MAPS, KINGS COUNTY RECORDS.
ALSO EXCEPTING THEREFROM ONE-HALF OF ALL OIL, GAS AND MINERALS IN, ON OR UNDER THE EAST HALF OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SECTION 15, AS RESERVED IN THE DEED DATED MARCH 20, 1952 EXECUTED BY MABEL COREY AND MAUD BRANDT, TO F.W. HOPPER AND RUBY E. HOPPER, HUSBAND AND WIFE, AND RECORDED APRIL 22, 1952 IN BOOK 552 AT PAGE 383 OF OFFICIAL RECORDS, AS DOCUMENT NO. 3841.
ALSO EXCEPTING THEREFROM ONE-HALF OF ALL OIL, GAS AND MINERALS IN, ON OR UNDER THE WEST HALF OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 15, AS RESERVED BY ALMA LAMOINE AND MARION PERCIVAL, DEALING WITH THEIR SOLE AND SEPARATE PROPERTY, TO F.W. HOPPER AND RUBY E. HOPPER, HUSBAND AND WIFE, AND RECORDED MAY 13, 1952 IN BOOK 524 AT PAGE 590 OF OFFICIAL RECORDS, AS DOCUMENT NO. 4672.

PARCEL 2: APN 009-020-023

THE EAST HALF OF THE SOUTHEAST QUARTER OF SECTION 15, TOWNSHIP 18 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF.
EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE COUNTY OF KINGS BY DEED RECORDED FEBRUARY 4, 1965 IN BOOK 867 PAGE 578 OF OFFICIAL RECORDS.
ALSO EXCEPTING THEREFROM PARCELS 1, 2 AND 3 AS SHOWN ON THAT CERTAIN PARCEL MAP FILED SEPTEMBER 14, 1976 IN BOOK 4 PAGE 87 OF PARCEL MAPS.

PARCEL 3: APN 009-020-046

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE UNINCORPORATED AREA IN COUNTY OF KINGS, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:
THAT PORTION OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SECTION 15, TOWNSHIP 18 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN, IN THE COUNTY OF KINGS, STATE OF CALIFORNIA, MORE PARTICULARLY DESCRIBED AS PARCEL 1 OF PARCEL MAP RECORDED IN BOOK 16, PAGE 42 OF PARCEL MAPS.
EXCEPTING THEREFROM ONE-HALF OF ALL OIL, GAS AND MINERALS IN, ON OR UNDER THE EAST HALF OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SECTION 15, AS RESERVED IN THE DEED DATED MARCH 20, 1952 EXECUTED BY MABEL COREY AND MAUDBRANDT, TO F.W. HOPPER AND RUBY E. HOPPER, HUSBAND AND WIFE, AND RECORDED APRIL 22, 1952 IN BOOK 552 AT PAGE 383 OF OFFICIAL RECORDS, AS DOCUMENT NO. 3841.
ALSO EXCEPTING THEREFROM ONE-HALF OF ALL OIL, GAS AND MINERALS IN, ON OR UNDER THE WEST HALF OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 15, AS RESERVED BY ALMA LAMOINE AND MARION PERCIVAL, DEALING WITH THEIR SOLE AND SEPARATE PROPERTY, TO F.W. HOPPER AND RUBY E. HOPPER, HUSBAND AND WIFE, AND RECORDED MAY 13, 1952 IN BOOK 524 AT PAGE 590 OF OFFICIAL RECORDS, AS DOCUMENT NO. 4672.

NOTES

1. DATE OF PREPARATION: APRIL 19, 2024
2. GENERAL PLAN DESIGNATION: LOW, MEDIUM AND HIGH DENSITY RESIDENTIAL
3. CITY ZONING:
4. ALL DISTANCES SHOWN ARE IN FEET & DECIMALS THEREOF AND ARE APPROXIMATE
5. OFFSITE STREETS = 4.80AC; ONSITE STREETS = 37.47AC; LOTS = XXAC; PARK & BASIN = 12.92AC
6. EXISTING LAND USE: ORCHARD
7. PROPOSED LAND USE: SINGLE FAMILY RESIDENTIAL
8. NATURAL GAS BY: THE GAS COMPANY
9. TELEPHONE BY: AT&T
10. POWER BY: SOUTHERN CALIFORNIA EDISON CO
11. CABLE T.V. BY: COMCAST
12. DOMESTIC WATER BY: CITY OF HANFORD
13. SEWAGE DISPOSAL BY: CITY OF HANFORD
14. REFUSE COLLECTION BY: CITY OF HANFORD
15. DRAINAGE: SITE BASIN

AREA

PHASE I GROSS:	44.63±AC
PHASE II GROSS:	44.49±AC
PHASE III GROSS:	34.57±AC
PHASE IV GROSS:	11.59±AC
TOTAL SITE:	135.28±AC
NEVES GROSS	128.68±AC
NEIGHBOR GROSS	6.59±AC
INTERIOR STREET DEDICATION	37.47±AC
PHASE I	13.11±AC
PHASE II	12.60±AC
PHASE III	9.01±AC
PHASE IV	2.75±AC
EXTERIOR STREET DEDICATION:	4.80±AC
PHASE I	0.32±AC
PHASE II	1.42±AC
PHASE III	1.85±AC
PHASE IV	1.21±AC
TOTAL STREET DEDICATION:	42.27±AC
STORM BASIN DEDICATION:	5.87±AC
BASIN ACCESS ROAD (20' WIDE)	0.05±AC
PARK DEDICATION:	7.05±AC
LANDSCAPE LOTS:	2.65±AC
LOTS:	77.39±AC

LOT COUNT PER PHASE

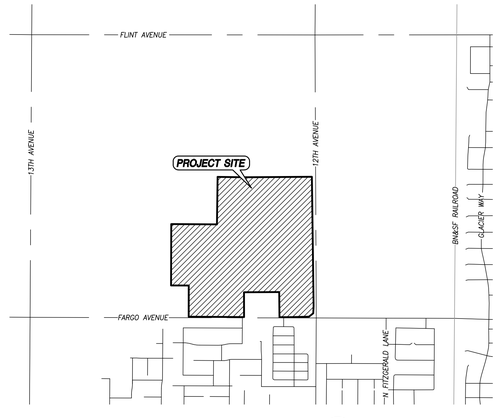
PHASE I	
32'X95' LOTS	73
50'X100' LOTS	0
60'X110' LOTS	67
TOTAL	140
PHASE II	
32'X95' LOTS	73
50'X100' LOTS	73
60'X110' LOTS	83
TOTAL	229
PHASE III	
32'X95' LOTS	82
50'X100' LOTS	53
60'X110' LOTS	50
TOTAL	185
PHASE IV	
32'X95' LOTS	0
50'X100' LOTS	57
60'X110' LOTS	0
TOTAL	57
TOTAL LOTS:	611

LOT INFORMATION

PHASE I	17.67±AC
PHASE II	29.52±AC
PHASE III	22.90±AC
PHASE IV	7.30±AC
TOTAL LOTS:	77.39±AC

LANDSCAPE LOT INFORMATION

PHASE I	0.56AC/8 LOTS
PHASE II	0.95AC/9 LOTS
PHASE III	0.81AC/6 LOTS
PHASE IV	0.33AC/1 LOT
TOTALS:	2.65±AC/24 LOTS



LOCATION MAP
NOT TO SCALE

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VESTING TENTATIVE SUBDIVISION MAP TRACT #944
SAN JOAQUIN VALLEY HOMES - NEVES

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 15, TOWNSHIP 18 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE & MERIDIAN, IN THE CITY OF HANFORD, COUNTY OF KINGS, STATE OF CALIFORNIA.

N

60' 0' 60'

SCALE: 1"= 60'

ZUMWALT HANSEN INC.
A QK Company
609 N. IRWIN STREET HANFORD, CA 93230
TEL: (559) 582-8898
WWW.QKINC.COM

PROPOSED STREET CENTERLINE

HALF SECTION LINE

PROPOSED R/W

EDGE OF FIELD ROAD

N89°39'01"E 2650.98'

ER OF SECTION 15-18/21, \ 1-1/4" IRON PIPE, DOWN 12" W/ BRASS TAG PED RCE 21489 PER P.M. 16-42 K.C.R.

CENTERLINE 45' DITCH EASEMENT PER BK 1153 PG 686

CENTERLINE 12' DITCH EASEMENT PER BK 931 PG 445

IRRIGATION STANDPIPE 36" (1)
IRRIGATION VENTPIPE (3)

NOT-A-PART
KINGS COUNTY WATER DISTRICT SINKING BASIN, APPROXIMATELY 10' DEEP

PHASE III

PHASE II

PHASE I

N. NAPA DRIVE

N. VINTAGE PLACE

W PEPPER DRIVE

W ENCORE DRIVE

W SANDSTONE DRIVE

W PEBBLE DRIVE

N CHATEAU AVENUE

N ALICANTE DRIVE

CENTENNIAL AVENUE

STREET A

STREET B

STREET C

STREET K

FIELD ROAD

20' KINGS COUNTY WATER DISTRICT INGRESS EGRESS EASEMENT DOC NO 9907743

MATCHLINE: SEE SHEET 4 OF 5

MATCHLINE: SEE SHEET 3 OF 5

MATCHLINE: SEE SHEET 5 OF 5

MATCHLINE: SEE SHEET 3 OF 5
MATCHLINE: SEE SHEET 5 OF 5

PARK

LOT T 5,452 SF
LOT V 1,844 SF
LOT M 792 SF
LOT W 3,234 SF
LOT P 4,229 SF
LOT H 414 SF
LOT G 3,784 SF
LOT O 6,188 SF
LOT N 3,952 SF

LEGEND

AC	ASPHALT PAVING
BW	BACK OF WALK
C	CONCRETE
CB	CATCH BASIN
CO	CLEANOUT
COND	CONDUIT
CR	ASPAHLT CROWN
DI	DROP INLET
DWY	DRIVEWAY
EL	ELECTRIC
EP	EDGE OF PAVEMENT
EPB	ELECTRIC PANEL BOX
FL	FLOW LINE
INV	INVERT
OG	ORIGINAL GROUND
PP	POWER POLE
P	PAD
SSCO	SANITARY SEWER CLEANOUT
SVP	SERWICE POLE
TC	TOP OF CURB
TP	TELEPHONE POLE
UDG	UNDERGROUND
VLT	VAULT
(OE)	EXISTING ELECTRIC LINE (OVERHEAD)
G	EXISTING GAS LINE
D	EXISTING STORM DRAIN LINE
S	EXISTING SANITARY SEWER LINE
T	EXISTING TELEPHONE LINE (UNDERGROUND)
W	EXISTING WATER LINE
IRR	EXISTING IRRIGATION LINE
X	EXISTING POST & WIRE FENCE
	EXISTING CONCRETE SURFACE
	EXISTING AC SURFACING
	BENCHMARK
	CABLE TV CHRISTY BOX
	DOMESTIC WELL
	DRIVEWAY
	DOWN GUY
EC	ELECTRIC CHRISTY BOX
EM	ELECTRIC METER
EP	ELECTRIC PEDESTAL
	ELECTRIC SERVICE
	EXISTING STREET LIGHT
	FIRE HYDRANT
	GATE POST
IA	IRRIGATION AG WELL
IP	IRRIGATION STANDPIPE
IV	IRRIGATION VALVE
MB	MAILBOX
	TOPO
	SANITARY SEWER MANHOLE
	SIGN
	STORM DRAIN INLET
	STORM DRAIN MANHOLE
T	TELEPHONE CHRISTY BOX
TR	TRAFFIC CHRISTY
	TRAFFIC SIGNAL BOOM
	TRAFFIC SIGNAL POLE
	TRANSFORMER POLE
	UTILITY POLE
	WATER METER
	WATER VALVE

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VESTING TENTATIVE SUBDIVISION MAP TRACT #944
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N

60' 0' 60'

SCALE: 1"= 60'

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A QK Company
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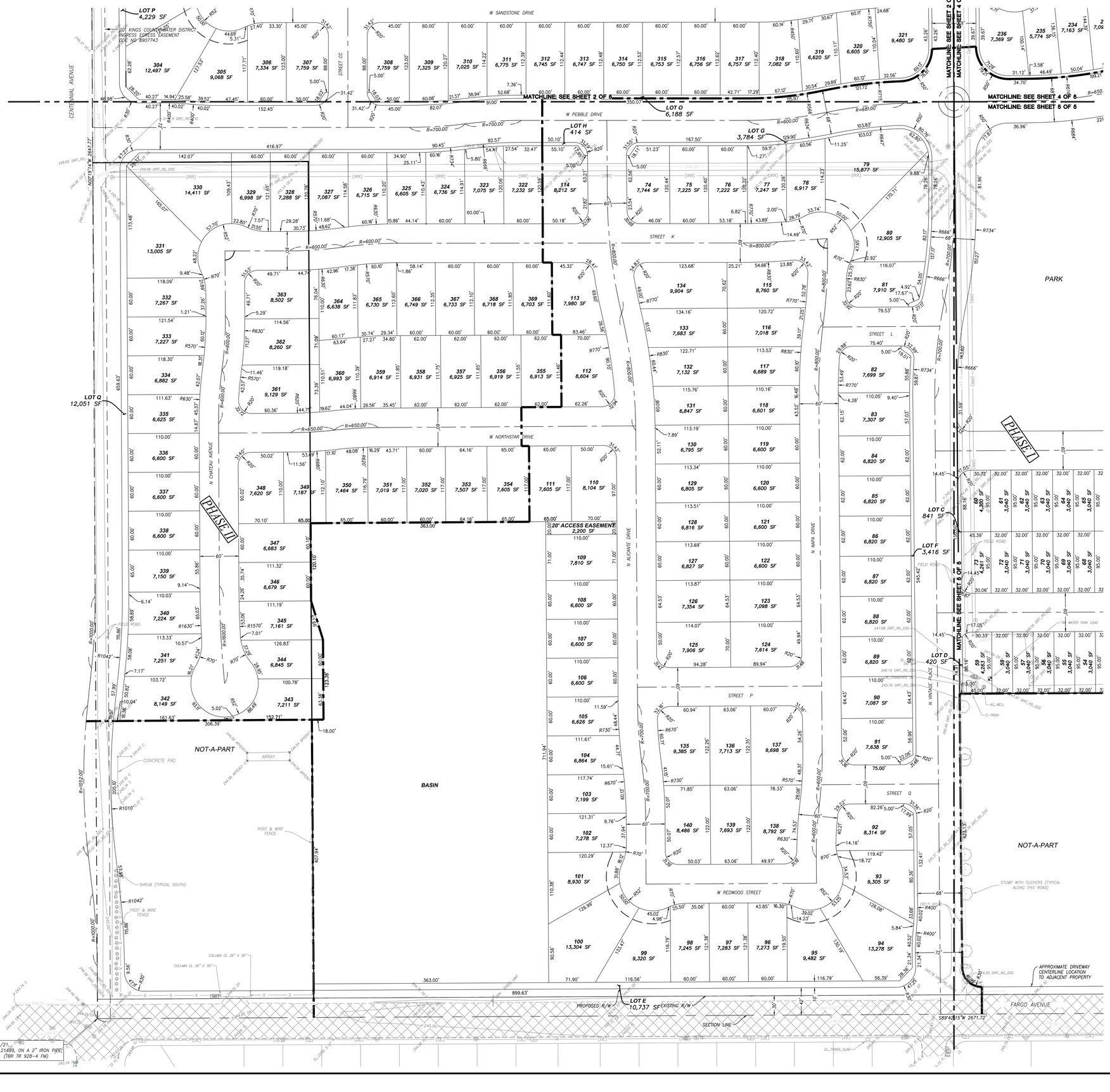
HANFORD, CA 93230 WWW.QKINC.COM



VESTING TENTATIVE SUBDIVISION MAP TRACT #944

SAN JOAQUIN VALLEY HOMES - NEVES

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HANFORD, CA 93230 WWW.QKINC.COM

EAST QUARTER CORNER OF SECTION 15-18/21, FOUND A 2" BRASS CAP STAMPED LS 4375, FLUSH & IN CONCRETE PER KCCR #1718

N89°39'01"E 2650.98'

EXISTING STREET CENTERLINE

EXISTING R/W

SECTION LINE

PROPOSED R/W

PROPOSED 10' LANDSCAPE LOT

SIGN: NO PARK OVER 5-TONS

PHASE I

PHASE II

PHASE III

PHASE IV

W. WINDSOR DRIVE

W PEPPER DRIVE

W ENCORE DRIVE

W SANDSTONE DRIVE

W PEBBLE DRIVE

STREET A

STREET H

STREET MM

STREET NN

STREET J

N. VINTAGE PLACE

N. CABERNET DRIVE

N. PICASSO STREET

WARNING AVENUE

12TH AVENUE

LOT U 10,225 SF

LOT V SF

LOT M 792 SF

LOT N 3,952 SF

LOT L 3,117 SF

LOT X 14,344 SF

LOT I 2,251 SF

LOT A 1,220 SF

LOT B 3,228 SF

LOT K 1,959 SF

PARK

MATCHLINE: SEE SHEET 2 OF 5

MATCHLINE: SEE SHEET 3 OF 5

MATCHLINE: SEE SHEET 5 OF 5

VESTING TENTATIVE SUBDIVISION MAP TRACT #944
SAN JOAQUIN VALLEY HOMES - NEVES

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N

60' 0' 60'

SCALE: 1"= 60'

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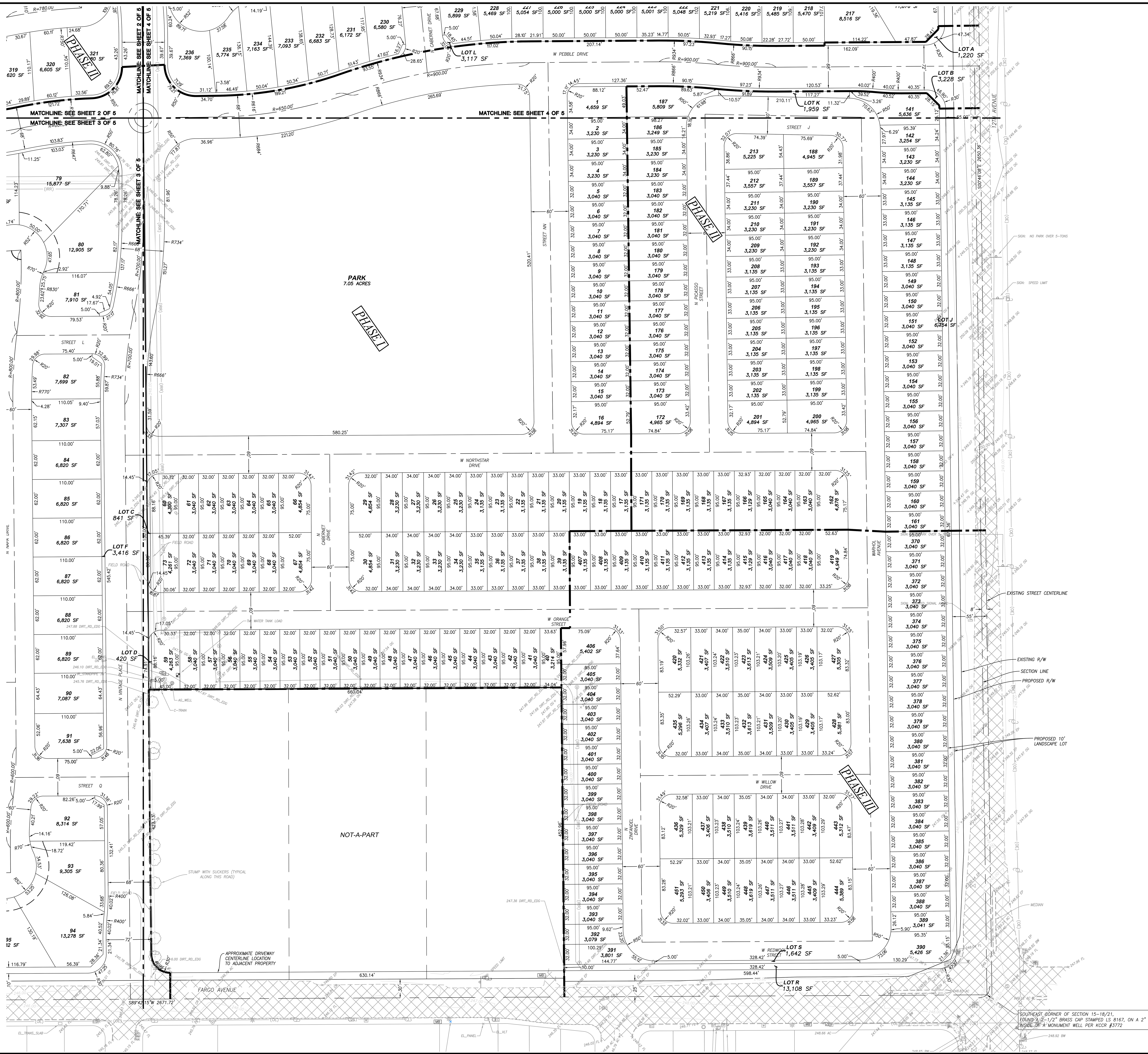
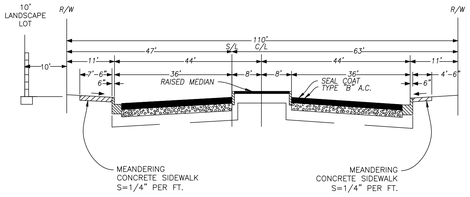


MATCHLINE: SEE SHEET 2 OF 5
MATCHLINE: SEE SHEET 3 OF 5
MATCHLINE: SEE SHEET 4 OF 5
PHASE I
PHASE II
PHASE III
PARK
7.05 ACRES
NOT-A-PART
W PEBBLE DRIVE
W NORTHSTAR DRIVE
W ORANGE STREET
W WILLOW DRIVE
W REDWOOD STREET
FARGO AVENUE
WARHOL AVENUE
N PICASSO STREET
ZINFANDEL DRIVE
N CABERNET DRIVE
N VINTAGE PLACE
N NAPA DRIVE
STREET J
STREET L
STREET Q
STREET NN
LOT A 1,220 SF
LOT B 3,228 SF
LOT C 841 SF
LOT D 420 SF
LOT F 3,416 SF
LOT J 6,254 SF
LOT K 1,959 SF
LOT L 3,117 SF
LOT R 13,108 SF
LOT S 1,642 SF
EXISTING STREET CENTERLINE
EXISTING R/W
SECTION LINE
PROPOSED R/W
PROPOSED 10' LANDSCAPE LOT
APPROXIMATE DRIVEWAY CENTERLINE LOCATION TO ADJACENT PROPERTY
STUMP WITH SUCKERS (TYPICAL ALONG THIS ROAD)
S89°42'15"W 2671.72'
SOUTHEAST CORNER OF SECTION 15–18/21, FOUND A 2-1/2" BRASS CAP STAMPED LS 8167, ON A 2" IP INSIDE OF A MONUMENT WELL PER KCCR #3772

SECTION A-A
12TH AVENUE

NOT TO SCALE
PER CITY STD. DWG. ST-18



SECTION B-B
STREET A

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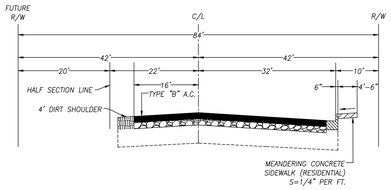
PER CITY STD. DWG. ST-23



SECTION C-C
CENTENNIAL DRIVE

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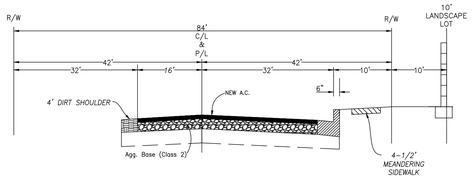
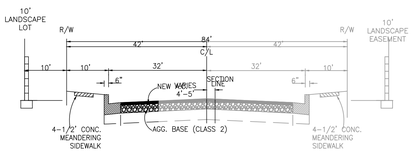
PER CITY STD. DWG. ST-23



SECTION D-D
FARGO AVENUE

NOT TO SCALE
SIMILAR TO CITY STD. ST-23



VESTING TENTATIVE
SUBDIVISION MAP TRACT #944
SAN JOAQUIN VALLEY HOMES - NEVES

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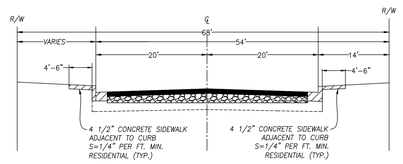
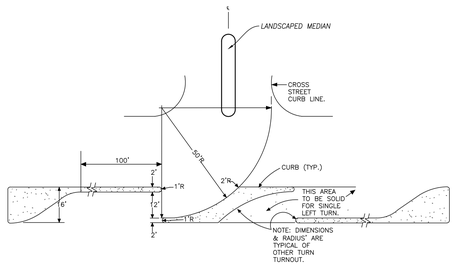
SECTION E-E
INTERIOR MINOR COLLECTOR

NOT TO SCALE
PER CITY STD. ST-26



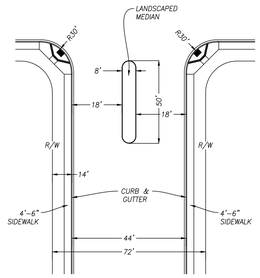
CENTER ISLAND TURNOUT DETAIL
FARGO AT N VINTAGE PLACE

NOT TO SCALE
PER CITY STD. CO-18



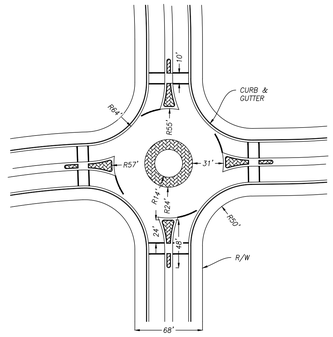
COLLECTOR STREET EXITS
WITH MEDIAN ISLAND

NOT TO SCALE
SIMILAR TO CITY STD. ST-23



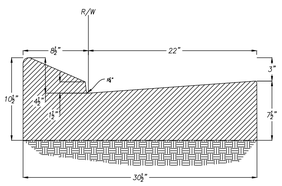
ROUND-A-BOUT

NOT TO SCALE



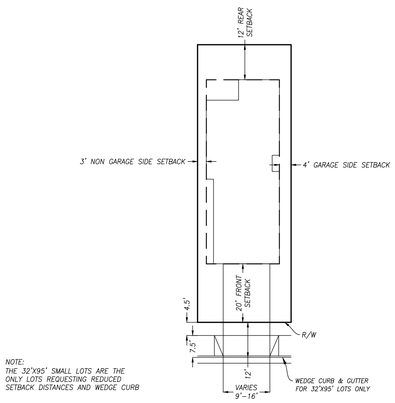
WEDGED CURB

NOT TO SCALE



32'X95' LOT LAYOUT

NOT TO SCALE



NOTE:
THE 32'X95' SMALL LOTS ARE THE ONLY LOTS REQUESTING REDUCED SETBACK DISTANCES AND WEDGE CURB

52'X95' LOT LAYOUT AT END CAPS ONLY

NOT TO SCALE