

**CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)  
INITIAL STUDY/PROPOSED MITIGATED NEGATIVE  
DECLARATION**

**for the**

**Wild Wings County Service Area (CSA)  
Wood Duck Well and Pump Station  
Yolo County, California**

October 2022



*Prepared for:*

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INITIAL STUDY/PROPOSED MITIGATED NEGATIVE DECLARATION  
for the  
Wild Wings County Service Area (CSA)  
Wood Duck Well and Pump Station Project**

**Project Title:** Wood Duck Well and Pump Station Project

**Lead Agency Name and Address:** County of Yolo  
292 West Beamer St.  
Woodland, CA 95695

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**Project Location:** Wild Wings County Service Area, Yolo County

**Land Use Designation:** Residential Low (RL)

**Zoning:** Low Density Residential (R-L)

## **1.0 Introduction**

The Wild Wings County Service Area (Figure 1) is a rural gated community in the unincorporated area of Yolo County that depends on two groundwater wells, Canvas Back and Pintail wells, to provide potable drinking water to its 338 residences, a recreation center and an airport fix-based operator. These two wells also provide supplemental water to the community waste water treatment plant to complete the blending process with treated waste water to provide recycled water for the irrigation of the community 9-hole golf course.

Over the past several years a decline during summer months in water levels has been observed and attributed to localized pumping well interference with neighboring wells in combination with a prolonged drought. During those periods the Canvas Back well, being the shallower of the two Wild Wings wells, has been affected more dramatically from well interference which precludes the use of the well on a prolonged basis and decreases the availability of the well to provide supplemental water to the waste water treatment plant.

Recent modifications to well pumps at the Canvas Back and Pintail wells allow production from each well of approximately 900 gallons per minute. The severe drought extending through the 2020-21 winter months was exacerbated by the operation of several new wells in the immediate area surrounding Wild Wings CSA to serve farming interests. The water level drops experienced during the spring and summer of 2022 in both wells were unprecedented and resulted in large reductions in production capacity, so much that the flow rates in both wells were at or near the minimum flow requirements for the bowl assemblies of each.

Previous studies at Wild Wings CSA have included an analysis of potable and non-potable demand of the system and associated treatment system sizing, which has been found to be essentially the same over the past two decades. As arsenic and manganese are present in the groundwater, provisions are being made to treat the water from both the Pintail and Wood duck well sites. Recently, the Pintail well pump was extended in setting depth to 500 feet to compensate for localized well interference having been fitted with a replacement bowl and currently the well pump, without major modifications (new motor, discharge head, etc), is at its maximum setting depth.

To solve the chronic water crisis issue, Yolo County has determined that a new, deeper well (similar in depth to the 1000 foot Pintail well) should be constructed and equipped to enhance the reliability of the water supply for the Wild Wings CSA and to support the water system source capacity. Current State Health Department regulations (Title 22) also require a reliable and redundant drinking water source.

Project Engineers, Luhdorff & Scalmanini Consulting Engineers, Inc (LSCE) reviewed several potential well site locations within the Wild Wings community for a site that would be suitable for construction of a new well and pump station. LSCE determined that a small contiguous site located near the northwest portion of the community and owned by the County is a suitable location (see Figure 2). The proposed new well, west of Wood Duck Street, will be referred to as the Wood Duck well.

Wild Wings CSA has been implementing water conservation measures to ensure the community continues to have adequate supplies of water for drinking and fire suppression. During the months of June, July and August 2022, residents were asked to water only on Sundays, Wednesdays and Fridays, prior to 9:00 a.m. or after 8:00 p.m., for no more than 12 minutes per cycle. As of September 2022, the acceptable days to water are Sundays and Wednesdays.

The new Wood Duck well will not deplete or increase the amount of water currently and historically withdrawn from the groundwater basin and is only intended to provide redundancy to the existing drinking water system. The existing water distribution system is at buildout, and with prime farm land surrounding the development, no future housing growth is planned nor anticipated.

This Initial Study addresses the need for construction of a new well, pump station and treatment facilities to support the Wild Wings CSA water system source capacity on County property referred to as the Wood Duck Well and Pump Station (see Fig. 2). The Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines, Title 14 California Code of Regulations (CCR) 15000 *et seq.* An Initial Study is prepared by a lead agency to determine if a project may have a significant effect on the environment. The lead agency for the proposed project is Yolo County.

## **2.0 Project Location**

The Wild Wings CSA is located approximately 5 miles west of Woodland near the intersection of State Route 16 and County Road 94B in Yolo County (Figure 1). The project is located within a portion of the northwest quarter of an unsectioned portion of Township 10 North, Range 1 East, of the USGS Madison California (1952), 7.5 Series Quad. Elevation is approximately 130 amsl (average mean sea level).

East of the Wood Duck well site is the northwest portion of the Wild Wings planned community. West of the Project is a large orchard. To the south is the community golf course. The surrounding area is a vacant field with ground vegetation of grasses and ruderal/weedy species (See Photos 1-4). The site location is approximately 250 feet south of Cache Creek which runs in a generally eastward direction north of the Wild Wings community.



**Figure 1:** The County of Yolo, CA and general location of Wild Wings County Service Area (CSA) west of Woodland shown by red star.

### 3.0 Well Site Selection

The location of the new Wood Duck well and pump station (Fig. 2) is based on an extensive analysis by the Project Engineers, Luhdorff & Scalmanini Consulting Engineers, Inc. (LSCE) based in Woodland who have a thorough understanding of the intricacies of the various wells, pumps, piping, electrical and mechanical facilities incorporated into the current Wild Wings CSA water system. It was determined the Wood Duck well site met all of the required sanitary and access provisions and the available yield capability from the deep aquifer that would be targeted at the site. A preliminary site plan of the project footprint is provided in Figure 3. The selection criteria for the new Wood Duck well and pump station satisfies the following:

- **Sanitary Considerations** – The new Wood Duck well and pump station is located away from any potential contamination hazards such as sanitary sewers, drainage ponds and areas of potential flooding.
- **Availability of Property for Facility Construction and Use** – The new Wood Duck well and pump station site is adequate size to permit encroachment by a drilling rig and support equipment and allow for future maintenance needs of the facility.
- **All Weather Access** – The new Wood Duck well site is accessible under all weather conditions.
- **Utility Power Accessibility** – The new Wood Duck well and pump station site is accessible to the existing power grid.
- **Proximity to Existing Water Conveyance Facilities** – Wild Wings CSA possesses two mainline distribution systems, one for raw water conveyance and one for conveyance of potable drinking water to the consumers. Both of these distribution systems can be easily extended to the Wood Duck well and pump station site.





**Figure 2:** The location of the existing Canvas Back and Pintail wells and pump stations and site of the new Wood Duck well and pump station.

Additionally, the advantages of locating a new deeper water well at the Wood Duck site also include:

- The deeper intake screens in a new Wood Duck well would increase available drawdown to overcome the mutual pumping interference from irrigation wells in the local area.
- The new well will provide needed drinking water redundancy as required by drinking water standards and good engineering and operational practice
- No decrease in the available production capacity of the Pintail and/or Canvas Back wells is anticipated.
- No increase in the amount of water withdrawn from the groundwater basin as the well will provide a needed redundant source and the current development has been and is anticipated to remain at buildout.

## 4.0 Proposed Project Elements

The following elements for the proposed Wild Wings CSA – Wood Duck well and pump station project consist of:

1. All associated site grading and ultimately pavement work. An all-weather access road will be maintained.
2. The construction of a multiple piezometer monitoring well (*this work is complete*).
3. The construction of a 1,000 foot production well (this well will be deeper than the Canvas Back well but approximately the same depth as the Pintail well).
4. Equip the well with either a vertical lineshaft or submersible pump.
5. Install all station piping including several hundred feet of pipeline to connect the well into the existing distribution system.
6. Install all electrical switchgear and wiring – including an antenna for the SCADA system and an emergency generator (as required by the Department of Public Health).
7. Install a chemical treatment system which will include chemical feed pumps and pressure vessels outside of the building.
8. Construct a block building (approximately 30 x 60 foot in size) to house the well pump, station piping, electrical switchgear and chemical feed equipment.
9. Install chain link fencing around the site up to 1,500 x 1,500 square feet.

## 5.0 Project Implementation Schedule

Construction of the project is expected to last 18-months commencing in late 2022.

## 6.0 Alternatives to the Proposed Project

The most viable long-term solution to the water requirements being faced by the Wild Wings CSA is to supplement the existing source capacity with an additional well and pump station for the community. The proposed project as outlined in this Initial Study is the preferred alternative.

## 7.0 Public Participation

This Initial Study is available for a 30-day public review period beginning October xx, 2022 and ending on November xx, 2022. Written comments may be submitted by 4:00 p.m. on November xx, 2022 addressed to:

Kimberly Villa  
County of Yolo  
292 West Beamer St.  
Woodland, CA 95695  
Phone: (530) 666-8431  
e-mail: [kimberly@yolocounty.com](mailto:kimberly@yolocounty.com)



This Initial Study is also available for public review online at the County's website located at [www.yolocounty.org](http://www.yolocounty.org) and available at the County of Yolo public counter at 292 West Beamer Street, Woodland, California 95696.

## 8.0 Required Public Agency Permits and Approvals

The following agency approvals and/or permits are anticipated for the proposed project:

- Yolo County - Project approval and adoption of the CEQA Initial Study/Mitigated Negative Declaration.
- Yolo County Right-of-Way Encroachment Permit.
- State of California Department of Public Health, Division of Drinking Water – Amendment to the Water Supply Permit.
- Yolo Solano Air Quality Management District – Permit for the standby emergency generator.

## 9.0 Environmental Factors Potentially Affected by the Proposed Project

Section 10.0 of this Initial Study contains the Environmental Checklist that identifies potential environmental impacts by subject area and a determination of each impact that would result from the Wild Wings CSA – Wood Duck well and pump station project. Based on the Environmental Checklist and supporting analysis provided in Section 10.0 and respective Appendices, the project would result in the following impacts:

- **No Impact:** agricultural resources, land use and planning, mineral resources, population, public services, recreation, and utilities and service systems.
- **Less-than-Significant Impacts:** energy, geology and soils, and transportation/traffic.
- **Less-than-Significant Impacts with Mitigation Incorporated:** aesthetics, air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, tribal cultural resources, and wildfire.
- **Potentially Significant Impact:** None.

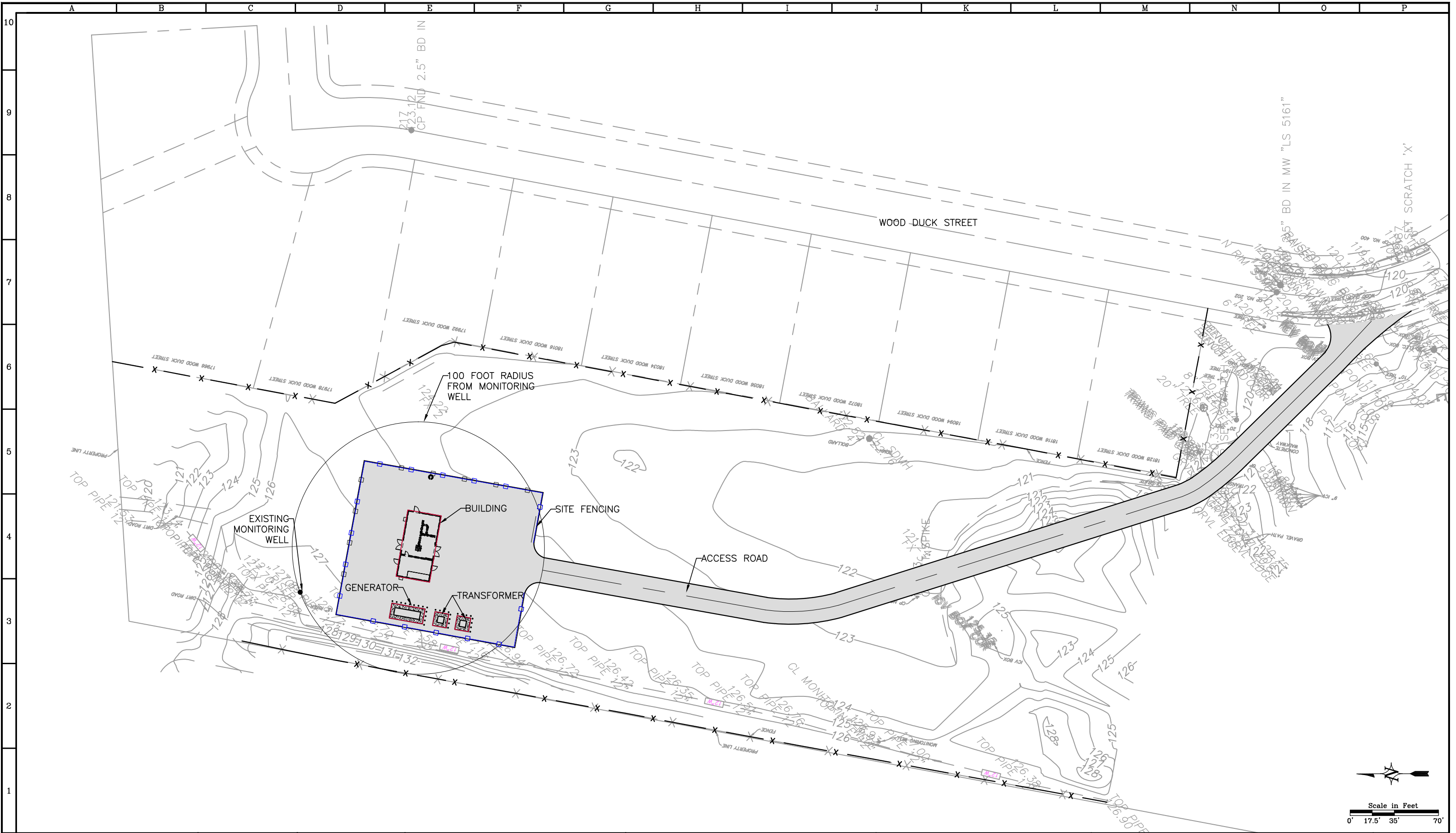
In accordance with State CEQA Guidelines 15070, a Mitigated Negative Declaration may be prepared if there is no substantial evidence that the proposed project would have a significant effect on the environment with mitigation measures incorporated into the project to reduce potential environmental impacts. A Mitigation Monitoring and Reporting Program (MMRP) included as Appendix D.

A Final MND (Response to Comments) will be prepared following public review and comment and proposed to be adopted by Yolo County in accordance with State CEQA Guidelines.

**Photo log Wild Wings CSA – Wood Duck Well and Pump Station Project – June 22, 2022**

	
<b>Photo 1: Project area looking east.</b>	<b>Photo 2: Project area looking north.</b>
	
<b>Photo 3: Project area looking west.</b>	<b>Photo 4: Ground cover in project area</b>

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LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" SCALE ACCORDINGLY)	
FILE _____	
DRAWN _____	
DESIGNED _____	
CHECKED _____	
CHECKED _____	



REVISIONS					
ZONE	REV.	DESCRIPTION	BY	DATE	APP.

WILD WINGS CSA <b>WOOD DUCK PUMP STATION, CALIFORNIA</b> <b>YOLO COUNTY</b>	
SUBMITTED: _____	DATE: _____
SUBMITTAL APPROVED: _____	DATE: _____

PRELIMINARY SITE PLAN OVERVIEW	
DRAWING NUMBER <b>C-1</b>	
SHEET NUMBER _____ OF _____	

## 10.0 Evaluation of Environmental Impacts

The California Environmental Quality Act (CEQA) Guidelines direct lead agencies to use an Initial Study checklist to determine the potential impacts of a proposed project on the physical environment. The checklist provides a list of questions concerning 21 environmental topic areas potentially affected by a project.

There are four possible answers to the environmental checklist questions. All answers must take into account the whole action involved, including off-site as well as on-site, cumulative, as well as project-level, indirect as well as direct, and construction as well as operational impacts. Each possible answer is explained herein:

- 1) A **“Potentially Significant Impact”** answer is appropriate if there is enough relevant information and reasonable inferences from that information that a fair argument can be made to support a conclusion that a substantial or potentially substantial adverse change may occur to any of the physical conditions within the area affected by the Proposed Project. When one or more “Potentially Significant Impact” entries are made, an EIR is required.
- 2) A **“Less Than Significant With Mitigation Incorporated”** answer is appropriate when the Applicant has agreed to incorporate a mitigation measure to reduce an impact from “Potentially Significant” to “Less Than Significant.” The lead agency must describe the mitigation measures, and briefly explain how the measures would reduce the impact to a “Less Than Significant Level.”
- 3) A **“Less Than Significant Impact”** answer is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant or the application of development policies and standards to the project will reduce the impact(s) to a “Less Than Significant Level”.
- 4) A **“No Impact”** answer is appropriate where it can be clearly seen that the impact at hand does not have the potential to adversely affect the environment. For example, a project in the center of an urbanized area will clearly not have an adverse effect on agricultural resources or operations.

<b>10.1 AESTHETICS</b> -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b)</b> Substantially damage scenic resources, including, but not limited to, trees, rock croppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>c)</b> Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>d)</b> Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### **Response to Questions:**

**a-b):** The proposed Wood Duck well and pump station project will not have a substantial adverse effect on a scenic vista as there are no designated scenic vistas surrounding the area. Existing land uses adjacent to the project area consist of residential homes, golf course, agricultural fields and natural open space. There are no historic buildings within a state-designated scenic highway. Therefore, there would be ***No Impact***.

**c):** The proposed project would not include any facility components that could substantially degrade the existing visual character or quality of the site and its surroundings. Upon completion of the Wood Duck well and pump station the area would be landscaped and enclosed with security fencing similar in overall design to either the Pintail or Canvas Back well sites. Therefore, this impact is ***Less Than Significant***.

**d):** The proposed project would not include nighttime work or the use of extensive lighting during the day that would adversely increase glare. Therefore, there would be ***No Impact***.

**Mitigation Measure(s)** – None required.



<b>10.2 AGRICULTURAL RESOURCES</b> -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Convert Prime farmland, Unique farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b)</b> Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>c)</b> 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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>d)</b> Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>e)</b> Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Response to Questions:

**a-b):** Yolo county is located in the rich agricultural regions of California's Central Valley and the Sacramento River Delta. The proposed Wood Duck well and pump station area would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The project would not conflict with a Williamson Act contract or involve any changes that could result in conversion of farmland to non-agricultural use. Therefore, there would be **No Impact**.

**c-e):** The proposed Wood Duck well and pump station project site is not characterized as timberland or forest land or would conflict with or cause rezoning of timberland or forest land. Therefore, there would be **No Impact**.

**Mitigation Measure(s)** - None Required

<b>10.3 AIR QUALITY</b> -- Where applicable, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</b> Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c)</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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>d)</b> Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>e)</b> Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Environmental Setting

Yolo County, including the Proposed Project area, is located within the Sacramento Valley Air Basin (SVAB). The SVAB is bound by the North Coast Ranges on the west and Northern Sierra Nevada Mountains on the east.

Yolo Solano Air Quality Management District (YSAQMD) has jurisdiction over all of Yolo County and the northeast portion of Solano County. YSAQMD regulates air quality through its district rules and permit authority. YSAQMD also participates in planning review of discretionary project applications and provides recommendations. YSAQMD has adopted rules and regulations and CEQA guidelines to limit the emissions of visible air contaminants to the atmosphere.

The pollutants introduced into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NOX), sulfur dioxide (SO<sub>2</sub>), inhalable particulate matter (PM<sub>10</sub>), fine particulate matter (PM<sub>2.5</sub>) and lead (Pb) are primary air pollutants. ROG and NOX are criteria pollutant precursors that form secondary criteria air pollutants such as ozone (O<sub>3</sub>) through chemical and photochemical reactions in the atmosphere. These pollutants cause or may cause cancer or other serious health effects such as birth defects, neurological and reproductive disorders, or chronic eye, lung or skin irritation.

Pollutant substances and particulate matter emitted by diesel and gasoline engine exhaust can cause harmful affects if not properly operated. Diesel and gas engines emit a complex mixture of pollutants,

including very small carbon particles, or "soot" coated with numerous organic compounds, known as diesel particulate matter (DPM). DPM is of concern because it is a potential source of both cancer and non-cancer health effects.

Particulate matter (PM<sub>10</sub>) is the fine mineral, metal, soot, smoke and dust particles suspended in the air. Inhaling particulate matter less than 10 microns in diameter (PM<sub>10</sub>), can cause respiratory and other health problems. Yolo County is designated as nonattainment for PM10 under the CAAQS.

The California Clean Air Act is administered by the Air Resources Board (ARB) at the state level and by the air quality management districts and air pollution control districts at the regional and local levels. In California, the ARB has established the California Ambient Air Quality Standards (CAAQS).

Yolo County is currently in nonattainment for O<sub>3</sub> under the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). Ozone is an invisible pollutant formed by chemical reactions involving nitrogen oxides, reactive hydrocarbons and sunlight. It is a powerful respiratory irritant that can cause coughing, shortness of breath, headaches, fatigue and lung damage.

For CEQA purposes, a sensitive receptor is generically defined as a location where human populations, especially children, seniors, or sick persons are found. Examples of sensitive receptors include residences, hospitals, and schools. The nearest sensitive receptors to the project site include residences along Wood Duck Drive, located approximately 400 feet from the limits of the construction area.

#### **Response to Questions:**

**a-c):** During construction of the proposed Wood Duck well and pump station emissions from a drilling rig and other contractor equipment would generate diesel and gas exhaust emissions over the course of project activities. The California Emissions Estimator Model (CalEEMod) was applied to the project duration for required construction equipment. The sensitivity index generated by the model for a suite of air-borne pollutants range between 1 and 2 or non-applicable on a scale of 1-5 with 5 being the most sensitive indicating low sensitivity to construction emissions (see Appendix A).

Project construction and/or operations emission levels associated with the proposed project with mitigation would not exceed an applicable threshold of significance for air pollutants or conflict with an applicable air quality plan, violate any air quality standard or contribute substantially to an existing air quality violation that would individually or cumulatively impact local or regional air quality.

Contractors will perform all construction activities in accordance with County guidelines. Implementation of the mitigation measures below would ensure the proposed project will not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment. Construction emissions are a temporary one-time release and would not substantially contribute to the concentration of any pollutant of concern. Mitigation measures outlined below will be required throughout the duration of the 18-month construction schedule. Therefore, impacts would be ***Less Than Significant with Mitigation Incorporated***.

**d-e):** Sensitive receptors in the vicinity of the proposed project area include homes, golf course and recreation areas within the boundary limits of Wild Wings CSA. Construction of the Wood Duck well and pump station would occur in a relatively small geographic area and would not create objectionable odors affecting a substantial number of people. The diesel and contractor equipment exhaust emissions would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance and sensitive receptors would not be exposed to long-term concentrations of emissions. Once construction

activities are complete, these odors would cease. No other odors would be generated by the project. Therefore, the proposed project would not generate emissions of odors affecting a substantial number of people. Dust control measures shall be implemented during project construction. Mitigation measures outlined below would be required throughout the duration of the 18-month construction schedule. Impacts to Air Quality associated with the construction of the project would be ***Less Than Significant with Mitigation Incorporated.***

### **Mitigation Measure(s)**

**10.3 (d-e)** - The following mitigation measures shall be incorporated into the project to reduce impacts to air quality during construction activities and include:

- All construction equipment shall be checked by a certified mechanic and determined to be running in proper condition before the start of work.
- Water trucks shall be used as needed to prevent airborne dust from leaving the project site.
- All stockpiled material shall be sufficiently covered when not in use to prevent potential airborne pollutants from leaving the project site.
- All trucks hauling loose construction material such as gravel and sand to the project site shall be securely covered to avoid spilling.
- All trucks hauling construction material shall avoid track-out from the project area.
- The site shall be cleaned at the end of each working day.
- Field inspectors shall ensure compliance with Yolo-Solano Air Quality Management District guidelines and regulations.
- Signs shall be placed along construction area with contact information to report air quality violations to Yolo Solano Air Quality Management District.

<b>10.4 BIOLOGICAL RESOURCES -</b> Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</b> Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>c)</b> Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>d)</b> Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>e)</b> Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>f)</b> Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local regional or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### **Biological Resources Setting:**

The Biological Resources responses are based on the comprehensive assessment of the project area conducted by Golden Hills Biological Consulting based in Oroville. The Biological Resources Assessment is provided as Appendix B.

According to CEQA, any project which would affect the continued existence of an endangered or threatened species or a special status species is considered to be a significant impact. Species listed as threatened or



endangered, candidate species for listing, state species of special concern, and plants listed by the California Native Plant Society (CNPS) are defined as meeting specific criteria including but not limited to:

- plant and wildlife species that are listed, or proposed for listing as threatened or endangered under the California Endangered Species Act (California Administrative Code, Title 14, Section 670.5) or listed or proposed for listing under the federal Endangered Species Act (ESA);
- plant and wildlife species identified by the CDFW or USFWS as special-status or Species of Special Concern; and
- species protected under other regulations (e.g. Migratory Bird Treaty Act).

Prior to initiating field surveys, an office review of relevant biological databases for special-status plant and wildlife species was carried out to develop a target list of potentially occurring special-status species and sensitive habitats in the project area. Primary sources of information regarding the occurrence of state and/or federally listed threatened, endangered, proposed, and candidate species and their habitats included:

- The results of a species record search of the CDFW California Natural Diversity Data Base (CNDDDB 2022) RareFind 5 for the 7.5 minute USGS Madison quadrangle (**Appendix B**);
- The USFWS IPaC Official Species List for the Project area ESA was also obtained from the USFWS Sacramento Field Office for the Wild Wings CSA Well Project on June 19, 2022 (**Appendix B**);
- The review of the CNPS Inventory of Rare and Endangered Vascular Plants of California for the 7.5 minute USGS Madison quadrangle (**Appendix B**); and
- Results from the habitat assessments conducted by GHC on June 19, 2022 (**Appendix B**).

Table 1 identifies the target list of 13 special-status species potentially occurring in the project area and includes the common name and scientific name for each species, regulatory status (state, federal, CNPS), habitat descriptions and potential for occurrence. The 13 species includes 1 plant, 2 invertebrates, 1 fish, 5 birds, 2 insects, 1 reptile and 1 amphibian. There are no special-status species occurrences at the Wood Duck well and pump station project site based on the CNDDDB, USFWS IPaC species lists and the CNPS list of rare and endangered plants.

There is no designated critical habitat or Sensitive Natural Communities listed on the CNDDDB, CNPS and USFWS databases within the project area.

**Table 1.** Special-status species and their potential to occur at or near the Wood Duck well and pump station site, Wild Wings CSA, Yolo County, CA.

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
<b>PLANTS</b>			
California alkali grass <i>Puccinellia simplex</i>	-/-/1B.2	Heavily mineralized, alkali scalds. Usually in wetlands.	<b>None.</b> There are no wetlands within the BSA.
<b>CRUSTACEANS</b>			
Vernal pool fairy shrimp	FT/_/_	Vernal pools.	<b>None.</b> There are no vernal pools

<b>Common Name</b> ( <i>Scientific Name</i> )	<b>Status</b> Fed/State/CNPS	<b>Associated Habitats</b>	<b>Potential for Occurrence</b>
( <i>Branchinecta lynchi</i> )			within the BSA.
<b>Vernal pool tadpole shrimp</b> ( <i>Lepidurus packardii</i> )	FE/_/_	Vernal pools.	<b>None.</b> There are no vernal pools within the BSA.
<b>FISH</b>			
<b>Delta smelt</b> <i>Hypomesus transpacificus</i>	FT/_/_	Found only from the San Pablo Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties.	<b>None.</b> Critical habitat is not present within the BSA
<b>INSECTS</b>			
<b>Monarch butterfly</b> <i>Danaus plexippus</i>	Federal candidate	Larval host plants are milkweeds ( <i>Asclepias sp.</i> )	<b>None.</b> No milkweeds were located within the BSA
<b>Valley Elderberry Longhorn Beetle</b> <i>Desmocerus californicus dimorphus</i>	FT/_/_	Host plant are elderberries, <i>Sambucus spp.</i>	<b>None.</b> No elderberries were found within the BSA.
<b>BIRDS</b>			
<b>Tricolor blackbird</b> <i>Agelaius tricolor</i>	-/ST/-	Their habitat is along wetlands such as marshes and creeks, often with cattails ( <i>Typha sp.</i> ) with flooded or thorny vegetation for nesting.	<b>None within the BSA.</b> The CNDDDB does report a large occurrence area along Cache Creek which lies approximately 200 feet north of the project. No tricolor blackbird activity was seen or heard on the date of the survey.
<b>Swainson's hawk</b> <i>Buteo swainsonii</i>	_/ST/_	Open fields for foraging, nesting in tall trees adjacent or near foraging areas.	<b>Unlikely to occur.</b> A highly suitable foraging area is located north of Cache Creek. No Swainson's hawk was seen during the onsite survey.
<b>Yellow-billed cuckoo</b> <i>Coccyzus americanus</i>	FT/_/_	Woodlands with scrubby vegetation, overgrown orchards or dense thickets along streams and marshes	<b>None.</b> Suitable habitat is not present within the BSA. There are no occurrences within 3 miles per the CNDDDB
<b>Black-crowned night heron</b> <i>Nycticorax nycticorax</i>	_//_/_ Designated a "Special Animal"	Aquatic habitats, such as marshes, rivers, ponds, canals and rice fields. Nests in groves of trees or in thickets.	<b>None.</b> There is no suitable habitat within the BSA, but may be marginally present within the riparian area along Cache Creek.
<b>Bank swallow</b> <i>Riparia riparia</i>	_/ST/_	Lives near streams and reservoirs in colonies that nest in vertical banks and cliffs.	None. There is no habitat present within the BSA or nearby Cache Creek that has sloping banks.

<b>Common Name</b> ( <i>Scientific Name</i> )	<b>Status</b> Fed/State/CNPS	<b>Associated Habitats</b>	<b>Potential for Occurrence</b>
<b>REPTILES</b>			
<b>Giant garter snake</b> <i>Thamnophis gigas</i>	FT/_/_	A semi-aquatic reptile, it inhabits low streams, sloughs, ponds, small lakes, and irrigation canals.	<b>None.</b> There is no suitable habitat in nearby Cache Creek as these snakes are semi-aquatic. There is no CNDDDB occurrence within 3 miles.
<b>AMPHIBIANS</b>			
<b>California Tiger Salamander</b> <i>Ambystoma californiense</i>	FT/_/_	Their foraging habitat is within oak woodlands and annual grasslands. They require ephemeral pools (such as vernal pools) for breeding.	<b>None.</b> Although the BSA is within annual grassland, there are no ephemeral pools locally. There is no CNDDDB occurrence within 3 miles.
<b>CRITICAL HABITATS</b>			
			There are no critical habitats within the BSA
<b>CODE DESIGNATIONS</b>			
<b>FE or FT</b> = Federally listed as Endangered or Threatened <b>FC</b> = Federal Candidate Species <b>SE or ST</b> = State listed as Endangered or Threatened <b>SC</b> = State Candidate Species <b>SR</b> = State Rare Species <b>SSC</b> = State Species of Special Concern <b>FP</b> = State Fully Protected Species <b>SNC</b> = CDFW Sensitive Natural Community		<b>CNPS California Rare Plant Rank (CRPR):</b> <b>CRPR 1B</b> = Rare or Endangered in California or elsewhere <b>CRPR 2</b> = Rare or Endangered in California, more common elsewhere <b>CRPR 3</b> = More information is needed <b>CRPR 4</b> = Plants with limited distribution <b>0.1</b> = Seriously Threatened <b>0.2</b> = Fairly Threatened <b>0.3</b> = Not very Threatened	

### Response to Questions:

**a;d):** Biologists conducted field surveys for target raptor, migratory bird and/or other or special-status avian species and habitat assessments in the project area to evaluate site conditions and potential for special-status species that may inhabit the area on June 19, 2022. No suitable habitat for special-status wildlife was located during the June 19, 2022 survey in or near the Wood Duck well and pump station site.

Visual observations, habitat notes and a list of flora and fauna found on the project site while conducting the survey is provided in Appendix B. Observed wildlife species include Scrub jay, Turkey vulture, Song sparrow, Mockingbird and Mourning dove. There appears to be minimal to no habitat for reptiles or mammals as there were no signs of scant, refugia or habitat use observed.

Grasses were identified by ground remains and consisted mainly of non-native, naturalized species such as hare barley (*Hordeum murinum ssp. leporinum*), ripgut brome (*Bromus diandrus*), Bermuda (*Cynodon dactylon*), and slender wild oats (*Avena barbata*). Purple needle grass (*Stipa pulchra*), a native grass species, was sparsely present. Weedy species included star thistle (*Centaurea solstitialis*), milk thistle (*Silybum maritimum*), field mustard (*Brassica rapa*), wild radish (*Raphanus raphanistrum*), and others. No habitat for rare plants was encountered during the field survey.

Nesting birds are protected under the MBTA (16 USC 703), the CFGC (§3503), and the California Migratory Bird Protection Act (CMBPA, AB 454). Swainson's hawk occurrences are numerous

throughout the area based on CNDDDB occurrences though none were seen during the onsite survey. A highly suitable foraging area is located north of Cache Creek where open fields exist beyond the project site.

The target special-status species identified in the project area (see Table 1) were assessed for their likelihood to occur within the project area based upon their habitat requirements, and the quality and extent of any suitable habitat within the project area. The following set of criteria was used to determine each species' potential for occurrence on the site:

- **Present:** Species is known to occur, based on CNDDDB, CNPS and/or USFWS records, and/or was observed onsite during the field survey(s).
- **May occur:** Species is known to occur on or near the project area (based on occurrence records within 5 miles and there is suitable habitat onsite).
- **Unlikely to occur:** Species is known to occur in the vicinity of the project area; however, there is poor quality or marginal habitat on site or in adjacent lands and the species was not observed during surveys. If these species were to occur at the site, they would likely be migrants, and are not likely to be resident or reproduce at the site due to a lack of appropriate habitat or outside of their known breeding range.
- **None:** Species is not known to occur on or in the vicinity of the project area and there is no suitable habitat for the species -OR- Species was surveyed for during the appropriate season with negative results for species occurrence.

The site contains no suitable habitat for any species that are of concern to the CDFW, CNPS and/or USFWS. Based on field observations by biologists and literature review, no state or federal threatened or endangered plant or wildlife or special-status species would be impacted by project activities.

Raptors and migratory birds do forage and nest in various habitats throughout the Sierra Nevada foothills throughout spring and summer. The proposed project is planned for construction over consecutive years during the raptor or migratory bird nesting seasons (February through May). To mitigate potential impacts a qualified biologist will conduct surveys over the planned course of the project and prior to construction visually assessing for active nests within 500 ft (150 m) of the project area, which is a CDFW recommended boundary. If an active nest is located the survey biologist will consult with Yolo County to avoid and/or minimize potential impact such as establishing buffers. Other special-status species with a potential to occur in the project area would be considered during a pre-construction and subsequent surveys.

The project would not interfere substantially with the movement of any native resident or migratory wildlife species or migratory corridor or reduce the use of native wildlife nursery sites. The project does not threaten to eliminate any plant and/or wildlife community inhabiting this portion of Yolo County.

Although no trees large enough to provide suitable nesting are within the project area, the nearby riparian corridor along Cache Creek does support several large trees that may be attractive for nesting. To mitigate potential impacts a qualified biologist will conduct surveys over the planned course of the project and prior to construction visually assessing for active nests within 500 ft (150 m) of the project area, which is a CDFW recommended boundary. If an active nest is located the survey biologist will consult with Yolo County to avoid and/or minimize potential impact such as establishing buffers. Other special-status species with a potential to occur in the project area would be considered during a pre-construction and subsequent surveys. Impacts to Biological Resources associated with the construction of the project would be ***Less Than Significant with Mitigation Incorporated.***

**b-c):** Natural stream channels, wetlands, and other seasonal or permanent water features are protected by state (CDFW) and federal laws, the latter under the jurisdiction of the U.S. Army Corps of Engineers (USACE). The project would not have a substantial adverse effect on any sensitive habitat identified in local or regional plans, policies or regulations, or by CDFW or USFWS.

The project would not affect federally protected wetlands as defined by Section 404 of the Clean Water Act as there are no wetlands at the project site. Mitigation measures outlined in Section 10.10 Hydrology and Water Quality would be implemented during construction activities so that fill or discharge into Cache Creek approximately 250-feet north of the Wood Duck well and pump station. Therefore, these impacts would be ***Less Than Significant***.

**e-f):** The project would not conflict with the provisions of a Habitat Conservation Plan or Natural Community Conservation Plan. The proposed project will not have a significant impact on rare, endangered, threatened, or other special-status species identified in regional plans, policies, or regulations or by CDFW or USFWS. The proposed project will not have an effect upon any Designated Critical Habitat as defined in the ESA. Therefore, there would be ***No Impact***.

**Mitigation Measure(s):** The following mitigation measures shall be incorporated into the project to avoid impacts to raptors, migratory birds and other special-status plant and wildlife species.

**10.4 (a;d):** The proposed project is planned for construction over 18-months during the raptor and migratory bird nesting seasons (March 15-July 31). To mitigate potential impacts a qualified biologist will conduct a nesting bird survey 48-72 hours prior to well drilling and other construction ground disturbance. If an active nest is located the survey biologist will consult with Yolo County staff to avoid and/or minimize potential impacts such as establishing buffers. Other special-status species with a potential to occur in the project area would be assessed during the pre-construction and subsequent surveys.

<b>10.5 CULTURAL RESOURCES --</b> Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</b> Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c)</b> Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>d)</b> Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## Cultural Resources Setting:

Yolo County contains a rich diversity of archaeological, prehistoric and historical resources. The General Plan (2009) observes that the archaeological sensitivity of Yolo County is generally considered high, particularly in areas near water sources or on terraces along water courses.

The Cultural Resources responses are based on a systematic archaeological pedestrian survey of the Area of Potential Effect (APE) conducted by Ms. Lori Harrington, Cultural Resource Associates. The Cultural Resources Assessment is provided as Appendix C to this Initial Study.

A substantial adverse change upon a historically significant resource would be one wherein the resource is demolished or materially altered so that it no longer conveys its historic or cultural significance in such a way that justifies its inclusion in the California Register of Historical Resources or such a local register (CEQA Guidelines Section 15064.5, sub. (b)(2)). Cultural resources include prehistoric and historic period archaeological sites; historical features, such as rock walls, water ditches and flumes, and cemeteries; and architectural features. Cultural resources consist of any human-made site, object (i.e., artifact), or feature that defines and illuminates our past.

A pedestrian survey, which entailed the inspection of all land surfaces that can reasonably be expected to contain cultural resource remains was performed on June 21, 2022. The ground was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, baked clay items) and soil discoloration that might indicate the presence of a cultural midden and features indicative of the former presence of structures or buildings (e.g., foundations) or historic debris (e.g., metal, glass, ceramics).

In conjunction with the Records Search for the project, the Native American Heritage Commission (NAHC) was contacted regarding Sacred Land Listings. The NAHC indicated that there are no Sacred Land listings for the project area or adjacent lands. The contact list from the Native American Heritage Commission included a list of individuals and groups, all of whom were contacted and requested to supply any information they might have concerning traditional use areas or prehistoric sites within the project area (see Appendix C).

Two responses were received. One from the Yocha Dehe Tribal Historic Preservation Officer dated August 19, 2022 (Ref YD-06152022-02) with a request that the proposed project incorporate Yocha Dehe Wintun Nation's Treatment Protocol into the Cultural Resources mitigation measures for the project. The second response was received from the United Auburn Indian Community's Tribal Historic Preservation Department who reviewed the project location and determined that it falls outside of the UAIC's geographic area of traditional and cultural affiliations (see Appendix C).

## Response to Questions:

**a-d): Record Search:** A Record Search was performed by the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park, California on June 23, 2022. The results indicated that one previous survey had been conducted within the project area (S-006877). The survey covered 100% of the current project area and was negative for resources within the project area. In addition, a non-authored survey was conducted within ¼ mile of project site (S-002955). There are 3 known resources within ¼ of the project area (P-57-000605, P 57-001063, P-57-001388) all of which are transmission lines (Table 2). These resources will not be impacted by the current project.

**Table 2.** Cultural Resource surveys and resources within the Wood Duck well and pump station project area.

Report #	Author	Date	Resources	Coverage
S-006877	K.Bethard	04/2007	None in project area	100%
Report #	Author	Date	Resources	Location
S-002955	<i>Not stated Survey within ¼ of project area</i>	1978	7 resources. Cache Creek segments 1-5, Alder Creek, Yol-34	<i>On the north side of creek. North of project area.</i>

Resources within ¼ mile of project area

Resource#	Date	Resources
P-57-000605	10/2013	Segment of Moore Ditch or Moore Canal
P-57-001065	12/2015	Segment of Moore Ditch or Moore Canal
P 57-002388	10/2013	Isolated obsidian flake

The results of the pedestrian survey were negative for cultural content. There was no surface evidence of historic or prehistoric sites, features, artifacts or isolates. The project area has undergone extensive disruption due to previous non-project grading activities.

Based on the results of the pedestrian survey and Records Search, the sensitivity for finding subsurface deposits of cultural resources at the project site is considered **low**. Any improvements within the project area will have no adverse impacts on known cultural resources. The project will have no effect on historical, archaeological, paleontological, or other cultural resources. There are no known formal cemeteries within the project area.

No additional hindrances affected the results of this survey, and no conditions are placed on the project based on the results of this study. No cultural resources were identified either through background research or by a surface inspection, and no historic properties are present within the project APE. Potential impacts to cultural resources are ***Less Than Significant With Mitigation Incorporated***.

**Mitigation Measure(s)** – The following mitigation measures shall be incorporated into the project to avoid impacts to Cultural Resources.

**10.5 (a-d):** Should unanticipated cultural resource be encountered during construction activities, work must cease, and a qualified archaeologist contacted immediately to determine appropriate measures to mitigate any adverse impacts to the discovered resources. If human remains are discovered during construction-related activities notification of the Yolo County Coroner is required. If the Yolo County Coroner determines that the discovered remains are those of Native American ancestry, then the Native American Heritage Commission must be notified by telephone within 24 hours. The instructions provided by the Yocha Dehe Tribal Historic Preservation Officer on August 19, 2022 and Sections 5097.94 and 5097.98 of the Public Resources Code describe the procedures to be followed after the notification of the Native American Heritage Commission.

<b>10.6 ENERGY -- Would the project:</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Response to Questions:

**a)** The Yolo County General Plan (2009) establishes goals and policies to achieve energy conservation and increase use of cleaner, renewable, and locally controlled energy sources. These goals include increasing the use of sustainable energy sources and reducing reliance on non-sustainable energy sources to the extent possible.

Construction activities associated with the proposed project require the use of energy (e.g., fuel and electricity) for operation of drilling and construction equipment, and construction vehicle travel. These activities would not result in significant impacts related to wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, these impacts would be ***Less Than Significant***.

**b)** The proposed project would not conflict with or obstruct implementation of a state or local plan for renewable energy or energy efficiency. Therefore, there would be ***No Impact***.

#### Mitigation Measure(s) - None Required

<b>10.7 GEOLOGY AND SOILS -- Would the project:</b>				
<b>a) 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.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>b) Expose people or structures to potential substantial adverse effects including the risk of loss injury, or death involving strong seismic ground shaking?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>c)</b> Expose people or structures to potential substantial adverse effects including the risk of loss injury, or death involving seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>d)</b> Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>e)</b> Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>f)</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>g)</b> Be located on expansive soil, as defined in Table 18-1-B of the uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>h)</b> Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Response to Questions:

**a-g):** There is no aspect of the proposed Wood Duck well and pump station project that would expose people or property to increased risk during strong seismic ground shaking or ground failure. The project would not expose people or structures to potential adverse effects from landslides nor will the project elements be placed on unstable soils or present significant potential for soil erosion.

Other hazards, such as lateral spreading, a phenomenon associated with liquefaction, subsidence, or other geologic or soil conditions that could create unstable subsurface conditions is not a significant hazard associated with project activities. The project site would not expose people to risk related to potential geologic impacts. Best Management Practices and erosion control measures will be in place during all construction activity. These impacts would be *Less Than Significant*.

**h):** There are no demands for wastewater disposal systems required for the project. Therefore, there would be *No Impact*.

**Mitigation Measure(s)** - None Required

<b>10.8 GREENHOUSE GAS EMISSIONS</b> -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</b> Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Response to Questions:

**a)** Yolo County is actively engaged regarding the issue of global warming, and has adopted a strong commitment to the reduction of greenhouse gas (GHG) emissions. The Yolo County General Plan (2009) provides goals, policies, and programs to reduce GHG emissions and improve quality of life in the county. Programs and actions are intended to help the County ensure long-term resiliency to a changing environmental climate.

The project activities associated with the proposed Wood Duck well and pump station would not involve a substantial increase in mobile, stationary, or operational emissions. The only increase in GHG emissions generated would occur during the construction phase scheduled over an 18-month period. Due to the relatively small size of the project and short duration construction time period, the GHG emissions will have relatively minor impact on regional GHG emissions overall and would not significantly contribute to the cumulative levels of the area. The mitigation measures outlined in Section 10.3 Air Quality would be implemented to mitigate any potential construction related contributions to greenhouse gases. Therefore, impacts would be *Less Than Significant with Mitigation Incorporated*.

**b):** The proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The anticipated increase in emissions from construction activities would not conflict with the applicable policies adopted for the purpose of reducing GHG emissions. Therefore, there would be *No Impact*.

**Mitigation Measure(s):** The following mitigation measures shall be incorporated into the project to minimize Greenhouse Gas Emissions.

**10.8 (a):** All mitigation measures outlined in section **10.3 Air Quality** shall be implemented throughout the course of construction activities to minimize Greenhouse Gas Emissions.

<b>10.9 HAZARDS AND HAZARDOUS MATERIALS --</b> Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c)</b> Emit hazardous emissions or handles hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>d)</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>e)</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>f)</b> For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working within the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>g)</b> Impair implementation of or physically interfere with an adopted emergency response or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>h)</b> 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Response to Questions:

**a-b):** No known regulated or unregulated hazardous waste generators, leaking tank spills, toxic spills, or other sites affecting the environment were observed within the project area. The proposed Wood Duck

well and pump station project would not create a significant hazard to the public or the environment through the transport, use, or disposal of hazardous materials, and would not result in conditions involving the release of hazardous materials into the environment. Project activities would involve the use of a drilling rig and other contractor equipment which would contain fuels, oils, and lubricants, and solvents to operate. Implementation of the mitigation measures outlined below would reduce impacts to ***Less Than Significant with Mitigation Incorporated.***

**c):** There are no schools in the immediate vicinity of the Wood Duck well and pump station project site. The closest schools to the project site are Plainfield Elementary School (4.1 miles); Lee Middle School (5.8 miles); and Woodland Senior High School (5.8 miles). With proper implementation of mitigation measures outlined below, the project would not generate any hazardous emissions or substances or waste that would adversely impact the environment. Therefore, impacts would be ***Less Than Significant.***

**d):** There are no known hazardous sites or material is present within the immediate vicinity of the proposed project area and, as a result, would not create a significant hazard to the public or the environment. Therefore, there would be ***No Impact.***

**e-f):** The proposed Wood Duck well and pump station project site is within 1/4-mile of the Watts-Woodland airport located at 17992 County Road 94B, Woodland but would not affect an airport land use plan area or a private airstrip or safety zone. Therefore, impacts would be ***Less Than Significant.***

**g):** The proposed project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, there would be ***No Impact.***

**h):** The project would not expose people or structures to a significant loss, injury, or death attributable to wildfires. Implementation of the mitigation measures below would reduce the risk of fire due to construction equipment or activities as a source of construction-related fire. Therefore, impacts are ***Less Than Significant with Mitigation Incorporated.***

**Mitigation Measure(s):** The following mitigation measures shall be incorporated into the project to avoid impacts from hazards and hazardous materials.

**10.9 (a-b; h):**

- Fueling and application of lubricants and fluids will be performed in a designated area with appropriate BMPs.
- Fluids, oils, lubricants, and trash will be disposed according to County guidelines in order to prevent any potentially hazardous materials impact.



<b>10.10 HYDROLOGY AND WATER QUALITY -- Would the project:</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</b> Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>c)</b> Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>d)</b> Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>e)</b> Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>f)</b> Place housing within a 100-year flood hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>g)</b> Place structure within a 100-year flood hazard area, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>h)</b> Expose people or structures to a significant loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>i)</b> Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Response to Questions:

**a;e)** Runoff from construction activities could contain sediment and other pollutants with the potential to affect the environment. All ground disturbance activities shall be routinely inspected to verify that Best Management Practices (BMPs) are properly implemented and maintained. On completion of the work, the area will be left in a condition that would provide for proper drainage and prevent erosion. Implementation of the mitigation measures below would ensure that the project does not have the potential to cause any degradation to water quality or violate any water quality standards or waste discharge requirements. Therefore, these impacts would be ***Less Than Significant with Mitigation Incorporated***.

**b):** The new Wood Duck well will not deplete or increase the amount of water currently and historically withdrawn from the groundwater basin and is only intended to provide redundancy to the existing drinking water system. The existing water distribution system is at buildout, and with prime farm land surrounding the development, no future housing growth is planned nor anticipated. Therefore, this impact is ***Less Than Significant***.

**c):** Construction of the proposed project would not substantially alter the existing drainage pattern of the area that would result in substantial erosion or siltation or substantially increase the rate or amount of surface runoff resulting in flooding on- or off-site or otherwise substantially degrade water quality. Therefore, there would be ***No Impact***.

**d):** The relatively small square footage of the project footprint up to would not result in a substantial increase in the amount of runoff from the site. The project is not designed to result in sources of pollutants that would degrade water quality. Therefore, this impact is ***Less Than Significant***.

**f, g):** The proposed project is located within a 100-year flood zone, as designated by the Federal Emergency Management Agency (FEMA) but would not place housing in special flood hazard areas. Thus, there would be no impact related to placement of a new well and pump station in a 100-year flood hazard area. All construction will be performed according to applicable standard construction and safety codes and would not create a public safety hazard or result in any increase in offsite water surface elevations. Therefore, this impact is ***Less Than Significant***.

**h):** The proposed project would not involve the construction of occupied structures. There would be no substantial risk of loss, injury, or death in the event of flooding at the project site. Therefore, there would be ***No Impact***.

**i):** The project site is not located near an ocean coast or enclosed body of water that could produce a seiche or tsunami. There is no risk related to mudflow hazard from construction or operation activities. Therefore, there would be ***No Impact***.

**Mitigation Measure(s)** : The mitigation measures outlined below shall be incorporated into the project to minimize impacts to hydrology and water quality.

### 10.10 (a,e):

#### 1. Retain soil and sediment on the construction site

- Construction activities shall have sediment control measures including silt fencing and wattles as needed around the project perimeter for the duration of construction to avoid sediment runoff.

- Contractor shall ensure that all spoil piles are stabilized and covered with heavy-duty plastic sheeting when not in use or during any precipitation event.
- In order to reduce the potential to release fugitive dust associated with project activities, dust control measures will be carried out as needed including watering.
- All soils disturbed during construction will be stabilized immediately following construction.

## 2. Non-Storm Water Management

- Water that may be needed to flush and pressure test pipelines to the distribution system will be properly discharged according to applicable waste discharge requirements. No water will be discharged to any perennial or ephemeral surface waters.

## 3. Spill Prevention and Control

- All equipment will be inspected for leaks prior to and during construction operations.
- The contractor will have on-site, at all times, a Spill Containment Kit for immediate deployment in the case of a sudden and unexpected spill of pollutants.

## 4. Maintenance, Inspection, and Repair

- All temporary and permanent BMPs implemented for this project will be properly maintained by the contractor to ensure their effectiveness.
- Equipment, materials, and workers will be available for immediate repairs and rapid response to emergencies if needed.

<b>10.11 LAND USE AND PLANNING --</b> Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b)</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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>c)</b> Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Response to Questions:

**a-c):** The Yolo County General Plan (2009) provides a comprehensive, long-term plan for the physical development of the County related to planning. The General Plan consists of development policies that set

forth objectives, principles and standards that guide land use decisions within the County. The proposed Wood Duck well and pump station project would not physically divide an established community and is consistent with the land use and zoning designation within the area and would not conflict with a local or regional land use policy. The project area is not affected by a Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, there would be **No Impact**.

**Mitigation Measure(s)** - None Required

<b>10.12 MINERAL RESOURCES --</b> Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b)</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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Response to Questions:**

**a-b):** The proposed Wood Duck well and pump station is not in a County designated mineral resource area. No demands for mineral resources are required with this project. Implementation of the project would not 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. Therefore, there would be **No Impact**.

**Mitigation Measure(s)** - None Required

<b>10.13 NOISE --</b> Would the project result in:				
<b>a)</b> Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</b> Exposure of persons to or generation of excessive groundborne vibration noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c)</b> A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>d)</b> A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project ex-pose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Response to Questions:

**a-b;d):** Noise is a concern throughout Yolo County, especially in the vicinity of noise-sensitive uses such as residences, schools and churches. Places where people live, sleep, recreate, worship and study are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities. The Yolo County General Plan (2009) prescribes policies that lead to maintaining an environment free from hazardous and annoying noise.

The existing noise environment in the vicinity of the project area is largely residential and commercial traffic. Noise impacts associated with the project would be a source of temporary increases in ambient noise levels that could be audible to nearby residents. Equipment to be used includes a drilling rig, excavator, backhoe, dump truck, contractor vehicles and power tools. Construction would occur over an 18-month period. The temporary increase in noise levels during project construction would not expose people to substantial noise levels in excess of standards established in the County General Plan or applicable standards of other agencies. The proposed project would not expose persons to excessive groundborne vibration noise levels.

No substantial long-term operational noise would be associated with the project. Noise abatement measures including construction of 300 feet of sound wall along the eastern edge of the site would be installed. Implementation of the mitigation measures below would reduce these impacts to ***Less Than Significant with Mitigation***

**c):** The proposed project will not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Implementation of the mitigation measures below would reduce noise impacts to ***Less Than Significant with Mitigation***

**e-f):** The proposed project is located approximately one-quarter mile from the Watts-Woodland airport but would not expose people living or working within the vicinity of the Wood Duck well and pump station project site to be exposed to excessive noise levels. Therefore, these impacts would be ***Less Than Significant***.

### Mitigation Measure(s)

**10.13 (a-b; d) -** The following mitigation measures shall be incorporated into the project to minimize construction related noise impacts.

- A 300 foot section of sound wall will be installed along the eastern edge of the Wood Duck well and pump station site.

- All internal combustion engine driven equipment shall have residential grade exhaust mufflers in good running condition and appropriate for the equipment.
- Stationary noise-generating equipment shall be located as far as possible from sensitive receptors when sensitive receptors are near a construction project site.
- Project activities will be limited to daytime hours between 7:00 a.m. and 7:00 p.m. on weekdays and Saturdays between 8:00 a.m. and 6:00 p.m.
- Unnecessary motorized idling of equipment will be avoided.
- Signs shall be placed along construction area with contact information to report excessive noise impacts violations to Yolo County Code Enforcement.

<b>10.14 POPULATION</b> -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b)</b> Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>c)</b> Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### **Response to Questions:**

**a):** The Yolo County General Plan (2009) provides a comprehensive, long-term plan of the physical development of the County related to planning. The Wood Duck well and pump station is only intended to provide redundancy to the existing drinking water system. The existing water distribution system is at buildout, and with prime farm land surrounding the development, no future housing growth is planned nor anticipated. The project would not create a demand for new housing or businesses that would induce substantial direct growth in the area. Therefore, there would be ***No Impact***.

**b-c):** The proposed project would not result in the displacement of any existing housing units or people. Consequently, there are no population and/or housing displacement impacts associated with the proposed project. Therefore, there would be ***No Impact***.

**Mitigation Measure(s)** - None Required

<b>10.15 PUBLIC SERVICES</b> -- 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 time or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a) Fire protection?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b) Police Protection?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>c) Schools?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>d) Parks?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>e) Other public facilities?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Response to Questions:**

**a-e):** The Yolo County General Plan (2009) addresses fire and emergency medical service, community parks, law enforcement, schools, and other public facilities. The Yolo Fire Protection District (YFPD) provides fire prevention and emergency medical services through the Yolo Volunteer Fire Department. The proposed project would not affect local population centers or increase Fire or Police Department staffing to serve the project nor would the project result in a population increase that would require additional schools, parks or other public facilities. Therefore, there would be **No Impact**.

**Mitigation Measure(s)** - None Required

<b>10.16 RECREATION</b> --				
<b>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>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>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?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Response to Questions:**

**a-b):** The Wild Wings Golf course and Community Park are in close proximity to the Wood Duck well and pump station project site. However, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration



of a facility would occur or be accelerated. The project would not generate additional demand for recreational facilities. Therefore, there would be **No Impact**.

**Mitigation Measure(s)** - None Required

<b>10.17 TRANSPORTATION/ TRAFFIC</b> -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase on either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at inter-sections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>b)</b> Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>c)</b> Result in a change in traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>d)</b> Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>e)</b> Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>f)</b> Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>g)</b> Conflict with adopted policies, plans, or programs supporting alternative transportation (bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Response to Questions:**

**a):** The proposed project would not cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system or conflict with the local traffic circulation system. There will be an increase in vehicle trips to the project site associated with the contractor's activities but would not result in changes in vehicle circulation patterns or alter the design of any roadways. Transportation of construction equipment and material would take place on public roadways and will not exceed roadway capacity. The project would not result in impacts related to transportation, circulation,

parking, or transportation policies, plans, or programs. Therefore, these impacts would be ***Less Than Significant***.

**b-c):** The project would not result in a change in traffic patterns that results in substantial safety risks. The project would not result in physical changes to roadways, and therefore, would not result in impacts related to transportation, circulation, parking, or transportation policies, plans, or programs. The project would not generate substantial traffic, such that alternative transportation modes would be needed. Therefore, there would be ***No Impact***.

**d):** The project does not include any design features that could result in increased safety hazards. Therefore, there would be ***No Impact***.

**e-g):** Construction activities would not involve road or lane closures during construction and no emergency access routes would be affected by the project. The project would not conflict with the County's overall transportation service goal or generate substantial traffic, such that alternative transportation modes would be needed. Therefore, there would be ***No Impact***.

**Mitigation Measure(s)** - None Required

<b>10.18 TRIBAL CULTURAL RESOURCES</b> -- 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:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. 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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Environmental Setting:**

The Yolo County Tribal Relations Office provides staffing services for the County related to the Intergovernmental Agreement with the Yocha Dehe Wintun Nation and state and federal actions that impact tribal gaming and Native American affairs.

As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to “begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project.” Section 21074 of AB 52 also defines a new category of resources under CEQA called “tribal cultural resources.” Tribal cultural resources are defined as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource.

In compliance with AB 52, a list of Native American contacts provided by the Native American Heritage Commission (NAHC) were each provided with a project description and location map of the project site notifying each tribe of the opportunity to provide a determination regarding the proposed project.

### **Response to Questions:**

a): 1. Per AB 52 Notification Request, Public Resources Code Section 21080.3(b), and in conjunction with the Records Search for the proposed project, the Native American Heritage Commission (NAHC) was contacted regarding Sacred Land Listings. The NAHC indicated that there are no Sacred Land listings for the project area or adjacent lands. The contact list from the NAHC were each sent relevant project information and map of the proposed Wood Duck well and pump station site and requested to supply any information they might have concerning prehistoric sites or traditional use areas within the project area (see Appendix C).

Two responses were received. One from the Yocha Dehe Tribal Historic Preservation Officer dated August 19, 2022 (Ref YD-06152022-02) with a request that the proposed project incorporate Yocha Dehe Wintun Nation’s Treatment Protocol into the Cultural Resources mitigation measures for the project. The second response was received from the United Auburn Indian Community’s Tribal Historic Preservation Department who reviewed the project location and determined that it falls outside of the UAIC’s geographic area of traditional and cultural affiliations (see Appendix C).

Based on the results of the pedestrian survey and Records Search and given the level of non-project previous disturbance within and around the project site, it is not expected that any tribal cultural resources remain within the proposed project area. However, construction of the Wood Duck well and pump station would require excavation and grading activities which may contain undiscovered tribal cultural resources.

Implementation of Mitigation Measures discussed in Section 10.5 – Cultural Resources would avoid potential impacts to undiscovered tribal resources that may be uncovered during construction activities and would reduce this impact to ***Less Than Significant with Mitigation Incorporated.***

2. See discussion 10.18(a) – ***Less Than Significant with Mitigation Incorporated.***

**Mitigation Measure(s):** The following mitigation measures shall be incorporated into the project to avoid impacts from hazards and hazardous materials.

**10.18:** In the unlikely event cultural resources are discovered during ground disturbing activities, the instructions provided by the Yocha Dehe Tribal Historic Preservation Officer on August 19, 2022 and those provided in Mitigation Measure 10.5 CULTURAL RESOURCES would be followed in the event a material of potential cultural significance is uncovered.

<b>10.19 UTILITIES AND SERVICE SYSTEMS</b> -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b)</b> Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>c)</b> Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>d)</b> Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>e)</b> 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 and to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>f)</b> Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>g)</b> Comply with federal, state, and local statutes and regulations related to solid waste.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Response to Questions:

**a-b):** The Wood Duck well and pump station project does not include the construction of any wastewater generating uses or wastewater flows that would exceed wastewater treatment requirements of a Regional Water Quality Control Board. The project would not result in the need for new or expanded wastewater facilities and would not have an adverse effect on wastewater treatment requirements as the Wild Wings community relies entirely on on-site wastewater system. Therefore, there would be ***No Impact***.

**c):** The project will not substantially increase drainage runoff. There is no need for substantial construction of stormwater infrastructure related to project development. Therefore, there would be ***No Impact***.

**d-e):** The proposed project would not result in the need for new or expanded water supplies or affect the capacity of the wastewater treatment provider nor require a landfill. All solid waste disposal needs would comply with all county, state, and federal regulations related to solid waste. Therefore, there would be **No Impact**.

**f, g):** Project activities may generate construction debris and excavated soil. This would not affect landfill capacity because the amounts would not be substantial and occur only during the construction period. Contractors will have a plan in place to store and dispose of all construction debris according to relevant state, federal, and local statutes. Therefore, there would be **No Impact**.

**Mitigation Measure(s)** - None Required

<b>10.20 WILDFIRE</b> -- 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 Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b)</b> Due to slope, prevailing winds, and other factors exacerbate wildfire risk, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>c)</b> Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may be exacerbate fire risk or that may result in temporary or on-going impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>d)</b> Expose people or structures to significant risk, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Response to Questions:**

**a)** There would be no lane closures required for the proposed Wood Duck well and pump station project that would constrict emergency access or interfere with an emergency evacuation plan. Therefore, there is **No Impact**.

**b)** The topography of the project site is generally level and no factors have been identified that would exacerbate wildfire risk, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, there is **No Impact**.

c) No conditions have been identified in the project area that would require the installation of associated infrastructure that may be exacerbate fire risk or result in temporary or on-going impacts to the environment. The project area does not require significant drainage changes. Therefore, there is **No Impact**.

d) The proposed project would not expose people or structures to significant risk, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, there is **No Impact**.

**Mitigation Measure(s)** - None Required

<b>10.21 MANDATORY FINDINGS OF SIGNIFICANCE</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a)</b> 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</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 probably future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c)</b> Does the project have environment effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Response to Questions:**

**a):** The proposed Wood Duck well and pump station project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal. The project will not adversely affect any species identified as a candidate for sensitive or special status species, in

local or regional plans, policies or regulations, or by California Department of Fish and Wildlife or United States Fish and Wildlife Service. The project would not eliminate important examples of the major periods of California history or prehistory. With implementation of the recommended mitigation measures incorporated into the project for aesthetics, air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, and tribal cultural resources impacts would be ***Less Than Significant with Mitigation Incorporated***.

**b):** The project would not result in cumulative effects because no resources would be adversely affected. The project would involve minimal hazardous materials use, the risks of which are site-specific and extensively regulated. The project would not induce population growth or result in the development of new housing or employment-generating uses and would not create a cumulative effect related to increased demand for services or utilities, the expansion of which could result in significant environmental effects. The project would not result in irreversible environmental damage. With implementation of the recommended mitigation measures incorporated into the project for aesthetics, air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, and tribal cultural resources would be ***Less Than Significant with Mitigation Incorporated***.

**c):** As described throughout the preceding checklist sections, the proposed Wood Duck well and pump station project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. With mitigation measures for the environmental categories described above, project impacts, both direct and indirect, to human beings would be ***Less Than Significant with Mitigation Incorporated***.

## **Report Preparation**

This Initial Study was prepared for Luhdorff & Scalmanini Consulting Engineers, Inc. by Inland Ecosystems, Inc. Principal author was Glenn Merron ([gmerron@inlandecosystems.com](mailto:gmerron@inlandecosystems.com)).

## **References Cited**

Yolo County General Plan 2009. [www.yolocounty](http://www.yolocounty)



**APPENDIX A**

**CALIFORNIA EMISSIONS ESTIMATOR  
MODEL (CalEEMod) RESULTS**

**WOOD DUCK WELL AND PUMP STATION**

**WILD WINGS CSA**

**YOLO COUNTY**

# Wild Wings Wood Duck Well and Pump Station Summary Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	Wild Wings Wood Duck Well and Pump Station
Lead Agency	Yolo County
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	34.4
Location	38.68055710288186, -121.88485065240081
County	Yolo
City	Unincorporated
Air District	Yolo/Solano AQMD
Air Basin	Sacramento Valley
TAZ	328
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Industrial	1.00	User Defined Unit	0.50	1,500	1,500	—	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.89	3.83	30.1	37.6	0.06	1.39	21.7	23.0	1.28	2.19	3.46	—	6,611	6,611	0.27	0.07	1.04	6,637
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.38	1.16	10.8	10.0	0.06	0.49	95.3	95.6	0.46	9.72	10.0	—	4,960	4,960	0.25	0.66	0.23	5,162
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.87	0.75	6.78	7.97	0.01	0.31	7.94	8.25	0.28	0.80	1.09	—	1,496	1,496	0.06	0.03	0.21	1,507
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.14	1.24	1.45	< 0.005	0.06	1.45	1.50	0.05	0.15	0.20	—	248	248	0.01	0.01	0.04	249
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	Yes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	Yes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.11	0.01	0.24	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.53	4.53	0.01	< 0.005	0.00	4.78
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.10	0.01	0.18	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.27	4.27	0.01	< 0.005	0.00	4.51
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.10	0.01	0.20	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.30	4.30	0.01	< 0.005	0.00	4.53
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	0.02	< 0.005	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.71	0.71	< 0.005	< 0.005	0.00	0.75

## 6. Climate Risk Detailed Report

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A
Air Quality	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 7. Health and Equity Details

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	55.0
Healthy Places Index Score for Project Location (b)	61.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.



**APPENDIX B**

**BIOLOGICAL RESOURCE ASSESSMENT**

**WOOD DUCK WELL AND PUMP STATION**

**WILD WINGS CSA**

**YOLO COUNTY**

# BIOLOGICAL RESOURCE ASSESSMENT

Terrestrial and Botanical Resources

## Proposed Wood Duck Well

Wild Wings, Yolo County California

August 2022



*Prepared for:*

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# **BIOLOGICAL ASSESSMENT**

## **Wood Duck Well Project Wild Wings, Yolo County, California**

### **INTRODUCTION**

#### **Purpose and Overview**

Yolo County has determined that the gated community of Wild Wings requires an additional water well to enhance the existing water supply which currently is from two onsite wells. A new deep well is proposed (Project) on County-owned property adjacent to the community. A biological assessment (BA) documents endangered, threatened, sensitive and rare species and their habitats which may be affected by the Project.

Golden Hills Consulting (GHC) conducted biological and botanical habitat assessments in the biological survey area (BSA) to evaluate site conditions and potential for biological and botanical species to occur. Other primary references consulted include species lists and information gathered using The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation System (IPaC), the California Department of Fish and Wildlife's (CDFW) Natural Diversity Database (CNDDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, and literature review. The results of the BA are the findings of habitat assessment and surveys, with recommendations for avoidance and minimization measures as necessary.

#### **Project Location and Environmental Setting**

The new well location will be approximately 150-200 feet square; the Biological Survey Area (BSA) included an additional 100 feet on all sides of the square. This location is approximately 250 feet south of Cache Creek which runs in a generally eastward direction north of the Wild Wings community and golf course. Center of the Project is Latitude 38.681442 North and Longitude -121.884763 West (NAD 1983). It is located on the Madison 7.5' USGS quadrangle topographic map in Township 10 North, Range 1 East, Section 29. Elevation is approximately 130 amsl (average mean sea level). The Project is located approximately 5 miles west of Woodland in Yolo County (Figures 1 and 2).

The Project location is a vacant fallow field, parts of which appear to have been mowed. Ground vegetation is primarily naturalized grasses and ruderal/weedy species. The test well stanchion is located onsite. Two excavators are also onsite. These may have been used for work in Cache Creek by Yolo County Flood Control who have cleared a dirt access road to the creek which lies directly north of the Project. Several elderberry bushes were noted in that work area; although outside of the Project, these bushes were flagged and the consulting engineers were notified of their presence for avoidance.

East of the Project is the northwest portion of the Wild Wings community. To the south is the golf course. West of the Project is a large orchard. Access to the Project is through the golf course.

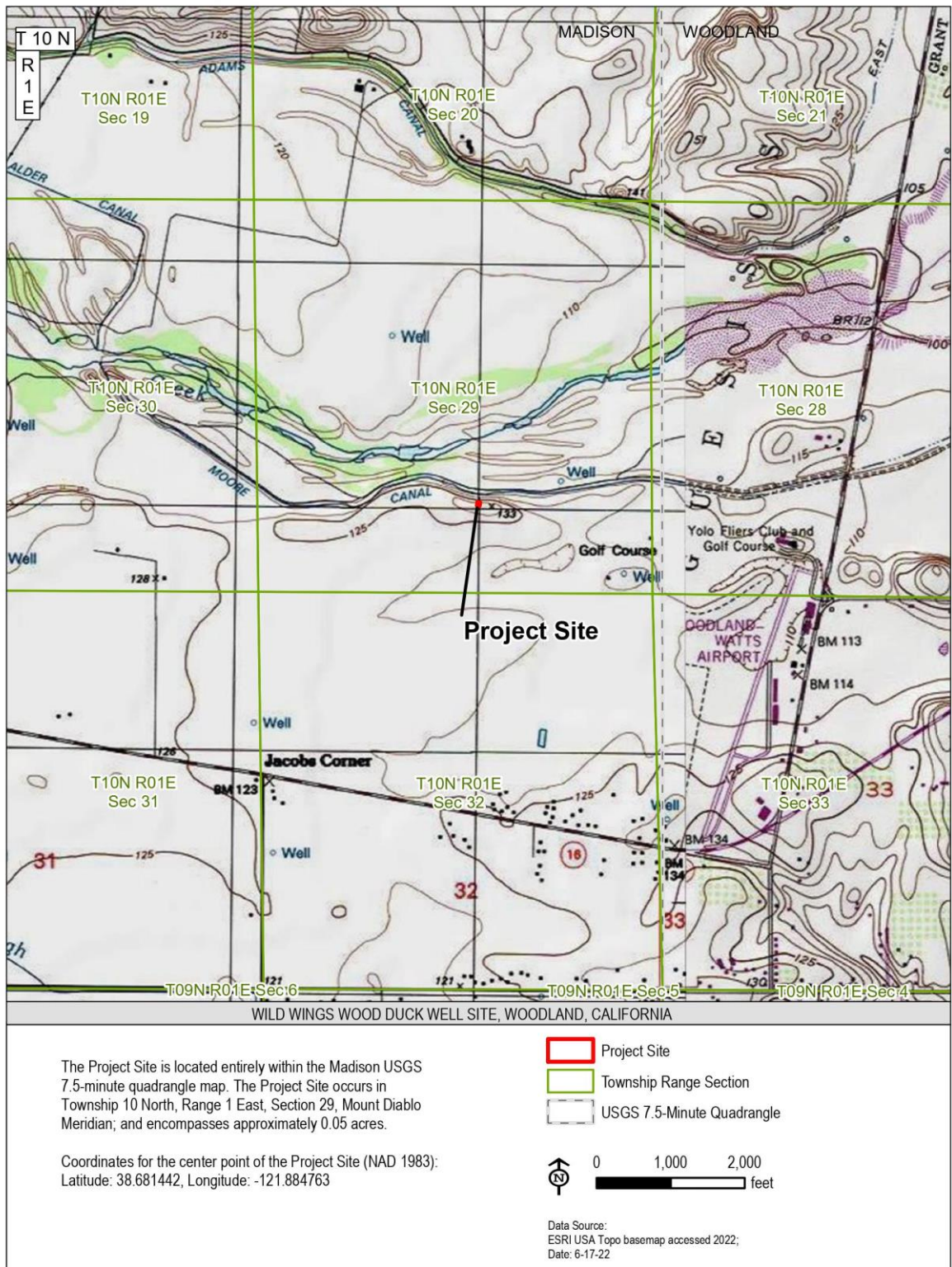


Figure 1 Project Location





Figure 2. Wood Duck Well Site

## Project Description

The Wild Wings CSA is a rural gated community in the unincorporated area of Yolo County that depends on two groundwater wells (Canvas Back and Pintail wells, both on the east side of the community) to provide potable drinking water to its 338 residences, a recreation center, an airport fix-based operator, and provides supplemental water to the community waste water treatment plant to complete the blending process with treated wastewater to provide recycled water for the irrigation of the community 9-hole golf course. The proposed new well (west of Wood Duck Street) will be located near the northwest portion of the community.

With recent modifications to well pumps, the two existing wells are currently producing approximately 900 gallons per minute to meet the high summer month water demands. The shallow location of the well screens in the Canvas Back Well currently preclude the use of the well on a prolonged basis and decreases the availability of the Canvas Back Well to provide supplemental water to the waste water treatment plant. The County has determined that a new, deeper well (similar in depth to the Pintail Well) should be constructed and equipped to enhance the reliability of the water supply for the Wild Wings CSA.

## METHODS

### References Consulted

Based upon the extent of disturbance GHC obtained lists of special-status species that occur in the vicinity of the BSA. The CNDDDB Geographic Information System (GIS) database was also consulted and showed special-status species within a 3-mile radius of the BSA (**Figure 3**). Other primary sources of information regarding the occurrence of federally listed threatened, endangered, proposed, and candidate species and their habitats within the BSA used in the preparation of this BA are:

- The USFWS IPaC Official Species List for the Project area, , Consultation Code 08ESMF00-2021-SLI-2900 (**Appendix A; Species Lists**);
- The results of a species record search of the CDFW CNDDDB RareFind 5 for the 7.5 minute USGS Madison quadrangle (**Appendix A; Species Lists**);
- The review of the CNPS Inventory of Rare and Endangered Vascular Plants of California for the 7.5 minute USGS Madison quadrangle (**Appendix A; Species Lists**);
- Results from the habitat assessments conducted by GHC on October 6, 2021 (**Appendix B; Observed Species Lists**).

### Special-Status Species

Special-status species that have potential to occur in the BSA are those that fall into one of the following categories:

- Listed as threatened or endangered, or are proposed or candidates for listing under the California Endangered Species Act (CESA, 14 California Code of Regulations 670.5) or the Federal Endangered Species Act (ESA, 50 Code of Federal Regulations 17.12);
- Listed as a Species of Special Concern (SSC) by CDFW or protected under the California Fish and Game Code (CFGC) (e.g. Fully Protected species);
- Ranked by the CNPS as 1A, 1B, or 2;
- Protected under the Migratory Bird Treaty Act (MBTA);
- Protected under the Bald and Golden Eagle Protection Act; or
- Species that are otherwise protected under policies or ordinances at the local or regional level as required by the California Environmental Quality Act (CEQA §15380).

### **Critical Habitat**

The ESA requires that critical habitat be designated for all species listed under the ESA. Critical habitat is designated for areas that provide essential habitat elements that enable species survival and which are occupied by the species during the species listing under the ESA. Areas outside of the species range of occupancy during the time of its listing can also be determined as critical habitat if the agency decides that the area is essential to the conservation of the species.

### **Sensitive Natural Communities**

Sensitive Natural Communities (SNCs) are monitored by CDFW with the goal of preserving these areas of habitat that are rare or ecologically important. Many SNCs are designated as such because they represent a historical habitat assemblage.

### **Habitat Assessments**

Habitat assessments were conducted by GHC on June 19, 2022. At that time, biological and botanical habitat assessment was conducted by field biologist/botanist Mary Bailey to determine the suitable habitat elements for special-status species within the BSA. The habitat assessments were conducted by walking through the entire Project, visually assessing surrounding areas, and if habitat was observed for special-status species it was then evaluated for quality based on vegetation composition and structure, physical features (e.g. soils, elevation), microclimate, surrounding area, presence of predatory species and available resources (e.g. prey items, nesting substrates), and land use patterns. A list of species observed or potentially present within the BSA is included in **Appendix B**.

## **RESULTS**

### **Habitats**

#### **Valley grassland (disturbed)**

This is the sole habitat within the BSA. Portions appeared to have been mowed during late spring. Grasses were identified by ground remains and consisted mainly of non-native, naturalized species such as hare barley (*Hordeum murinum* ssp. *leporinum*), ripgut brome (*Bromus diandrus*), Bermuda (*Cynodon dactylon*), and slender wild oats (*Avena barbata*). Purple needle grass (*Stipa pulchra*), a native grass species, was sparsely present. Weedy species included star thistle (*Centaurea solstitialis*), milk thistle (*Silybum maritimum*), field mustard (*Brassica rapa*), wild radish (*Raphanus raphanistrum*), and others. There appears to be minimal to no habitat for reptiles or mammals as there are scant to no refugia or nesting areas available.

### **Critical Habitat**

There is no designated critical habitat within the BSA.

### **Sensitive Natural Communities**

No SNCs occur within the BSA.

### **Special-Status Species**

A summary of special-status species assessed for potential occurrence within the BSA based on the USFWS IPaC and CNDDDB species lists within a 3-mile radius and the CNPS list of rare and endangered plants within the Madison USGS 7.5' quadrangle is presented in **Table 1**. Potential for occurrence was determined by reviewing database queries from federal and state agencies, performing surveys, and evaluating habitat characteristics.



**Table 1. Special-status species and their potential to occur in the BSA for Wood Duck Well site, Wild Wings Community, Yolo County, CA.**

<b>Common Name</b> <i>(Scientific Name)</i>	<b>Status</b> Fed/State/CNPS	<b>Associated Habitats</b>	<b>Potential for Occurrence</b>
<b>CRITICAL HABITATS</b>			
			There are no critical habitats within the BSA
<b>PLANTS</b>			
<b>California alkali grass</b> <i>Puccinellia simplex</i>	-/-/1B.2	Heavily mineralized, alkali scalds. Usually in wetlands	<b>None.</b> There are no alkali scalds or wetlands within the BSA.
<b>CRUSTACEANS</b>			
<b>Vernal pool fairy shrimp</b> <i>(Branchinecta lynchi)</i>	FT/_/_	Vernal pools.	<b>None.</b> There are no vernal pools within the BSA.
<b>Vernal pool tadpole shrimp</b> <i>(Lepidurus packardii)</i>	FE/_/_	Vernal pools.	<b>None.</b> There are no vernal pools within the BSA.
<b>FISH</b>			
<b>Delta smelt</b> <i>Hypomesus transpacificus</i>	FT/_/_	Found only from the San Pablo Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties.	<b>None.</b> Critical habitat is not present within the BSA
<b>INSECTS</b>			
<b>Monarch butterfly</b> <i>Danaus plexippus</i>	Federal candidate	Larval host plants are milkweeds ( <i>Asclepias sp.</i> )	<b>None.</b> No milkweeds were located within the BSA
<b>Valley Elderberry Longhorn Beetle</b> <i>Desmocerus californicus dimorphus</i>	FT/_/_	Host plant are elderberries, <i>Sambucus spp.</i>	<b>None.</b> No elderberries were found within the BSA.
<b>BIRDS</b>			
<b>Tricolor blackbird</b> <i>Agelaius tricolor</i>	-/ST/-	Their habitat is along wetlands such as marshes and creeks, often with cattails ( <i>Typha sp.</i> ) with flooded or thorny vegetation for nesting.	<b>None within the BSA.</b> The CNDDDB does report a large occurrence area along Cache Creek which lies approximately 200 feet north of the project. No tricolor blackbird

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
			activity was seen or heard on the date of the survey.
<b>Swainson's hawk</b> <i>Buteo swainsonii</i>	_/ST/_	Open fields for foraging, nesting in tall trees adjacent or near foraging areas.	<b>Low potential within the BSA.</b> Although the BSA is an open field, it is also at the northern end of a golf course with a housing area to the east. A vast, highly suitable foraging area is located north of Cache Creek. CNDDDB occurrences are numerous within the 3-mile radius, but none within the BSA. No Swainson's hawk was seen during the onsite survey.
<b>Yellow-billed cuckoo</b> <i>Coccyzus americanus</i>	FT/_/_	Woodlands with scrubby vegetation, overgrown orchards or dense thickets along streams and marshes	<b>None.</b> Suitable habitat is not present within the BSA. There are no occurrences within 3 miles per the CNDDDB
<b>Black-crowned night heron</b> <i>Nycticorax nycticorax</i>	_/_/_ Designated a "Special Animal"	Aquatic habitats, such as marshes, rivers, ponds, canals and rice fields. Nests in groves of trees or in thickets.	<b>None.</b> There is no suitable habitat within the BSA, but may be marginally present within the riparian area along Cache Creek. An occurrence of this species is just under 3 miles to the west near the town of Madison.
Bank swallow <i>Riparia riparia</i>	_/ST/_	Lives near streams and reservoirs in colonies that nest in vertical banks and cliffs.	None. There is no habitat present within the BSA or nearby Cache Creek that has sloping banks.
<b>REPTILES</b>			
<b>Giant garter snake</b> <i>Thamnophis gigas</i>	FT/_/_	A semi-aquatic reptile, it inhabits low streams, sloughs, ponds, small lakes, and irrigation canals.	<b>None.</b> There is no suitable habitat in nearby Cache Creek as these snakes are semi-aquatic. There is no

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
			CNDDDB occurrence within 3 miles.
<b>AMPHIBIANS</b>			
<b>California Tiger Salamander</b> <i>Ambystoma californiense</i>	FT/_/_	Their foraging habitat is within oak woodlands and annual grasslands. They require ephemeral pools (such as vernal pools) for breeding.	<b>None.</b> Although the BSA is within annual grassland, there are no ephemeral pools locally. There is no CNDDDB occurrence within 3 miles.

### **Endangered, Threatened and Rare Plants**

No habitat for rare plants was encountered during the June 19, 2022 survey.

### **Endangered, Threatened Special Status Wildlife**

No suitable habitat for wildlife was located during the June 19, 2022 survey. Swainson's hawk occurrences are numerous throughout the 3-mile radius CNDDDB map. The BSA provides scant to no foraging area, particularly in that there are vast fields suitable for foraging beyond the BSA.

### **Migratory Birds and Raptors**

Nesting birds are protected under the MBTA (16 USC 703), the CFGC (§3503), and the California Migratory Bird Protection Act (CMBPA, AB 454). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13).

The CFGC (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

The CMBPA amends the CFGC (§3513) to mirror the provisions of the MBTA and allow the State of California to enforce the prohibition of take or possession of any migratory nongame bird as designated in the federal MBTA, including incidental take. Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance have the potential to affect bird species protected by the MBTA and the CFGC.

### **CNDDDB occurrences**

The majority of migratory birds and raptors protected under the MBTA and CFGC are not recorded on the CNDDDB because they are abundant and widespread.

### **Status of migratory birds and raptors occurring in the BSA**

There is suitable nesting habitat for a variety of avian species adjacent to the BSA adjacent and along Cache Creek.

## **REGULATORY FRAMEWORK**

The following describes federal, state, and local environmental laws and policies that may be relevant if the BSA were to be developed or modified.

### **FEDERAL**

#### **Federal Endangered Species Act**

The United States Congress passed the ESA in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Under the ESA, species may be listed as either “endangered” or “threatened.” Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals, except non-native species and pest insects, are eligible for listing as endangered or threatened. The USFWS also maintains a list of “candidate” species. Candidate species are species for which there is enough information to warrant proposing them for listing, but that have not yet been proposed. “Proposed” species are those that have been proposed for listing, but have not yet been listed.

The ESA makes it unlawful to “take” a listed animal without a permit. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” Through regulations, the term “harm” is defined as “an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

#### **Migratory Bird Treaty Act**

The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13).

### **State of California**

#### **California Endangered Species Act**

The California Endangered Species Act (CESA) is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the California Environmental Quality Act (CEQA). The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, “species of special concern” receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

#### **California Fish and Game Code (§3503.5)**

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any

regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

### **California Migratory Bird Protection Act**

The CMBPA amends the CFGC (§3513) to mirror the provisions of the MBTA and allow the State of California to enforce the prohibition of take or possession of any migratory nongame bird as designated in the federal MBTA, including incidental take.

Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance have the potential to affect bird species protected by the MBTA and CFGC. Thus, vegetation removal and ground disturbance in areas with breeding birds should be conducted outside of the breeding season (approximately March 1 through August 31). If vegetation removal or ground disturbing activities are conducted during the breeding season, then a qualified biologist must determine if there are any nests of bird species protected under the MBTA and CFGC present in the Project area prior to commencement of vegetation removal or ground-disturbing activities. If active nests are located or presumed present, then appropriate avoidance measures (e.g. spatial or temporal buffers) must be implemented.

### **Rare and Endangered Plants**

The CNPS maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS California Rare Plant Rank (CRPR) plants receive consideration under CEQA review. The CNPS CRPR categorizes plants as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2A: Plants presumed extirpated or extinct in California, but not elsewhere;
- Rank 2B: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and Game Code §1913 exempts from the ‘take’ prohibition “the removal of endangered or rare native plants from a canal, lateral channel, building site, or road, or other right of way.”

### **California Environmental Quality Act Guidelines §15380**

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) 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 USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Endangered, Threatened, and Rare Plants**

There are no special-status botanical species present within the BSA and no suitable habitat for special status botanical species was identified within the BSA; therefore, there will be no effects to botanical species and no avoidance and minimization measures are proposed.

### **Endangered, Threatened, and Special-status Wildlife**

The following are the recommended minimization and mitigation measures to further reduce or eliminate Project-associated impacts to special-status wildlife species. These proposed measures may be amended or superseded by the Project-specific permits issued by the regulatory agencies.

### **Migratory Birds and Raptors**

Although no trees large enough to provide suitable nesting are within the BSA, the nearby riparian corridor along Cache Creek does support several large trees that may be attractive for nesting. To avoid impact to migratory birds and raptors, the following avoidance and minimization measure is proposed:

If the Project is undertaken or continued within nesting season (March 15-July 31), a nesting bird survey by a qualified biologist should be done 48-72 hours prior to well drilling.

## **Appendix A**

### **Species Lists:**

U.S. Fish and Wildlife Service

California Natural Diversity Database

California Native Plant Society



## United States Department of the Interior

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



In Reply Refer To:  
Project Code: 2022-0069481  
Project Name: Wild Wings Well Project

July 31, 2022

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

### To Whom It May Concern:

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

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

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

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



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

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

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

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

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

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

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

---

## 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

## Project Summary

Project Code: 2022-0069481  
Project Name: Wild Wings Well Project  
Project Type: Water Supply Facility - New Constr  
Project Description: The Wild Wings Community proposes to dig a new supplemental well with associated infrastructure. This is to provide additional water to the community

### Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.6822133,-121.88368518567923,14z>



Counties: Yolo County, California

## Endangered Species Act Species

There is a total of 8 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<sup>1</sup>, 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.

- 
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.

### Birds

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/3911">https://ecos.fws.gov/ecp/species/3911</a>	Threatened

### Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4482">https://ecos.fws.gov/ecp/species/4482</a>	Threatened

### Amphibians

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME

STATUS

### Delta Smelt *Hypomesus transpacificus*

Threatened

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

Species profile: <https://ecos.fws.gov/ecp/species/321>

## Insects

NAME

STATUS

### Monarch Butterfly *Danaus plexippus*

Candidate

No critical habitat has been designated for this species.

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

### Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*

Threatened

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

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

## Crustaceans

NAME

STATUS

### Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

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

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

### Vernal Pool Tadpole Shrimp *Lepidurus packardii*

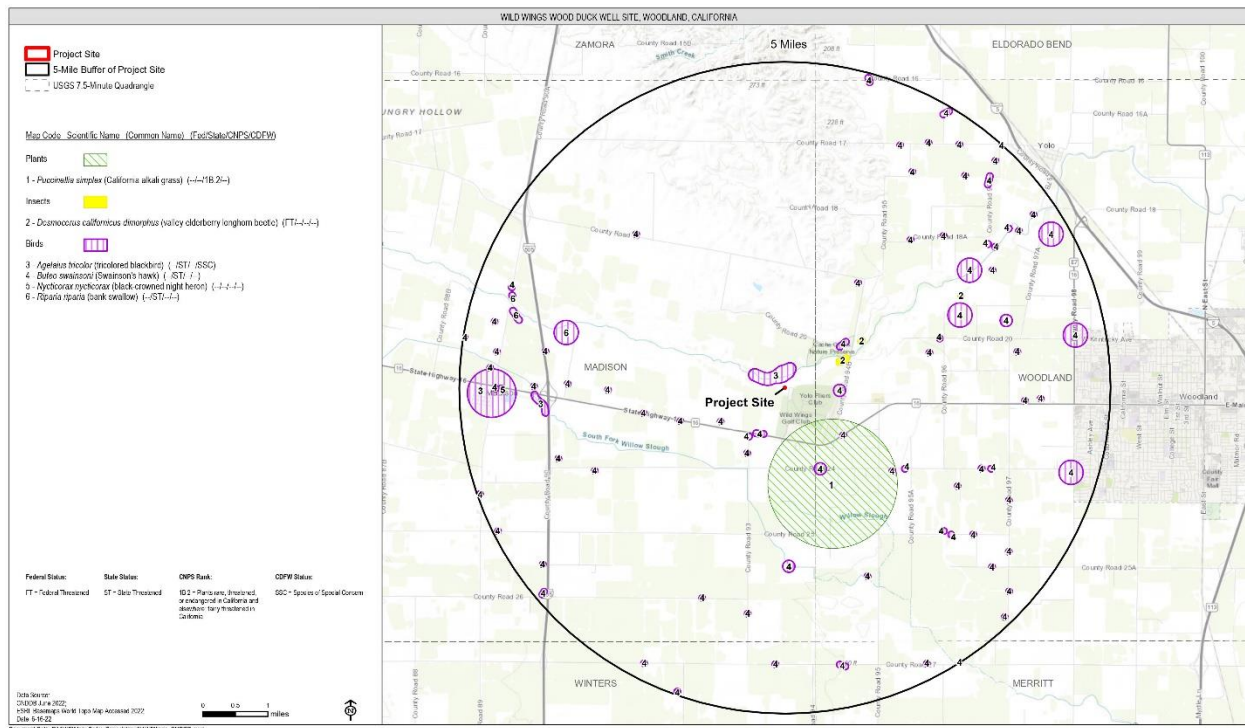
Endangered

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

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

## Critical habitats

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



### CNDDDB Occurrence List, 3-mile radius, Wood Duck Well

Scientific Name	Common Name	TAXONGROUP	FEDLIST	CALLIST	GRANK	SRANK	RPLANTRANK	CDFWSTATUS
Puccinellia simplex	California alkali grass	01 - Plants	--	--	G3	S2	1B.2	--
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	03 - Insects	FT	--	G3T2T3	S3	--	--
Agelaius tricolor	tricolored blackbird	07 - Birds	--	ST	G1G2	S1S2	--	SSC
Buteo swainsoni	Swainson's hawk	07 - Birds	--	ST	G5	S3	--	--
Nycticorax nycticorax	black-crowned night heron	07 - Birds	--	--	G5	S4	--	--
Riparia riparia	bank swallow	07 - Birds	--	ST	G5	S2	--	--

### CNPS List of Special Status Plants, Madison Quadrangle

ScientificName	CommonName	Family	CRPR	BloomingPeriod
Puccinellia simplex	California alkali grass	Poaceae	1B.2	Mar-May

## **Appendix B**

### Observed Species List

### Plant Species Identifiable at the Wood Duck Well Site on June 19, 2022

Scientific Name	Common Name	Family	Nativity	Wetland Indicator Status (Arid West Region)
<i>Amaranthus albus</i>	Tumbleweed	Amaranthaceae	Naturalized	FACU
<i>Anagallis arvensis</i>	Scarlet pimpernel	Myrsinaceae	Naturalized	
<i>Avena barbata</i>	Slender wild oat	Poaceae	Naturalized	
<i>Brassica rapa</i>	Rape, turnip, field mustard	Brassicaceae	Naturalized	FACU
<i>Bromus diandrus</i>	Ripgut brome	Poaceae	Naturalized	
<i>Bromus hordeaceus</i>	Soft brome, soft chess	Poaceae	Naturalized	FACU
<i>Centaurea solstitialis</i>	Yellow star-thistle	Asteraceae	Naturalized	
<i>Cirsium vulgare</i>	Bull thistle	Asteraceae	Naturalized	FACU
<i>Convolvulus arvensis</i>	Bindweed, orchard morning-glory	Convolvulaceae	Naturalized	
<i>Erodium botrys</i>	Long-beak stork's-bill	Geraniaceae	Naturalized	FACU
<i>Erodium cicutarium</i>	Redstem filaree	Geraniaceae	Naturalized	
<i>Heliotropium europaeum</i>	European heliotrope	Boraginaceae	Naturalized	
<i>Hordeum marinum</i> subsp. <i>gussoneanum</i>	Seaside barley, Mediterranean barley	Poaceae	Naturalized	FAC
<i>Hordeum murinum</i> subsp. <i>leporinum</i>	Wall barley, hare barley	Poaceae	Naturalized	FACU
<i>Lepidium campestre</i>	Pepper grass	Brassicaceae	Naturalized	
<i>Medicago praecox</i>	Small-leaf bur clover	Fabaceae	Naturalized	
<i>Quercus lobata</i>	Valley oak (sapling)	Fagaceae	Native	FACU
<i>Raphanus raphanistrum</i>	Jointed charlock	Brassicaceae	Naturalized	
<i>Silybum marianum</i>	Milk thistle	Asteraceae	Naturalized	
<i>Sonchus oleraceus</i>	Common sow-thistle	Asteraceae	Naturalized	
<i>Stipa pulchra</i>	Purple needle grass	Poaceae	Native	
<i>Trifolium hirtum</i>	Rose clover	Fabaceae	Naturalized	

Wildlife observed or with potential of occurring onsite during the survey, June 19, 2022, Wild Wings Well Project	
Scientific Name	Common Name
BIRDS	
<i>Aphelocoma californica</i>	Scrub jay
<i>Cathartes aura</i>	Turkey vulture
<i>Melospiza melodia</i>	Song sparrow
<i>Mimus polyglottos</i>	Mockingbird
<i>Zenaida macroura</i>	Mourning dove
REPTILES/AMPHIBIANS	
<i>Gerrhonotus multicarintus multicarinatus</i>	California alligator lizard
<i>Sceloporus occidentalis</i>	Western fence lizard
MAMMALS	
<i>Canis latrans</i>	Coyote
<i>Didelphis marsupialis</i>	Opossum
<i>Odocoileus hemionus</i>	Deer
<i>Procyon lotor</i>	Raccoon
<i>Thomomys bottae</i>	Pocket gopher



## Appendix C: Site Photographs



Photograph 1: Southeast corner of the BSA, view northwest. Large tree in the upper right corner is within the Cache Creek riparian corridor, outside of the BSA.



Photograph 2: Northwest corner of the BSA, view southeast. White post is the test well stanchion.



Photograph 3: Cleared dirt road to Cache Creek. One elderberry bush is at the right side of the entrance. It and several other bushes near the BSA have been flagged.

**APPENDIX C**

**CULTURAL RESOURCE ASSESSMENT**

**WOOD DUCK WELL AND PUMP STATION**

**WILD WINGS CSA**

**YOLO COUNTY**

# Archaeological Phase 1 Study – Wild Wing CSA Project

A Phase 1 Archaeological Study  
Wild Wings CSA Well Project  
Negative Survey  
I.C. File # NWC 21-2117

**Prepared by:** Lori Harrington  
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**Prepared for:**  
Inland Ecosystems, Inc.  
Glenn Merron  
(775) 722-0933

August 2022

# Archaeological Phase 1 Study –Wild Wings CSA Well Project

## Summary of Findings

At the request of Inland Ecosystems, A Phase 1 Archaeological Study was prepared for an environmental document in support of Wild Wings CSA Well Project, Yolo County, California.

The intent of this document is to assist the client in achieving compliance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act of 1966. The scope of work consisted of:

1. Reviewing the records search from The Northwest Information Center (NWIC) at Sonoma State University, Chico, California.
2. Conducting an on-foot surface reconnaissance of the entire project area.
3. Preparing a report summarizing the results of the records search and field phases.
4. Sacred Lands Search and Native American Consultation.

The project is located within a portion of the northwest quarter of an Un-sectioned portion of Township 10 North, Range 1 East, of the USGS Madison California (1952), 7.5 Series Quad, (see Figure 1).

A records search was performed by the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park, California on June 23, 2022. The results indicated that one previous survey had been conducted within the project area (S-006877). The survey covered 100% of the current project area and was negative for resources within the project area. There are 3 known resources within ¼ of the project area (P-57-000605, P 57-001063, P-57-001388) all of which are transmission lines. These resources will not be impacted by the current project.

Yocha Dene responded to the Native American Consultation (letter dated June 24<sup>th</sup> 2022) stating the project is within their aboriginal territories and that they have a cultural interest in the project area (see Appendix B). The letter does not state specific concerns but request detailed information on the project and recommends a Native American Monitor. The Auburn Tribe responded (email July 14<sup>th</sup>) stating that the project was outside of their territory and they had no concerns.

A pedestrian survey, which entailed the inspection of all land surfaces that can reasonably be expected to contain cultural resource remains without major modification of the land surface, was performed on June 21<sup>st</sup>, 2022. The ground was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, baked clay items, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., postholes, foundations) or historic debris (e.g., metal, glass, ceramics).

Photographs of the current project area, potential features, and items of interest were taken with a digital camera. Locational data was recorded with a handheld Garmin GPS eTrex Venture global positioning system (GPS) unit. In addition, the surrounding neighborhood was reviewed by car to check on the general topography.

The project area consisted of a planned neighborhood and recreational use. The intensive pedestrian survey consisted of 3 meter wide transects in an east/west and north/south direction. Ground visibility varied from 100 to 75% visibility.

The results of the pedestrian survey were negative for cultural content. There was no surface evidence of historic or prehistoric sites, features, artifacts or isolates.

Any improvements within the project area will have no adverse impacts on known cultural resources. No additional hindrances affected the results of this survey, and no conditions are placed on the project based on the results of this study.

## Archaeological Phase 1 Study –Wild Wings CSA Well Project

Should unanticipated cultural resource be encountered during land modification activities, work must cease, and a qualified archaeologist contacted immediately to determine appropriate measures to mitigate any adverse impacts to the discovered resources. If human remains are discovered during construction-related activities notification of the Yolo County Coroner is required. If the Yolo County Coroner determines that the discovered remains are those of Native American ancestry, then the Native American Heritage Commission must be notified by telephone within 24 hours. Sections 5097.94 and 5097.98 of the Public Resources Code describe the procedures to be followed after the notification of the Native American Heritage Commission.

# Archaeological Phase 1 Study –Wild Wings CSA Well Project

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## Purpose and Scope of the Project:

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The intent of this document is to assist the client in achieving compliance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act of 1966. The scope of work consisted of:

- Reviewing the records search from The Northwest Information Center (NWIC) at Sonoma State University, Chico, California.
- Conducting an on-foot surface reconnaissance of the entire project area.
- Preparing a report summarizing the results of the records search and field phases.
- Sacred Lands Search and Native American Consultation.

## Location and Project Description:

The project is located within a portion of the northwest quarter of an Un-sectioned portion of Township 10 North, Range 1 East, of the USGS Madison California (1952), 7.5 Series Quad, (see Figure 1).

The Wild Wings CSA is a rural community in the unincorporated area of Yolo County that depends on two groundwater wells to provide potable drinking water to its 338 residences, a recreation center, an airport fix-based operator, and provides supplemental water to the community wastewater treatment plant to complete the blending process with treated wastewater to provide recycled water for the irrigation of the community 9-hole golf course.

The Project is going to install a new well, pumping station and Arsenic removal system on County owned property now referred to as the Wood Duck location (see Figure 1).

The scope of work includes:

- All associated site grading and ultimately pavement work. An all-weather access road will be a part of this.
- The construction of a multiple piezometer monitoring well – this work is complete
- The construction of a 1000 foot production well (this well will be deeper than the Canvas Back well but approximately the same depth as the Pintail Well.
- Equip the well with either a vertical lineshaft or submersible pump.
- Install all station piping including several hundred feet of pipeline to connect the well into the existing distribution system.
- Install all electrical switchgear and wiring – including an antenna for the SCADA system.
- Install a chemical treatment system which will include chemical feed pumps and pressure vessels outside of the building
- A block building (approximately 30 x 60 foot in size) to house the well pump, station piping, electrical switchgear and chemical feed equipment.
- Chain link fencing around the site – approximately 100 x 100 foot or could be as large as 150 x 150 feet.

## Laws, Ordinances, Regulations, and Standards

### Compliance

This cultural resource's analysis is designed to provide compliance with the statutes and regulations of the federal and state governments.

This project is subject to the requirements of the California Environmental Quality Act (CEQA), as amended. CEQA requires consideration of the potential effects of proposed projects on cultural and archaeological resources (State of California Office of Planning and Research, 1992). Guidance for compliance with CEQA is found in various Public Resource Code sections. The California Register of Historical Resources, modeled after the National Register of Historic Places (NRHP), provides a mechanism and criteria for determining the significance of cultural resources. Information for CEQA compliance can be gathered during compliance with Section 106 of the National Historic Preservation Act, described below.

The National Historic Preservation Act of 1966, Section 106(16 U.S. Code 470), requires federal agencies to consider the effects of their actions, including approval, permitting, and technical assistance on properties that are eligible for, or included in, the NRHP. Historical sites, objects, districts, and historic structures, and cultural landscapes that are eligible for listing on the NRHP are referred to as "historic properties." Section 106 also requires the federal agency to afford the Advisory Council on Historic Preservation an opportunity to comment on the agency's efforts to consider historic properties. The implementing regulations for Section 106, found at 36 CFR 800, describe a process of inventory, evaluation, and consultation that satisfies the federal agency's requirements. The criteria used for determining the eligibility of cultural resources are found at 36 CFR 60.4.

### Standards and Guidance

Federal and State governments offer guidance for the conduct of historic preservation activities. The Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (1983) establishes standards for the gathering and treatment of data related to cultural resources. Guidance is also offered for compliance with Section 106 through the Advisory Council on Historic Preservation, and Section 110 Guidelines are available through the office of the Secretary of the Interior.

## Environment

### Climate, Vegetation Patterns and Faunal Composition

The project area is located within an unincorporated portion of Yolo County, approximately 6.5 miles directly west from the town of Woodland, within the Sacramento Valley. Sacramento Valley lies between the Cascade Range and Sierra Nevada Mountain Range to the east and the Coast Range to the west. The climate is characterized by hot, dry summers and mild, wet winters. Woodland falls within a climate region with much of the winter precipitation falling as rain instead of snow. Current winter temperatures have highs around 12 degrees Celsius (54 degrees Fahrenheit), and current summer temperatures have highs around 36 degrees Celsius (97 degrees Fahrenheit). When California initially was occupied, the climate was moister and cooler than today's Mediterranean climate (Major 1988).

Historically, the vicinity was characterized by vegetation communities that included freshwater marshland in low-lying areas, riparian scrub or forests along drainages, and grasslands in upland areas. Foothills and mountains along the northern portion of the Sacramento Valley also included chaparral, oak woodlands, and mixed coniferous forest. With this mosaic of ecological communities, the area would have provided a very productive environment for its prehistoric occupants, one well suited to a hunting-gathering economy with a variety of water birds, small and large mammals, fish, reptiles, amphibians, and edible plant species.



## Geoarchaeological Sensitivity Assessment

The age of a particular landform can be used to determine the sensitivity for buried archaeological deposits. Certain landforms are too old (>15,000 years B.P.) or too young (<150 years B.P.) to contain buried prehistoric archaeological resources. The degree of surface soil development can be used to assess the relative age of a landform. Weakly-developed soils are generally younger and shallower, with few horizons; well-developed soils are generally older, having taken longer to develop and are deeper with more horizons. Well-developed surface soils are associated with older landforms that may have been at or near the surface and will generally have a lower sensitivity for buried archaeological resources. Conversely, weakly-developed surface soils are associated with younger landforms formed in the recent geologic past and generally have a high sensitivity for buried archaeological resources (Rosenthal and Meyer 2004:49).

## Geology

Geologically, the APE is situated in the Sacramento Valley, which is a large, northwest-southeast trending asymmetrical structural trough filled with a thick sequence of marine and nonmarine sediments (Hackel 1966:217). The Sacramento Valley is bounded by the Coast Range to the west, the Cascade Range to the north, the Sierra Nevada to the east, and the Sacramento-San Joaquin Delta to the south.

Roughly the eastern 70 percent of the County is located in the Great Valley geomorphic province of California, and consists of gently sloping to level alluvial plains. The remaining portion of the County is in the Coast Range geomorphic province.<sup>2</sup> Elevations in the County range from slightly above sea level in the southeastern corner of the County to more than 3,000 feet in the western area in the Coast Range. Geologic units in the Great Valley area generally consist of Quaternary alluvium or basin deposits, and the Quaternary Modesto and Riverbank Formations, both of which consist of somewhat older alluvium. Projecting into the valley area northwest of Woodland is the Dunnigan Hills. These consist of dissected and rolling terraces of the Tehama Formation (non-marine sandstone, siltstone, and volcaniclastic<sup>3</sup> rocks).

The western Coast Range portion of the County consists of moderately sloping to very steep uplands and terraces and is characterized by parallel ridges and valleys that trend slightly west of north. The rocks in the Coast Range consist of a number of Quaternary and Cretaceous geologic formations, including upturned marine sandstones, shales, mudstones, and conglomerates, with some volcaniclastic rocks.

**Soils** The soils in the APE are of several different, well-developed series: Brentwood, Corning, and Sehorn (Beaudette and O'Geen 2010).

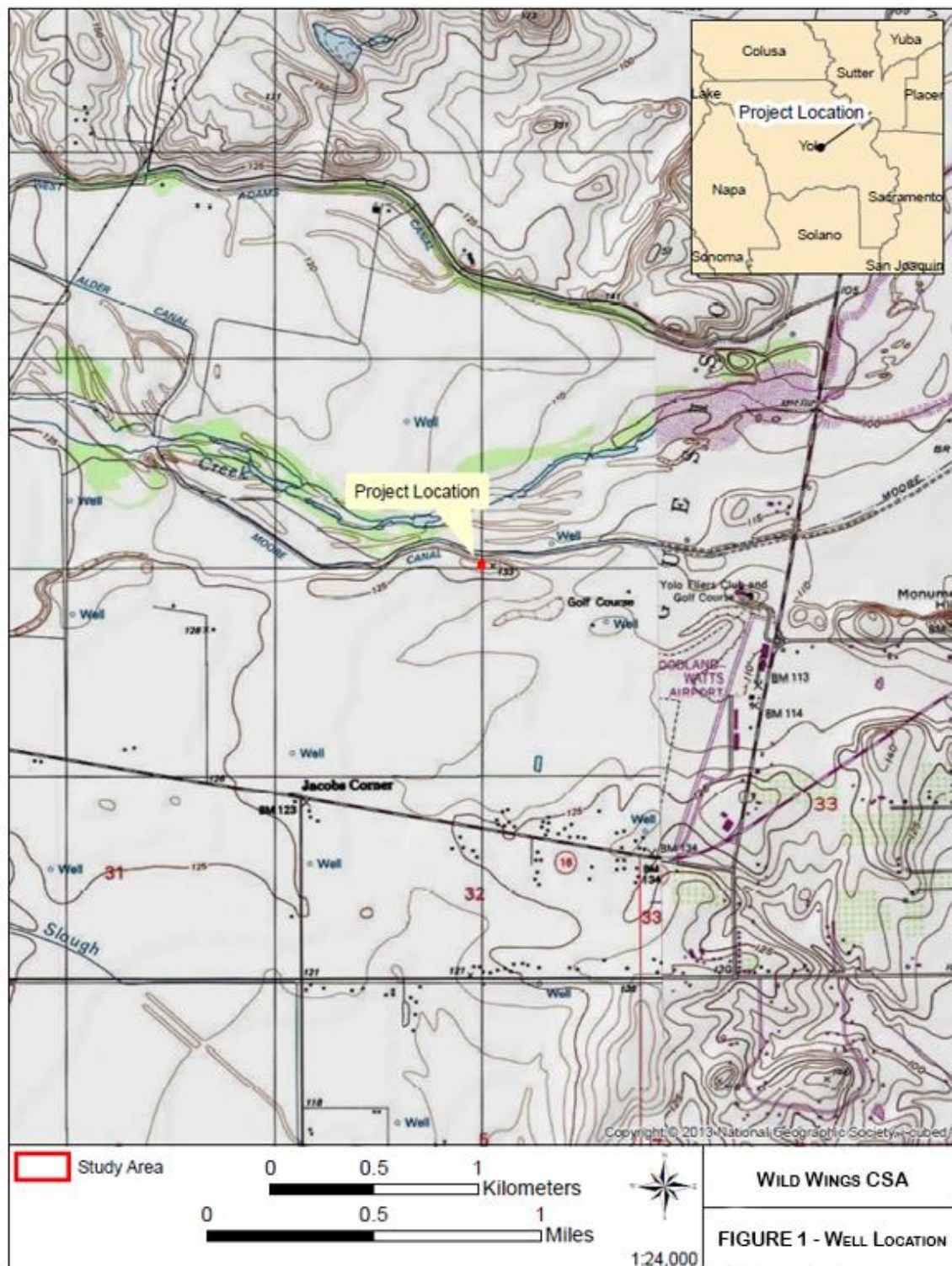
**Brentwood Series.** The area immediately adjacent to Dry Slough is mapped as Brentwood silty clay loam. The Brentwood series consists of deep, well- to moderately well-drained soils formed in valley fill from sedimentary rocks (NRCS 2010a). Brentwood soils are on nearly level to gently sloping fans. They are well-developed with a typical depth of approximately 60 inches (NRCS 2010a).

**Corning Series.** The Corning series consists of very deep, well- or moderately well-drained soils that formed in gravelly alluvium weathered from mixed rock sources (NRCS 2010b). Corning soils are on nearly level to gently rolling old high, old terrace remnants with mounded relief. They are well-developed with a typical depth of approximately 60 inches (NRCS 2010b).

**Sehorn Series.** Also mapped in the southwestern portion of the APE, near County Road 31 and west of County Road 95, is Sehorn clay, 2- to 15-percent slopes. The Sehorn series consists of moderately deep, well-drained soils found on foothills and formed in residuum weathered from calcareous sandstone and shale (NRCS 2010e).

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Figure 1: Project Location, APE and Survey Map



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## Ethnography:

The Paleoindian/Archaic/Emergent cultural sequence developed by Fredrickson (1974) is commonly used to interpret the prehistoric occupation of Central California. Fredrickson has divided time and cultural characteristics ranging from approximately 10,000 B.C.–A.D. 1800 into three major periods: the Paleoindian Period (10,000–6000 B.C.); the three-staged Archaic Period, consisting of the Lower Archaic (6000–3000 B.C.), Middle Archaic (3000–1000 B.C.), and Upper Archaic (1000 B.C.–A.D. 500); and the Emergent Period (A.D. 500–1800).

This Paleoindian period corresponds to the end of the Ice Age, and there is little concrete information about the environment or culture available for these dates. Due to a lack of millingstone implements that have been located from this period, milling is not believed to have occurred or to have been in an incipient phase. It is hypothesized that hunting and gathering were the means of subsistence in this period (Fredrickson 1984:497). Following the Paleoindian period is the Archaic period. The Lower Archaic period is linked to climate change associated with an antithermal, a period of high temperatures and minimal precipitation. During this period, there was an emphasis on seed collecting and processing. The Middle Archaic period is marked by the presence of acorn processing artifacts: the mortar and the pestle. It is believed that this period saw the end of the antithermal and the beginning of the medithermal, or slight cooling of climate conditions, which is the climate that is experienced today. In this period, hunting increased in importance and the prevalence of marine and littoral faunal remains becomes apparent. Fredrickson postulated that this period and the new technologies evident within it (e.g., the concave base projectile point and the mortar and pestle) are the product of population shifts. Following the Middle Archaic period is the Upper Archaic period, which is marked by a climate that turned colder and wetter yet more stable (Rosenthal et al. 2007:155). This period shows an increase in social complexity, which is demonstrated by way of status distinctions that are evident in burials and seemingly more complex networks of trade (Fredrickson 1974:46–48). The stable climate evident in the Upper Archaic continued into the Emergent period (Rosenthal et al. 2007:157). This period is marked by a spike in population and a growing body of evidence of inter-group exchange, which indicates social, religious and organization patterns were becoming more complex (Moratto 1984:211).

## Prehistory:

### Ethnographic Context.

The outskirts of the project location and the surrounding area are characterized in ethnographic literature as the seasonal territory inhabited by the Southern Patwin, specifically the Hill Patwin, during the contact period. The territorial boundaries of the Patwin are described as extending along the Sacramento Valley from the town of Princeton to the San Pablo and Suisun bays. Patwin is not so much the name of a tribe but a name used to refer to themselves meaning “people.” The Patwin share common linguistic ties with their northern neighbors, the Wintuan. Often the Patwin are referred to as Southern Wintuan. The Wintuan language is classified under the umbrella of the Penutian stock, which is associated with other Native American groups as well (Johnson 1978:350).

Patwin territories were comprised of one or more land holding groups that anthropologists refer to as “tribelets.” The tribelet, a nearly universal characteristic throughout native California, consists of a principle village occupied year round, and a series of smaller hamlets and resource gathering and processing locations occupied intermittently or seasonally. Populations of tribelets ranged between 50 and 500 persons and were largely determined by the carrying capacity of a tribelet’s territory (Kroeber 1932:258). A chief governed each village, functioning as a manager of economic and ceremonial activities. Additionally, shaman possessed power through curative and spiritual abilities. Subsistence consisted of hunting, fishing and gathering seeds, acorns and bulbs depending on the season. Mussels were collected along riverbeds as well. Each village had its own specific hunting, fishing and gathering areas with the village chief assigning families to collect in specific locations. In addition to sustenance provided by floral and faunal resources, many had utilitarian function as well. Coiled or twined baskets,



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often decorated with feathers or shells, and rope were woven from vegetative matter. Cured animal hides served as bedding, robes, skirts, mats and sacks. Tools were often made of bone, wood and stone. The Patwin utilized tule balsa boats propelled by pole to traverse waters. Four types of permanent buildings existed in the village: the dwelling meant for habitation, the ceremonial dance house, the sweat hut and the menstrual hut. All were elliptical, earthcovered, and semi-subterranean buildings (Johnson 1978:350–360).

By the late eighteenth century, Spanish exploration of the Sacramento Valley and settlement of the Bay Area transformed Patwin culture. Spanish settlers moved into northern California and established the mission system that exposed the Patwin to diseases to which they had no immunity. Mission records indicate that many Patwin entered missions San Francisco and San Jose. Additionally, with the onslaught of settlers in the area during the Mexican and American eras the remaining Patwin were forced from their lands and assimilated into American culture either working as laborers on ranches or being forced onto reservations (Johnson 1978:351).

### Historic:

Post-contact history for the state of California generally is divided into three specific periods: the Spanish Period (1769–1822), Mexican Period (1822–1848), and American Period (1848–present) (Grunsky 1989; Schuyler 1978). Although there were brief visits by Spanish, Russian, and British explorers from 1529 to 1769, the Spanish Period in California begins in 1769 with a settlement at San Diego and the first (Mission San Diego de Alcalá) of 21 missions established between 1769 and 1823. The Mexican Period begins with independence from Spain and is marked by an extensive era of land grants, most of which were in the interior of the state, and by exploration by American fur trappers west of the Sierra Nevada Mountains.

The signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican-American War, is the start of the American Period when California and several other western states became a territory of the United States (Grunsky 1989; Schuyler 1978). The discovery of gold in 1848 at Sutter's Mill near Sacramento and the resulting Gold Rush era influenced the history of the state and the nation. The rush of tens of thousands of people to the gold fields also had a devastating impact on the lives of indigenous Californians, with the introduction and concentration of diseases, the loss of land and territory (including traditional hunting and gathering locales), violence, malnutrition, and starvation (Castillo 1978:107–113; Cook 1978:98). Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869.

### *Spanish Period (1769–1822)*

The first Spanish settlement in California was established in 1769 by Gaspar de Portolá in San Diego. With Friar Junípera Serra, Portolá also founded the first (Mission San Diego de Alcalá) of 21 missions that would be built by the Spanish and the Franciscan Order between 1769 and 1823. Portolá continued north and reached San Francisco Bay on October 31, 1769. Later Spanish expeditions, Pedro Fages in 1772 and Juan Bautista De Anza in 1776, explored the land east of San Francisco Bay (Grunsky 1989:2–3). Seeking sites for a mission (Fages) or a presidio and mission (De Anza), these explorers noted the vast plains that lay to the east of the Bay area.

Spanish Lieutenant Gabriel Moraga led the first expedition into the Sacramento Valley in 1808. Traveling northward along the Sacramento River, this expedition was seeking sites for new missions and also searching for runaway Indian neophytes from the coastal missions. Moraga's expedition explored parts of the American, Calaveras, Cosumnes, Feather, Mokelumne, and Stanislaus Rivers to the north, and also traveled south as far as the Merced River. The final Spanish expedition into the California interior was led by Luis Arguello in 1817. Before returning to the coast, he traveled northward up the Sacramento River to

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the mouth of the Feather River, passing by the future site of the City of Sacramento (Beck and Haase 1974:18, 20; Grunsky 1989:3–4).

The final and northernmost Spanish mission (San Francisco Solano de Sonoma) was founded in 1823 by Padre Jose Altimira in the Sonoma Valley. This site, today's town of Sonoma, was chosen by the Spanish in their effort to deter movement by the Russians into the interior lands north of San Francisco. By 1812, the Russians had already established a settlement at Fort Ross, on the coast approximately 70 miles from San Francisco.

### *Mexican Period (1822–1848)*

Extensive land grants to Mexican citizens in California (Californios) were established in the interior during the Mexican Period, in part to increase the population away from the more settled coastal areas where the Spanish had concentrated their colonization efforts. At the same time, the influence of the California missions waned in the late 1820s through the early 1830s. This decline resulted from a combination of outside events and pressures, including increasing hostilities between missionaries and local civilians who demanded mission lands, decimation of the Native American population by introduced diseases, and the influence of private traders in the hide and tallow industry.

Following adoption of the Secularization Act of 1833, the Mexican government privatized most Franciscan lands, including holdings of their California missions. By 1836, this sweeping process effectively reduced the California missions to parish churches and released their vast landholdings. Although earlier secularization schemes had called for redistribution of lands to Native American neophytes who were responsible for construction of the mission empire, the vast mission lands and livestock holdings were instead redistributed by the Mexican government through several hundred land grants to private, non-Native American ranchers (Langum 1987:15–18). The private Mexican citizens who received the land and their holdings subsequently released their neophyte “workers” to fend for themselves.

With the opening by Mexico of California to Americans, fur trappers (also known as “mountain men”) started exploring the area west of the Sierra Nevada Range. Jedediah Smith was the first trapper to enter California. His small party trapped and explored along the Sierra Nevada Range in 1826, and entered the Sacramento Valley in 1827. They traveled along American and Cosumnes rivers, and camped near the Rosemont section of today's Sacramento and near Wilton. Maps of the Sacramento Valley were created and circulated in the 1830s as an outcome of the explorations by Smith and other trappers (Grunsky 1989:9–11).

Another outcome of exploration of the Sacramento Valley by American trappers or settlement by the local Mexican population was the introduction of diseases, from which large numbers of the indigenous population died between 1830 and 1833. Records indicate that whole tribes along the American, Merced, Tuolumne, and Yuba rivers were exterminated (Cook 1955). Native Americans had no immunity from introduced foreign diseases that accompanied exploration and settlement by foreign groups. A second epidemic further decimated the indigenous population the Sacramento Valley in 1837.

Beginning in 1833, a number of land grants were issued in the Sacramento region. John Rogers Cooper, a British sea captain who married into an established Californio family, received the first grant (Grunsky 1989:14). The two largest land grants in the Sacramento Valley were awarded to John Augustus Sutter. He founded a trading and agricultural empire, called New Helvetia, in 1839. Sutter's Fort was established as the headquarters of this enterprise. Sutter's Fort, a National Historical Landmark, was situated near the divergence of the Sacramento and American Rivers within the boundaries of today's City of Sacramento.

### *American Period (1848–Present)*

In 1848 California became a territory of the United States under the Treaty of Guadalupe Hidalgo, and the discovery of gold on January 14th by John Marshall near Coloma on the American River was followed by a vast influx of immigrants. This discovery in El Dorado County at Sutter's Mill—now a California

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Historical Landmark within Marshall Gold Discovery State Historic Park—was soon acknowledged worldwide. Within a year, nearly 90,000 people had traveled to the gold fields by land or sea, drawn by the tales of easy pickings and large nuggets. The bustling Gold Rush boomtown of Sacramento was established on a portion of Sutter's Mexican land grant. In 1850, California became the 31st state, largely as a result of the Gold Rush. The City of Sacramento was incorporated the same year, and became the state capital in 1854.

The Gold Rush resulted in a vast population increase, with the population of the state exceeding 300,000 by 1853. It also resulted in an economic boon, particularly for the new port city of Sacramento, as well as San Francisco and Stockton. After Sutter began a steamer service, Sacramento began its history as a river transportation hub and landward destination for freight and riverboat passengers traveling up the Sacramento River from San Francisco. With its central location to the foothill mining district, Sacramento had 12 stage lines by 1853, and was the westernmost point of the Pony Express, which operated between 1860 and 1861 (Beck and Haase 1974:51, 53, 68). This thriving city survived several early devastating fires and floods; it was flooded so many times that its buildings were raised 12 feet. The first California railroad, the Sacramento Valley Railroad, began operations in 1856 and ran 23 miles from Sacramento east to Folsom.

After the completion of the transcontinental railroad in 1869, thousands of immigrants and settlers poured into the state. California was rapidly becoming a national leader in the production of agricultural products. Today's economy of both the Sacramento and San Joaquin Valleys is largely based on agriculture. The fertile soils of the vast Central Valley combined with the construction of irrigation canals promoted this burgeoning agro-business during the second half of the nineteenth century. Products include fruits, nuts, vegetables, grapes and wine from the vineyards introduced early in the Spanish and Mexican periods, hay, cotton, rice, and barley, as well as livestock (cattle and sheep).

The dominant industry in the Sacramento area became agriculture and livestock (sheep, beef, and dairy cattle) production. Rice, hay, vegetables, fruits, and nuts were the primary agricultural products and in turn, these promoted the growth of food-processing plants in Sacramento and nearby Yolo County. By the 1940s, Sacramento County was chosen for the location of several military installations (Mather and McClellan Air Force bases), not far from downtown Sacramento. By the 1950s, some of the leading aerospace industries in the state of California had also located in this region.

### *Local History*

Yolo County is one of the original counties of California, created at the time of statehood. It is located in the Sacramento Valley, a vast floodplain that occupies the northern third of California's 400-mile-long Central Valley (Vaught 2007, 27). The county is bordered on the east by Sacramento County and the state capital and is approximately 75 miles from San Francisco. The project area is located north of Putah Creek, the largest waterway in the county. Established in 1851 and 1868 respectively, the cities of Woodland and Davis have remained the major population centers of the county (Vaught 2007).

Putah Creek was an area of early agricultural settlement with Ranchos Rio de los Puntos and Rancho Laguna de Santos Calle established in the 1840s. Following statehood in 1850, the area's proximity to markets in San Francisco and the gold country turned central Yolo County into a major grain-producing region during the California wheat boom of the 1850s and 1860s. Over centuries, the seasonal flooding of Putah Creek and the Sacramento River resulted in rich layers of alluvial soil in central Yolo County, which in combination with the relatively mild climate resulted in high crop yields and the potential to produce more than one crop in a year. At the same time, land speculation, frequent and disastrous flooding, and over production resulted in fortunes that were quickly made and lost. Many pioneer farmers and ranchers lasted only a few decades before being wiped-out by overextended loans, heavy mortgages, and successive winter floods. Among the best known of these unsuccessful early agriculturists were William Dresbach and Jerome Davis, the founders of the town of Davisville (later renamed Davis).

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Yolo County farmers who were able to hold on beyond the tumultuous settlement years and expand their land holdings created large agricultural estates encompassing thousands of acres.<sup>3</sup> In the 1880s a major transition from wheat to fruit productions began in Yolo County, with orchards and vineyards replacing grain fields. This was a change that historian David Vaught calls “one of the most dramatic and complete agricultural transformations in American agricultural.”<sup>4</sup> Vaught notes that in 1889 California was the nation’s second leading wheat producing state, but by 1909 the state had emerged as one of the world’s principal producers of deciduous and citrus fruits, grapes, vegetables, and nuts. By the turn of the twentieth century California and Yolo County had become net importers of grain (Vaught 2007, 205). While orchards and vineyards dominated county agriculture, livestock also held an important place in the rural economy.

The land within the project vicinity follows the general county land use pattern outlined above. Initially the area was occupied by several landholders and was divided into small agricultural parcels ranging between 80 and 160 acres, although some held additional land in adjacent sections. By 1908 the land in the project vicinity had become part of the large agricultural holdings of two of the county’s prominent landowners, George W. Chapman and G.W. Scott.

Chapman was a Yolo County pioneer. Born in Alabama, like so many other young men of the 1850s he set out for California in 1854, sailing around the horn to San Francisco. Shortly after his arrival, he began purchasing land in the Sacramento Valley, much of it classified as “swampland.” By the 1890s he was one of the largest landholders in the county with an estate estimated at 24,000 acres.” (Vaught 2007 184). The 1913 history of Yolo County deemed George, and his son Walter, “one of the most prominent families in Yolo County.”(Vaught 2007 184). By the 1920s Walter Chapman had consolidated most of the land in Union Township (current Woodland Township) and owned much of the land in the vicinity of the contemporary airport (Ashley, 1908).

In the 1940s the federal government acquired the land in Section 34, T9N R1E, for auxiliary aviation facilities to service McClellan Air Base, which was established in 1935 in Sacramento. Shortly after the attack at Pearl Harbor in 1942, the federal government-initiated construction of an airstrip at this location in Yolo County. By October 1942 the airstrip included an 8,000-foot graded and paved airstrip, which was used for alternative basing of B-25 aircraft during World War II. In 1948 the federal government gave the airstrip to the county, which named it the Yolo County International Airport. In 1974 the name was changed to Yolo County Airport.<sup>13</sup> Under the Yolo County General Plan, the area adjacent to the airport is designated for agricultural use. In the 1960s and 1970s the large agricultural holdings surrounding the airport were subdivided and a number of residences were constructed along CR 95. The majority of these parcels are associated with small farming enterprises and equestrian activities.

## Background Research

### Record Search:

A records search was performed by the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park, California on June 23, 2022. The results indicated that one previous survey had been conducted within the project area (S-006877). The survey covered 100% of the current project area and was negative for resources within the project area. There are 3 known resources within ¼ of the project area (P-57-000605, P 57-001063, P-57-001388) all of which are transmission lines. These resources will not be impacted by the current project.

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### Surveys within the project area

Report #	Author	Date	Resources	Coverage
S-006877	K.Bethard	04/2007	None in project area	100%

### Surveys within ¼ of project area

Report #	Author	Date	Resources	Location
S-002955	Not stated	1978	7 resources. Cache Creek segments 1-5, Alder Creek, Yol-34	On the north side of creek. North of project area.

### Resources within ¼ mile of project area

Resource#	Date	Resources
P-57-000605	10/2013	Segment of Moore Ditch or Moore Canal
P-57-001065	12/2015	Segment of Moore Ditch or Moore Canal
P 57-002388	10/2013	Isolated obsidian flake

## Native American Consultation

In conjunction with the records search for the present project, the Native American Heritage Commission (NAHC) was contacted regarding Sacred Land Listings. The NAHC indicated that there are no Sacred Land listings for the project area or adjacent lands (response dated December 1<sup>st</sup>, 2021 copy attached). The contact list from the Native American Heritage Commission included the following individuals and groups, all of whom were contacted and requested to supply any information they might have concerning prehistoric sites or traditional use areas within the project area (see attached letter Appendix B):

Yocha Dene responded (letter dated June 24<sup>th</sup> 2022) stating the project is within their aboriginal territories and that they have a cultural interest in the project area (see Appendix B). The letter does not state specific concerns but request detailed information on the project and recommends a Native American Monitor.

## Field Reconnaissance:

A pedestrian survey, which entails the inspection of all land surfaces that can reasonably be expected to contain cultural resource remains without major modification of the land surface, was performed on June 21, 2022.

### Crew:

The crew consisted of Principal Investigator, **Lori Harrington** who has a: MA in Anthropology from California State University Hayward (CSEB); 20 years of professional experience in California archaeology; certification by the Register of Professional Archaeologists [RPA] and Meets NPS Standards & Guidelines for Archaeology.








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## Methodology:

The ground, was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, baked clay items, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., postholes, foundations) or historic debris (e.g., metal, glass, ceramics).

Photographs of the current project area, potential features, and items of interest were taken with a digital camera. Locational data was recorded with a handheld Garmin GPS eTrex Venture global positioning system (GPS) unit. In addition, the surrounding neighborhood was reviewed by car to check on the general topography.

The project area consisted of planned neighborhood and rural farmlands. The intensive pedestrian survey consisted of 3 meter wide transects in an east/west and north/south direction. Ground visibility varied from 100 to 0% visibility due to the heavily built environment.

	
<b>Photo 1: Project area looking east.</b>	<b>Photo 2: Project area looking north.</b>
	
<b>Photo 3: Project area looking west.</b>	<b>Photo 4: Ground cover in project area</b>
	
<b>Photo 5: Ground cover in project area</b>	

## Archaeological Phase 1 Study –Wild Wings CSA Well Project

### General Findings:

The general project area has been highly disturbed due to previous development.

### Results:

The pedestrian survey was negative for cultural content. There was no surface evidence of historic or prehistoric sites, features, artifacts or isolates.

### Potential for Subsurface Archaeological Deposits

The project area has undergone extensive disruption due to grading and construction activities. The potential for subsurface deposits being encountered is very unlikely. Cultural sensitivity for this project area is considered *low*.

### Recommendations:

Any improvements within the project area will have no adverse impacts on known cultural resources. No additional hindrances affected the results of this survey, and no conditions are placed on the project based on the results of this study. Should unanticipated cultural resource be encountered during land modification activities, work must cease, and a qualified archaeologist contacted immediately to determine appropriate measures to mitigate any adverse impacts to the discovered resources. If human remains are discovered during construction-related activities notification of the Yolo County Coroner is required. If the Yolo County Coroner determines that the discovered remains are those of Native American ancestry, then the Native American Heritage Commission must be notified by telephone within 24 hours. Sections 5097.94 and 5097.98 of the Public Resources Code describe the procedures to be followed after the notification of the Native American Heritage Commission.

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## Archaeological Phase 1 Study –Wild Wings CSA Well Project

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## **Appendix A (Record Search)**

### **Confidential Information**

**Appendix B (Native American Consultation)**



# Archaeological Phase 1 Study –Wild Wings CSA Well Project



STATE OF CALIFORNIA

Gravin Newsom, Governor

## NATIVE AMERICAN HERITAGE COMMISSION

December 2, 2021

Lori Harrington  
CRA

CHAIRPERSON  
**Laura Miranda**  
Luiseño

*Submitted via Electronic Mail*  
*Via Email to: [cra\\_lori@sbcglobal.net](mailto:cra_lori@sbcglobal.net)*

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

Re: Water Project, Yolo County

PARLIAMENTARIAN  
**Russell Attebery**  
Karuk

Dear Ms. Harrington:

COMMISSIONER  
**William Mungary**  
Paiute/White Mountain  
Apache

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

COMMISSIONER  
**Isaac Bojorquez**  
Ohlone-Costanoan

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

COMMISSIONER  
**Sara Dutschke**  
Miwok

COMMISSIONER  
**Buffy McGuillen**  
Yakayo Pomo, Yuki,  
Nomlaki

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

COMMISSIONER  
**Wayne Nelson**  
Luiseño

If you have any questions or need additional information, please contact me at my email address: [katy.sanchez@nahc.ca.gov](mailto:katy.sanchez@nahc.ca.gov).

COMMISSIONER  
**Stanley Rodriguez**  
Kumeyaay

Sincerely,

*Katy Sanchez*

EXECUTIVE SECRETARY  
**Christina Snider**  
Pomo

Katy Sanchez  
Associate Environmental Planner

Attachment

NAHC HEADQUARTERS  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
[NAHC.ca.gov](http://NAHC.ca.gov)

Page 1 of 1

# Archaeological Phase 1 Study –Wild Wings CSA Well Project

## Native American Heritage Commission Native American Contacts List December 01, 2021

<p>Cachil DeHe Band of Wintun Indians of the Colusa Indian Community Clifford Mota, Tribal Preservation Liaison 3730 Highway 45 Wintun (Patwin) Colusa CA 95932 cmota@colusa-nsn.gov (530) 458-8231</p>	<p>Nashville Enterprise Miwok-Maidu-Nishinam Tribe Cosme A. Valdez, Chairperson P.O. Box 580986 Miwok Elk Grove CA 95758-001 valdezcome@comcast.net (916) 429-8047 Voice/Fax (916) 396-1173 Cell</p>
<p>Cachil DeHe Band of Wintun Indians of the Colusa Indian Community Daniel Gomez, Chairman 3730 Highway 45 Wintun (Patwin) Colusa CA 95932 dgomez@colusa-nsn.gov (530) 458-8231 (530) 458-4186</p>	<p>Shingle Springs Band of Miwok Indians Regina Cuellar, Chairperson P.O. Box 1340 Miwok Shingle Springs CA 95682 Maidu rcuellar@ssband.org (530) 387-4970 Office (530) 387-8067 Fax</p>
<p>Chicken Ranch Rancheria of Me-Wuk Indians Lloyd Mathiesen, Chairperson P.O. Box 1159 Miwok - Me-wuk Jamestown CA 95327 lmathiesen@crtribal.com (209) 984-9066 (209) 984-9269</p>	<p>United Auburn Indian Community of the Auburn Rancheria Gene Whitehouse, Chairperson 10720 Indian Hill Road Maidu Auburn CA 95603 Miwok bguth@auburnrancheria.com (530) 883-2390 Office (530) 883-2380 Fax</p>
<p>Cortina Rancheria - Kletsel Dehe Band of Wintun Indians Charlie Wright, Chairperson P.O. Box 1630 Wintun / Patwin Williams CA 95987 (530) 473-3274 Office (530) 473-3301 Fax</p>	<p>Wilton Rancheria Jesus G. Tarango Jr., Chairperson 9728 Kent Street Miwok Elk Grove CA 95624 jtarango@wiltonrancheria-nsn.gov (916) 683-6000 Office (916) 683-6015 Fax</p>
<p>Guidiville Indian Rancheria Donald Duncan, Chairperson P.O. Box 339 Pomo Talmage CA 95481 admin@guidiville.net (707) 462-3682 (707) 462-9183 Fax</p>	<p>Wilton Rancheria Steven Hutchason, THPO 9728 Kent Street Miwok Elk Grove CA 95624 shutchason@wiltonrancheria-nsn.gov (916) 683-6000 Ext. 2006 (916) 683-6015 Fax</p>



# Archaeological Phase 1 Study –Wild Wings CSA Well Project

**Native American Heritage Commission  
Native American Contacts List  
December 01, 2021**

Yocha Dehe Wintun Nation  
Anthony Roberts, Chairperson  
P.O. Box 18  
Brooks CA 95606  
thpo@yochadehe-nsn.gov  
(530) 796-3400

Wintun (Patwin)

Yocha Dehe Wintun Nation  
Laverne Bill, Director of Cultural Resources  
P.O. Box 18  
Brooks CA 95606  
thpo@yochadehe-nsn.gov  
(530) 796-3400

## Archaeological Phase 1 Study –Wild Wings CSA Well Project

### Native American Call List

	Sent Letter to	Responded	Concerns	Called
Cachil DeHe Band of Wintun Indians of the Colusa Indian Community Clifford Mota Daniel Gomez,	Email 6/15/2022	No	N/A	6/24/2022 Left message to call with concerns by July 15.  8/4/2022 Follow up call. Left message to call if there are concerns.
Chicken Ranch Rancheria of Me-Wuk Indians Lloyd Mathiesen	Email 6/15/2022	No	N/A	6/24/2022. Resent consult to C. Reyes. She will call if she has any concerns.
Cortina Rancheria - Kletsel Dehe Band of Wintun Indians Charlie White	Fax 6/15/2022	No	N/A	6/24/2022. Number disconnected.
Guidville Indian Rancheria Donald Duncan	Email 6/15/2022  8/05/2022	No	N/A	6/24/2022. Left message to call with concerns by July 15.  8/04/2022. Called was told tribal representative not available. Was given email <a href="mailto:historian@guidville.net">historian@guidville.net</a> . Information was sent to this email. Along with a request to contact if there were concerns.
Nashville Enterprise Miwok-Maidu-Nishinam Tribe Cosme Valdez	Email 6/15/2022	No	N/A	6/24/2022. Left message to call with concerns by July 15.  8/4/2022 Follow up call. Left message to call if there are concerns.
Shingle Springs Band of Miwok Indians Regina Cuellar	Email 6/15/2022	No	N/A	6/24/2022. Left message to call with concerns by July 15.  8/4/2022 Follow up call. Left message to call if there are concerns.
United Auburn Indian Community	Email 6/15/2022	Yes. email	Responded. Project is not in their area. No	6/24/2022. Left message to call with

## Archaeological Phase 1 Study –Wild Wings CSA Well Project

Gene Whitehouse			<b>concerns. See attached.</b>	concerns by July 15.
Wilton Rancheria Jesue Tarango Steven Hutchason	Email 6/15/2022	<b>No</b>	N/A	6/24/2022. Left message with Steven Hutchason to call with concerns by July 15.  8/4/2022 Follow up call. Left message to call if there are concerns.
Yocha Dehe Wintu Nation  Anthony Roberts Bill Lavern	Email 6/15/2022	<b>Yes letter</b>	<b>Has concerns. See attached letter.</b>	6/24/2022 Spoke with Rebecca. They have the consultation. They will contact if they have concerns

# Archaeological Phase 1 Study –Wild Wings CSA Well Project

## CULTURAL RESEARCH ASSOC.

295 E. 8<sup>th</sup> Street  
Chico, CA 95928  
Phone Number 521-8046  
Fax: 530 566.1657

Yocha Dehe Wintu Nation  
Anthony Roberts, Chairperson  
Bill Lavern  
thpo@yochadehe-nsn.gov

Subject: Well Site for Wild Wings County Service Area  
Date: **June 14, 2022.**

The purpose of this letter is to apprise you of a proposed project development in Yolo County California. The project proposes to install a new well location in the area of Wild Wing off Wood Duck Street, T10N, R1E, unsectioned on the Madison USGS 7.5 Quad. (See enclosed maps.)

On behalf of the project, the subcontractor Cultural Research Assoc. has contacted the Native American Heritage Commission (NAHC) to obtain a list of groups or individuals that may have specific knowledge of cultural resources or other concerns within the defined project areas. A search of the sacred lands file indicated that there are no known Native American cultural resources within or adjacent to the project area. The project area has been highly disturbed due to grading, road construction and previous utility installation. The record search for the project was negative and nothing has been recorded in the general project vicinity. The field survey was also negative for historic and prehistoric resources.

Your name was supplied to us by the NAHC because you may have knowledge of specific cultural resources within the defined project areas or know of other individuals or groups who may have specific knowledge. Please contact me at (530) 521-8046, or email at: [cra\\_lori@sbcglobal.net](mailto:cra_lori@sbcglobal.net) regarding specific concerns in the project area.

If you do not reply by **June 30<sup>th</sup>, 2022**, noon, it will be assumed that you have no comments regarding the current project area outlined on the enclosed map.

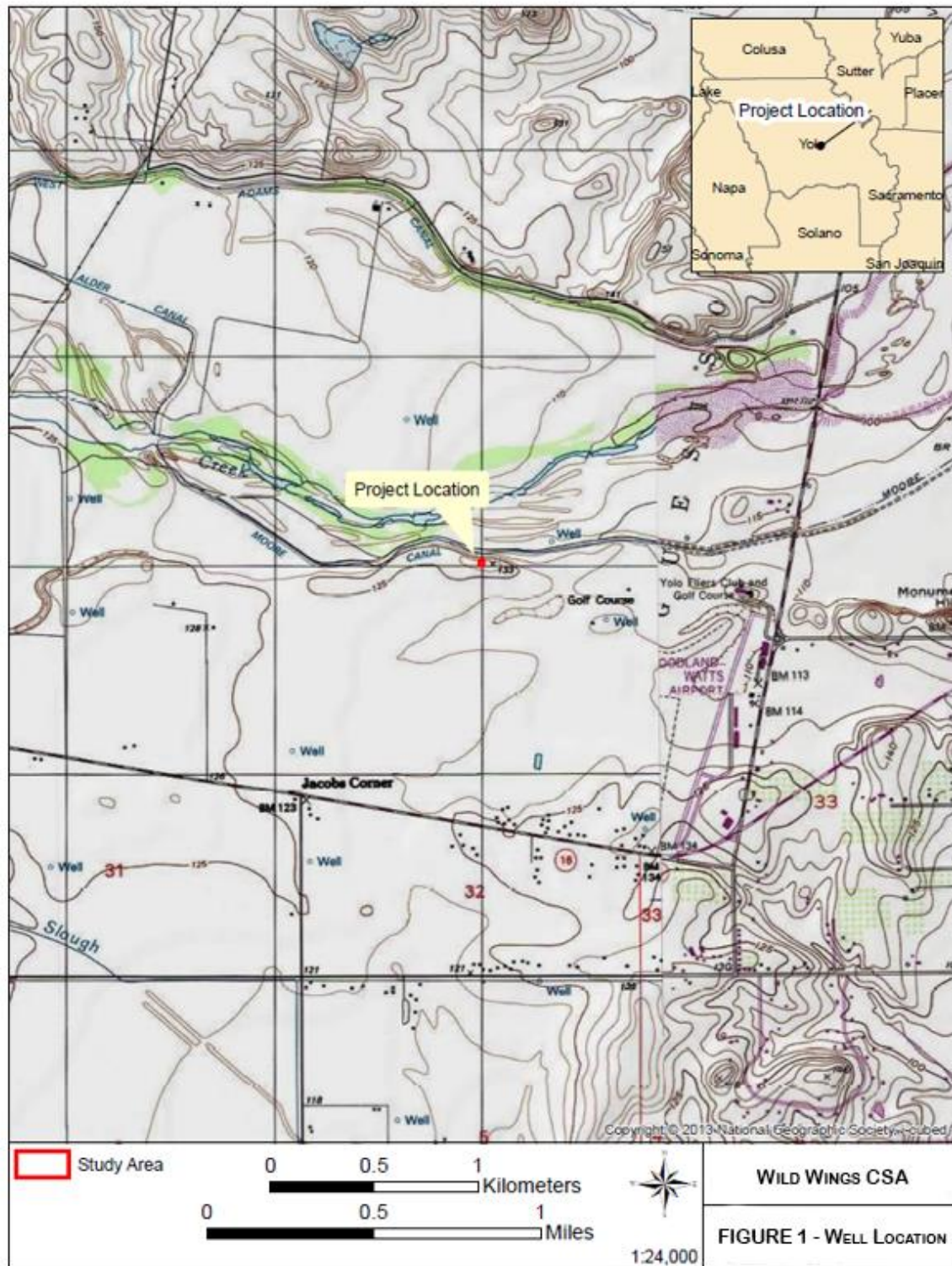
Sincerely, Lori Harrington

## Archaeological Phase 1 Study –Wild Wings CSA Well Project





# Archaeological Phase 1 Study –Wild Wings CSA Well Project



# Archaeological Phase 1 Study –Wild Wings CSA Well Project

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June 24, 2022

Cultural Research Assoc.  
Attn: Lori Harrington  
295 E. 8<sup>th</sup> Street  
Chico, CA 95928

RE: Wild Wing Well Project YD-06152022-02

Dear Ms. Harrington

Thank you for your project notification letter dated, June 15, 2022, regarding cultural information on or near the proposed Wild Wing Well Project. We appreciate your effort to contact us and wish to respond.

The Cultural Resources Department has reviewed the project and concluded that it is within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, we have a cultural interest and authority in the proposed project area.

Based on the information provided, the Tribe has concerns that the project could impact known cultural resources. Please send us detailed project information, including any plans for ground disturbance. Yocha Dehe Wintun Nation highly recommends including cultural monitors during development and ground disturbance.

Should you have any questions, please contact:

CRD Administrative Staff  
Yocha Dehe Wintun Nation  
Office: (530) 796-3400  
Email: [THPO@yochadehe-nsn.gov](mailto:THPO@yochadehe-nsn.gov)

Please refer to identification number YD- 06152022-02 in any correspondence concerning this project.

Thank you for providing us with this notice and the opportunity to comment.

Sincerely,


DocuSigned by:  
  
5FD632F0B9C34FA  
Tribal Historic Preservation Officer

Yocha Dehe Wintun Nation  
PO Box 18 Brooks, California 95606 p) 530.796.3400 f) 530.796.2143 [www.yochadehe.org](http://www.yochadehe.org)

## Archaeological Phase 1 Study –Wild Wings CSA Well Project


Wild Wing Well Project 3

Yahoo/Glenn Y... ★

 **Lori Harrington**

Please see the attached consultation for the Wild Wing Well Project Lori Harrington, M.

Wed, Jun 15 at 1:02 PM ★

 **Anna Cheng** <acheng@auburnrancheria.com>

To: 'Lori Harrington'

Cc: Anna Starkey

Thu, Jul 14 at 4:18 PM ★


Dear Ms. Harrington,

On behalf of the United Auburn Indian Community's Tribal Historic Preservation Department, thank you for the notification about the project referenced above. We have reviewed the project location and determined that it falls outside of the UAIC's geographic area of traditional and cultural affiliations. Therefore, we will not be commenting on the project.

Best,

Anna Cheng

*The United Auburn Indian Community is now accepting electronic consultation request, project notifications, and requests for information! Please fill out and submit through our website. Do not mail hard copy letters or documents. <https://auburnrancheria.com/programs-services/tribal-preservation> Bookmark this link!*



**Anna Cheng**  
Tribal Heritage Coordinator  
Tribal Historic Preservation Department | UAIC  
10720 Indian Hill Road  
Auburn, CA 95603  
Direct Line: (530) 217-4083 | Cell: (530) 492-4822  
[acheng@auburnrancheria.com](mailto:acheng@auburnrancheria.com) | [www.auburnrancheria.com](http://www.auburnrancheria.com)

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**APPENDIX D**

**MITIGATION MONITORING AND  
REPORTING PROGRAM**

**WILD WINGS CSA, YOLO COUNTY  
WOOD DUCK WELL AND PUMP STATION PROJECT**

**OCTOBER 2022**

## **MITIGATION MONITORING AND REPORTING PROGRAM**

The California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration (IS/MND) prepared for this project documents the impacts and mitigation measures that would reduce, avoid, or otherwise minimize these impacts. This Mitigation Monitoring and Reporting Program (MMRP) will ensure that each mitigation measure, adopted as a condition of project approval, is implemented. This MMRP complies with CEQA Guidelines Section 15074(d) that specifies the lead agency shall adopt a program for reporting on the changes that it has either required in the project or made a condition of approval to mitigate or avoid significant environmental effects.

### **ROLES AND RESPONSIBILITIES**

Yolo County will adopt this MMRP in order to mitigate environmental effects. It is the responsibility of Yolo County to ensure completion of the monitoring program. This MMRP reflects all measures identified during the CEQA review process.

### **LIST OF MITIGATION MEASURES AND DATE OF COMPLETION**

**10.3 AIR QUALITY (d-e)** - The following mitigation measures shall be incorporated into the project to reduce impacts to air quality during construction activities and include:

- All construction equipment shall be checked by a certified mechanic and determined to be running in proper condition before the start of work.
- Water trucks shall be used as needed to prevent airborne dust from leaving the project site.
- All stockpiled material shall be sufficiently covered when not in use to prevent potential air-borne pollutants from leaving the project site.
- All trucks hauling loose construction material such as gravel and sand to the project site shall be securely covered to avoid spilling.
- All trucks hauling construction material shall avoid track-out from the project area.
- The site shall be cleaned at the end of each working day.
- Field inspectors shall ensure compliance with Yolo-Solano Air Quality Management District guidelines and regulations.
- Signs shall be placed along construction area with contact information to report air quality violations to Yolo Solano Air Quality Management District.

**Mitigation Monitoring:** Yolo County

**Timing Process:** Prior to and during construction

**Verification of Compliance (Initials, Date, Remarks):**

**10.4 BIOLOGICAL RESOURCES:** The following mitigation measures shall be incorporated into the project to avoid impacts to raptors, migratory birds and other special-status plant and wildlife species.

**a;d):** The proposed project is planned for construction over 18-months during the raptor and migratory bird nesting seasons (March 15-July 31). To mitigate potential impacts a qualified biologist will conduct a nesting bird survey 48-72 hours prior to well drilling and other construction ground disturbance. If an active nest is located the survey biologist will consult with Yolo County staff to avoid and/or minimize potential impacts such as establishing buffers. Other special-status species with a potential to occur in the project area would be assessed during the pre-construction survey.

**(b-c):** The mitigation measures outlined in Hydrology and Water Quality 10.10 shall be incorporated into the project to avoid potential impacts to Cache Creek.

**Mitigation Monitoring:** Yolo County

**Timing Process:** Prior to and during construction

**Verification of Compliance (Initials, Date, Remarks):**

**10.5 CULTURAL RESOURCES:** The following mitigation measures shall be incorporated into the project to avoid impacts to Cultural Resources.

**(a-d):** Should unanticipated cultural resource be encountered during construction activities, work must cease, and a qualified archaeologist contacted immediately to determine appropriate measures to mitigate any adverse impacts to the discovered resources. If human remains are discovered during construction-related activities notification of the Yolo County Coroner is required. If the Yolo County Coroner determines that the discovered remains are those of Native American ancestry, then the Native American Heritage Commission must be notified by telephone within 24 hours. The instructions provided by the Yocha Dehe Tribal Historic Preservation Officer on August 19, 2022 and Sections 5097.94 and 5097.98 of the Public Resources Code describe the procedures to be followed after the notification of the Native American Heritage Commission.

**Mitigation Monitoring** – Yolo County

**Timing Process:** During construction

**Verification of Compliance (Initials, Date, Remarks):**

**10.8 GREENHOUSE GAS EMISSIONS-** The following mitigation measures shall be incorporated into the project to minimize Greenhouse Gas Emissions.

(a): All mitigation measures outlined in section **10.3 Air Quality** shall be implemented throughout the course of construction activities to minimize Greenhouse Gas Emissions.

**Mitigation Monitoring** – Yolo County

**Timing Process:** During construction

**Verification of Compliance (Initials, Date, Remarks):**

**10.9 HAZARDS AND HAZARDOUS MATERIALS:** The following mitigation measures shall be incorporated into the project to avoid impacts from hazards and hazardous materials.

(a-b; h):

- Fueling and application of lubricants and fluids will be performed in a designated area with appropriate BMPs.
- Fluids, oils, lubricants, and trash will be disposed according to County guidelines in order to prevent any potentially hazardous materials impact.

**Mitigation Monitoring** – Yolo County

**Timing Process:** During construction

**Verification of Compliance (Initials, Date, Remarks):**

**10.10 HYDROLOGY AND WATER QUALITY:** The mitigation measures outlined below shall be incorporated into the project to minimize impacts to Hydrology and Water Quality.

**10.10 (a,e):**

**1. Retain soil and sediment on the construction site**

- Construction activities shall have sediment control measures including silt fencing and wattles as needed around the project perimeter for the duration of construction to avoid sediment runoff especially during and after storm events.
- Contractor shall ensure that all spoil piles are stabilized and covered with heavy-duty plastic sheeting when not in use or during any precipitation event.
- In order to reduce the potential to release fugitive dust associated with project activities, dust control measures will be carried out as needed including watering.
- All soils disturbed during construction will be stabilized immediately following construction.

## **2. Non-Storm Water Management**

- Water that may be needed to flush and pressure test pipelines to the distribution system will be properly discharged according to applicable waste discharge requirements. No water will be discharged to any perennial or ephemeral surface waters.

## **3. Spill Prevention and Control**

- All equipment will be inspected for leaks prior to and during construction operations.
- The contractor will have on-site, at all times, a Spill Containment Kit for immediate deployment in the case of a sudden and unexpected spill of pollutants.

## **4. Maintenance, Inspection, and Repair**

- All temporary and permanent BMPs implemented for this project will be properly maintained by the contractor to ensure their effectiveness.
- The contractor will conduct inspections of the site on a daily basis and more frequently prior to and after storm events. Equipment, materials, and workers will be available for immediate repairs and rapid response to emergencies if needed.

**10.13 NOISE:** The following mitigation measures shall be incorporated into the project to minimize construction related noise impacts.

### **(a-b; d):-**

- There will be 300 feet of sound wall along the eastern edge of the Wood Duck well and pump station site.
- All internal combustion engine driven equipment shall have residential grade exhaust mufflers in good running condition and appropriate for the equipment.
- Stationary noise-generating equipment shall be located as far as possible from sensitive receptors.
- Project activities will be limited to daytime hours between 7:00 a.m. and 7:00 p.m. on weekdays and Saturdays between 8:00 a.m. and 6:00 p.m.
- Unnecessary motorized idling of equipment will be avoided.
- Signs shall be placed along construction areas with contact information to report excessive noise impacts violations to Yolo County.

**10.18 TRIBAL CULTURAL RESOURCES:** The following mitigation measures shall be incorporated into the project to avoid impacts from Tribal Cultural Resources.

- In the unlikely event resources are discovered during ground disturbing activities, the instructions provided by the Yocha Dehe Tribal Historic Preservation Officer on August 19, 2022 and those provided in Mitigation Measure **10.5 CULTURAL RESOURCES**, will be implemented in the event a material of potential cultural significance is uncovered.