INITIAL STUDY/ NEGATIVE DECLARATION

PUBLIC DRAFT

Project Title:	Garden Highway Mutual Water Company Winter Water Rights Application A031191
Project Location:	12755 Garden Highway Yuba City, CA 95991
Lead Agency Name and Address:	State Water Resources Control Board Division of Water Rights 1001 I Street Sacramento, CA 95814
Contact Person and Phone Number:	Phillip Zoucha Phone: (916) 323-4641
Applicant:	Garden Highway Mutual Water Company 12755 Garden Highway Yuba City, CA 95991
Contact Person and Phone Number:	Jon Munger Phone: (530) 330-2827
General Plan Designation:	Agricultural, 80-acre minimum (AG-80, Sutter County General Plan)
Zoning:	General Agricultural (AG, Sutter County Zoning Code)

1. INTRODUCTION

Shareholders of the Garden Highway Mutual Water Company (GHMWC or Applicant) own property located west of the Feather River, between the Sutter Bypass to the west and State Route (SR) 99 to the east, approximately three miles northwest of the small community of Nicolaus in Sutter County, California (Figure 1 and Figure 2). Water Right Application (Application) A031191 was filed by the GHMWC on February 20, 2001, and was accepted by State Water Resources Control Board (SWRCB), Division of Water Rights (Division) staff on May 30, 2001. A public notice for this project was posted on July 27, 2001.

2. PURPOSE AND LEGAL BASIS FOR THE INITIAL STUDY

The purpose of the proposed project is to use the water requested under Application A031191 to flood rice fields during the season of diversion for rice straw decomposition and incidental irrigation of food and cover crops. Because the property lies within the Pacific Flyway, this flooding would also provide habitat for wintering waterfowl and other wildlife species.

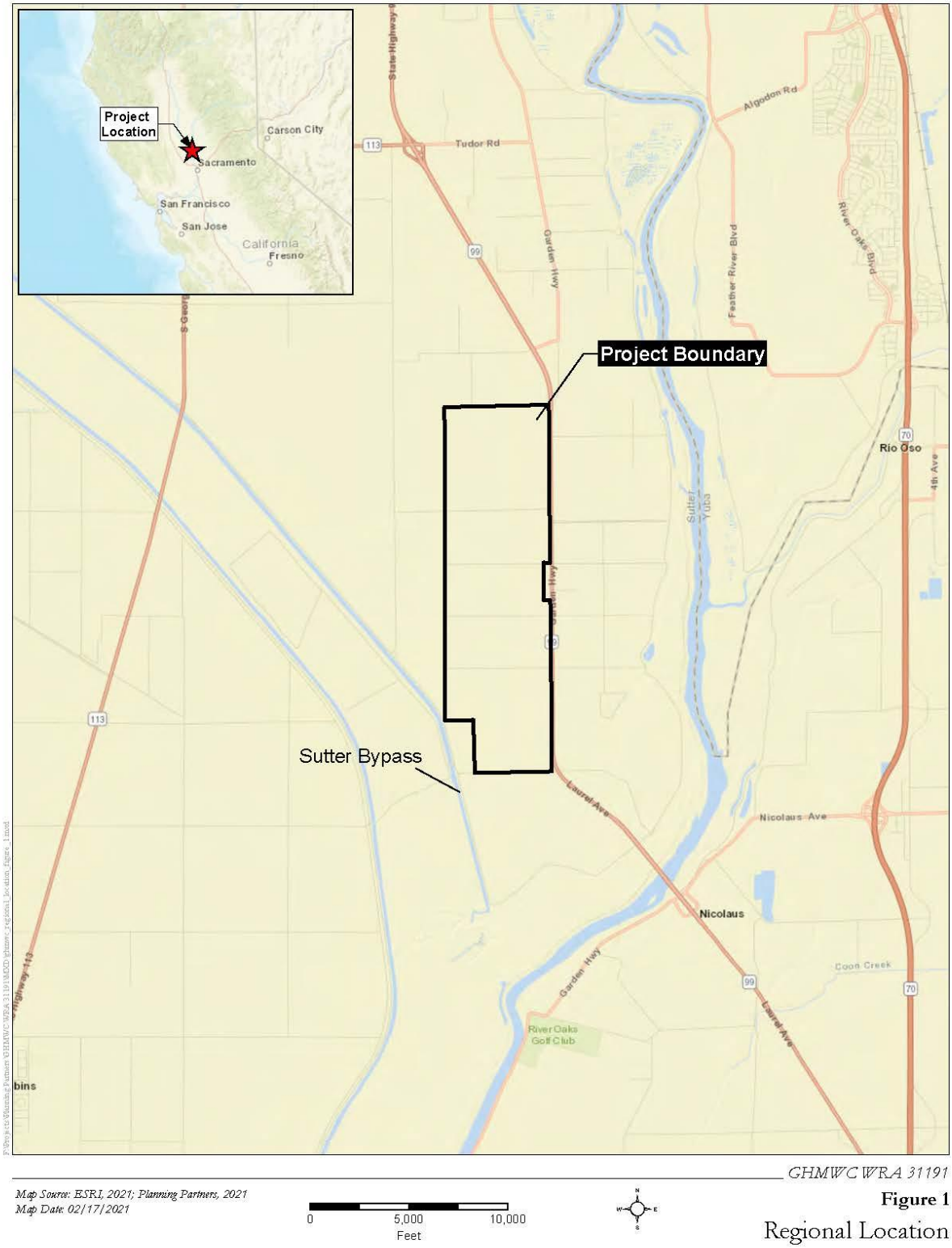

Figure 1. Regional Location

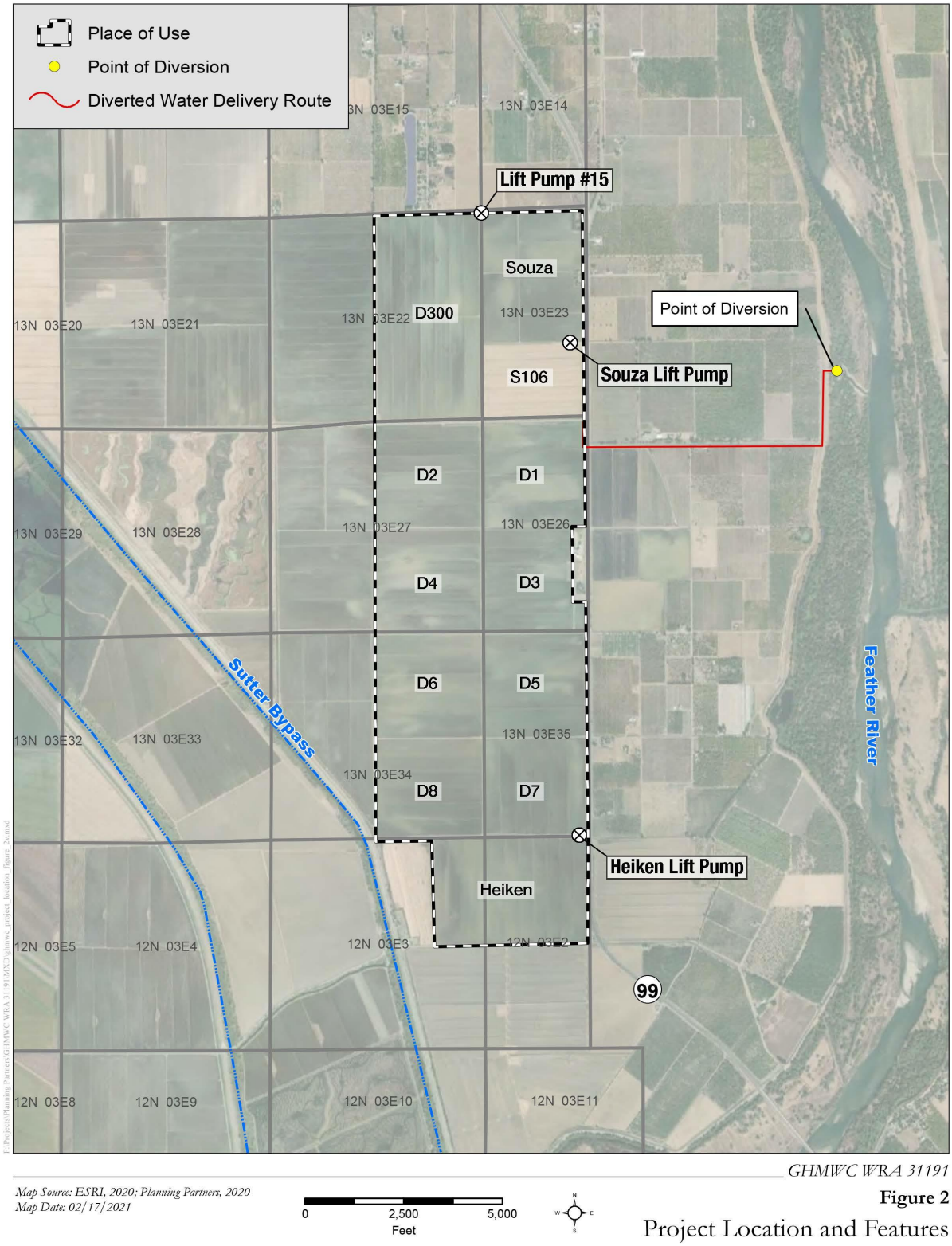

Figure 2. Project Location and Features

This Initial Study and Negative Declaration were prepared in order to comply with the California Environmental Quality Act (CEQA). The purpose of an Initial Study is to determine if a project may have a significant effect on the environment. If it is determined that the project will have a significant effect upon the environment, an environmental impact report must be prepared. However, if the lead agency determines that the project will not have a significant effect on the environment, a Negative Declaration may be prepared.

As a public disclosure document, this Initial Study provides local decision makers and the public with information regarding the environmental impacts associated with the proposed project. According to Section 15063 of the State CEQA Guidelines:

(a) Following preliminary review, the Lead Agency shall conduct an Initial Study to determine if the project may have a significant effect on the environment. If the Lead Agency can determine that an EIR will clearly be required for the project, an Initial Study is not required but may still be desirable.

1) All phases of project planning, implementation, and operation must be considered in. the Initial Study of the project.

2) To meet the requirements of this section, the lead agency may use an environmental assessment or a similar analysis prepared pursuant to the National Environmental Policy Act.

3) An Initial Study may rely upon expert opinion supported by facts, technical studies, or other substantial evidence to document its findings. However, an Initial Study is neither intended nor required to include the level of detail included in an EIR.

The Lead Agency may use any of the arrangements or combination of arrangements described in Section 15084(d) of the State CEQA Guidelines to prepare an Initial Study. The Initial Study sent out for public review must reflect the independent judgment of the Lead Agency.

3. PROJECT BACKGROUND

3.1 OVERVIEW OF WATER RIGHT PROCESS

In general, the SWRCB process for granting water rights in California includes three phases: application, permitting, and licensing. In the application phase, the party requesting the water right (Applicant) files an application, along with supporting documents and studies, to Division staff. Division staff then review and evaluate the materials provided by the applicant, which typically include either a draft CEQA compliance document or a draft evaluation of impacts on public trust resources. During the permitting phase, Division staff and the applicant agree on mitigation for environmental impacts or the loss of public trust resources, any outstanding protests against the application are resolved, and Division staff determines whether the water

requested is available and will be put to beneficial use. A permit is then issued (either by Division staff, or following a hearing, by the SWRCB). The permit specifies the diversion amount, maximum rate of diversion, location of diversion, method of diversion, place of use, location of storage (if any), season of use, and purpose of use for the water to be diverted. It also specifies the length of time for the applicant to put the water described in the permit to beneficial use. After the specified length of time, the applicant must demonstrate the volume of water they have put to beneficial use. The Division may then issue a license for the amount of water the Applicant has put to beneficial use, if it determines that the Applicant has complied with all of the provisions of their permit.

3.2 APPLICANT'S EXISTING WATER RIGHTS

The Applicants have several existing water rights, which may be used on the lands within the place of use requested in Application A031191. These are summarized below.

- Water Right License 2033 (A001699) allows for the diversion of 39.0 cubic feet per second (cfs) from the Feather River Inlet Channel from April 15 to October 31; for irrigation of 3,708.45 acres net within 3,765.45 acres gross. Priority date of March 2, 1920.

- Water Right License 4659 (A014415) allows for the diversion of 23 cfs from the Feather River Inlet Channel from May 1 to November 1; for irrigation of 3,708.45 acres net within 3,765.45 acres gross. Priority date of August 3, 1951.

- Water Right License 5629 (A015893) allows for the diversion of 0.7 cfs from the Feather River Inlet Channel from May 1 to November 1; for irrigation of 3,708.45 acres net within 3,765.45 acres gross. Priority date of June 4, 1954.

- Water Right License 11376 (A023045) allows for the diversion of 32.7 cfs from the Feather River Inlet Channel from April 1 to April 30; for irrigation of 3,447 acres net within 3,765.45 acres gross. Priority date May 15, 1968.

- Permit 18093 (A026098) allows for the diversion of 0.25 cfs from the Feather River Inlet Channel and an unnamed drain from April 1 to June 15; for irrigation of 20 acres. Priority date of September 25, 1979.

The overlap in the season of diversion between the proposed project and these existing licenses is not meant to supplement water diverted under existing licenses. Rather, the proposed diversion is intended to flood fields post-harvest for the separate purposes of use of aiding rice decomposition and providing habitat for waterfowl and other wildlife.

3.3 PROTESTS

Application A031191 was filed by the GHMWC on February 20, 2001, and was accepted by Division staff on May 30, 2001. A public notice for this project was posted

on July 27, 2001. Timely protests were received from the California Sportfishing Protection Alliance (CSPA) and the U.S. Bureau of Reclamation (USBR). The California Department of Fish and Game (now the California Department of Fish and Wildlife [CDFW]) also submitted a protest, but CDFW'S protest was rejected by the Division staff as untimely.

GHMWC has agreed to the inclusion of the standard permit terms (Terms 80, 90, and 91) in the order approving GHMWC's application. As such, Reclamation's protest dismissal terms have been met. GHMWC has also reached agreement with CSPA (Shutes *pers. comm.* 2022) and CDFW (Gibbons *pers. comm.* 2022) on terms to be included in the order approving GHMWC's application. As such, CSPA protest dismissal terms and CDFW's concerns have also been met (subject to final CEQA review).

4 DESCRIPTION OF THE PROPOSED PROJECT

4.1 PROJECT LOCATION

The proposed project is located on approximately 2,160 acres comprised of eleven parcels within the Nicolaus 7.5-minute USGS topographic quadrangle (Table 1 and Figure 2). For details regarding the proposed Place of Use (POU) for the water requested under the proposed project, see Table 3 below.

Table 1. Sutter County Assessor's Parcel Numbers

Parcel Numbers	Parcel Numbers
25-140-011	25-210-030
25-190-043	25-210-038
25-190-044	25-210-039
25-190-045	25-210-044
25-190-046	25-270-004
25-190-047	25-270-015
25-190-052	

Source: Planning Partners, 2021.

Point of Diversion

Application A031191 includes a single existing point of diversion (POD) on a side channel of the Feather River, tributary to Sacramento River, Sutter County (Table 2, Figure 2).

Table 2. Proposed Point of Diversion

Point of Diversion	Source	Within	Section/Township/Range
1	Feather River	SW ¼ of SE ¼	24, 13N, 3E, MDB&M

Source: MBK Engineers, 2016.

Rate, Amount, and Timing of Diversions

Diversion at POD #1 will be accomplished using an existing pump station located at the end of an approximately 850-foot pump intake channel connected to the Feather River (Figure 2). The pump station consists of three vertical turbine pumps installed on a piled support structure. At high river levels, the maximum diversion capacity of these pumps is 95-100 cfs; at low river levels, the maximum diversion capacity drops to 82 cfs. The pump station has been fitted with a fish screen, and a fish and debris deflector has been installed across the opening of the pump intake channel to help guide fish past the entrance to the pump intake channel. Implementation of the fish screen project was the subject of CEQA analysis, and a Mitigated Negative Declaration was prepared in July 2018 and adopted by the California Department of Fish and Wildlife, Lead Agency for the project. POD #1 is currently used to deliver water during the irrigation season under separate water right permits 1793, 8848, 9904, 15778, and 18093, described above under *Applicant's Existing Water Rights*. The structure will also be used to divert water under this right, and existing canals and pipelines will be used to convey water from the POD to the POU. The rate, amount, and timing of diversions is summarized below:

- **Rate:** Water would be taken at a maximum direct diversion rate of 86.0 cfs.
- **Amount:** The total amount of water taken by diversion would be 4,320 acre-feet (af) per diversion season.
- **Timing of Diversions:** The season of diversion would be from October 1 of each year to March 31 of the succeeding year. The overlap in the season of diversion between the proposed project and existing GHMWC licenses is not meant to supplement water diverted under current licenses (see above).

Place of Use

The requested POU under Application A031191 includes 2,160 acres on various parcels within the Feather River watershed, within the Nicolaus and Sutter Causeway 7.5-minute USGS topographic quadrangles, and within various sections of Townships 12 North and 13 North, Range 3 East, Mount Diablo Base and Meridian (MDB&M) (Table 3 and Figure 2).

The POU includes multiple fields that have been used for rice production since the 1940s, including adjacent farm roads, farm ditches, and levee systems. Land uses surrounding the POU include agricultural fields, planted orchards, open space watershed, and scattered rural residences. A concentration of farm-related buildings and equipment is situated on the eastern edge of the project site, adjacent to SR 99. This small parcel is not included in the proposed POU.

Lands on the northern half of the POU are protected by a conservation easement. These include the following fields: Souza, S106, D300, D1, D2, D3, and D4 (see Figure 2). Diversion of water onto these lands during the winter months would be consistent with the easement purposes.

Table 3. Place of Use Locations

Section	Township	Range	Acres
East ½ of Section 22	13 North	3 East MDB&M	320
West ½ of Section 23	13 North	3 East MDB&M	320
West ½ of Section 26	13 North	3 East MDB&M	320
East ½ of Section 27	13 North	3 East MDB&M	320
East ½ of Section 34	13 North	3 East MDB&M	320
West ½ of Section 35	13 North	3 East MDB&M	320
NE ¼ of Section 2	12 North	3 East MDB&M	160
E ½ of the NE ¼ of Section 3	12 North	3 East MDB&M	80
Total			**2,160**

Source: MBK Engineers, 2016.

Purpose of Use

A. and G. Montna Properties, L.P. (Grantor) recorded a conservation easement to Wetlands America Trust, Inc. (Grantee) for the Souza field and fields D1 through D4 on January 31, 2002. The easement for fields D300 and S106 was recorded on December 11, 2007. The primary purpose of the easement is to enable the protected property to remain in agricultural use in perpetuity by preserving and protecting its agricultural productive capacity, and by preserving open space for working landscapes. Section II, subsection 2.3 of the easement provides that the Grantor and Grantee shall cooperate to ensure winter flooding is conducted on easement lands. The easement defines this purpose of use as... “post-harvest flooding during the period of November 1 through March 1 of each crop year for the purpose of crop residue decomposition and creating habitat for waterfowl...”.

The requested approval of Application A031191 would support the terms of the conservation easement by allowing flooding of project area fields during the winter months.

4.2 CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT

Project Construction

No construction would be required to divert and use the water requested under Application A031191. Only existing water diversion and conveyance facilities would be used.

Project Operation

The Applicants propose to use an existing diversion structure situated in a side channel to the Feather River (pump intake channel) to divert water from the Feather River into an existing canal system to convey water to the requested POU. Diverted water would travel approximately 155 yards west from the POD, via pipe, to a water canal on the west side of a levee road. The water would then travel south for approximately 0.35 mile, then continue via canal to the west for 1.1 miles. It would be piped under SR 99, then enter a canal system within the POU for distribution throughout the POU. The water would accumulate on the property to a depth of approximately eight inches, similar to the depth of water during the irrigation season. Water would flow through the property, and would return to the State Reclamation Drain, via existing drainage returns from flooded fields.

5 ENVIRONMENTAL SETTING AND BASELINE CONDITIONS

The environmental setting serves as the baseline against which the impacts of the proposed project will be analyzed under CEQA. The State CEQA Guidelines (Section 15125) state that the baseline date is normally established as the time that that the Lead Agency commences the environmental analysis. The Division considers the environmental review for water right applications to begin on the date when the application is filed. Application A031191 was filed on February 20, 2001, which will serve as the baseline date for the CEQA analysis to be conducted in this Initial Study.

The following features were in place on the project site as of the Environmental Setting date of February 20, 2001:

- POU: 2,160 acres of fields in rice production;
- POD: Diversion facilities at Feather River Intake Channel POD;
- Water conveyance facilities: Irrigation canals that convey water from the POD to the POU.
- Other facilities: Ancillary farming facilities and equipment located throughout the POU.

Figure 3A an aerial photograph taken in July 1999, prior to the proposed baseline date for this project. It shows the POU, POD, and water conveyance and other facilities. Figure 3B is an aerial photograph taken in June 2020, showing the same features. As can be seen by comparing Figures 3A and 3B, no changes have occurred between February 2001 and June 2020, with the exception of the installation of the fish screen, as described above. The fish screen was installed as a separate project, and with separate CEQA compliance.

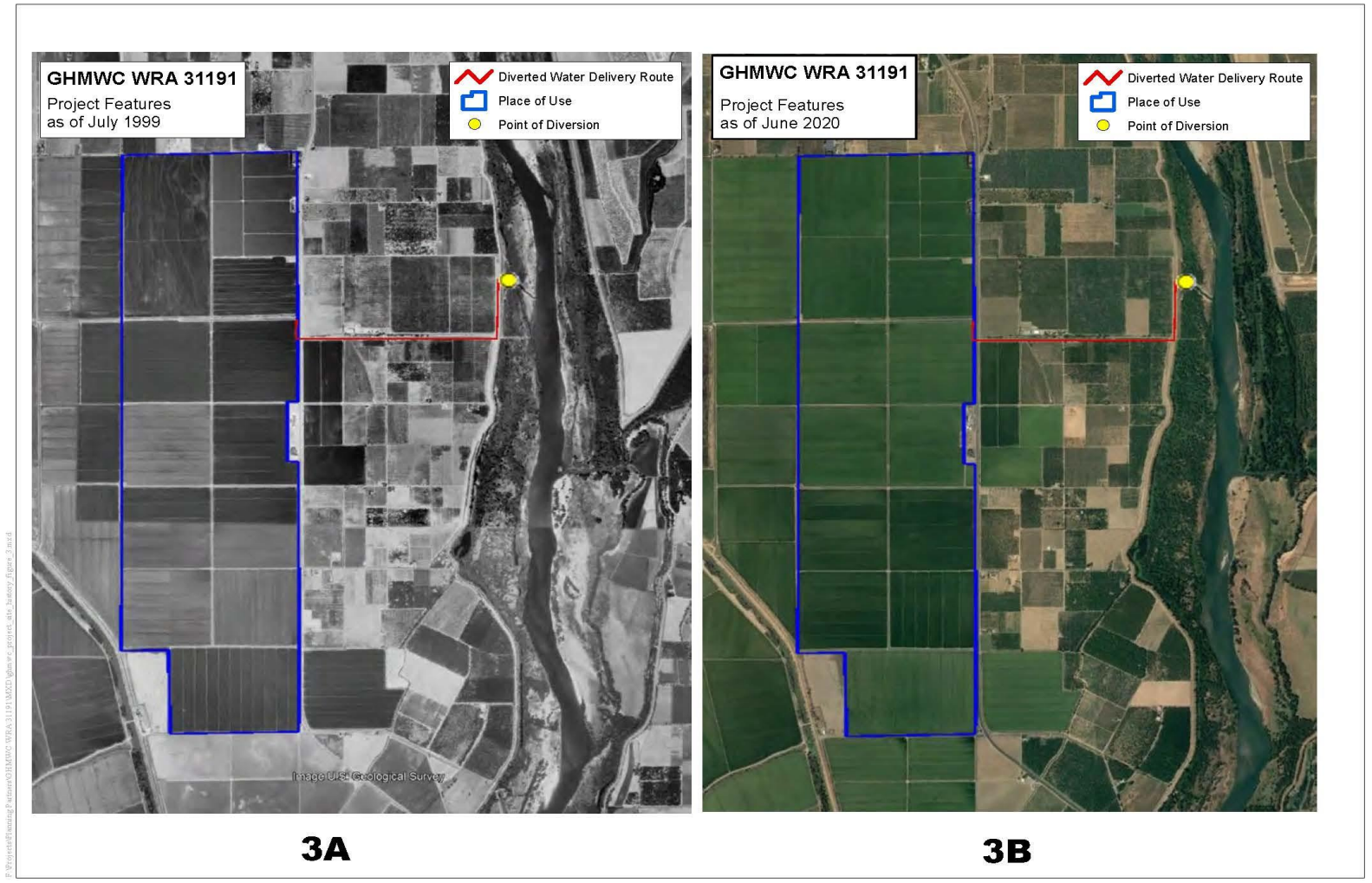

Figure 3. Project Site History

6 EVALUATION OF ENVIRONMENTAL IMPACTS

6.1 PURPOSE AND LEGAL BASIS FOR THE INITIAL STUDY

As a public disclosure document, this Initial Study provides local decision makers and the public with information regarding the environmental impacts associated with the proposed project. According to Section 15063 of the CEQA Guidelines, the purpose of an Initial Study is to:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration.

2. Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration.

3. Assist in the preparation of an EIR, if one is required by:

    a. Focusing the EIR on the effects determined to be significant,

    b. Identifying the effects determined not to be significant,

    c. Explaining the reasons for determining that potentially significant effects would not be significant, and

    d. Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.

4. Facilitate environmental assessment early in the design of a project.

5. Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.

6. Eliminate unnecessary EIRs.

7. Determine whether a previously prepared EIR could be used with the project.

6.2 INITIAL ENVIRONMENTAL CHECKLIST

Following each major environmental category and topic in the Initial Study, there are four determinations by which to judge the project's impact. These categories and their meanings are shown below:

"No Impact" means that it is anticipated that the project will not affect the physical environment on or around the project area. It therefore does not warrant mitigation measures.

“Less-than-Significant Impact” means the project is anticipated to affect the physical environment on and around the project area, however to a less-than-significant degree, and therefore not warranting mitigation measures.

“Less than Significant with Mitigation Incorporated” applies to impacts where the incorporation of mitigation measures into a project has reduced an effect from “Potentially Significant” to “Less Than Significant.” In such cases, and with such projects, mitigation measures will be provided including a brief explanation of how they reduce the effect to a less-than-significant level.

“Potentially Significant Impact” means there is substantial evidence that an effect is significant, and no mitigation is possible.

6.3 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, including several impacts that are “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

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

Environmental Setting and Evaluation of Potential Impacts

The following responses to the CEQA Checklist questions and related discussions indicate whether or not the proposed project would have or potentially have a significant adverse impact on the environment, either individually or cumulatively with other projects. All phases of project planning, implementation, and operation are considered. Mandatory Findings of Significance are located in Section XXI below.

I. AESTHETICS

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

Environmental Setting

Viewpoints and Vistas

The project site is currently in agricultural use (rice fields) and surrounded by agricultural uses and associated residences. The project site is visible to local residents and workers, and to motorists on nearby roadways, including those travelling on adjacent SR 99. Elevations at the project site range from 27 to 37 feet mean sea level

(msl), with the lower elevations at the south end of the proposed project site. (Google Earth Pro 2023)

The project area is characterized by relatively flat terrain with expansive viewsheds. The Sutter Buttes, a prominent remnant volcano located more than 20 miles to the north of the project site, and with a peak elevation 2,000 feet above the valley floor, are visible from the project site. Scenic views to the west consist of agricultural land, including rice fields, row crops, and orchards. The Coastal Range is also visible to the west. Scenic views to the east consist of agricultural land, natural wildlife areas along the Feather River, scattered rural residences, and rolling hills. The Feather River Wildlife Area, which includes the Lake of the Woods Unit, the Bobelaine Audubon Ecological Reserve, and the Nelson Slough Unit, is located approximately two miles east of the project site. The Sierra Nevada Mountains are also visible to the east. Views to the south of the project site consist of agricultural land, the east levee of the Sutter Bypass, and the confluence of the Sacramento and Feather rivers.

There are no officially recognized scenic roadways in Sutter County (Sutter County 2008). No state Officially Designated or Eligible Scenic Highways are located within the project's viewshed or in the vicinity of the proposed project. The nearest Scenic California State Highway is Highway 49, approximately 28 miles east of the project area (Caltrans 2023).

Environmental Evaluation

Question (a) Scenic Vista: No Impact. As described above, the project area is characterized by relatively flat terrain with expansive viewsheds. Implementation of the proposed project would not affect a scenic vista because no construction would occur. The proposed project would rely on existing water diversion and conveyance facilities to flood rice fields within the project site during the winter months. Viewers in the vicinity of the project are limited to motorists on perimeter roadways, and local residents and workers. Although a wildlife area is located to the east of the project site, visitors to the wildlife area cannot see the project site because of intervening riparian vegetation, and other agricultural facilities and fields between the project site and the wildlife area. While the Sutter Buttes are visible from the project site, the proposed project would not involve the construction of any features that would alter views of this mountain range, which can be viewed from a wide area encompassing Sutter County and beyond. For these reasons, the proposed project would not affect a scenic vista or alter existing views. There would be no impact, and no mitigation would be necessary.

Question (b) Scenic Highway: No Impact. There are no officially designated or eligible state scenic highways visible from the project site, nor is the site visible from any nearby designated scenic highway, so there would be no damage to such resources. No impact would result with implementation of the proposed project, and no mitigation would be necessary.

Question (c) Visual Character: Less-than-significant Impact. The visual character of the project site is defined by agricultural land uses, including row crops, rice fields,

and orchards. The project site is located adjacent to SR 99, and north of the confluence of the Sacramento and Feather rivers. Several scattered residences are located to the north and east of the project site. The proposed project would divert water from a pump intake channel connected to the Feather River to flood rice fields within the project site during the winter months. The proposed water depths on the project site and the timing, duration, and frequency of flooding would remain similar to existing seasonal flooding activities. The flooded rice fields would be visible from perimeter roadways, including SR 99, and have the potential to create a noticeable visual effect. However, these visual effects would not be substantially different than under existing conditions, both on the project properties and in the general vicinity, where fields are flooded by winter rainfall and are flooded for irrigation during the rice growing season. The flooding activities would be considered appropriate to the region by most viewers. Because the proposed project is consistent with the existing agricultural uses of the area, and flooded rice fields are a common sight within the project vicinity, implementation of the project would not degrade the existing visual character of the site or surroundings. This would be a less-than-significant impact, and no mitigation would be necessary.

Question (d) Light and Glare: No Impact. As the project site is comprised of existing agricultural fields with no developed uses, there are no existing sources of lighting within the project site. The project site is situated within a rural agricultural area of Sutter County, where the existing levels of nighttime light and glare are very low, and the proposed project would not involve the installation of new security or maintenance lighting. Therefore, there would be no impact, and no mitigation would be necessary.

II. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
In determining whether impacts to agriculture resources are significant environmental effects, lead agencies may refer to the California Agriculture Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agriculture use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Setting

The project site consists of rice fields, surrounded by open space and agricultural uses. Orchards, row crops, and other agricultural uses are prevalent in the project area (Google Earth Pro 2023). According to the Important Farmlands Map of Sutter County developed by the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP), portions of the project site are designated Prime Farmland and Farmland of Statewide Importance (DOC 2023).

The Sutter County Zoning Code applies a designation of General Agricultural (AG) to the project site. This zoning allows the raising of crops and animals, as well as non-commercial uses and structures accessory to and supporting on-site agricultural operations. The Sutter County General Plan Land Use designation for the project site is Agricultural, 80-acre minimum. The agriculture designation provides for the long-term production, processing, distribution, and sale of food and fiber on prime agricultural soils and other productive and potentially productive lands. Typical permitted uses include crop production, orchards, grazing, pasture and rangeland, and associated residences and agricultural support uses. (Sutter County 2022; Sutter County 2011a)

The majority of parcels that comprise the project site are subject to a Williamson Act contract. Parcels that are not subject to a Williamson Act contract include:

- The eastern portion of Section 22, Township 13 North, Range 3 East, located at the northwest corner of the project site. (APN 25-140-011)
- The northeast portion of Section 3, Township 12 North, Range 3 East, and the northwest portion of Section 2, Township 12 North, Range 3 East, located at the southern end of the project site (APNs 25-270-015 and 25-270-004). (Sutter County 2011b)

The project site is not designated as forest land, timberland, or timberland zoned Timberland Production. Additionally, no forest management activities occur on the project site or within the surrounding area. (USDA 2023)

Environmental Evaluation

Question (a) Farmland Conversion to Non-Agricultural Use: No Impact. The project site is located on land classified by the FMMP as Prime Farmland and Farmland of Statewide Importance. The proposed project would allow flooding of rice fields during the requested season of diversion for rice straw decomposition and incidental irrigation of food and cover crops. This would be a continuation of the existing agricultural use; therefore, the project would not result in the conversion of farmland to non-agricultural use. There would be no impact, and no mitigation would be required.

Question (b) Zoning/Williamson Act Conflict: No Impact. The project site is zoned for agriculture, and the majority of parcels that comprise the project site are held in Williamson Act contracts. Implementation of the proposed project would be a continuation of existing agricultural operations consistent with its zoning designation and would not conflict with existing Williamson Act contracts. Therefore, no impacts related to conflicts with zoning or Williamson Act contracts would occur, and no mitigation would be required.

Questions (c) through (e) Forest Land/Timberland, Conversion to Non-Forest/Agricultural Use: No Impact. The entirety of the project site is zoned for agricultural use. There are no forest land, timberland, nor timberland zoned Timberland Production resources on the project site. The project site is not zoned as forest land, timberland, or timberland zoned Timberland Production. The proposed project would support ongoing agricultural operations consistent with its zoning designation and would not result in the loss of forest land, nor the conversion of forest land to non-forest use. The project includes no other changes that would result in the conversion of farmland to non-agricultural use, nor the conversion of forest land to non-forest use. There would be no impacts, and no mitigation would be required.

III. AIR QUALITY

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

Environmental Setting

Air quality influences public health and welfare, the economy, and the quality of life. Air pollutants such as ozone and particulate matter have the potential to adversely impact public health, the production and quality of agricultural crops, visibility, and the health of native vegetation, and can degrade the exteriors of buildings and structures.

Air quality can influence public health and welfare, the economy, and the quality of life in a region. Air pollutants have the potential to adversely impact rates of illness, the production and quality of agricultural crops, visibility, and the health of native vegetation, and can degrade the exteriors of buildings and structures.

Ozone is not emitted directly into the environment; rather, it is generated from complex chemical reactions in the presence of sunlight between reactive organic gases (ROG)

(or non-methane hydrocarbons) and oxides of nitrogen (NO_X) in the atmosphere. ROG and NO_X generators in Sutter County include farming operations, vehicles, and other transportation sources. Ozone exposure causes eye irritation and damage to lung tissue in humans. Ozone also harms vegetation, reduces crop yields, and accelerates deterioration of paints, finishes, rubber products, plastics, and fabrics. Research also shows that children exposed to unhealthy levels of ozone suffer decreased lung function growth and increased asthma.

Harmful particulate matter is classified as either respirable particulate matter (PM_{10}) or fine particulate matter ($PM_{2.5}$). PM_{10} is a complex mixture of primary or directly emitted particles, and secondary particles or aerosol droplets formed in the atmosphere by precursor chemicals. The main sources of particulate matter are unpaved roads, paved roads, and land-disturbing construction activities. Additional sources of PM_{10} include fires, industrial processes, mobile sources, fuel combustion, agriculture, miscellaneous sources, and solvents. Health studies link particulate pollution to sudden death in infants as well as adults with heart and lung ailments, shortening lives by years. Exposure to airborne particles also aggravates respiratory illnesses like asthma, bronchitis, emphysema, and pneumonia.

$PM_{2.5}$ is atmospheric particulate matter that is so small that it can be detected only with an electron microscope. Sources of fine particles include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes. These small particles can be inhaled into the lungs and have the potential to cause adverse health-related impacts in sensitive persons.

Regulatory Setting

Federal and State Air Quality Regulations

The U.S. Environmental Protection Agency (EPA), the federal agency that administers the Federal Clean Air Act (CAA) of 1970, as amended in 1990, has established national ambient air quality standards (NAAQS) for seven air pollution constituents. California has adopted more stringent state ambient air quality standards (SAAQS) and expanded the number of air constituents regulated. These standards are designed to protect people most sensitive to respiratory distress (sensitive receptors), such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Ambient air quality is often evaluated by whether pollutant concentrations exceed these state and national standards, or exceed the levels considered safe to protect the public health and welfare.

The project site is located in southern Sutter County, within the Sacramento Valley Air Basin (SVAB). Air quality within Sutter County is regulated under both federal and state CAAs by the Feather River Air Quality Management District (FRAQMD) (which includes Yuba and Sutter counties). As required by the California Clean Air Act (CCAA), FRAQMD has published various air quality planning documents, including air quality management strategies, and rules and regulations to comply with the federal and state

ambient air quality standards. The Air Quality Attainment Plans prepared by the FRAQMD are incorporated into the State Implementation Plan (SIP), which is subsequently submitted to the EPA.

Criteria air pollutants, including ozone, reactive organic gases (ROG), oxides of nitrogen (NO_X) and inhalable particulate matter are regulated by the EPA, the state Air Resources Board, and FRAQMD. The California Air Resources Board (CARB) has established standards for each criteria air pollutant and is required to categorize all areas of the state with regard to each state standard. An "attainment" designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once. An "unclassified" designation indicates that there is insufficient data to designate an area as attainment or nonattainment.

The EPA establishes standards for ozone (O_3), carbon monoxide (CO), and nitrogen dioxide (NO_2), and designates areas as "Does not meet the primary standards," "Cannot be classified," or "Better than national standards." For sulfur dioxide (SO_2), areas are designated as "Does not meet the primary standards," "Does not meet the secondary standards," "Cannot be classified," or "Better than national standards."

The South Sutter County portion of the SVAB is designated as in nonattainment for the state 1-hour ozone standard and 8-hour ozone standard, "severe" nonattainment for the 1997 and 2008 federal 8-hour ozone standard, and moderate nonattainment for the 2015 federal 8-hour ozone standard. Sutter County is designated as nonattainment for state PM_{10} standards; attainment for the federal PM_{10} standards; attainment for the state $PM_{2.5}$ standards; and maintenance in Yuba City-Marysville and attainment for the remainder of Yuba County for federal $PM_{2.5}$ (FRAQMD 2019; CARB 2021).

The air quality monitoring network within the SVAB provides information on ambient concentrations of air pollutants. FRAQMD operates several monitoring stations in the SVAB, including the Almond Street station in Yuba City. According to the data from this station, over the past five years available (2017-2021): there have been limited exceedances of federal and state standards for ozone, with no exceedances in 2019; state standards for PM_{10} were exceeded for all years except 2018 and 2021, which had insufficient data, while federal standards for PM_{10} were exceeded in 2018 and 2020; and federal standards for $PM_{2.5}$ had exceedances each year from 2017 to 2017, while the state standard was only exceeded in 2018 and 2021 (CARB 2022a).

FRAQMD Rules and Regulations Applicable to the Project

No FRAQMD rules and regulations pertaining to construction would apply to the proposed water diversion project, as no construction is proposed. Also, the project would use water to decompose rice straw rather than burning it, so no air quality permit would be required. The operation of the proposed project would involve existing water diversion and conveyance facilities. Because the project includes existing equipment with pumps that are electrically powered, the proposed project is not expected to require

any permits from the FRAQMD, nor would the project need to comply with any specific rules and regulations.

FRAQMD Thresholds of Significance

The FRAQMD *Indirect Source Review Guidelines* (FRAQMD 2010) has established thresholds for certain criteria pollutants for determining whether a project would have a significant air quality impact under CEQA. Construction and operational emissions are calculated separately. The FRAQMD significance thresholds are presented in Table 4.

Table 4. FRQQMD Significance Thresholds – Criteria Pollutants

Pollutant/Precursor	Threshold of Significance	
	Construction Emissions	Operational Emissions
Nitrogen Oxides (NO_X)	25 lbs/day*	25 lbs/day
Reactive Organic Gases (ROG)	25 lbs/day*	25 lbs/day
PM_{10}	80 lbs/day	80 lbs/day
$PM_{2.5}$	Not Yet Established	Not Yet Established

Notes: lbs = pounds; PM_{10} = Particulate Matter less than 10 microns; $PM_{2.5}$ = Particulate Matter less than 2.5 microns

*NOx and ROG construction emissions may be averaged over the life of the project but may not exceed 4.5 tons/year.

Source: Feather River Air Quality Management District "Indirect Source Review Guidelines" 2010.

Environmental Analysis

Question (a) Air Quality Plan: No Impact. The FRAQMD has prepared attainment plans that identify strategies to bring regional emissions into compliance with federal and state air quality standards. However, the attainment plans primarily address changes in land use (such as development proposals), and the existing agricultural use of the project site would not change under the proposed project. Thus, the proposed project would be consistent with the land use assumptions used by the FRAQMD in drafting the air quality attainment plans, and the proposed project would not conflict with or obstruct implementation of any attainment plan or the SIP. Therefore, no impact would occur, and no mitigation would be required.

Question (b) Cumulative Net Increase in Criteria Air Pollutants: Less-than-significant Impact.

Construction-Related Emissions

Since the proposed water diversion project would use existing water diversion and conveyance facilities, no construction would be required, and no construction emissions would occur.

Operations-Related Emissions

The POD that would serve the proposed project includes an existing pump station consisting of three vertical turbine pumps. There are three lift pumps situated in the fields. The lift pump stations include a total of six existing electrically-powered diversion pumps, ranging from 10 to 40 horsepower. The proposed project would use these same pumps to divert and transfer 4,320 acre-feet of water from October 1 of each year to March 31 of the succeeding year onto 2,160 acres of existing rice production area. Other than the indirect emissions associated with the incremental increase in the consumption of electricity provided by Pacific Gas and Electric (PG&E) to power the three pumps at POD #1 and three lift pumps in the fields, the proposed project would not result in any additional air emissions either on site or within the southern Sutter County portion of the SVAB.

No construction emissions would occur under the proposed project. Because the additional pumping under the proposed project would use electricity, it is not expected to result in emissions on site or within the southern Sutter County portion of the SVAB. Therefore, operation of the proposed project is not expected to exceed the FRAQMD's emission thresholds for criteria pollutants as shown in Table 4 above, and the proposed project would not result in a cumulatively considerable net increase in any criteria pollutant. Therefore, this is considered a less-than-significant impact, and no mitigation would be necessary.

Questions (c) and (d) Sensitive Receptors/Odors: Less-than-significant Impact. Land uses surrounding the project site include agricultural fields, planted orchards, open space watershed, and scattered rural residences. A concentration of farm-related buildings and equipment is situated on the eastern edge of the project site, adjacent to SR 99. The only potential sensitive receptors in the vicinity of the proposed project are scattered residences associated with surrounding agricultural facilities and fields located to the north and east of the project site. No construction is required for the proposed project, so no pollutant emissions or odors related to construction activities would result. Additionally, operation of the proposed project would not result in emissions, either on-site or within the southern Sutter County portion of the SVAB. Some odors related to the decaying of organic matter may result from operation of the proposed project, but these would be temporary and typical for agricultural operations in the vicinity of the proposed project. Because no construction or operational activities would occur that would substantially increase air emissions, the proposed project would not expose sensitive receptors to substantial increases in air pollutant concentrations, and any odors created would be temporary and typical for the area. This would be a less-than-significant impact, and no mitigation would be necessary.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

A Biological Resources Evaluation of the proposed project was conducted by Horizon Water and Environment. For additional information, the Biological Resources Evaluation is available upon request.

Environmental Setting

The proposed project is located approximately three miles northwest of the town of Nicolaus in Sutter County, California (see Figure 1). The study area is situated between SR 99 to the east and additional rice fields and the Sutter Bypass to the west. The project site is surrounded by agricultural fields and rural residences. To the east lie the Bobelaine Audubon Sanctuary (0.9 miles), the Feather River Wildlife Area (1.6 miles), and the Feather River (1.4 miles). In the vicinity of the proposed project, the Feather River travels in a southwest direction until its confluence with the Sutter Bypass at its east levee. Rice drying and storing bins, office buildings, and facilities associated with rice farming operations are located on parcels that are outside of the study area, but immediately adjacent to its eastern edge and west of SR 99.

The topography within the study area is flat, consisting of rice fields bordered by drainage ditches and berms developed as access roads. Elevations within the study area range from approximately 27 to 37 feet above mean sea level. The study area is located within the Nicolaus 7.5-minute USGS topographic quadrangle, Townships 12 North and 13 North, Range 3 East, Mount Diablo Baseline and Meridian.

Regulatory Setting

Federal

Federal Endangered Species Act - The Endangered Species Act (ESA) was enacted in 1973 for the purpose of protecting fish and wildlife species (and their habitats) that have been identified by the United States Fish and Wildlife Service (USFWS) or National Oceanic and Atmospheric Administration National Marine Fisheries Service (NMFS) as threatened or endangered.

USFWS and NMFS administer the ESA; in general, NMFS is responsible for protection of ESA-listed marine and anadromous fish species, while ESA-listed terrestrial species and freshwater aquatic species are under USFWS jurisdiction. Specific areas within the geographic range of a federally listed species may be designated as "Critical Habitat" and receive protections as well.

Magnuson-Stevens Fishery Conservation and Management Act - The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires all federal agencies to consult with National Marine Fisheries Service (NMFS) regarding all actions or proposed actions permitted, funded, or undertaken that may adversely affect essential fish habitat (EFH). EFH is defined as "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." EFH pursuant to the MSA for Pacific salmon (spring-run, fall-run, and late fall-run Chinook salmon) has been designated by NMFS for the Feather River.

Migratory Bird Treaty Act - The federal Migratory Bird Treaty Act (MBTA) (16 USC, Section 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA makes it unlawful, unless expressly authorized by permit pursuant to federal regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export at any time, or in any manner, any migratory bird, or any part, nest, or egg of any such bird."

Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA includes several hundred species and is found in 50 CFR 10.13.

Clean Water Act - The Federal Clean Water Act (CWA) is the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. Section 404 regulates the discharge of dredged and fill materials into waters of the United States (comprising wetlands and other waters of the United States).

CWA Section 401 requires that applicants for a federal license or permit for activities that may result in the discharge of a pollutant into waters of the United States obtain certification from the Regional Water Quality Control Board (RWQCB) that the proposed discharge will comply with state water quality standards. The authority to issue water quality certifications for water right projects in the project area is vested with the State Water Resources Control Board.

River and Harbors Act - The Army Corps of Engineers regulates activities affecting "navigable waters of the United States" under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403). Navigable waters are defined as "...those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high-water mark and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce." Structures or work under or over navigable Waters of the United States is considered to have an impact on the navigable capacity of the waterbody.

State of California

California Endangered Species Act - The California Endangered Species Act (CESA) ensures that "all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved." Under CESA, it is unlawful to "take" a State-listed endangered or threatened species. Fish and Game Code section 86 defines take as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill."

California Fish and Game Code Fully Protected Species – Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code provide particular and special state protection to a list of 37 wildlife species and prohibit take or possession "at any time" with few exceptions. The CDFW cannot authorize incidental take of fully protected species.

California Fish and Game Code Section 3503 – Migratory birds are protected by California Fish and Game Code (CFGC) Section 3503, which prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Specifically, CFGC §3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others) or Strigiformes (owls); CFGC §3511 prohibits the take or possession of fully protected birds; and CFGC §3513 prohibits the take or possession of any migratory nongame bird or part thereof as designated in the MBTA.

California Native Plant Protection Act – CDFW manages the California Native Plant Protection Act (NPPA) of 1977 (F&G Code Section 1900, et seq.), which was enacted to identify, designate, and protect rare plants. There are 64 species, subspecies, and varieties of plants that are designated rare under the NPPA. F&G Code Section 1913 provides utilities with an exemption from CESA permitting requirements for listed plants within the utility right of way. Specifically, Section 1913(b) states: "...the removal of endangered or rare native plants from a canal, lateral ditch, building site, road, or other right-of-way by the owner of the land or his agent, or the performance by a public agency or a publicly or privately owned public utility of its obligation to provide service to the public, shall not be restricted because of the presence of rare or endangered plants." Section 1913(c) of the CNPPA requires the landowner to provide the CDFW with at least 10 days' notice to allow for plant salvage prior to affecting the species. In addition to NPPA designated rare plants, all California Rare Plant Rank (CRPR) 1 (A and B), Rank 2 (A and B), Rank 3, and some Rank 4 plants meet the definition of Rare or Endangered under the CEQA Guidelines §15125 and/or §15380. Potential impacts to these species are considered during CEQA review of a proposed project.

California Fish and Game Code Section 1600 – Pursuant to Section 1602 of the Fish and Game Code, a Lake or Streambed Alteration Agreement (LSAA) between the CDFW and state or local governmental agency, public utility, or private citizen is required before the initiation of a construction project that will: (1) divert, obstruct, or change the natural flow or the bed, channel, or bank of a river, stream, or lake; (2) use materials from a streambed; or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. The CDFW claims jurisdiction over the bed, bank, and channel of drainage features with regard to activities regulated under Section 1602 of the California Fish and Game Code.

Porter Cologne Water Quality Control Act – The Porter-Cologne Water Quality Control Act mandates that waters of the State of California shall be protected. Current policy in California is that activities that may affect waters of the State shall be regulated to attain the highest quality. Waters of the State include any surface water or groundwater, including saline waters, and any aquatic features that meet the state definition of a wetland, within the boundaries of the state. The Porter-Cologne Act establishes that the state assumes responsibility for implementing portions of the federal Clean Water Act, rather than operating separate state and Federal water pollution control programs in California. Consequently, the state is involved in activities such as setting water quality standards, issuing discharge permits, and operating grant programs.

Oak Woodland Protection – California Senate Concurrent Resolution No. 17 (1989) is a Senate resolution that requests that... "all state agencies having land use planning duties and responsibilities... to assess and determine the effects of their land use decisions or actions within any oak woodland" and that agencies... preserve and protect native oak woodlands to the maximum extent feasible... or provide for replacement plantings where designated oak species are removed from oak woodlands."

Sutter County

Sutter County does not have specific policies or ordinances, such as a Tree Preservation Ordinance, that address biological resources (Sutter County 2011c). The Natomas Basin Habitat Conservation Plan promotes biological conservation in the Natomas Basin, a portion of which is located in southern Sutter County. However, the project area is located approximately eight miles north of the northern edge of the Natomas Basin, and is not subject to any other habitat conservation plan or natural community conservation plan. (Natomas Basin Conservancy 2003)

Methodology

Database Searches

Prior to conducting field investigations, biologists performed a search of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) that included the Nicolaus 7.5' USGS topographic quadrangle map and the surrounding eight quadrangles (CDFW 2021a) to obtain a list of special-status plants and animals with the potential to occur within the study area. Biologists also reviewed the USFWS Information for Planning and Conservation (IPaC) Report and National Wetlands Inventory (NWI) for Sutter and Yuba counties (USFWS 2021), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2021), and observation data from Cornell Lab of Ornithology (EBird 2021).

Biologists also reviewed the Biological Resources Report that was prepared by Stevens et. al. for Applications A031176 (Montna) and A031572 (Leal) (Stevens et. al. 2016).

Field Investigations

A reconnaissance-level biological survey of the study area was conducted by biologists on March 1, 2021. The terrestrial survey was conducted by walking the extent of the project study area and by driving on access roads located on the boundaries of the rice fields; the observations were used to inform this biological evaluation of the proposed project. During the field survey, existing vegetation communities and wildlife resources observed in the study area were documented, and suitable habitat for special-status species was identified. Protected biological resources (e.g., special-status species), their habitat, and vegetation communities were identified and characterized to support the completion of the analysis.

For the purposes of this assessment, special-status species are those that are listed as candidate, threatened, or endangered by the USFWS or CDFW, fully protected or species of special concern by CDFW, plant species within California Rare Plant Ranks (CRPR) 1 or 2, and those listed by CDFW as "rare." Bat species that have been given a conservation concern category of high or medium priority as identified by the Western Bat Working Group (WBWG) are also considered. Species-specific habitat evaluations, direct observations during a site visit, and existing documentation of biological resources near the study area were used to assess species present or likely to be present within the study area. The potential effects of the proposed project on special-

status species were assessed using the likelihood of encountering each species in the study area and the likely effects of the proposed project.

Existing Biological Conditions

The section summarizes and supplements information contained in the biological resources assessment prepared for the proposed project (Horizon Water and Environment 2021). Additional detail on special-status species' potential to occur, including complete lists of plant and wildlife species observed during the March 1, 2021 biological reconnaissance survey are available upon request.

Aquatic Features

Aquatic features in the study area include ditches and, when flooded, rice fields. The lands of the GHMWC are within the Pacific Flyway, and wintertime flooding of rice fields would provide beneficial habitat for waterfowl. Ditches are present throughout the study area that are hydrologically connected to both the Feather River (through the GHMWC Feather River pumping plant) and the Sutter Bypass (via the Chandler Pumping Station). These ditches are generally 35 to 55 feet wide, contain largely slow-moving/still water flows, and consist of earthen banks and substrates (Stevens et. al. 2016). Vegetation associated with the ditches included giant reed (*Arundo donax*), yellow star thistle (*Centaurea solstitialis*), broadleaf cattail (*Typha latifolia*), tall flatsedge (*Cyperus eragrostis*) and black mustard (*Brassica nigra*). These ditches may be considered jurisdictional waters by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and/or California Department of Fish and Wildlife.

Terrestrial Land Cover

Terrestrial land cover in the study area includes rice fields, valley oak dominated riparian woodland, and developed/disturbed areas. Vegetation categories are based on the classifications presented in *A Manual of California Vegetation* (Sawyer et al. 2009) at the alliance level, with additional categories added to represent vegetation or landcovers not included in Sawyer et al.

Rice Field

Rice field is the dominant land cover in the study area. During the time of the March 1, 2021 biological reconnaissance survey, the rice fields were devoid of vegetation with the exception of remnant domestic rice (*Oryza sativa*).

Approximately 230 species of wildlife are known to use California ricelands. Rice fields provide wetland-like habitat for many waterfowl and shorebirds, and also provide food and cover for some reptiles, amphibians, and mammals. Bird and raptor species associated with rice fields include mallard (*Anas platyrhynchos*), snow goose (*Anser caerulescens*), American coot (*Fulica americana*), great egret (*Casmerodius albus*), snowy egret (*Egretta thula*), and white-faced ibis (*Plegadis chihi*). Reptiles such as giant garter snake (*Thamnophis gigas*) are known to utilize rice field habitat for foraging activities and utilize the banks of the rice fields for basking substrate. (Sterling and Buttner 2011)

Wildlife species observed in the rice fields during the March 1, 2021 biological reconnaissance survey included northern pintail (*Anas acuta*), great egret (*Casmerodius albus*), great blue heron (*Ardea herodias*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus hudsonius*), Swainson's hawk (*Buteo swainsonii*), dunlin (*Calidris alpina*), sandpiper (*Calidris mauri*), long-billed dowitcher (*Limnodromus scolopaceus*), ruddy duck (*Oxyura jamaicensis*), white-faced ibis, greater yellowlegs (*Tringa melanoleuca*), and muskrat (*Ondatra zibethicus*).

Valley Oak Riparian Woodland

A thin strip of valley oak-dominated riparian woodland is present along the northeastern corner and northern boundary of the study area. This habitat is dominated by valley oak (*Quercus lobata*), with California sycamore (*Platanus racemosa*) as a subdominant tree. Understory composition includes Himalayan blackberry (*Rubus armeniacus*), poison oak (*Toxicodendron diversilobum*), and miner's lettuce (*Claytonia* spp.). One blue elderberry shrub (*Sambucus nigra* ssp. *caerulea*) was observed on the north side of a ditch north of the Souza field. This shrub is near but outside of the study area boundary. Valley oak riparian woodland is considered a CDFW sensitive natural community (CDFW 2021b).

Valley oak riparian woodland provides food and water opportunities; migration and dispersal corridors; and escape, nesting, and roosting habitat for numerous wildlife species. Typical bird species include Nuttall's woodpecker *(Picoides nuttallii*), acorn woodpecker (*Melanerpes formicivorus*), California scrub-jay (*Aphelocoma californica*), oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltriparus minimus*), and dark-eyed junco (*Junco hyemalis*). Raptors, including red-shouldered hawk (*Buteo lineatus*), Cooper's hawk (*Accipiter cooperii*), and Swainson's hawk may also occur within this woodland. Mammals common to valley oak riparian woodlands include California mouse (*Peromyscus californicus*), coyote (*Canis latrans*), and California mule deer (*Odocoileus hemionus californicus*).

Species observed in this habitat type during the March 1, 2021 biological reconnaissance survey included red-winged blackbird (*Agelaius phoeniceus*), turkey vulture (*Cathartes aura*), acorn woodpecker, yellow-billed magpie *(Pica nuttalli*), and bushtit.

Developed/Disturbed Land

This land cover provides minimal habitat value, and wildlife that may occur within it are largely determined based on the surrounding land cover types. Species observed in developed land cover during the March 1, 2021 biological reconnaissance survey included northwestern fence lizard (*Sceloporus occidentalis occidentalis*), American crow (*Corvus brachyrhynchos*), Brewer's blackbird (*Euphagus cyanocephalus*), merlin (*Falco columbarius*), house sparrow (*Passer domesticus*), and lesser goldfinch (*Spinus psaltria*).

Disturbed land cover is present within the access roads located throughout the rice fields in the study area. Vegetation within this land cover is mostly ruderal and provides relatively low value to wildlife. Plant species observed during the March 1, 2021

biological reconnaissance survey within this land cover included field hedge parsley (*Torilis arvensis*), yellow star thistle (*Centaurea solstitalis*), black mustard, wild radish (*Raphanus sativus*), field bindweed (*Convolvulus arvensis*), vetch (*Vicia* sp.), and filaree (*Erodium botrys*).

Special-Status Plant and Wildlife Species

Based on information from the CNDDB (CDFW 2021), 10 special-status plant species and 33 special-status animal species were considered for potential to occur in the study area. These special status plants and animals, their listing status, habitats, and potential to occur within the study area are presented in Attachment B of Appendix A of the Biological Resources Evaluation, which is available upon request. The potential for each species to occur in the study area was assessed using the following criteria:

- **None:** The area contains a complete lack of suitable habitat, the local range for the species is restricted, and/or the species is extirpated (i.e., no longer exists) in this region.

- **Not Expected:** Suitable habitat or key habitat elements might be present but might be of poor quality or isolated from the nearest extant occurrences, and/or the species is not known to occur in the area.

- **Possible:** Suitable habitat or key habitat elements are present that potentially support the species, and the species is known to occur in the area.

- **Present:** Either the species was observed directly, or its presence was confirmed by field investigations or previous studies in the area. Suitable habitat is also present in the area.

Two of the 10 plant species considered in this evaluation have “Possible” potential to occur in the study area, including the POD. Of the 33 special-status animal species known from the region, 13 are described as “Possible” or “Present”, including: 1 invertebrate species; 2 amphibian/reptile species; 7 bird species; 5 fish species, and 3 mammal species. Each of these species is discussed below.

Plants

Woolly rose-mallow (*Hibiscus lasiocarpos var. occidentalis*) – Status: California Rare Plant Rank 1B.2 Rare, threatened or endangered in California – Wooly rose-mallow grows in freshwater marshes, swamps, and on riprap on the sides of levees. Its elevation range is 0-400 feet MSL, and the species blooms from June to September. Riprap located on the access roads and in the ditches within the study area would provide suitable habitat for this species. The rice fields within the study area would not provide suitable habitat for this species due to the flooding, draining, cropping, and other land disturbing activities associated with rice production. These activities would inhibit survival of woolly rose-mallow. The nearest CNDDB occurrence is located

approximately 0.3-mile northwest of the study area on the northeast edge of the Sutter Bypass.

Sanford's arrowhead (*Sagittaria sanfordii*) – Status: California Rare Plant Rank 1B.2 Rare, threatened or endangered in California – Sanford's arrowhead is found in shallow freshwater marshes, swamps, ponds and ditches. The elevation ranges from 0 to 2,130 feet MSL. The species blooms from May to November. Ditches within in the study area provide suitable habitat for this species; however, the rice fields within the study area would not provide suitable habitat due to the flooding, draining, cropping, and other land disturbing activities associated with rice production which would inhibit survival of Sanford's arrowhead. One CNDDB occurrence is located approximately 2.6 miles northeast of the study area.

Invertebrates

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) – Status: Federal Threatened - The VELB is a small beetle that occurs only in the Central Valley of California. All four life stages of this insect (egg, larva, pupa, and adult) rely on the elderberry plant. Adults are active from March until June feeding and mating. One elderberry shrub with stems that have a basal diameter of one inch or greater was observed on the north side of the ditch north of the Souza field in the northeastern section of the study area. One CNDDB recorded occurrence is located approximately 1 mile east of the study area along the west bank of the Feather River within the Bobelaine Audubon Sanctuary. Two other CNDDB recorded occurrences are located approximately four miles northeast of the study area along the northeast side of the Feather River and within/near the Star Bend mitigation site near the Feather River setback levee.

Amphibians/Reptiles

Western pond turtle (*Emys marmorata*) – Status: State Species of Concern – The Western pond turtle is an aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, found below 6,000 feet elevation. The species requires basking sites and suitable upland habitat (sandy banks or grassy open fields) up to 0.5 kilometer from water for egg-laying. Its habitat range is from the Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley, and on the western slope of the Sierra Nevada Mountains. Suitable aquatic habitat (irrigation ditches) is present within the study area. Marginal foraging habitat exists within inundated rice fields. One CNDDB occurrence record is located approximately one mile east of the study area within Wood Duck Slough in the Bobelaine Audubon Sanctuary.

Giant Garter Snake (*Thamnophis gigas*) Status: Federal Threatened and State Threatened – Giant garter snakes (GGS) prefer freshwater marsh and low gradient streams. The species, found in California's Central Valley, has adapted to drainage canals and irrigation ditches. It is highly associated with aquatic habitat with occasional seasonal use of immediately adjacent banks. Rice fields and ditches within the study

area provide suitable aquatic habitat for GGS. Banks along the ditches as well as the access roads within the study area provide suitable basking habitat. There are four CNDDB recorded occurrences of GGS in the northwest corner of the Heiken rice field within the study area. In this location, GGS were observed crossing a dirt road, basking near a culvert, basking on a canal bank, and swimming. In 2010, one adult GGS was observed moving through a dry section of the rice field immediately south of Sacramento Avenue, directly south of the study area. Four other CNDDB occurrences record GGS within one mile south and west of the study area. Numerous other CNDDB occurrences are within five miles of the study area.

Birds

Bald Eagle (*Haliaeetus leucocephalus*) Status: State Threatened and Fully Protected – The bald eagle occurs mainly along coasts, rivers, and lakes. The species nests in tall trees or in cliffs, usually within one mile of water. Nests are typically found in large, old-growth trees, or trees with open branches, especially ponderosa pine. Bald eagles roost communally in the winter months, and feed mostly on fish. One immature bald eagle was observed foraging on a rice field berm located directly west of the D2 rice field. Suitable nesting habitat is absent (lack of cliffs or tall prominent trees that would support a nest structure), but suitable foraging habitat exists within the rice fields in the study area. This species has also been observed in the Bobelaine Audubon Sanctuary in 2021, and on Marcuse Road in the study area in 2018 (eBird 2021).

Bank swallow (*Riparia riparia*) Status: State Threatened - Bank swallows are colonial nesters; the species nests primarily in riparian and other lowland habitats west of the desert. Bank swallows require vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, or ocean to dig their nesting hole. Suitable nesting habitat (vertical banks/cliffs) is absent within the study area, but suitable foraging habitat exists within the rice fields and ditches in the study area. Three CNDDB record occurrences are located within two miles of the study area in the Bobelaine Audubon Sanctuary. Many other records are located in areas along the Feather River within five miles of the study area.

Golden Eagle (*Aquila chrysaetos*) Status: State Fully Protected – Golden eagles forage over open habitats (grasslands, grazed fields); they nest in isolated locations, typically cliff ledges, tall trees on ridges, and electronic transmission towers. They are resident year-round throughout much of California except in the Central Valley and deserts, where they are visitors during winter. Suitable nesting habitat is present on the transmission towers within the study area, but the high degree of human visitation and noise associated with active agricultural operations reduces the likelihood for nesting near the study area. Suitable foraging habitat exists within the rice fields. No CNDDB records are known within five miles of the study area. This species was observed at the Bobelaine Audubon Sanctuary in 2020 (Ebird 2021).

Northern Harrier (*Circus hudsonius*) Status: State Species of Concern – Northern harriers are found throughout lowlands of California in grasslands, meadows, seasonal and agricultural wetlands, and marshes. The species nests within thickets of vegetation

on the ground. This species was observed foraging in the study area during the March 1, 2021 biological reconnaissance survey. Suitable habitat (agricultural wetlands) is present within the study area.

Swainson's hawk (*Buteo swainsoni*) - Status: State Threatened - Swainson's hawk breeds in groves or lines of tall trees in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands. The species requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields that support rodent populations. This species was observed foraging in the study area during the March 1, 2021 biological reconnaissance survey. Suitable nesting habitat exists within the valley oak dominated riparian woodland in the northern section (directly north of the D300 and Souza rice fields) of the study area, but higher quality nesting substrate exists in the scattered trees within the nearby riparian habitat along the East Borrow Channel of the Sutter Bypass located west of the study area. Suitable foraging habitat exists in the rice fields within the study area; however, Swainson's hawks would not be expected to utilize the rice fields for foraging once the fields are inundated. There are numerous CNDDB occurrences within five miles of the study area. The nearest occurrences are recorded nest sites located approximately one mile east in Bobelaine Audubon Sanctuary, one mile west on the West Sutter Bypass Levee, and one mile south on East Sutter Bypass. Additional nearby occurrences within two miles of the study Area include nest site locations on the West and East Sutter Bypass Levees, and near Nelson Slough.

Tri-colored Blackbird (*Agelaius tricolor*) Status: State Status: State Threatened and Species of Concern – Tricolored blackbird is a highly colonial species that nests in colonies of 300 pairs or more, most numerous in California's Central Valley and the vicinity. They are largely endemic to California. They nest in freshwater marshes with tules or cattails, or in other dense, thorny vegetation such as thistle or blackberry thickets. The species requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony. Rice fields in the study area provide suitable foraging habitat for this species. Marginal nesting habitat (open water, cattails, and tules) exists in the rice fields within the study area and surrounding ditches, but larger habitat patches occur in the surrounding area (e.g., Sutter Bypass). Four CNDDB records from the 1930s document historic nesting colonies approximately 4.4 miles west, 5 miles southwest, 2 miles southeast, and 4.2 miles northeast of the study area. Nesting habitat in these areas consisted primarily of cattails, tules, and freshwater marsh. Three other CNDDB records from 2000, 2011, and 2014 document tricolored blackbirds foraging with fledglings in hayfields near the CA- 113 and Subacco Road intersection north of Robbins. This species was observed on Marcuse Road within the study area in 2018 (Ebird 2021).

White-tailed Kite (*Elanus leucurus)* – State Fully Protected – White tailed kite occurs in lowlands west of the Sierra Nevada Mountains, from the northern portion of the Sacramento Valley south to the U.S./Mexico border, including coastal valleys and foothills. The species nests in trees or shrubs with dense foliage, and forages over open grasslands, agricultural fields, and marshes. One white-tailed kite was observed foraging over the adjacent fields towards the study area during the March 2021

biological reconnaissance survey. Suitable nesting habitat (trees with dense foliage) is present within the thin strip of valley oak dominated riparian habitat that borders the northern section of the study area along the D300 and Souza rice fields. Suitable open foraging habitat (rice fields) is also present.

Fish

North American green sturgeon, Southern DPS (*Acipenser medirostris*) – Status: Federal Threatened/State Species of Concern - Slow-growing, long-living fish that can live up to 70 years and grow up to seven feet in length. Adults spend much of their lives in nearshore oceanic waters, bays, and estuaries, returning to fresh water only to spawn. Spawning occurs every two to five years and the juveniles remain in fresh water for one to four years. The Southern DPS of this species consists of populations originating from coastal watersheds south of the Eel River. Green sturgeons primarily spawn in the Sacramento River, but recent research has also documented spawning in the Feather River (NMFS 2015). Critical Habitat for this species occurs within the project study area. Species is known to occur in the main channel of the Feather River and has the potential to occur within the project area.

Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*) – Status: Federal Threatened/State Threatened - Adults of the Central Valley spring-run Evolutionarily Significant Unit (ESU) of Chinook salmon enter the Sacramento River from late March through September, hold in cool water habitats through the summer, then spawn in the fall from mid-August through early October. Chinook salmon hatch in gravel-bottomed, fast-flowing, well-oxygenated rivers and streams, and then migrate to the ocean. Spring-run juveniles migrate soon after emergence as young-of-the-year, or remain in freshwater and migrate as yearlings. Spring-run Chinook were historically the most abundant race in the Central Valley. Now only independent naturally spawning populations remain in Butte, Mill, and Deer Creeks. Dependent populations exist in Yuba River, Big Chico, Clear, Antelope, Battle and Beegum Creeks, tributaries to the Sacramento River. In the mainstem Sacramento River and the Feather River, early-running Chinook salmon occur, but significant hybridization with fall-run Chinook salmon has occurred. Critical Habitat and EFH for this ESU occurs within the Feather River. This species is known to occur in the main channel of the Feather River and has the potential to occur within the study area.

Central Valley fall/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*) – Status: Federal Species of Concern/State Species of Concern - Fall-run Chinook salmon migrate upstream as adults from July through December and spawn from early October through late December. The timing of runs varies from stream to stream. Late fall-run Chinook migrate into the rivers from mid-October through December and spawn from January through mid-April. Chinook salmon hatch in gravel-bottomed, fast-flowing, well-oxygenated rivers and streams, and then migrate to the ocean. Critical Habitat for this ESU has not been designated, but EFH for fall-run and late fall-run Chinook salmon occurs within the Feather River. This species is known to occur in the main channel of the Feather River and has the potential to occur within the study area.

Central Valley steelhead (*Oncorhynchus mykiss*) – Federal Threatened - Juvenile steelhead typically migrate to marine waters in the spring after spending one or more years rearing in freshwater. They typically reside in marine waters between two and three years prior to returning to their natal stream in winter and spring to spawn as four- or five-year olds. Females usually choose spawning sites near the head of a riffle, just downstream of a pool (pool tail-out), where the water flow changes from a smooth to a turbulent flow. The range of the Central Valley steelhead DPS includes the Sacramento and San Joaquin rivers and their tributaries as well as two artificial propagation programs that include the Coleman National Fish Hatchery and the Feather River Hatchery. Critical Habitat for this species occurs within the project study area. This species is known to occur in the main channel of the Feather River and has the potential to occur within the study area.

Sacramento splittail (*Pogonichthys macrolepidotus*) – Status: State Species of Concern - Adult splittail begin upstream migration during the winter and spring to feed and spawn in flooded areas. During wet years, splittail have the ability to move much further upstream, which mimics their historic migration (Moyle 2002). Splittail production is greatest during wet years when floodplain habitat is inundated and high Delta outflows occur. Splittail typically spawn in the spring months, although, spawning has been documented as early as January and as late as July (Moyle 2002). Splittail are found primarily in the Delta, Suisun Bay, Suisun Marsh, and Napa Marsh. During wet years, they may migrate as far upstream as Red Bluff Diversion Dam (Moyle 2002). The species only rarely enters the lower reaches of the Feather River (Moyle et al. 2015). Historically, they ranged throughout the Sacramento and San Joaquin rivers and their tributaries but have disappeared from much of these waterways because of dams, diversions and drastically altered habitat. Sacramento splittail are rarely found in the lower Feather River. Although unlikely, their potential occurrence within the study area cannot be ruled out.

Mammals

Hoary Bat (*Lasiurus cinereus*) – Status: Western Bat Working Group Medium Priority – Hoary bats are found in open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. They roost in dense foliage of medium to large trees and require water. Suitable roosting habitat exists within the foliage and cavities of trees in the valley oak dominated riparian habitat in the northern section of the study area (directly north of the Souza and D300 rice fields). Suitable foraging habitat within the rice fields exists throughout the study area. No CNDDB records are known within five miles of the study area.

Pallid Bat (*Lasiurus pallidus*) – Status: Western Bat Working Group High Priority – Pallid bats are found in arid regions with rocky outcroppings to open, sparsely vegetated grasslands. The species roosts in attics, shutters, crevices, buildings, caves, cracks in rocks, trees, bridges, and barns. They have also been found roosting on the ground under burlap sacks, stone piles, rags, and baseboards. Foraging habitat includes grasslands, forests, roads, fruit orchards, and vineyards; they require water. Suitable roosting habitat within the cavities of trees exists in the valley oak dominated riparian

habitat in the northern section of the study area (directly north of the Souza and D300 rice fields). Suitable foraging habitat within the rice fields exists throughout the study area. No CNDDB records are known within five miles of the study area.

Western red bat (*Lasiurus blossevillei*) – Status: State Species of Concern - The western red bat roosts primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. Suitable roosting habitat within the foliage and cavities of trees exists in the valley oak dominated riparian habitat in the northern section of the study area (directly north of the Souza and D300 rice fields). Suitable foraging habitat within the rice fields exists throughout the study area. No CNDDB records are known within five miles of the study area.

Environmental Evaluation

Question (a) Special-status species: Less-than-significant Impact with Mitigation Incorporated.

Construction-Related Impacts

Since the proposed water diversion project would use existing water diversion and conveyance facilities, no construction would be required; therefore, no construction-related impacts would occur.

Operations-Related Impacts

The rice fields that comprise the project site have been in agricultural production for many years. As detailed above, the proposed water depths on the project site would remain similar to existing seasonal flooding activities. Implementation of the proposed fall/winter diversions would extend the time of diversion from the Feather River POD and flooding on the project site to include the period of October 1 of each year to March 31 of the succeeding year.

Vegetation. The proposed project would not significantly change drainage patterns in the area; water would be diverted temporarily onto the fields and would be discharged back to flow downstream as it would have in the absence of the diversion. These diversions would not lead to increased flooding, as water would only be temporarily diverted onto project fields, and sufficient capacity exists in the channels surrounding the proposed project to manage the small changes in flows. The proposed project would not contribute substantial amounts of pollutants to the water, nor lead to any substantial increases in erosion, as water is already being applied to these fields at these depths during the irrigation season, and some field flooding occurs during the winter due to precipitation. These changes are not expected to affect native vegetation on the berms since the depth of flooding would not increase, and there would not be a significant increase in the erosion hazard.

Terrestrial Species and Habitats. Water operations under the proposed project would be similar in terms of the depth, extent, and duration of flooding, compared to those that

occur during the irrigation season. The flooding of these fields during the winter would not result in significant adverse impacts on wildlife resources. The current water management system has not impacted GGS in the past, as evidenced by the increased number of sightings between 2007 and 2011. The system consists of earthen banks and substrates and contains largely slow-moving/still water flows (Stevens et. al. 2016). Further, the greatest threat to GGS during the wintering months is the flooding of hibernacula. Because the water surface elevation will not increase compared to elevations during the irrigation season, no change in water depths against the levees will occur, and GGS hibernating above that historic elevation will not be flooded by the operation.

The current water right license for the project site permits flooding of fields for irrigation beginning in April, which is the beginning of the breeding season for a number of bird species. No ground-nesting habitat is available in the rice fields, and the longer duration of flooding (October through March) under the proposed project would not adversely affect breeding birds. Winter flooding could result in a beneficial effect in that it would deter any potential early nests, which would subsequently be destroyed by spring flooding. The flooding of fields during the winter would increase the availability of winter habitat for waterbirds and could aid in preventing avian botulism by reducing crowding.

Species that could be nesting on the rice checks, berms, and levees, such as western burrowing owl, or those that could forage on them, like northern harrier, would be unaffected by the winter flooding regime because the project proposes no change in water depths and, therefore, no higher encroachment onto vegetated side slopes than occurs during the irrigation season under existing conditions.

Because the proposed project includes no construction, and proposes to flood rice fields during the winter months at a level that is similar to permitted flooding during the normal irrigation season, there would be no habitat modification nor direct impacts to any vegetation or terrestrial wildlife species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.

Aquatic Species and Habitats. The seasonal drainage within the proposed project site does not support special-status fish species. However, implementation of Application A031191 would extend the time of diversions from the Feather River to include the period of October 1 of each year to March 31 of the succeeding year. Although these additional diversions would occur during the late fall and winter months, when flows are typically highest, the diversions could result in a sufficient reduction of flows below the Feather River POD that could adversely affect sensitive fish species. Further, while the diversion at POD #1 was fitted with a fish screen, and a floating fish guidance structure was installed across the mouth of the Pump Intake Channel to prevent fish being drawn into the channel, the structure has not yet been tested while diversions were occurring during the high flow season. Therefore, the effectiveness of the guidance structure is not yet known. Therefore, the proposed project could

adversely affect sensitive fish species in the Feather River. This would be a potentially significant impact, and the following mitigation would be required.

Mitigation Measure BIO-1a – Rate of Diversion

The Garden Highway Mutual Water Company (GHMWC or Permitee) shall not divert water under the proposed permit for Application A031191 unless a fish guidance system is installed and in working order at POD#1 under that permit. Permittee agrees to limit the rate of diversion under this Permit to 50 cfs during the months of January, February, and March. If the Permittee has reasonably determined the fish deflector to be effective, and CDFW has not contacted the Permittee within three years from the date of issuance of the proposed permit for Application A031191 with evidence that the fish deflector may not prevent fish from entering the diversion channel from the Feather River, the limitation on the rate of diversion during January, February, and March may be removed and the Permittee may exercise the maximum permitted diversion rate of 86 cfs. The Permittee shall notify CDFW in writing at such time that the Permittee determines the fish deflector to be effective, and that the Permittee intends to exercise the maximum permitted diversion rate of 86 cfs. Permittee agrees to cooperate with CDFW efforts to evaluate fish deflector efficacy when compatible with Permittee operations, and when CDFW resources permit evaluation efforts.

Mitigation Measure BIO-1b – Minimum Flow Requirements

For the protection of fisheries in the Feather River, diversion under this permit shall be subject to maintenance of minimum instream flows in the Feather River at Boyd's Landing above Star Bend. No water shall be diverted under this permit at times when the flow in the Feather River at Boyd's Landing above Star Bend is less than, or diversions under this permit would cause the flow to be less than, the sum of the following:

- Minimum flow in the Oroville High Flow Channel as required by the Federal Energy Regulatory Commission license conditions for FERC Project #2100

- Minimum flow required at Marysville by State Water Resources Control Board Decision 1644

- Water right diversions between the FSB gage and GHMWC's POD.

For the purposes of this term, the flow in the Feather River below Boyd's Landing above Star Bend is the three-day or 72-hour average of the flows posted by the Department of Water Resources on its California Data Exchange Center website for the Feather River at Boyd's Landing above Star Bend, Station ID FSB. To ensure compliance with this condition, by April 30 of each year Permittee shall file a report with the Deputy Director for Water Rights, containing the following information:

- Dates during the previous period of October 1 to March 31 of the succeeding year when water was diverted under this permit;

- Flows measured in the Feather River at Boyd's Landing above Star Bend; and,
- Water diverted under this permit during the same period.

Table 5 is a summary table of the minimum flow requirements identified above.

Table 5. Minimum Flow Requirements

Month	RD 1644 – Marysville Gage Min Flows (CFS)	FERC – Oroville Min Flows (CFS)	Water Right Diversions (CFS)	Total Minimum Flow Requirement (CFS)
October 1 to October 14	250	1,700 / 1,200	167	1,617 - 2,117
October 15 to October 31	500 / 400	1,700 / 1,200	167	1,767 - 2,367
November 1 through February	500 / 400	1,700 / 1,200	130	1,730 - 2,330
March	500 / 400	1,700 / 1,000	130	1,530 - 2,130

For additional information regarding these values, refer to Appendix A, *Biological Resources Evaluation* (available upon request).

Source: Planning Partners, 2023.

Mitigation Measure BIO-1c – Alternative Gauging Station

If at any time after the issuance of a permit, any federal, State or local agency establishes a stream gage between Boyd's Landing and the water right holder's POD, upon request by the CDFW, the compliance location for the minimum flow requirements may be moved to the location of the newly established gaging station if:

- The newly established stream gage is operated and maintained in accordance with the Department of Water Resources standards for stream gages; and
- A federal, State or local agency establishes and maintains a stream flow rating for the new gage in accordance with industry recognized standards; and
- The records of daily flows are posted on the California Data Exchange Center website and are accessible and available to the water right holder at a frequency that allows for operations to occur on a real-time basis consistent with the permit terms.

Implementation of these mitigation measures would ensure that the fish guidance system is in good working order, and that it is effective in excluding fish from the Pump Intake Channel. The identified impact would be reduced to a less-than-significant level.

Question (b) Riparian habitat or other sensitive natural community: Less-than-significant Impact. A thin strip of valley oak-dominated riparian woodland is present along the northeastern corner and northern boundary of the study area. Although construction activities could adversely impact riparian habitat suitable to support nesting birds protected under the MBTA and CFGC §§3503, 3511, and 3513, no construction would be required for the proposed project, as the proposed water diversions would use existing water diversion and conveyance facilities. This would be a less-than-significant impact, and no mitigation would be required.

Question (c) Federally protected wetlands: Less-than-significant Impact. The project area contains farm ditches and stock ponds that may or may not be considered jurisdictional "waters of the U.S.". Discharges associated with normal farming operations, ranching, and forestry activities (e.g., plowing, cultivating, minor drainage, and harvesting), including rice production, are exempt under Section 404 of the Clean Water Act (Section 404(f)(1)(A)). In summary, the proposed project would not cause any impacts on wetlands, as no construction is required, and only very minor changes in water flows would result from project operations. Thus, this impact would be less than significant, and no mitigation would be required.

Question (d) Migratory Wildlife Movement: Less-than-significant Impact. The project site provides resting and foraging habitat for migratory waterfowl. Coupled with the riparian corridors along the Sutter Bypass and Feather River, the area is part of the Pacific Flyway, an extensive and highly valuable wildlife corridor. The proposed project would divert water from the Feather River through a CDFW-approved fish screen to flood rice fields within the project site during the winter months and would require no construction activities. There would be no physical changes to the environment other than small changes in flows. Therefore, implementation of the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species. It would not interfere substantially with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. This impact would be less than significant, and no mitigation would be required.

Question (e) Local Policy or Ordinance Conflicts: **No Impact.** Currently Sutter County does not have specific policies or ordinances, such as a Tree Preservation Ordinance, that address biological resources. Therefore, the proposed project would not conflict with any local policies or ordinances regarding biological resources, such as a Tree Preservation Policy or ordinance. There would be no impact, and no mitigation would be required.

Question (f) Habitat Conservation Plan Conflicts: **No Impact.** There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other local, regional or state habitat conservation plans in place that would affect the location of the proposed project. Therefore, implementation of the proposed project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact would occur, and no mitigation would be required.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Records of the known cultural resources found in Sutter County are included in the files of the Office of Historic Preservation, California Historical Resources Information System (CHRIS). A cultural resources records search was conducted at the Northeast Center of the California Historical Resources Information System (NEIC) for the project site and surrounding area to determine its historic and cultural sensitivity (NEIC 2021).

The proposed project would rely on existing water diversion and conveyance facilities to flood rice fields within the project site during the winter months. There are no construction activities associated with the project.

Environmental Setting

Ethnographic and Historic Background

Cultural Resources Background Research

A record search was conducted on March 5, 2021 by the NEIC for the general project area and a 0.50-mile radius. According to the NEIC, no prehistoric resources have been recorded within the project boundaries or the 0.50-mile radius. No historic resources were found within the project boundaries. The USGS Knights Landing (1952) 15' quadrangle map depicts the Sutter Bypass collecting canals, a pumping station, roads, and various wells and structures located within the 0.50-mile radius.

According to the NEIC records, the eastern boundary of the project area has been previously surveyed for cultural resources. The report identifies four previous investigations of that portion of the project area.

Regulatory Setting

State and federal legislation requires the protection of historical and cultural resources. In 1971, President's Executive Order No. 11593 required that all federal agencies initiate procedures to preserve and maintain cultural resources by nomination and inclusion on the National Register of Historic Places. In 1980, Governor's Executive Order No. B-64-80 required that state agencies inventory all "significant historic and cultural sites, structures, and objects under their jurisdiction which are over 50 years of age and which may qualify for listing on the National Register of Historic Places." Section 15064.5(b)(1) of the CEQA Guidelines specifies that projects that cause "…physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historic resource would be materially impaired" shall be found to have a significant impact on the environment.

Environmental Evaluation

Questions (a) through (c) - Historical/Archaeological Resources/Human Remains: Less-than-significant Impact. The proposed project site consists of existing actively managed agricultural lands and would rely on existing water diversion and conveyance facilities to flood rice fields within the project site during the winter months. The proposed water depths on the project site and the timing, duration, and frequency of flooding would remain similar to existing seasonal flooding activities.

Since the proposed water diversion project would use existing water diversion and conveyance facilities, no construction would be required. Thus, implementation of the proposed project would not result in any physical changes to the environment that could affect cultural resources. This would be a less-significant impact, and no mitigation would be necessary.

VI. ENERGY

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

Environmental Setting

State and Local Energy Plans

California has established a goal of completely relying on zero-emissions energy sources for its electricity by the year 2045. A series of climate-related bills (including Assembly Bill 1279 and Senate Bill 1020) sets a goal of 90 percent clean electricity by 2035, and 100 percent zero-carbon electricity by 2045.

Sutter County has developed a Climate Action Plan (CAP) that includes GHG emission reduction measures required by state regulations and energy efficiency and renewable energy programs. The CAP includes an action specific to energy efficiency in agriculture: R2-E8, Agricultural Alternative Energy Programs. This program supports the incorporation and expansion of existing and new technologies to increase the energy efficiency and profitability of agricultural processes throughout Sutter County. (Sutter County 2010)

Environmental Analysis

Question (a) Wasteful consumption of energy resources: Less-than-significant Impact. Implementation of the proposed water diversion project would not include any construction, and therefore there would be no direct or indirect expenditures of energy commonly associated with construction activities. Direct energy impacts would result from the total electricity used by the existing pumps to divert and transfer the water during the proposed winter diversion. While there would be an increase in energy use as a result of the project, it would not be used in a wasteful or inefficient manner, and a less-than-significant impact would result. No mitigation would be required.

Question (b) Conflict with state or local energy efficiency plans: Less-than-significant Impact. Implementation of the water diversion project would not be inconsistent with California's energy goals since the project does not include energy production, nor does the use of existing pumps for water diversion conflict with the Sutter County CAP program to support new technologies to increase energy efficiency.

There are currently no state, regional, or local policies or requirements in place that are specifically applicable to the project that would result in the promotion of renewable energy or energy efficiency; therefore, the proposed project would not conflict with any plans or regulations adopted for the purpose of promoting renewable energy or energy efficiency. This would be a less-than-significant impact, and no mitigation would be required.

VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Environmental Setting

Geology

Sutter County is located within the Great Valley physiographic and geologic province of California. The topography of Sutter County consists mainly of the gentle flatlands of the Sacramento River Valley. The Great Valley is an elongated structural trough trending northwest-southeast through central California, bounded by the Sierra Nevada to the east and the Coast Ranges to the West. Great Valley soils are deeply weathered due to the presence of a great deal of moisture and vegetation when they were formed. The project site is underlain by quaternary age alluvium formed from sedimentary rock. The only prominent topographic feature within the County is the Sutter Buttes, a Pliocene volcanic plug that rises abruptly to approximately 2,000 feet above the surrounding valley floor. (Sutter County 2008a)

Soils

The Web Soil Survey website sponsored by the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) was used to identify soil types on the project site, as shown in Table 6.

Table 6. Soil Classification of Project Site Soils

Soil Classification	NRCS Farmland Rating	Acreage
Capay silt clay, 0 to 2 percent slopes	Prime farmland if irrigated	131.7 ac (6.0%)
Capay silty clay, siltstone substratum, 0 to 2 percent slopes	Prime farmland if irrigated	580.9 ac (26.6%)
Conejo loam, 0 to 1 percent slopes, MLRA 17	Prime farmland if irrigated	7.3 ac (0.3%)
Marcum clay loam, siltstone substratum, 0 to 1 percent slopes	Prime farmland if irrigated	452.4 ac (20.7%)
Marcum-Gridley clay loams, 0 to 1 percent slopes	Farmland of statewide importance	79.9 ac (3.7%)
Oswald clay, 0 to 2 percent slopes	Farmland of statewide importance	243.6 ac (11.2%)
Yuvas loam, 0 to 2 percent slopes	Farmland of statewide importance	682.1 ac (31.3%)
Water	Not prime farmland	3.1 ac (0.1%)

Source: USDA, NRCS Web Soil Survey 2023.

The California Department of Conservation, California Geological Survey provides information regarding soils located in the area of the proposed project. The project site is not located within a mapped earthquake fault, and there is no record or evidence of faulting on the project site. The Cleveland Hill Fault (Foothills Fault System) is located approximately 38 miles to the north of the project site. (DOC 2022).

Liquefaction changes water-saturated soil to a semi-liquid state, removing support from foundations and causing buildings to sink. Liquefaction and landslides can also increase damage from ground-shaking. The site of the proposed project is not located within a landslide or liquefaction zone. (DOC 2022)

Soil erosion is a gradual process that occurs when the impact of water or wind detaches and removes soil particles, causing the soil to deteriorate. The NRCS has designated soils in the proposed project area as having a “slight” level of erosion potential, indicating that little or no erosion is likely. (NRCS 2022)

Expansive soils are largely comprised of clays, which greatly increase in volume (swell) when water is absorbed and shrink when dry. The soils on the project site do not have a high shrink-swell potential (NRCS 2023).

Paleontology

The Sutter County General Plan EIR (Sutter County 2010a) contains no information about recorded paleontological resources within Sutter County. The database of the University of California Museum of Paleontology (UCMP) shows no known paleontological resources within eight miles of the project site (UCMP 2023). The most prominent geologic feature in Sutter County is the Sutter Buttes, located approximately 22 miles northwest of the project site.

Environmental Evaluation

Question (a) – Risks to People and Structures. Less-than-significant Impact. The proposed project site is generally flat and is not located near any steep slopes that may be susceptible to landslides. It is not located on a known earthquake fault, nor in an area identified as at risk of ground shaking. The site of the proposed project is not located within a landslide or liquefaction zone. Because the proposed project does not include any construction, and there are no inhabited structures on the project site, there is a low risk of substantial adverse effects in the project area due to earthquakes or other geological hazards. Potential impacts would be less than significant, and no mitigation would be necessary.

Question (b) Soil Erosion. Less-than-significant Impact. Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil. The proposed project would not involve any construction, excavation, or grading activities. The project vicinity has low erosion potential due to the characteristics of soils on the site, and the generally flat topography. The soils on the majority of the project site that would be flooded are Capay silty clay, Yuvas loam, and Marcum clay loam, soil types with high clay content that are less susceptible to erosion. Additionally, the proposed project would not alter drainage patterns; it would only divert water to temporarily flood the rice fields during the winter. Once flooded, the water would have a relatively slow flow rate across the project site, minimizing the potential for erosion impacts. For these reasons, the proposed project would not result in an increase in soil erosion or the loss of topsoil, and impacts would be less than significant. No mitigation would be required.

Refer to Section IX, *Hydrology and Water Quality* for more information on water quality, stormwater runoff, and potential soil erosion impacts.

Question (c) – Unstable Soils. Less-than-significant Impact. The project area is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. The proposed project would not involve construction activities that would increase loads on the project site leading to soil settlement, nor would the project result in unstable soils, or in landslides, lateral spreading, subsidence, liquefaction, or collapse. Therefore, impacts related to unstable soils would be less than significant, and no mitigation would be required.

Question (d) Expansive Soils: Less-than-significant Impact. The project site consists of mostly clay soils with a low erosion hazard potential, and the proposed

project does not involve the construction of any structures. The topography within the project site is generally level. The project site is not considered unstable or susceptible to ground failure due to landslides, lateral spreading, liquefaction, or collapse, nor is it located within a known area of subsidence (NRCS 2023). Therefore, potential impacts associated with expansive soil would be less than significant, and no mitigation would be required.

Question (e) Septic: No Impact. The proposed project does not include the generation of wastewater nor the creation of a septic system. Therefore, no impact would occur and no mitigation would be required.

Question (f) Unique Paleontological or Geologic Features: No Impact. There are no known paleontological resources within eight miles of the project site (UCMP 2023). The nearest unique geological features, the Sutter Buttes, are located approximately 22 miles to the northwest of the proposed project area. The proposed project would not involve any construction or deep soil disturbance. For these reasons, the proposed project would not directly nor indirectly destroy a unique paleontological resource or site or unique geologic feature. There would be no impact, and no mitigation would be required.

VIII. GREENHOUSE GAS EMISSIONS

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

Environmental Setting

Global Climate Change (also called Global Warming) is a public health and environmental concern around the world. As global concentrations of atmospheric greenhouse gases increase, modeling suggests that an increase in global temperatures, weather extremes, and concentrations of certain temperature-related air pollutants will occur. Global Climate Change has been observed to contribute to poor air quality, rising sea levels, melting glaciers, stronger storms, more intense and longer droughts, more frequent heat waves, wildfires, and other threats to human health (IPCC 2013). The seven warmest years in the 1880–2020 record have all occurred since 2014, while the 10 warmest years have occurred since 2005; the year 2020 was the second warmest year in the 141-year record. The global annual temperature has increased at an average rate of 0.08°C (0.14°F) per decade since 1880 and over twice that rate (+0.18°C / +0.32°F) since 1981 (NOAA 2021). Hotter days facilitate the formation of ozone, increases in smog emissions, and increases in public health impacts (e.g., premature deaths, hospital admissions, asthma attacks, respiratory conditions, and acute bronchitis) (EPA 2017). Because oceans tend to warm and cool more slowly than land areas, continents have warmed the most. If greenhouse gas emissions continue to increase, climate models predict that the average temperature at the Earth's surface is likely to increase by over 1.5?C by the year 2100 relative to the period from 1850 to 1900 (IPCC 2013).

Naturally occurring greenhouse gases include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also greenhouse gases, but they are, for the most part, emitted solely by human activities. There are also several

gases that, although they do not have a direct radiative forcing effect, do influence the formation and destruction of ozone, which does have such a terrestrial radiation absorbing effect. These gases, referred to here as ozone precursors, include carbon monoxide (CO), oxides of nitrogen (NO_X), and non-methane volatile organic compounds (NMVOC). Aerosols (extremely small particles or liquid droplets emitted directly or produced as a result of atmospheric reactions) can also affect the absorptive characteristics of the atmosphere.

Carbon is stored in nature within the atmosphere, soil organic matter, ocean, marine sediments and sedimentary rocks, terrestrial plants, and fossil fuel deposits. Carbon is constantly changing form on the planet through a number of processes referred to as the carbon cycle, which includes but is not limited to degradation and burning, photosynthesis and respiration, decay, and dissolution. When the carbon cycle transfers more carbon to the atmosphere this can lead to global warming.

In 2021 in the United States, energy and transportation related activities accounted for the majority of human-generated greenhouse gas emissions, mostly in the form of carbon dioxide emissions from burning fossil fuels. The major sources of GHG emissions in the U.S. include transportation (28.5 percent), electricity production (25 percent), industrial processes (such as the production of cement, steel, and aluminum) (23.5 percent), commercial (6.9 percent), residential (5.8 percent), and agriculture (10 percent). Total U.S. emissions have decreased by 2.3 percent from 1990 to 2021, down from a high of 15.8 percent above 1990 levels in 2007. Emissions increased from 2020 to 2021 by 5.2 percent. Between 2020 and 2021, the increase in total greenhouse gas emissions was driven largely by an increase in CO_2 emissions from fossil fuel combustion due to economic activity rebounding after the height of the COVID-19 pandemic. (EPA 2023[1])

Regulatory Framework

In September 2006, then-Governor Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 established regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. In 2011, ARB adopted regulations that implement a cap-and-trade program that covers major sources of GHG emissions in the State, such as refineries, power plants, industrial facilities, and transportation fuels. The cap-and-trade program includes an enforceable emissions cap, designed to decline over time. In 2016, Governor Brown signed Executive Order B-30-15 and SB 32, which extended the goals of AB 32 and set a 2030 goal of reducing emissions by 40 percent compared to 2020 levels.

The initial main strategies and roadmap for meeting the 1990 emission level reductions were outlined in a Scoping Plan approved in December 2008 and updated every five

[1] As of April 2023, the 1990 to 2021 greenhouse gas emissions inventory is the most recent approved source of data available for the United States.

years (the Scoping Plan was updated in 2014, 2017, and 2022). The 2022 Scoping Plan for Achieving Carbon Neutrality lays out a path to achieve targets for carbon neutrality and reduce anthropogenic greenhouse gas emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279. The plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the state's natural and working lands and using a variety of mechanical approaches. (CARB 2022)

The ARB issued a Short-Lived Climate Pollutant Reduction Strategy (SLCP Strategy) in March 2017 that lays out a range of options to accelerate SLCP emission reductions in California, including regulations, incentives, and other market-supporting activities. State law mandates a 40 percent reduction in methane and HFC emissions by 2030 and a 50 percent reduction in anthropogenic emissions of black carbon by 2030. (CARB 2017)

Significance Thresholds

The FRAQMD, the local agency in charge of regulating air pollutant emissions in Sutter County, has not established specific thresholds applicable to GHG emissions or guidance for the evaluation of GHG emissions (FRAQMD 2010). Instead, the FRAQMD recommends using existing methodologies, citing the California Air Pollution Control Officers Association, the California Natural Resources Agency's Climate Change Portal, and the Office of the Attorney General for assistance in evaluating GHG emissions. Even though the FRAQMD has not established specific thresholds for GHG emissions, the State CEQA Guidelines still require an evaluation of GHG emissions.

In July 2010, Sutter County adopted a Climate Action Plan (CAP). The purpose of the CAP was to create a GHG emissions baseline, to provide a plan that is consistent with statewide and federal GHG emission reductions, and to guide the implementation of actions that reduce GHG emissions. Specifically, the CAP summarizes GHG emission reduction measures required by state regulations and energy efficiency and renewable energy programs. The CAP also summarizes additional GHG reduction measures for individual projects that can be incorporated at the County level. (Sutter County 2010)

The County is responsible for ensuring that new projects meet the goals and requirements outlined in the CAP. However, based on information contained in the Sutter County Greenhouse Gas Emissions Screening Tables, because the proposed project would not require discretionary review by Sutter County, and is not a commercial or industrial project, Sutter County CAP GHG reduction measures would not apply. (Sutter County 2011d)

When determining the significance of GHG emissions, the State CEQA Guidelines specify that thresholds adopted by other agencies may be considered by lead agencies when determining project significance. Many adopted GHG emission reduction strategies have few or limited agricultural measures, making compliance with these strategies as a threshold an illogical choice. In an effort to capture large increases in GHG emissions,

this analysis uses the commonly adopted numeric threshold for stationary sources of 10,000 metric tons/year CO2e. In addition, this analysis evaluates the proposed project's consistency with the assumptions and requirements of the Sutter County CAP.

Environmental Analysis

Question (a) Greenhouse Gas Emissions: Less-than-significant Impact. The proposed project includes energy use associated with the operation of the six electrically-powered pumps. These electric pumps range in size from 10 horsepower to 40 horsepower. This analysis calculates the indirect GHG emissions associated with the electricity needed to divert the requested 4,320 acre-feet of water[2]. As estimated by the project applicant, project operations would require an estimated 133,358 kWh annually. Total project energy usage was then converted to GHG emissions using an emission factor for electrical energy generation reported by PG&E. The estimated yearly emissions are summarized in Table 7. Because no construction activities would occur with project implementation, GHG emissions associated with construction were not estimated.

As shown in Table 7, operations-related emissions from the proposed project are estimated at 12.46 metric tons of CO_2e (MT CO_2e/yr), which is well below the identified numeric threshold of 10,000 metric tons/year CO_2e. Considering the magnitude of GHG emissions from the proposed project in relation to the identified significance threshold, the estimated GHG emissions associated with the proposed project operations would make an extremely minor contribution to climate change.

Table 7. Summary of Estimated GHG Emissions from Garden Highway Mutual Water Company Water Right Application A031191 Project

Emissions Source	Annual GHG Emissions (metric tons CO_2e)
Total Operation-Related Emissions [1]	12.46

Notes: CO2e = carbon dioxide equivalent; GHG = greenhouse gas
1 – CalEEMod. Appendix D. Default Data Tables. May 2021. Table 1.2 Electrical Utility Emission Factors of Greenhouse Gases. Pacific Gas and Electric Company: Intensity Emission Factors 206 lb/MWh CO_2e

Source: Planning Partners 2023; CalEEMod 2021a.

In summary, because the proposed project does not involve any new construction nor any other new mobile, area, or stationary sources of GHGs, and because estimated operational emissions would be well below the significance threshold for GHG emissions, GHG emissions would not be significant, and the project would not be expected to make a substantial contribution to the cumulatively significant impact of

[2] Because the proposed project would not affect rice cultivation practices, GHG emissions associated with rice grown within the project area are not considered further.

global climate change. A less-than-significant impact would result, and no mitigation would be required.

Question (b) Conflict with a Greenhouse Gas Reduction Plan: Less-than-significant Impact. Because the proposed project would not require discretionary review by Sutter County, and is not a commercial or industrial project, compliance with Sutter County CAP GHG reduction measures are not required. Further, none of the requirements of the CAP expressly address the types of activities associated with operation of the proposed project. However, two actions: R2-A1, Agricultural Water Management: and R2-E8, Agricultural Alternative Energy Program, speak to agricultural water conservation and agricultural energy efficiency, respectively. Implementation of the proposed project would not conflict with either of these measures.

The ARB's Climate Change Scoping Plan is the primary plan to reduce GHG emissions throughout California. This Plan is designed to reduce California's statewide anthropogenic greenhouse gas emissions by 85 percent below 1990 levels no later than 2045 (ARB 2014, 2017, 2022). The 2022 Scoping Plan includes discussion for the first time of the Natural and Working Lands sectors as both sources of emissions and carbon sinks. The key recommended actions in the Scoping Plan for croplands include increasing climate-smart agricultural practices and increasing organic agriculture. While 2022 Scoping Plan identifies various actions and concepts that would lead to an increase in climate-smart agricultural management actions, at this stage it does not include any regulatory requirements; the authority to reduce GHG emissions via measures relating to natural and working lands largely lies with state, regional, and local agencies, along with the Legislature and its budgeting choices. (CARB 2022)

Currently, there are no state, regional, or local policies or requirements in place that are specifically applicable to the project that would result in the reduction of greenhouse gas emissions. Because standards for the reduction of greenhouse gas emissions in the agricultural sector are not currently in place, the proposed project would not conflict with any plans or regulations adopted for the purpose of reducing the emissions of greenhouse gases. This impact would be less than significant, and no mitigation would be necessary.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Environmental Setting

Since the proposed water diversion project would use existing water diversion and conveyance facilities, no construction would be required. There would be no routine transport, use, or disposal of hazardous materials, and therefore no possibility of reasonably foreseeable upset or accident conditions. Operation of the proposed project would rely on existing water diversion and conveyance facilities to flood rice fields within the project site during the winter months. No changes in farming operations related to the application of farm chemicals to the rice fields are proposed.

There are no existing or proposed schools within one-quarter mile of the proposed project site.

A database search of various environmental agency lists was conducted for the project site and the surrounding area to identify potential hazardous contamination sites. Based on the database search, the project site is not listed as a hazardous waste site according to the EPA EnviroMapper website (EPA 2023). Additionally, the project site is not listed on the California Department of Toxic Substance Control's (DTSC)

Hazardous Waste and Substances Sites List (known as the Cortese List) (DTSC 2023), nor the U.S. EPA's Superfund National Priorities List (EPA 2023).

Sutter County Airport is located approximately 11 miles north of the project site, in Yuba City. No commuter airlines provide service there; most airport operations involve agricultural aircraft involved in crop dusting activities. Yuba County Airport lies approximately 9 miles to the northeast of the proposed project site, and Sacramento International Airport is located approximately 16 miles to the south. The nearest private airstrip, Scheidel Ranch Airport, is located in the community of Pleasant Grove, approximately eight miles to the southeast of the project site. (Google Earth Pro 2023; TollFreeAirline.com 2023)

The County of Sutter Emergency Operations Plan (Sutter County OEM 2015) describes disaster preparedness planning in Sutter County. In the event that a Mandatory Evacuation is ordered, all non-essential persons are directed to leave the area via described evacuation routes (major highways). As shown on the Sutter County Oroville Dam Flood Evacuation Route Map, the proposed project is situated in Evacuation Zone 10. The nearest Primary Evacuation Route to the project site is SR 99, which is adjacent to the eastern boundary of the project site. (Sutter County 2023).

The 2021 Update to the 2013 Sutter County Local Hazard Mitigation Plan (Sutter County 2021) describes the wildfire risk within the County. The California Department of Forestry and Fire Protection (CALFIRE) fire hazard designation for the project area is "Local Responsibility Area, Unzoned" (CALFIRE 2023). The vicinity surrounding the project site is not identified as a community at risk from wildfire (CALFIRE 2007).

According to the US Geological Survey, the proposed project is located in an area that shows no recorded natural occurrences of asbestos (USGS 2011).

Environmental Evaluation

Questions (a) and (b) Hazardous Materials: Less-than-significant Impact. There are no construction activities associated with the proposed project; construction of the project would not involve the use, storage, transport, or disposal of hazardous materials. Because farming activities are discontinued during the proposed period of diversion in the winter months (October 1 – March 31), the application of pesticides or other agricultural chemicals on the rice fields would not occur during operations. A small increase in the amount of routine maintenance of the diversion and lift pumps may be necessary, leading to a small increase in the use of lubricants and other equipment-related materials. However, applicable federal Occupational Safety and Health Administration (OSHA) requirements would be in place to ensure worker safety and to reduce the risk of hazards to the public from upset and accident conditions. This would be a less-than-significant impact, and no mitigation would be required.

Question (c) Schools: No Impact. There are no existing or proposed schools located within one-quarter mile of the project site, and no construction is proposed. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or

acutely hazardous materials, substances, or waste within one-quarter mile of a proposed or existing school. No impact would occur, and no mitigation would be required.

Question (d) Hazardous Waste Site: No Impact. The project site is not listed as a hazardous waste site according to the U.S. EPA EnviroMapper website, the California DTSC Hazardous Waste and Substances Sites List, nor the U.S. EPA's Superfund National Priorities List. Therefore, implementation of the proposed project would not create a significant hazard to the public or the environment. No impact would occur, and no mitigation would be required.

Question (e) Public/Private Airports: No Impact. The project site is not located in an area for which an Airport Land Use Plan has been prepared, and no public or private airfields are located within two miles of the project site. Therefore, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area. No impact would occur, and no mitigation would be required.

Question (f) Interference with an Emergency Response Plan: No Impact. In the event that a Mandatory Evacuation is ordered in Sutter County, all non-essential persons in the vicinity of the proposed project would be directed to leave the area via SR 99, which is adjacent to the eastern boundary of the project site. Because the proposed project would not result in an increased concentration of large numbers of persons in any at-risk location, and no aspect of the proposed project would block public roads or SR 99, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. There would be no impact, and no mitigation would be required.

Question (g) Wildland Fire Risk: Less-than-significant Impact. The proposed project site is not located in an area subject to wildfires, and operations would occur during the winter, when fire risks are low. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. This would be a less-than-significant impact, and no mitigation would be required.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would (i) Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
(iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐
f) Would the change in water volume and/or the pattern of seasonal flows in the affected watercourse result in:	☐	☐	☒	☐
i) a significant cumulative reduction in the water supply downstream of the diversion?	☐	☐	☒	☐
ii) a significant reduction in water supply, either on an annual or seasonal basis, to senior water right holders downstream of the diversion?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
iii) a significant reduction in the available aquatic habitat or riparian habitat for native species of plants and animals?	☐	☒	☐	☐
iv) a significant change in seasonal water temperatures due to changes in the patterns of water flow in the stream?	☐	☐	☒	☐
v) a substantial increase or threat from invasive, non-native plants and wildlife?	☐	☐	☒	☐

Environmental Setting

Surface Water Hydrology

The project area lies within the Lower Feather River watershed, approximately 1.4 miles west of the Feather River. The proposed project site also is located just east of the Sutter Bypass, which is a leveed flood control facility constructed as part of the Lower Sacramento River Flood Control System.

As proposed, the winter flooding project would use an existing diversion structure situated in a side channel to the Feather River (pump intake channel) to divert water from the Feather River into an existing canal system to convey water to the requested POU. Diverted water would travel approximately 155 yards west from the POD, via pipe, to a water canal on the west side of the levee road. The water would then travel south for approximately 0.35 mile, then continue via canal to the west for 1.1 miles. It would be piped under SR 99, then enter a canal system within the POU for distribution throughout the POU. The water would accumulate on the property to a depth of approximately eight inches, similar to the depth of water during the irrigation season. Water would flow through the property, and would return to the State Reclamation Drain, via existing drainage returns from flooded fields. Ultimately, flows from the project site flow into the Sutter Bypass and then to the Sacramento River.

Surface Water Quality

The Federal Clean Water Act (CWA) under Section 303(d) requires that California report on the quality of its surface waters every two years. Known as the California Integrated Report, it is the result of a collaborative process between the State and Regional Water Boards. California surface waters are assessed to determine if they contain pollutants at levels that exceed protective water quality standards or interfere with beneficial uses of surface water. Assessed waterbodies are surface waterbodies, such as rivers, lakes, and beaches, that are placed in one of five categories based on a waterbody's ability to support beneficial use(s). Within the project vicinity, both the Feather River and the Sutter Bypass have been designated as "good" for agricultural activities under this evaluation. Pollutants found in the Feather River in the project vicinity include aluminum, dissolved oxygen, mercury, PCBs (Polychlorinated biphenyls), chlorpyrifos, pesticides, and toxicity. The presence of mercury and dissolved oxygen degrades the surface waters within the Sutter Bypass. (USEPA 2023a and 2023b)

Flood Hazards

As described above under *Surface Water Hydrology*, the Sutter Bypass is operated by the Department of Water Resources (DWR) to prevent flooding in the study area. As the area is rural, and predominantly in agricultural uses, there are no developed storm drains; natural and man-made drainage channels serve to convey flood waters to the Sutter Bypass. DWR operates Pumping Plant #1 to move water from the lands east of the Sutter Bypass into the bypass during flood events.

The project site and adjacent area are within the 100-year floodplain of the Feather River, as identified by the Federal Emergency Management Agency (FEMA 2023). According to FEMA, the project site is within Zone A, which is defined as an area with a one percent probability of flooding every year, and where no Base Flood Elevations have been determined. According to the DWR Best Available Maps, the project site is located within the 100-year floodplain (DWR 2011). The site is not within a potentially affected coastal area or near a large body of water that may be affected by a tsunami or a seiche.

Groundwater Hydrology and Quality

No information is readily available about groundwater hydrology and water quality in the study area.

Environmental Evaluation

Question (a) Water Quality: Less-than-significant Impact. The proposed project would not result in a substantial change in water quality, as it would only involve the application of additional water to proposed project fields between October 1 and March 31. Water from the Feather River is already applied to these fields during the growing season under existing conditions, so the application of additional Feather River water as

proposed by the project would not result in additional degradation of runoff water quality. As such, it would not violate any water quality standards. The project is an agricultural operation and does not currently operate under waste discharge requirements. Impacts related to water quality would be a less than significant, and no mitigation would be required.

Question (b) Groundwater Supply and Recharge: Less-than-significant Impact. The proposed project does not involve the pumping of any groundwater. Further, the application of water sourced from the Feather River to the project fields would not reduce or enhance groundwater recharge since soils where rice is grown, such as those in the POU, tend to be clayey soils that are not typically a source of aquifer recharge. This would be a less than significant impact, and no mitigation would be required.

Question (c) Alter Existing Drainage Pattern: **Less-than-significant Impact.** Implementation of the proposed project would not significantly alter the existing drainage pattern of the site or surrounding areas. Diversion of water from the Feather River using an existing pump station would occur at the POD and the course of the river would not be altered. The proposed project does not involve any construction, so there would be no addition of impervious surfaces.

The proposed project would not result in substantial erosion or siltation on- or off-site because water is already applied to the fields at similar depths during the growing season, and the fields are designed to handle these flows. Further, soils where rice is grown tend to be clayey soils which are not susceptible to erosion.

Diversions during the winter months would not lead to an increase in the rate or amount of surface runoff that would result in flooding on- or off-site, as the proposed project would not increase the total volume of runoff but would only change the timing of flows.

The proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Implementation of the project would result in water being diverted temporarily onto fields during the winter months that are regularly flooded to the same depth during the growing season. The water would then be discharged to flow back into the Sacramento River as it does during the currently permitted diversion season. These diversions would not lead to increased flooding, as water would only be temporarily diverted onto project fields, and sufficient capacity exists in the channels surrounding the proposed project to manage the small changes in flows.

The proposed project does not involve construction, and existing fields on the project site are undeveloped. Therefore, no aspect of the proposed project would impede or redirect flood flows.

These impacts would be less-than-significant, and no mitigation would be required.

Question (d) Flood Hazards, Tsunami, Seiche, Tsunami: Less-than-significant Impact. The project site and adjacent area are within the 100-year flood plain of the Feather River as identified by FEMA. According to FEMA, the project site is within Zone

A, which is defined as an area with a one percent probability of flooding every year, and where no Base Flood Elevations have been determined. According to the DWR Best Available Maps, the project site is located within the 100-year floodplain. Although the fields proposed to receive water are located in a floodplain, no construction or other alteration of existing drainage facilities or floodways would occur with implementation of the proposed project. The proposed project would not significantly change drainage patterns in the area; water would be diverted temporarily onto the fields and would be discharged back to flow eventually into the Sacramento River, as it flows during the currently permitted season of diversion. Additionally, the site is not within a potentially affected coastal area or near a large body of water that may be affected by a tsunami or a seiche. This would be a less-than-significant impact, and no mitigation would be necessary.

Question (e) Conflict with water quality control plan or sustainable groundwater management plan: Less-than-significant Impact. As discussed above under Question (a), the proposed project would not result in a significant adverse impact on water quality.

As discussed above under Question (b), no groundwater would be used by the proposed project; all water would be sourced from the Feather River. Although the project area is located in an area that is subject to the Sutter Subbasin Groundwater Sustainability Plan, the project would have no significant effect on groundwater depletion or recharge. (Woodard & Curran 2022). Thus, the proposed project would not conflict with policies regarding sustainable groundwater. This would be a less-than-significant impact, and no mitigation would be necessary.

Question (f) Changes in Flows/Impacts Downstream: Less-than-significant Impact with Mitigation.

(i) Less-than-significant Impact. A water availability analysis (WAA) was prepared by MBK Engineers in 2009 for Application A031191 (as well as Applications A031175, A031176, and A031572) (MBK 2009). The WAA was accepted by Division staff on July 13, 2010 (Whitney, V., *pers. comm.,* 2010). An updated WAA was prepared by MBK Engineers and provided to Division Staff on December 9, 2016 (MBK 2016). As required by Water Code Section 1275 (a), the WAA addressed whether water is available for appropriation under Application A031191 (as well as the other three applications) in the waterways and during the seasons requested under Application A031191. The purpose of the update was to use data for the years between 2009 and 2015, and to complete hydrologic modeling to demonstrate whether water is available for the appropriation requested in the four applications.

Under Application A031191, the Applicant seeks to divert water from a watershed largely controlled by the State Water Project (SWP, operated by DWR), and the Central Valley Project (CVP, operated by Reclamation). The SWP and CVP operate reservoirs to meet a number of priorities and uses. The projects release water from their reservoirs to:

- deliver water to diverters within the watersheds below their reservoirs (in-basin users);

- flow into the Delta and be exported to areas south of the Delta (including the "carriage water" needed to facilitate those exports; and,

- maintain the Delta water quality standards established by the State Water Board in Decision 1641 and subsequent decisions and orders.

At times, flows in the Sacramento River, the Feather River, and other connected conveyances (including the Sutter Bypass) are completely controlled by the SWP and CVP releases from their storage reservoirs. The Delta is considered to be "in balance" at these times, as the SWP and CVP are only releasing sufficient water from reservoir storage to meet in-basin demands, Delta water quality standards, and their exports from the Delta. During other times of the year, flows in these rivers and conveyances may also include natural flows beyond those released by the SWP and CVP. During these periods, the Delta is considered to be in excess condition or "out of balance," and with certain restrictions, the SWP and CVP may also export these flows.

Term 91 is included in all water right permits and licenses with priority dates after August 16, 1978, issued within the watersheds controlled by the SWP and CVP. Term 91 defines the conditions during which appropriations under permits and licenses that contain the term (Term 91 permittees) are allowed, and conditions when they are not. As identified in State Water Board Decision 1594 (D-1594) "…water is considered available for Term 91 permittees at all times when natural flow is sufficient to meet in-basin demands and Delta water quality standards." D-1594 also found that under the Watershed Protection Act, diversions of natural flow for in-basin uses have priority over the diversions of natural flow for export by the projects."

In its 2016 WAA update, MBK evaluated the availability of water for appropriation using two methods. In the first method, MBK analyzed data on how frequently Term 91 was invoked between 1984 and 2015 during the season of diversion requested under the four water right applications, including Application A031191. They determined that Term 91 had been invoked during at least portions of the requested season of diversion in 8 of the 32 years evaluated. The invocation of Term 91 during 7 of the 8 years only covered a portion of the requested diversion season under Application A031191, because, under D-1594, Term 91 is invoked when the Delta is "in balance" and the CVP and SWP are releasing supplemental water from their upstream reservoirs. These conditions typically do not occur during the requested season of diversion in Application A031191.

The historical Term 91 analysis does not account for water right applications that are still pending, those that were recently approved, and those that were recently perfected. In order to account for these recent changes, MBK used a hydrologic model called CALSIM, which simulates the large-scale operation of the CVP and SWP. To model future scenarios, the CALSIM model includes historical hydrology, which includes a variety of water year types. It also includes CVP and SWP storage as well as existing

and pending future water rights in the Sacramento River watershed. CALSIM is a widely accepted tool for evaluating changes in system operations, and it accounts for changes in water demand and the regulatory framework over time. Thus, the model incorporates pending, recently approved, and recently perfected water rights.

However, because the CALSIM model works on a monthly time step, while Term 91 curtailments are invoked at a daily time step, CALSIM does not calculate when Term 91 curtailment periods would occur. To determine when Term 91 curtailments would occur under future conditions, MBK used a spreadsheet model based on one provided by the State Water Board to "post-process" CALSIM results. After making adjustments to the results to account for subtleties in the model and in the timing of Term 91 curtailments, the analysis estimated that curtailments would occur during October in 37% of years, in November during 28% of years, and between December and March in 0-1% of years.

As noted above under Question (c), the proposed project would not substantially alter drainage patterns in the project area. Also, as indicated in the summary of the WAA above, the proposed project would not contribute to a significant cumulative impact on water supply downstream of the diversion because the amount of water being requested is small in relation to flows in the channels from which water would be diverted; the proposed uses are non-consumptive; and Term 91 provides rules to protect other water users. Further, the WAA evaluated the effects of diversions associated with four water right applications (including Applications A031176, A031175, A031191, and A031572), so the effects of Application A031191 alone would be only a fraction of those described in the WAA. Therefore, this impact is considered to be less than significant, and no mitigation would be required.

(ii) Less-than-significant Impact: The proposed project will encompass only non-consumptive uses (rice straw decomposition, wildlife enhancement, and recreation). Non-consumptive uses will not reduce the availability of water for downstream users. Because the project does not include any consumptive uses, it does not have the potential to impact senior downstream diverters. This impact is considered less than significant, and no mitigation would be required.

(iii) Less-than-significant Impact with Mitigation: As evaluated in the WAA, the amount of water requested under Application A031191 is very small in proportion to the amount of water in the Sacramento River and Feather River. Further, none of the water would be consumptively used, the presence of clayey soils would mean minimal contribution to groundwater, and cold temperatures during the proposed season of diversion would mean that evapotransportation would also be very small.

The irrigation ditches and canals containing the existing diversion pumps provide suitable aquatic habitat for some aquatic species, such as the giant garter snake, but increased flows in winter would likely improve habitat quality.

However, implementation of Application A031191 would extend the time of diversion to include the period of October 1 of each year to March 31 of the succeeding year, which could result in a reduction of flows below the POD on the Feather River. This could

adversely affect sensitive fish species in the river. This would be a potentially significant impact, and mitigation measures will be implemented as follows.

Mitigation Measure HYD-1

Implement Mitigation Measures BIO-1a, 1b, and 1c.

Implementation of Mitigation Measure BIO-1a would ensure that the POD fish screen and fish guidance system are installed and in good working order to minimize the potential for fish to enter the pump intake channel. Mitigation Measures 1b and 1c would ensure that minimum bypass flows are maintained in the Feather River below the POD to protect sensitive fish species in the river. Together, implementation of these measures would reduce the identified impacts to a less-than-significant level.

(iv) Less-than-significant Impact: Diversions under the proposed project would occur during the late fall and winter, a time when water temperatures are typically well below the upper tolerances of cold water fish species. The proposed project would not create a significant adverse impact related to water temperatures, and no mitigation would be required.

(v) Less-than-significant Impact: No actions proposed under the proposed project would result in the transfer of invasive species, nor would they create improved habitat conditions for such species. Therefore, this impact is considered to be less than significant, and no mitigation would be required.

XI. LAND USE AND PLANNING

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

Environmental Setting

The project site is located in an unincorporated area of Sutter County. Land use in the project area is regulated by Sutter County through the Sutter County 2030 General Plan and the Sutter County Ordinance Code, including the Zoning Code.

The project site is designated as Agriculture (80 acre minimum) (AG-80) in the Sutter County General Plan. The agriculture designation provides for the long-term production, processing, distribution, and sale of food and fiber on prime agricultural soils and other productive and potentially productive lands. This designation is applied in locations that have minimal intrusion and conflict with non-agricultural uses, or where such conflicts can be mitigated. Typical permitted uses include crop production, orchards, grazing, pasture and rangeland, and associated residences and agricultural support uses. (Sutter County 2011a)

The Sutter County Zoning Code applies an Agricultural (AG) zoning designation to the project site, which corresponds with the General Plan designation. The agriculture zone designation includes the raising of crops and animals, as well as non-commercial uses and structures accessory to and supporting on-site agricultural operations. (Sutter County 2022).

The Natomas Basin Habitat Conservation Plan promotes biological conservation in the Natomas Basin, a portion of which is located in southern Sutter County. However, the project area is located approximately eight miles north of the northern edge of the Natomas Basin and is not subject to any other habitat conservation plan or natural community conservation plan. (Natomas Basin Conservancy 2003)

Environmental Evaluation

Question (a) Physically Divide a Community: **No Impact.** The project area features scattered rural farms and associated residences; there is no established community in the immediate vicinity of the project site. The community of Nicolaus is located approximately three miles to the southeast. Land uses in the project vicinity include agricultural and open space uses. Because the proposed project is located in an open space/agricultural area, and the nearest community is approximately three miles away, implementation of the proposed project would not physically divide an established community. No impact would occur, and no mitigation would be required.

Question (b) Land Use Plan Conflict: Less-than-significant Impact. The proposed project would be consistent with the Sutter County General Plan's AG-80 land use designation, and the Zoning Code's AG zoning district. Because the project is located in an area surrounded by agricultural uses, and the project proposes a land use consistent with applicable General Plan and Zoning Code land use requirements, the proposed project would not conflict with the Sutter County General Plan or Ordinance Code, including the Zoning Code. This would be a less-than-significant impact, and no mitigation would be required.

XII. MINERAL RESOURCES

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

Environmental Setting

The extraction of mineral resources in Sutter County has historically been limited to the extraction of clay, sand, soils, and rock. These materials have generally been used for highway and other major construction activities. (Sutter County 2008b)

Sutter County has no deep-shaft mining activity. All open-pit or surface mines in the county require a valid surface mining permit and a Reclamation Plan under both the County's Surface Mining Code and the State's Surface Mining and Reclamation Act. Of three active mining operations within the county, the Reclamation District 1001 mine is the nearest. The mine excavates clay from a location approximately seven miles southeast of the project site. (Sutter County 2008b)

Environmental Evaluation

Questions (a) and (b): Loss of Availability of Mineral Resources. No Impact. The project site is not located in an area designated for known or suspected mineral or aggregate resources. The area surrounding the project is zoned for agricultural or open space uses, and no mining operations are present on or near the site. Therefore, implementation of the proposed project would not alter the availability of on-site mineral resources, nor would it interfere with the planned extraction of any known mineral resource recovery site delineated on a general plan, specific plan, or other land use plan. Therefore, no impacts would occur and no mitigation would be required.

XIII. NOISE

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

Characteristics of Noise

Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in

sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements that better represent how humans are more sensitive to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise-sensitive receptor of concern.

Environmental Setting

Some land uses are considered more sensitive to noise levels than other uses. Sensitive land uses can include residences, schools, nursing homes, hospitals, and some public facilities, such as libraries. Sensitive land uses may also include areas that contain threatened or endangered biological species that are known to be sensitive to noise. The project site is surrounded by open space land uses, with agriculture to the west, and the Feather River and a wildlife refuge to the east.

The noise environment at the project site is characterized by the sound of the Feather River during high flows, periodic noise from general agricultural machinery use, and traffic on agricultural roadways and SR 99.

Implementation of the proposed project would flood agricultural fields during the winter months. Water would be diverted at an existing POD on the Feather River, which is currently used to supply water for irrigation. The POD is located approximately 1.25 miles from the easternmost boundary of the proposed project site (see Figure 2).

The only potential noise impact of the proposed project would be an increase in the intermittent operation of electrical pumps at the POD and within the POU boundaries. There would be no source of groundborne vibration associated with the proposed project. The nearest sensitive noise receptor is a residence located approximately one-half mile northwest of the POD. The levee to the west of the POD, as well as the presence of riparian vegetation, would act to block noise generated from the diversion pump.

Regulatory Framework

The Sutter County General Plan Noise Element provides local policies to control and abate environmental noise, and to protect the citizens of Sutter County from excessive noise exposure. The County General Plan contains exterior and interior noise level standards for residential and non-residential land uses.

Sutter County sets 60 dBA L_{dn}[3]/CNEL[4] standards for exterior noise at residential properties. Residential properties include low-density housing units, duplexes, mobile homes, and multi-family housing units. As set forth in the Sutter County General Plan, the maximum exterior noise level applicable to nonresidential properties, including industrial, manufacturing, utility, and agricultural uses is 75 dBA L_{dn} (Table 11-1, Maximum Allowable Environmental Noise Standards). (Sutter County 2011e)

Environmental Evaluation

The potential noise impacts of a proposed project can be categorized as those resulting from construction (a short-term impact) and those resulting from operational activities (a long-term impact, continuing throughout the lifetime of the project).

Question (a) and (b) Increased Exposure to Noise or Vibration: Less-than-significant Impact.

Construction Noise

Since the proposed water diversion project would use existing water diversion and conveyance facilities, no construction would be required. The project would not generate a substantial temporary increase in ambient noise levels in the vicinity of the project, nor ground-borne vibration or ground-borne noise levels. The project site is surrounded by open space land uses; there are no sensitive land uses in the vicinity of the project. Because there would be no construction noise or vibration, and there are no sensitive receptors within one half-mile of the project, this would be a less-than-significant impact, and no mitigation would be required.

Operational Noise

Under the proposed project for winter water rights use, water would be diverted at POD #1 during the winter months, from October 1 of each year to March 31 of the succeeding year. Diversion would occur through the use of electrically-powered diversion pumps located at the POD at a maximum direct diversion rate of 86.0 cfs, and pumps located within the POU boundaries. The pumps range from 10 to 40 horsepower. It is anticipated that pumps would be operational on an intermittent basis, depending on rainfall. The system utilizes variable frequency drive pumps, so pumps are operational only when necessary.

The nearest sensitive receptor to the POD is a residence located approximately one half-mile to the northwest. There are a few residences located approximately one-quarter mile from Lift Pump #15 at the northern boundary of the POU. Due to the limited time of operation of the electrical pumps, the presence of the intervening levee

[3] Ldn = Day/night average sound level during 24-hour day.
[4] CNEL = Community Noise Equivalent Level is an Ldn with an additional 5 dBA "penalty" for the evening hours between 7:00 P.M. and 10:00 P.M.

and riparian vegetation, and the distance of the nearest sensitive receptor to the POD, noise impacts would be less-than-significant. No mitigation would be required.

Question (c) Airports, Private Air Strips: No Impact. The project site is not located in an area for which an Airport Land Use Plan has been prepared (Sutter County 1994), nor is it located within two miles of a public airport or public use airport. People residing or working in the proposed project area would not be exposed to increased levels of noise due to aircraft overflight. Therefore, no impact would occur, and no mitigation would be required.

XIV. POPULATION AND HOUSING

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

Environmental Setting

The proposed project site is designated for agricultural land uses in the Sutter County General Plan. The Sutter County Zoning Code applies an Agricultural (AG) designation. There are no residences or businesses located on the project site, and the nearest community is approximately three miles to the southeast.

Environmental Evaluation

Question (a) Growth Inducement: No Impact. The proposed project site is located in an agricultural region that includes cropland and orchards. The proposed project would not involve any construction activities, nor does the project propose new homes or businesses. It would not result in a new or different land use for the area, nor would the project create or improve any infrastructure serving the site or region. Therefore, the proposed project would not result in substantial direct or indirect growth inducement. There would be no impact, and no mitigation would be necessary.

Question (b) People/Housing Displacement: No Impact. The project site is not developed with any residences, and no new residences or other construction activities are proposed. Because there are no residences within the project site, implementation of the proposed project would not displace substantial numbers of existing people or housing units. There would be no impact, and no mitigation would be necessary.

XV. PUBLIC SERVICES

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

Environmental Setting

Public services provided by Sutter County in the project area include fire, police, school, library, and park services.

Fire protection and emergency services within the unincorporated portions of Sutter County are provided by three County Service Areas (CSA), two independent Fire Protection Districts, and the City of Yuba Fire Department. The project site and its surrounding area are located in CSA F. The nearest fire station to the project site is the East Nicolaus Fire Department, located approximately four miles to the southeast. The fire districts in Sutter County are also equipped to provide emergency medical care, hazardous materials mitigation, and rescue operations. (Sutter County 2023a)

The Sutter County Sheriff's Department provides police protection services within unincorporated Sutter County and the City of Live Oak. The Sheriff's Office consists of 140 full-time personnel. The main operations office is located in the Law Enforcement Center in Yuba City. (Sutter County 2023b)

Sutter County is served by 13 different public school districts. The project site is located within the Yuba City Unified School District. The nearest school is Marcum-Illinois Union Elementary School, located in the community of Nicolaus, approximately four miles southeast of the project site. (Sutter County 2008c; Google Earth Pro 2023)

The Feather and Sacramento Rivers provide extensive water-based recreation opportunities and make up a large portion of the County's recreational facilities. The CDFW Feather River Wildlife Area, including the Bobelaine Audubon Ecological Reserve, extends to the north and south of the project site to the east, along the Feather River. Nearby developed park and recreation areas are located in Yuba City to the north (Sutter County 2008d; CDFW 2014). For an evaluation of the proposed project's environmental impacts on recreation resources, please refer to Section XV, *Recreation*, of this Initial Study.

Sutter County residents have access to several civic and cultural facilities, including community buildings, museums, and a senior center. The Sutter County Library maintains three public library locations. (Sutter County 2008e, Sutter County 2023c)

Environmental Evaluation

Questions (a) through (e) Fire/Police/Schools/Parks/Other Public Facilities: No Impact. Implementation of the proposed project would not result in the construction of any new homes or businesses. The proposed project would not create additional demand for, nor result in the need for, new or altered facilities for fire protection, police protection, schools, parks, or other public facilities. Therefore, the proposed project would have no impact related to public services, and no mitigation would be required.

XVI. RECREATION

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) 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) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

Numerous parks and recreation facilities are located within Sutter County, including State wildlife areas for hunting, fishing, and hiking; river recreation areas for boating, picnicking, and fishing; parks for recreation and community events; and sports facilities for baseball, soccer, and golf. The Feather River Wildlife Area, which includes the Lake of the Woods Unit, the Bobelaine Audubon Ecological Reserve, and the Nelson Slough Unit, is located approximately two miles east of the project site.

Environmental Evaluation

Question (a) Increased Usage: No Impact. The proposed project would not include any new construction. No increase in population would occur with implementation of the project. Therefore, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of existing facilities would occur or be accelerated. Therefore, no impact would occur and no mitigation would be required.

Question (b) Require New or Expanded Facilities: **No Impact.** The proposed project does not include recreational facilities. No adverse environmental effects would occur because the construction of new facilities or the expansion of existing recreational

facilities would not be required. There would be no impact, and no mitigation would be required.

XVII. TRANSPORTATION AND TRAFFIC

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

Environmental Setting

SR 99 is a north-south regional highway that extends from Yuba City-Marysville to Sacramento. The project site can be accessed using SR 99 on its eastern boundary, and by using Wilson Road to Gledhill Road at the northern boundary. Sacramento Avenue, Laurel Avenue, Oak Avenue, Cypress Avenue, and Marcus Road intersect the project site in an east-west direction from SR 99. Cypress Avenue is an east-west collector road connecting SR 99 to the Feather River levee road. It is used to access the POD, the location of the existing pump station that diverts water from the Feather River to the various fields that comprise the project site.

According to the Sutter County Operational Area Emergency Operations Plan, emergency response routes may be located on any major road within the county, and are subject to change, depending on the specific characteristics of an emergency or disaster (Sutter County OEM 2015). The Sutter County General Plan designates SR 99

as a highway and Sacramento Avenue, at the southern boundary of the proposed project, as a Rural Minor Collector (Sutter County 2011).

Environmental Evaluation

Question (a) – Transportation Plan Conflict: Less-than-significant Impact. Sutter County is a member of the Sacramento Area Council of Governments (SACOG) for which a Regional Metropolitan Transportation Plan (RMTP) was adopted in 2016. The SACOG region includes Sutter County and five neighboring counties (SACOG 2016). The proposed project use would be considered consistent with existing General Plan land use designation, and with the SACOG RMTP. Implementation of the proposed project would not include any construction, so it would not generate a temporary increase in traffic due to construction. Operation of the proposed project would not generate a significant increase in the number of daily trips and associated vehicle miles traveled. Because there are no transit, bicycle, or pedestrian facilities in the vicinity of the proposed project, improvements would not result in the modification of any transit, bicycle, or pedestrian travel route. Because of the existing low levels of traffic in the vicinity, and because minimal new trips would be generated by the proposed project, congestion on nearby roadways would not increase. The project would therefore not conflict with any applicable program, plan, ordinance or policy addressing the circulation system. This would be a less-than-significant impact, and no mitigation would be required.

Question (b) – Conflict with CEQA Guidelines regarding analysis of transportation impacts: Less-than-significant Impact. Section 15064.3, subdivision (b) of the CEQA Guidelines describes criteria for analyzing transportation impacts. As set forth in the Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018), "absent substantial evidence indicating that a project would generate a potentially significant level of Vehicle Miles Travelled (VMT), or inconsistency with a Sustainable Communities Strategy or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact." Because the project involves no construction, and the project would not generate a significant number of new trips or additional vehicle miles traveled, a less-than-significant impact would occur, and no mitigation would be required.

Question (c) – Hazard/Design Feature: No Impact. No modifications to any existing roadways are proposed with the project. Therefore, there would be no increase in hazards due to a geometric design feature or incompatible use. No impact would occur and no mitigation would be required.

Question (d) – Inadequate emergency access: No Impact. No modifications to any existing roadways are proposed with the project. Because the proposed project does not involve construction, there would be no impact to traffic in the vicinity of the project

site. Implementation of the proposed project would not adversely impact emergency access. There would be no impact, and no mitigation would be required.

XVIII. TRIBAL CULTURAL RESOURCES

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

Environmental Setting

Application A031191 was originally noticed by the State Water Resources Control Board on July 27, 2001. Compliance with AB 52 is required only for projects that are noticed after July 12, 2015. Accordingly, the proposed project is exempt from AB 52 requirements. (Zoucha pers. comm. 2021)

The proposed project would rely on existing water diversion and conveyance facilities to flood rice fields within the project site during the winter months. The proposed project site consists of existing, actively managed agricultural lands. The proposed water depths on the project site and the timing, duration, and frequency of flooding would remain similar to existing seasonal flooding activities. Because the proposed water diversion project would use existing water diversion and conveyance facilities, no construction would be required.

Environmental Evaluation

Question a(i) and a(ii) – Listed or eligible for listing; Deemed significant by Lead Agency: Less-than-significant Impact. The proposed project would not involve any new construction, and the only physical change would be that fields would be flooded during the winter months that are regularly flooded to the same depth during the growing season. The proposed project is exempt from AB 52 requirements. Therefore, the project would have a less-than-significant impact on Tribal Cultural Resources listed or eligible for listing on the California Register of Historic Resources, or those determined by the Lead Agency to be significant. No mitigation would be required.

IXX. UTILITIES AND SERVICE SYSTEMS

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

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

The project site is not served by public water or wastewater services. Residences and agricultural operations in the project vicinity rely on private wells for domestic water, and private septic systems for wastewater treatment. No developed stormwater facilities are located within project boundaries. Electrical service in the area is provided by PG&E, and telecommunications service is provided by private companies. Natural gas service is provided only to the urbanized areas of Yuba City and Live Oak, and the community of Nicolaus. No solid waste service is provided to the site.

The proposed project would result in the issuance of a new surface water right permit for the proposed purposes of use within the project site during the winter months. The analysis of surface water quality and water supply is discussed in more detail in Section X, *Hydrology and Water Quality.*

Environmental Evaluation

Question (a) Relocate or construct new or expanded service system facilities: No Impact. The proposed project would not require or result in the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. The existing POD from the Feather River will be used for water diversion, and no expansion of that facility is required. The proposed project involves no construction. Therefore, no impact would occur, and no mitigation would be required.

Question (b) Water Supply: Less-than-significant Impact. Irrigation water is currently provided to the project site through existing facilities using existing water rights, which do not cover the proposed winter season diversions. Thus, the Applicant has submitted Application A031191 to the State Water Board for an additional water right to cover the winter diversions. Implementation of the proposed project would not require the development of any new or expanded surface water supply facilities on the project site or elsewhere; it would rely on the use of surface water from the Feather River using existing water diversion facilities at the POD and conveyance facilities within the project site. This would be a less-than-significant impact, and no mitigation would be required.

For additional information regarding the project's water use and supplies, see Section X, *Hydrology and Water Quality*. The environmental impacts and required mitigation measures associated with obtaining this additional water are the subject of this IS/ND.

Question (c) Wastewater Treatment Capacity: No Impact. Implementation of the proposed project would not generate an increase in wastewater, as agricultural runoff does not currently require treatment. There would be no need for additional wastewater treatment capacity to serve the project. All stormwater generated at the project site from within the existing rice fields is, and would continue to be, drained into the surrounding agricultural drainage ditches. Water within the drainage ditches would then flow through levees into the Sutter Bypass. Because the proposed project would only affect the timing of flows, and not increase the volume of stormwater runoff, and because the existing drainage ditches have sufficient capacity to handle the stormwater generated within the project site, no adverse effects to the existing drainage ditches are expected, and no modifications to these ditches in the project vicinity are necessary. There would be no impact, and no mitigation would be required.

Questions (d) and (e) Solid Waste: No Impact. The proposed project does not involve construction and operation of the project would not generate any additional solid waste. Therefore, the project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure. Implementation of the proposed project would not otherwise impair the attainment of solid waste reduction goals, nor would it violate federal, state, and local management and reduction statutes and regulations related to solid waste. There would be no impact, and no mitigation would be required.

XX. WILDFIRE

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

According to the Fire Hazard Severity Zone Viewer developed by the California Fire and Resource Management Program, the proposed project area is within a Local Responsibility Area, with a Non-Wildland, Non-Urban designation. The threat of wildfire hazard in that area is determined to be unlikely. (CAL FIRE 2022)

Questions (a) through (d): No Impact. The project site is not located in or near state responsibility areas or lands classified as a very high fire hazard severity zone. It is located in an existing, low-density agricultural area, and the threat of wildland fire has been determined to be unlikely. Because the proposed project is not located in or near a State Responsibility Area, nor on lands classified as very high fire hazard severity zones, and because the project itself would involve flooding of fields, no impact would occur and no mitigation would be required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Question a: Degrade the Environment. Less-than-significant Impact with Mitigation. As discussed above, the proposed project has the potential to adversely affect biological resources, hydrology and water quality. With the incorporation of the mitigation measures identified within each of those sections above, and compliance with City, State, and Federal programs and requirements identified in this report, impacts would be reduced to a less-than-significant level.

Question b: Cumulative Impacts. Less-than-significant Impact. As discussed in this Initial Study, the proposed project would not have the potential to result in cumulatively considerable environmental impacts, as it would not involve any construction, and its operation would not result in any physical changes to the environment except very minor changes in flows of water during the requested diversion season. Therefore, operation of the proposed water diversion project would not make a cumulatively considerable contribution and would result in a less-than-significant impact when viewed in connection to the effects of past and probable future projects.

Question c: Effects on Humans. Less-than-significant Impact with Mitigation. As discussed above, the project has the potential for impacts related to biological resources, hydrology and water quality. With the implementation of the City, State, and Federal programs and regulations, and incorporation of the mitigation measures identified below, potential impacts on human beings would be reduced to less-than-significant levels.

Mitigation Measures

Mitigation Measure BIO 1a – Rate of Diversion

The Garden Highway Mutual Water Company (GHMWC or Permitee) shall not divert water under the proposed permit for Application A031191 unless a fish guidance system is installed and in working order at the POD under that permit. Permittee agrees to limit the rate of diversion under this Permit to 50 cfs during the months of January, February, and March. If the Permittee has reasonably determined the fish deflector to be effective, and CDFW has not contacted the Permittee within three years from the date of issuance of the proposed permit for Application A031191 with evidence that the fish deflector may not prevent fish from entering the diversion channel from the Feather River, the limitation on the rate of diversion during January, February, and March may be removed and the Permittee may exercise the maximum permitted diversion rate of 86 cfs. The Permittee shall notify CDFW in writing at such time that the Permittee determines the fish deflector to be effective, and that the Permittee intends to exercise the maximum permitted diversion rate of 86 cfs. Permittee agrees to cooperate with CDFW efforts to evaluate fish deflector efficacy when compatible with Permittee operations, and when CDFW resources permit evaluation efforts.

Mitigation Measure BIO-1b – Minimum Flow Requirements

For the protection of fisheries in the Feather River, diversion under this permit shall be subject to maintenance of minimum instream flows in the Feather River at Boyd's

Landing above Star Bend. No water shall be diverted under this permit at times when the flow in the Feather River at Boyd's Landing above Star Bend is less than, or diversions under this permit would cause the flow to be less than, the sum of the following:

- Minimum flow in the Oroville High Flow Channel as required by the Federal Energy Regulatory Commission license conditions for FERC Project #2100
- Minimum flow required at Marysville by State Water Resources Control Board Decision 1644
- Water right diversions between the FSB gage and GHMWC's POD.

For the purposes of this term, the flow in the Feather River below Boyd's Landing above Star Bend is the three-day or 72-hour average of the flows posted by the Department of Water Resources on its California Data Exchange Center website for the Feather River at Boyd's Landing above Star Bend, Station ID FSB. To ensure compliance with this condition, by April 30 of each year Permittee shall file a report with the Deputy Director for Water Rights, containing the following information:

- Dates during the previous period of October 1 to March 31 of the succeeding year when water was diverted under this permit;
- Flows measured in the Feather River at Boyd's Landing above Star Bend; and,
- Water diverted under this permit during the same period.

Table 8 is a summary table of the minimum flow requirements identified above.

Table 8. Minimum Flow Requirements

Month	RD 1644 - Marysville Gage Min Flows (CFS)	FERC - Oroville Min Flows (CFS)	Water Right Diversions (CFS)	Total Minimum Flow Requirement (CFS)
October 1 to October 14	250	1,700 / 1,200	167	1,617 - 2,117
October 15 to October 31	500 / 400	1,700 / 1,200	167	1,767 - 2,367
November 1 through February	500 / 400	1,700 / 1,200	130	1,730 - 2,330
March	500 / 400	1,700 / 1,000	130	1,530 - 2,130

For additional information regarding these values, refer to Appendix A, *Biological Resources Evaluation* (available upon request).

Source: Planning Partners, 2023.

Mitigation Measure BIO-1c – Alternative Gauging Station

If at any time after the issuance of a permit, any federal, State or local agency establishes a stream gage between Boyd's Landing and the water right holder's POD, upon request by the CDFW, the compliance location for the minimum flow requirements may be moved to the location of the newly established gaging station if:

- The newly established stream gage is operated and maintained in accordance with the Department of Water Resources standards for stream gages; and
- A federal, State or local agency establishes and maintains a stream flow rating for the new gage in accordance with industry recognized standards; and
- The records of daily flows are posted on the California Data Exchange Center website and are accessible and available to the water right holder at a frequency that allows for operations to occur on a real-time basis consistent with the permit terms.

Mitigation Measure HYD-1

Implement Mitigation Measures BIO-1a, 1b, and 1c.

Implementation of Mitigation Measure BIO-1a would ensure that the POD fish screen and fish guidance system are installed and in good working order to minimize the potential for fish to enter the pump intake channel. Mitigation Measures 1b and 1c would ensure that minimum bypass flows are maintained in the Feather River below the POD to protect sensitive fish species in the river. Together, implementation of these measures would reduce the identified impacts to a less-than-significant level.

SIGNIFICANCE DETERMINATION

On the basis of the environmental evaluation presented in **Section 6:**

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

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

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

Matthew McCarthy Digitally signed by Matthew McCarthy Date: 2024.02.12 11:44:39 -08'00'	February 14, 2023
Signature	Date
Matthew McCarthy	State Water Resources Control Board
Printed Name	Lead Agency

LIST OF PREPARERS

Lead Agency

State Water Resources Control Board

Division of Water Rights
Water Rights Permitting and Enforcement Branch
Permitting Section
P.O. Box 2000
Sacramento CA 95812-2000

Phillip Zoucha, staff

Environmental Consultant

Environmental Planning Partners, Inc.

Robert D. Klousner – Project Manager
Craig Stevens – Quality Control
Raadha Jacobstein – Air quality, greenhouse gas emissions, traffic, and noise
Mary Wilson – Various IS/MND sections

Subconsultant Firms

MBK

Gary Kienlen
Walter Bourez

Horizon Water and Environment

Eric Christensen
Carly Dutra

Fremont Environmental Consulting, Inc.

Matt Fremont – Graphics and GIS

REFERENCES

ARB. See California Air Resources Board.

California Air Resources Board, 2022. California's 2022 Scoping Plan for Achieving Carbon Neutrality. November 2022. Accessed Raadha Jacobstein on April 24, 2023 at https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan

California Air Resources Board, 2022a. iAdam: Air Quality Data Statistics. Accessed by Raadha Jacobstein on April 25, 2023 at https://www.arb.ca.gov/adam

California Air Resources Board, 2021. 2019 State and Federal Area Designations. Accessed by Raadha Jacobstein on March 15, 2021 at: https://ww2.arb.ca.gov/our-work/programs/state-and-federal-area-designations/state-area-designations/current-activities

California Air Resources Board, 2021a. California Emissions Estimator Model (CalEEMod). May 2021. Appendix D. Default Data Tables. Available at: https://www.caleemod.com/documents/user-guide/05_Appendix%20D.pdf

California Air Resources Board, 2017. California's 2017 Climate Change Scoping Plan. November 2017. Accessed on May 18, 2021 at https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm

California Department of Conservation (DOC), 2023. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Farmland Mapping Important Farmland Finder. Accessed by Mary Wilson on April 7, 2023 at https://maps.conservation.ca.gov/dlrp/ciff/

California Department of Conservation (DOC), 2022. California Geological Survey. Interactive Web Maps. Accessed by Mary Wilson of Planning Partners on May 25, 2023 at https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps

California Department of Fish and Wildlife (CDFW), 2021a. California Natural Diversity Database (CNDDB). Online database query. Accessed on March 14, 2021 at: https://www.wildlife.ca.gov/Data/CNDDB

California Department of Fish and Wildlife (CDFW), 2021b. Sensitive Natural Communities List. Accessed on March 14, 2021 at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609&inline

California Department of Fish and Wildlife (CDFW), 2014. North Central Region, Feather River Wildlife Area, Sutter, Yuba Counties. May 2014.

California Department of Forestry and Fire Protection (CALFIRE). 2022. California Fire Hazard Severity Zone Viewer. Updated November 21, 2022. Accessed by Mary Wilson of Planning Partners on April 10, 2023 at https://osfm.fire.ca.gov/media/cqbnnwxl/fhsz_statewide_sra_11x17_2022_ada.pdf

California Department of Forestry and Fire Protection (CALFIRE), 2007. Fire and Resources Assessment Program. Draft Fire Hazard Severity Zones in Local Responsibility Areas. October 3, 2007.

California Department of Toxic Substances Control (DTSC), 2023. Envirostor: Find Cleanup Sites and Hazardous Waste Permitted Facilities. Map data 2023. Accessed by Mary Wilson of Planning Partners on April 10, 2023 at: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Sacramento&tour=True

California California Department of Transportation (Caltrans), 2023. "California State Scenic Highway System Map." Accessed at on April 7, 2023 by Mary Wilson at https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

California California Department of Transportation (Caltrans), 2011. Best Available Maps. Last modified September 27, 2012.

California Native Plant Society. 2021. Inventory of Rare and Endangered Plants. Accessed on March 14, 2021 at: https://www.rareplants.cnps.org/result.html

DOC. See California, State of. Department of Conservation.

Ebird, 2021. The Cornell Lab of Ornithology. Accessed on March 14, 2021 at: https://ebird.org/home

Environmental Planning Partners, Inc., 2020. Site visit and project site review conducted by Mary Wilson on December 7, 2020.

Feather River Air Quality Management District (FRAQMD), 2019. FRAQMD Area Designations for State and National Ambient Air Quality Standards. As of 12/12/19. Accessed on March 15, 2021 at: https://www.fraqmd.org/air-quality-information

Feather River Air Quality Management District (FRAQMD), 2010. Indirect Source Review Guidelines. Published 6/7/2010. Accessed by Raadha Jacobstein on March 16, 2021 at: https://www.fraqmd.org/ceqa-planning

Gibbons, Bridget, *pers. comm.,* 2022. Senior Environmental Scientist, California Department of Fish and Wildlife. E-mail to Andrew Hitchings regarding protest. June 22, 2022.

Google Earth Pro, 2023. Various project features accessed by Mary Wilson of Planning Partners, April, 2023.

Horizon Water and Environment, 2021. Biological Resources Evaluation. July 25, 2021.

Intergovernmental Panel on Climate Change (IPCC), 2013. *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.* Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp. Accessed on March 6, 2021 at https://www.ipcc.ch/report/ar5/wg1/

MBK Engineers, 2016. Updated Water Availability Analysis for Applications A031175, A031176, A031191, and A031572 of A & G Montna properties, Garden Highway Mutual Water Company, and the Leal Family Trust and Odysseus Farms. December 7, 2016. Transmitted to Kathryn Gaffney, State Water Board via e-mail on December 9, 2016.

MBK Engineers, 2009. Water Availability Analysis for Applications A031175, A031176, A031191, and A031572 of A&G Montna Properties, Garden Highway Mutual Water Company, and the Leal Family Trust and Odysseus Farms. Memo from Gary Kienlen to Katherine Mrowka, State Water Resources Control Board, Division of Water Rights. June 8.

Natomas Basin Conservancy (NBC), 2003. Final Natomas Basin Habitat Conservation Plan, April 2003. Prepared by the NBC, City of Sacramento, and Sutter County in Association with Reclamation District No. 1000, Natomas Central Mutual Water Company.

NOAA. See United States, National Oceanic and Atmospheric Administration, National Centers for Environmental Information.

Northeast Center of the California Historical Resources Information System, 2021. Garden Highway MWC Water Rights Application A031191, IC File #D21-56. March 5, 2021.

NRCS. See United States, Natural Resources Conservation Service.

Peak and Associates, Inc., 2017. *Cultural Resources Inventory Report for the Garden Highway Mutual Water Company Fish Screen and Maintenance Dredging Project Area, Sutter County, California.* August 27, 2017.

Planning Partners. See Environmental Planning Partners, Inc.

Sawyer, J.O., T. Keeler-Wolf, and J. Evans. 2009. A Manual of California Vegetation. Second edition. California Native Plant Society. Sacramento, CA. Accessed on March 14, 2021 at: https://vegetation.cnps.org

Shutes, Chris, *pers. comm.,* 2022. Water Rights Advocate, California Sport Fishing Alliance. E-mail to Andrew Hitchings regarding protest. June 22, 2022.

Sterling and Buttner. 2011. Wildlife Known to Use California Ricelands, Third Edition. Accessed March 14, 2021 at: https://calrice.org/wp-content/uploads/2020/07/Species-Report.pdf

Stevens, C., Podlech, M., and K. Crouch. 2016. Biological Resources Report, Water Right Applications A031176 (Montna) and A031572 (Leal). March 16, 2016.

Sutter, County of, 2023. Oroville Dam Emergency Evacuation Route Map for Sutter County. Accessed on April 10, 2023 by Mary Wilson at: https://suttercounty.maps.arcgis.com/apps/InformationLookup/index.html?appid=db747339f2af4a37934da0a6c1c654ee

Sutter, County of, 2023a. Sutter County Website, Emergency Services. Accessed on by Mary Wilson on April 10, 2023 at https://www.suttercounty.org/government/county-departments/emergency-services

Sutter, County of, 2023b. Sutter County Website, Sutter County Sheriff. Accessed by Mary Wilson on April 10, 2023 at https://www.suttersheriff.org/divisions

Sutter, County of, 2023c. Sutter County Website, Library. Accessed by Mary Wilson on April 10, 2023 at https://www.suttercounty.org/government/county-departments/library

Sutter, County of, 2022. Sutter County Zoning Code. Chapter 1500 of the Sutter County Ordinance Code. Agricultural Use Types, page 3-2.

Sutter, County of, 2021. Sutter County 2021 Local Hazard Mitigation Plan Update. April 2021 Public Review Draft. Prepared by Foster Morrison Consulting.

Sutter, County of, 2011. Sutter County 2030 General Plan. Prepared for Sutter County in consultation with PBS&J. Approved March 29, 2011.

Sutter, County of, 2011a. Chapter 3, Land Use, page 3-10 and Appendix A1. Land Use Diagrams, Countywide Land Use Diagram. Figure A1-1.

Sutter, County of, 2011b. Sutter County 2030 General Plan, Public Draft. Chapter 4, Agricultural Resources. Figure 4-1, Important Farmlands and Williamson Act Lands. September 2010.

Sutter, County of, 2011c. Sutter County 2030 General Plan, Public Draft. Chapter 9, Biological Resources and Open Space. Policies listed on page 9-14. September 2010.

Sutter, County of, 2011d. Greenhouse Gas Emissions, Screening Table, Sutter County, California. April 2011. Prepared by Atkins (Formerly PBS&J) for Sutter County, Accessed on March 15, 2021 at: https://www.suttercounty.org/assets/pdf/cs/ps/Greenhouse_Gas_Screening_Tables.pdf

Sutter, County of, 2011e. Sutter County 2030 General Plan, Chapter 11, Noise. Table 11-1, Maximum Allowable Environmental Noise Standards.

Sutter, County of, 2010. Sutter County Climate Action Plan. July 2010. Prepared by PBS&J for Sutter County, 1130 Civic Center Boulevard, Suite A, Yuba City, CA 95993. Accessed on March 15, 2021 at: https://www.co.sutter.ca.us/pdf/cs/ps/Climate_Action_plan_.pdf

Sutter, County of, 2010a. Sutter County 2030 General Plan Draft Environmental Impact Report. Chapter 6.7 Cultural Resources, page 6.7-1. September 2010.

Sutter, County of, 2008. Sutter County 2030 General Plan Technical Background Report. Section 4.5, Visual Resources. Prepared by PBS&J. February 2008.

Sutter, County of, 2008a. Sutter County 2030 General Plan Technical Background Report. Section 5.1, Geologic and Seismic Hazards. Prepared by PBS&J. February 2008.

Sutter, County of, 2008b. Sutter County 2030 General Plan Technical Background Report. Section 4.2 Agriculture, Soils, and Mineral Resources. Prepared by PBS&J. February 2008.

Sutter, County of, 2008c. Sutter County 2030 General Plan Technical Background Report. Section 3.3.3, Schools. Prepared by PBS&J. February 2008.

Sutter, County of, 2008d. Sutter County 2030 General Plan Technical Background Report. Section 3.3.4, Parks and Recreation. Prepared by PBS&J. February 2008.

Sutter, County of, 2008e. Sutter County 2030 General Plan Technical Background Report. Section 3.3.5, General Government, Civic, and Cultural Facilities. Prepared by PBS&J. February 2008.

Sutter, County of, 1994. Sutter County Comprehensive Land Use Plan (CLUP). Airport Land Use Commission (ALUC), 3000 “S” Street, Suite 300, Sacramento, CA 95816. Accessed on April 10, 2023 at: https://www.sacog.org/sites/main/files/file-attachments/sutter_county_airpor_clup_april_1994_-_94-017.pdf

Sutter, County of, 2015. Sutter County Office of Emergency Management (OEM). 2015. Emergency Operations Plan-Sutter Operational Area-Basic Plan. October 2011, updated January 2015.

Toll Free Airline.com, 2023. Sutter County Public and Private Airports, California. Accessed on April 10, 2023 by Mary Wilson of Planning Partners at: https://www.tollfreeairline.com/california/sutter.htm

United States, Department of Agriculture, 2023. Forest Service, Pacific Southwest Region. R5 Forest Visitor Map Finder. Accessed on April 7, 2023 by Mary Wilson at https://www.fs.usda.gov/ivm/

United States, Department of the Interior. 2011. U.S. Geological Survey. "Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California" by Bradley S. Van Gosen and John P. Clinkenbeard.

U.S. Environmental Protection Agency (EPA), 2023. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021. April 2023. Accessed on April 21, 2023 at https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

U.S. Environmental Protection Agency (EPA), 2023a. How's My Waterway, Feather River, Lower (Lake Oroville Dam to Confluence with Sacramento River). Accessed on June 5, 2023 at: https://mywaterway.epa.gov/waterbody-report/CA_SWRCB/CAR5192200019980817161057/2022

U.S. Environmental Protection Agency (EPA), 2023b. How's My Waterway, Sutter Bypass. Accessed on June 5, 2023 at: https://mywaterway.epa.gov/waterbody-report/CA_SWRCB/CAR5203000020000210152322/2022

U.S. Environmental Protection Agency (EPA), 2017. Climate Change. Impacts. Human Health Impacts. Last updated January 13, 2017. Accessed by Raadha Jacobstein of Planning Partners on November 18, 2020 at: https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-human-health_.html

United States, Federal Emergency Management Agency, 2023. Flood Insurance Rate Map, Map Nos. 0603940705E and 0603940715E. December 1, 2008.

U.S. Fish and Wildlife Service, 2021. Sacramento Fish and Wildlife Office. Information for Planning and Conservation Report. Accessed on February 22, 2021 at: https://ecos.fws.gov/ipac

USGS. See United States, Department of the Interior, US Geological Survey.

United States, National Oceanic and Atmospheric Administration (NOAA), 2021. State of the Climate: Global Climate Report for Annual 2020. Published online January 2021. Accessed by Raadha Jacobstein on March 19, 2021 at: https://www.ncdc.noaa.gov/sotc/global/202013

United States, Natural Resources Conservation Service (NRCS), 2023. Web Soil Survey. Accessed by Mary Wilson on May 26, 2023 at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

University of California Museum of Paleontology (UCMP), 2023. UCMP Locality Search. Locality Search for known paleontological resources in Sutter County performed by Mary Wilson on May 22, 2023 at: https://ucmpdb.berkeley.edu/loc.html

Whitney, Victoria, *pers. comm.*, 2010. State Water Resources Control Board, Chief, Division of Water Rights. E-mail to Andrew Hitchings, Somach Simmons & Dunn accepting WAA on July 13, 2010.

Woodard & Curran, 2022. Sutter Subbasin Groundwater Management Coordination Committee, *Sutter Subbasin Groundwater Sustainability Plan*. January 2022.

Zoucha, Phillip, pers. comm. 2021. Personal conversation with Mary Wilson of Environmental Planning Partners, Inc. on April 8, 2021 regarding exemption of the project from AB 52 requirements due to the noticing of the project prior to the required compliance date of July 12, 2015.