INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR THE JACKSON VALLEY IRRIGATION DISTRICT PETITIONS FOR EXTENSION OF TIME FOR WATER RIGHT PERMITS 11589 (A012342A), 11224 (A017605), AND 12167 (A005648B)



Lead Agency:

6755 Lake Amador Drive
Ione, CA 95640
(209) 274-2037

Prepared by:

1241 Larkin Way
Sacramento, CA 95818
(916) 443-5414

August 2025

DRAFT
Jackson Valley Irrigation District
Petitions for Extension of Time for Water Right Permits 11589 (A012342A), 11224 (A017605), and 12167 (A005648B)

1. Introduction and Background Information

1.1 Overview of Water Right Process

In general, the State Water Resources Control Board (SWRCB) Division of Water Rights (Division) 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 California Environmental Quality Act (CEQA) compliance document or a draft evaluation of impacts on public trust resources (if CEQA compliance is not required). 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(s) 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. If the applicant needs additional time to put all water to beneficial use, they may file a Petition for Extension of Time with the Division. 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.

1.2 Legal Basis for the Initial Study

The Jackson Valley Irrigation District (JVID or Applicant) has filed Petitions for Extension of Time from the State Water Resources Control Board, Division of Water Rights (Division) for three of its water right permits. This Initial Study (IS) evaluates the

potential environmental impacts associated with the implementation of the Petitions for Extension of Time (proposed project).

This IS/MND has been prepared by JVID in compliance with the CEQA of 1970 (as amended), codified in California Public Resources Code (PRC) Sections 21000 et seq., and the CEQA Guidelines in the California Code of Regulations (CCR), Title 14, Division 6, Chapter 3, Section 15000 et seq.

1.3 CEQA Lead Agency, Responsible Agencies, and Trustee Agencies

As the public agency that has the principal responsibility for carrying out this project, JVID is acting as the Lead Agency under CEQA. The Division has responsibility for approving the Petitions for Extension of Time and thus is acting as a Responsible Agency under CEQA. The California Department of Fish and Wildlife (CDFW) has trustee responsibility under state law for managing the fish and wildlife resources within the state of California (California Fish and Game Code Section 7111.1). In addition, CDFW has filed a protest against the Petitions for Extension of Time and may require that JVID obtain a Lake and Streambed Alteration Agreement (LSAA) for ongoing diversions of water from Jackson Creek (California Fish and Game Code Section 1602). As such, CDFW will act both as a Trustee Agency and as a Responsible Agency under CEQA for this project.

1.4 Purpose of the IS/MND

As a public disclosure document, an 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 purposes of an Initial Study are to:

- Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration.
- Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an Environmental Impact Report (EIR) is prepared, thereby enabling the project to qualify for a Negative Declaration.
- Assist in the preparation of an EIR, if one is required.
- Facilitate environmental assessment early in the design of a project.
- 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.
- Eliminate unnecessary EIRs.
- Determine whether a previously prepared EIR could be used with the project.

JVID, as the CEQA Lead Agency, has determined that, based on the proposed project's expected environmental impacts and the availability of mitigation measures to reduce these impacts, an Initial Study/Mitigated Negative Declaration (IS/MND) is the appropriate CEQA compliance document for the proposed project. The IS/MND consists of two portions, the Initial Study (which contains the environmental analysis) and the Mitigated Negative Declaration (which contains the Lead Agency's conclusions about the environmental impacts of the proposed project and the feasibility of proposed mitigation measures to reduce these impacts to a less-than-significant level).

1.5 Organization Of the Initial Study

This document is organized into the following sections:

Section 1: Introduction and Background Information – Describes the purpose, contents, and organization of the document.

Section 2: CEQA Baseline Conditions – Includes a brief description of JVID, its existing water rights, its facilities related to the water rights, and its operations related to the water rights.

Section 3: Description of the Proposed Project - Includes a detailed description of the proposed project, and the purpose and objectives of the Petitions for Extension of Time

Section 4: Public Notices, Protests Received, and Permits and Approvals Required - Includes a description of the public notice issued, a brief description of the protests received in response to the public notice, and a discussion of permits and approvals needed for the proposed project.

Section 5: Impact Analysis – Evaluates whether the proposed project would have impacts related to a variety of environmental topics, and whether any identified impacts associated with the Proposed Project would be significant and require mitigation measures, and the level of significance of those impacts with the mitigation measures incorporated.

Section 6: List of Preparers – Lists the people who participated in preparation of this Initial Study.

Section 7: References – Lists the documents and other information sources cited in the Initial Study, as well as individuals consulted.

Appendices – Contains technical reports and other detailed information that supports the analyses and conclusions reached in the Initial Study.

2. CEQA Baseline Conditions

2.1 District History and Location

The Jackson Valley Irrigation District (JVID or District) was formed in 1956 as an independent special district to provide irrigation water to the Jackson Valley in Amador County. The JVID service area is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line and encompasses approximately 21 square miles (**Figure 1**). Lake Amador, formed by Jackson Creek Dam on Jackson Creek, is located within the northeast portion of the District boundaries. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within JVID's service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore.

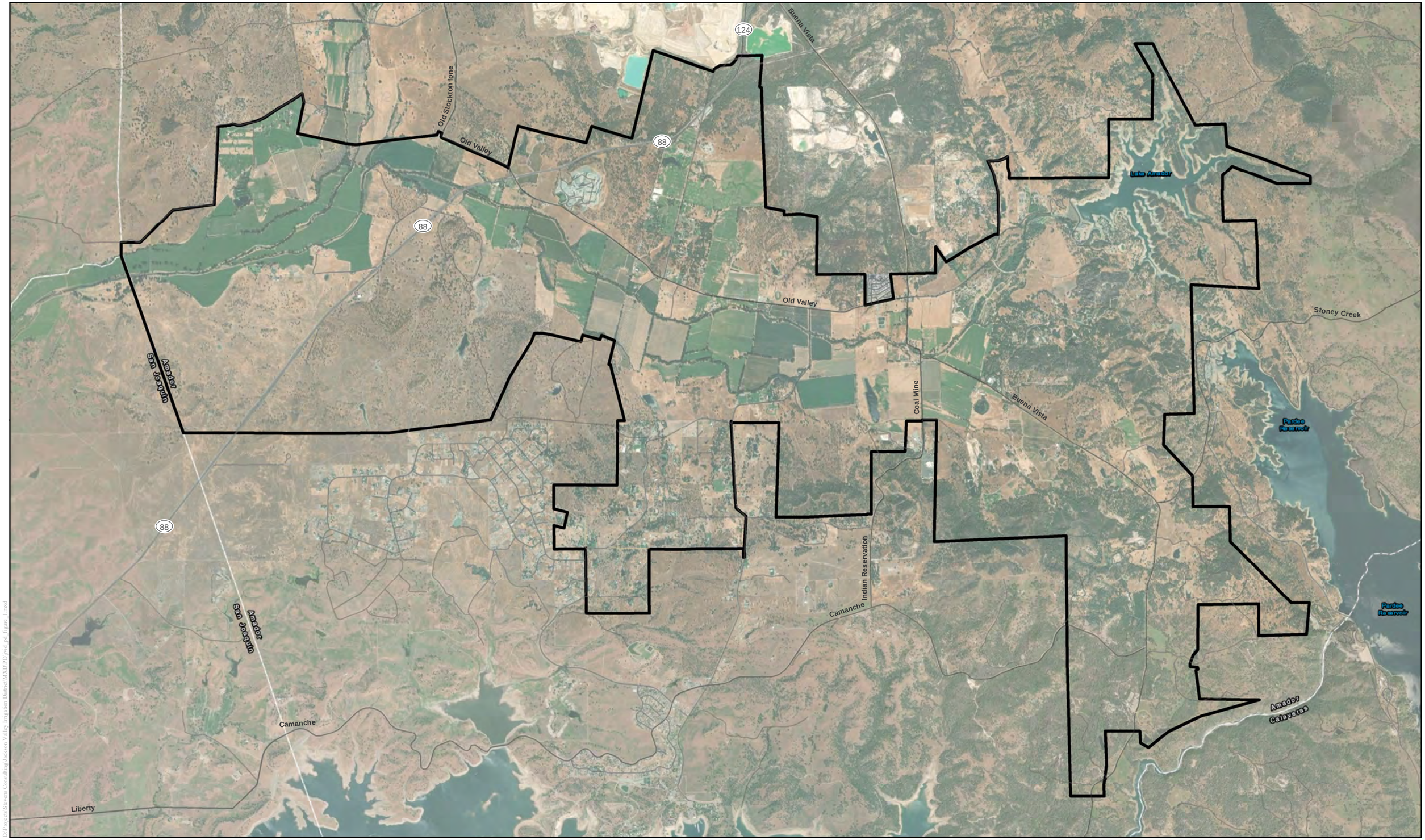
JVID was formed with the primary purpose of providing raw water for irrigation within its service area from Lake Amador on Jackson Creek. In addition, JVID currently provides raw water for irrigation and some incidental treated water for domestic users from the Mokelumne River. Water is also used to generate hydroelectric power. JVID has an agreement with a private concessionaire to operate Lake Amador's recreational facilities. Its recreation concessionaire operates domestic water treatment and wastewater services at Lake Amador. JVID provides water services to a portion of its service area, and to some properties outside the District, but within its authorized Place of Use (POU), as described in more detail below and shown in **Figure 1**.

2.2 Existing Water Right Permits

JVID holds the following water rights, related to the Petition for Extension of Time:

- Permit 11224 (A017605) – Direct diversion from Jackson Creek and diversion to storage in Lake Amador;
- Permit 11589 (A012342A) – Direct diversion from Jackson Creek and diversion to storage in Lake Amador;
- Permit 12167 (A005648B) – Direct diversion from the Mokelumne River at Pardee Reservoir.

Table 1 summarizes the diversion terms associated with each of these rights. JVID also filed Statement of Diversion and Use S014122 on October 15, 1993, claiming both a Pre-1914 right on Jackson Creek and riparian right to Jackson Creek. The claim of a Pre-1914 right and riparian rights on Jackson Creek are not included in the Petitions for Extension of Time that are the subject of this IS/MND and are therefore not discussed further in this document.



D:\Projects\Stevens Consulting\Jackson Valley Irrigation District\MXD\PDF\svid_pd_figure_1.mxd

Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 1: Place of Use (POU)

Jackson Valley Irrigation District

Amador County, CA

Following **Table 1**, each of these water rights is described in more detail.

Table 1: Summary of Diversion Terms in JVID Water Rights

Permit (Application)	Source	Direct Diversion			Diversion to Storage		
		Maximum Diversion Rate (cfs)	Diversion Season	Purposes	Maximum Amount (afa)	Diversion Season	Purposes of Use
P11589 (A012342A)	Jackson Creek	60	4/15 – 5/31	Irrigation	6,000	11/1 – 5/31	Irrigation, domestic, and industrial
			11/1 – 5/31	Domestic and industrial			
P11224 (A017605)	Jackson Creek	50[a]	3/1 – 5/31	Irrigation, domestic, incidental recreation and fish and wildlife enhancement	30,000	11/1 – 5/31	Irrigation and domestic
P12167 (A005648B)	Mok-elumne River	50[b]	3/1 – 11/1	Irrigation	N/A	N/A	N/A
			1/1 – 12/31	Incidental domestic and stockwatering			

a. Up to a maximum diversion of 39,124.1 afa.

b. Right includes a total of 3,850 afa, with 1,250 of that amount subject to reversion to the State.

Note: cfs = cubic feet per second; afa = acre-feet per annum

2.2.1 Permit 11589 (Application A012342A)

Water Right Application A012342A has a priority date of February 20, 1948. Permit 11589 was issued by the SWRCB in 1958, and was subsequently amended several times. It provides for both a direct diversion from Jackson Creek and a diversion to storage in Lake Amador (**Table 1**).

Permit 11589 allows for:

- The direct diversion of 60 cubic feet per second (cfs) from Jackson Creek at Lake Amador for:
  - Irrigation from April 15 through May 31 of each year; and
  - November 1 through May 31 of each year for domestic and industrial purposes.
- Diversion from Jackson Creek to storage in Lake Amador of 6,000 acre-feet per annum (afa) from November 1 through May 31 of each year for irrigation,

domestic, industrial, recreational, wildlife propagation, fish culture, and incidental power.
- The POU within which the water under Permit 11589 is to be used is defined as 8,000 acres within a gross acreage of 12,800 acres within the Jackson Valley Irrigation District[1].

Permit 11589 (as amended on June 7, 2000) calls for all water to be put to beneficial use by December 31, 2010. However, due to circumstances beyond the control of JVID, not all water authorized under Permit 11589 has been put to beneficial use.

2.2.2 Permit 11224 (Application A017605)

Water Right Application A017605 has a priority date of May 15, 1957. Permit 11224 was issued by the SWRCB in 1958, and was subsequently amended several times. It provides for both a direct diversion from Jackson Creek and a diversion to storage in Lake Amador (**Table 1**).

Permit 11224 allows for:

- The direct diversion of 50 cfs from Jackson Creek at Lake Amador (up to 39,124.1 afa) for irrigation from March 1 through March 31 of each year (extended to include the period April 1 through May 31 when surplus water[2] is available);
- The diversion to storage from Jackson Creek in Lake Amador of 30,000 afa for the following uses: irrigation, domestic, recreation, wildlife propagation, fish culture, and incidental power generation from November 1 through March 31 of each year (extended to include the period April 1 through May 31 when surplus water is available).
- The POU within which the water under Permit 11224 is to be used is defined as 8,000 acres within a gross acreage of 12,800 acres, within the Jackson Valley Irrigation District[1].

All construction authorized under Permit 11224 has been completed. The permit (as amended on June 7, 2000) calls for all water under Permit 11224 to be put to beneficial use by December 31, 2010.

2.2.3 Permit 12167 (Application A005648B)

Water Right Application A005648B has a priority date of July 30, 1927. Permit 12167 was issued by the SWRCB in 1960. It is a portion of the 1927 State Filing A005648 (also

[1] Using modern mapping methods, the size of the authorized POU has been determined to be approximately 14,800 acres.

[2] Surplus water is defined as 'unappropriated' water within a system.

known as the County of Origin protection filing) on the Mokelumne River, and is shared with the Amador Water Agency (AWA).

Permit 12167 (A005648B) is an allocation of a State-filed application on the Mokelumne River. Permit 12167 originally provided JVID the right for direct diversion of 5,000 acre-feet (af) of water from the Mokelumne River at Pardee Reservoir at a maximum diversion rate of 50 cfs. The diversion is authorized year-round for domestic and stock watering uses and, between March 1 and November 1, for irrigation uses.

SWRCB's Decision 1490 stated that a portion of the authorized amount under Permit 12167 would revert back to the State of California in the event that upstream diverters on the Mokelumne River in Amador County required additional water to meet their demands. The reversion is limited such the 2,200 af of the authorized amount is eligible to revert to the State, all of which has been reverted. In 1978, 1,150 af were reverted to AWA and on June 14, 2024, the SWRCB finalized its order and issued a permit pursuant to Water Right Application 5647X03 requesting the remaining 1,050 afa of the 2,200 AFA available for reversion. As such, JVID may use up to 2,800 af of water per year under Permit 12167.

Permit 12167 (as amended on June 7, 2000) states that all water be put to beneficial use by December 31, 2010.

CCR Section 657 states that water taken by direct diversion can only be stored for less than 30 days. Thus, any water diverted by JVID from Pardee Reservoir under Permit 12167 may only be stored in Lake Amador for no more than 30 days before being withdrawn for beneficial use or released downstream.

2.3 Facilities

This section describes the facilities used by JVID to divert, store, and distribute water under the water rights described above.

2.3.1 Water Diversion and Storage Facilities

JVID has two principal sources of water: water diverted from Jackson Creek, and water diverted from the Mokelumne River at Pardee Reservoir. Each of these is discussed below and shown in **Figures 2** and **3**.

P11589 (A012342A)
POD 2

Dry Creek

Jackson Creek

36" Mainline

P11589 (A012342A)
POD 1

P11224 (A017605)
POD 1

Lake Amador

Jackson Creek

Carson Creek

P12167 (A005648B)
POD 1

JVID Water
Treatment Plant

16" Pardee Raw Line

Kreth Line

Lake Pardee

Mokelumne River

Murphy Creek

Mokelumne River

D:\Projects\Stevens Consulting\Jackson Valley Irrigation District\MXD\PD\jvid_pd_figure_2.mxd

Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



D:\Projects\Stevens Consulting\Jackson Valley Irrigation District\MXD\PD\jvid_pd_figure_3.mxd

Aerial Source: Maxar (09/2021)

0 250 500
Feet

N
W E
S

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

2.3.1.1 Jackson Creek

The main source of water for JVID is surface flow in Jackson Creek, collected to storage in Lake Amador under Water Right Permits 11224 and 11589 (as discussed above). Lake Amador is formed by Jackson Creek Dam.

2.3.1.2 Mokelumne River

JVID has two ways to divert Mokelumne River water into the JVID water system. The first and oldest way is that East Bay Municipal Utility District (EBMUD) operates a 24" butterfly valve at the Pardee Reservoir's North Spillway, commonly known as the Stony Creek Road Dam. Per water right Permit 12167, EBMUD operates the valve to allow Mokelumne River water to flow though Pardee Reservoir into the Carson Creek drainage, in accordance with the June 22, 1999 diversion agreement between JVID and EBMUD. Carson Creek is a natural tributary to Jackson Creek, and water released into the creek can flow via gravity from Pardee Reservoir into Lake Amador. JVID also owns and operates an 8" raw water diversion connected to the North Spillway outlet works, which was installed in 2012; the 8" diversion transitions to a 16" raw water pipeline in the distribution system (known as the '16" Pardee Raw Water Transmission Line'). This pipe extends approximately one mile following the Carson Creek Drainage and terminating at the JVID water treatment plant and Kreth Line distribution system.

2.3.1.3 Jackson Creek Dam and Lake Amador

JVID utilizes Lake Amador, formed by Jackson Creek Dam, to store the water under all of its water rights. Due to water quality limitations, water for domestic uses is diverted to its water treatment plant prior to storage in Lake Amador. Water for all other authorized uses is stored in Lake Amador.

Jackson Creek Dam is owned and operated by JVID. It was constructed in 1965 under the supervision of the California Department of Water Resources (DWR) Division of Safety of Dams (DSOD). The Jackson Creek Dam (#1035-0) is an earthen dam that is 193 feet high and 1,140 feet long, with a maximum storage capacity of 22,000 af. A spillway located north of Jackson Creek Dam allows water to flow around the dam and back into Jackson Creek below the dam when the dam is full.

Under normal operations, raw water is released from Lake Amador at Jackson Creek Dam into a 36" mainline irrigation pipe for valved customers or directly into the mainstem channel of Jackson Creek via either the hydroelectric plant (located at the base of the dam) or a secondary release 24" cone valve that bypasses the hydroelectric plant. A 30" penstock runs through the base of the dam. This penstock then feeds the 36" irrigation line, hydroelectric plant (four generators) and 24" cone valve.

The hydroelectric plant consists of four generators that can release up to 50 to 55 cfs when all are in operation. Three large generators (140 kilowatts [kW]) can release up to 13 to 15 cfs apiece, and one small generator (80 kW) can release 8 to 10 cfs.

More information about the operation of Jackson Creek Dam can be found below under *Section 2.3.2.1 Creek System* and in **Appendix A**.

2.3.2 Water Distribution Systems

JVID owns and operates four separate systems to distribute water: the Creek System, the Main Line, the Kreth Line, and the Treated Water Distribution System, as shown in **Figures 2** and **3** and described below.

2.3.2.1 Creek System

JVID releases water from Jackson Creek Dam into Jackson Creek below the dam using two types of release mechanisms. The primary releases are made through the 500 kW power generation plant at the base of the dam. Releases can vary from 3,000 gallons per minute (gpm) to 20,000 gpm. The smaller, secondary release method is through a 24" Cone Valve directly attached to the dam outlet works, which bypasses the power generation plant. The water released is conveyed to 12 irrigation pumping stations ranging from 500 gpm to 3,500 gpm along Jackson Creek (between Jackson Creek Dam [POD 1], and Jackson Creek at the western edge of the JVID boundary [POD 2]) to provide water to agricultural users (**Figure 2**).

2.3.2.2 36" Main Line

The JVID Main Line is a 36" irrigation pipeline, extending approximately 5.3 miles, that transports water released from Lake Amador at the base of Jackson Creek Dam via a valved pipe to customers in the western portion of the JVID service area (**Figures 2** and **3**).

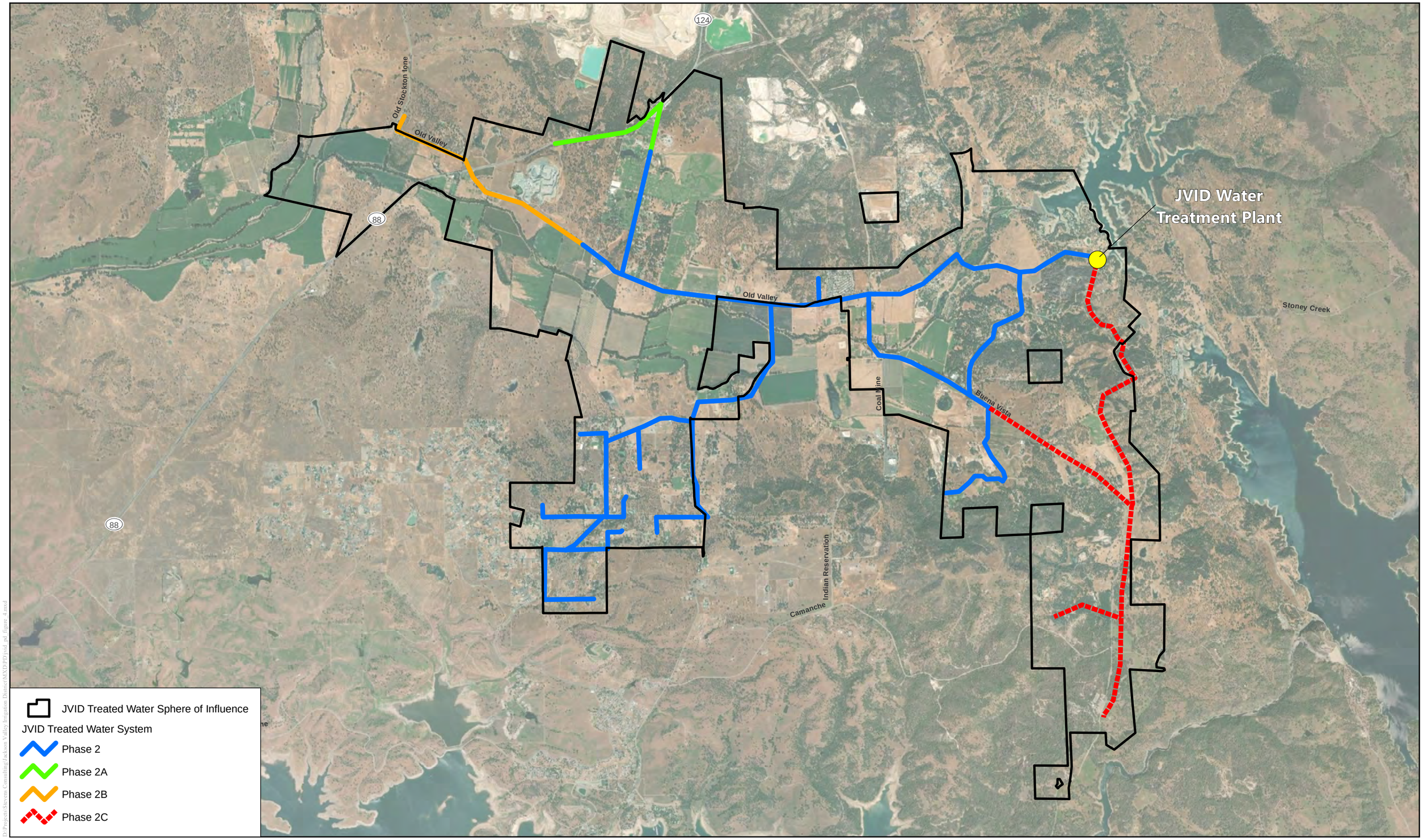
2.3.2.3 Kreth Line

The Kreth Line is a water delivery system serving irrigation and raw domestic customers in the south side of JVID's service area (**Figure 2**). Water is supplied to the Kreth Line from the Mokelumne River supply using the 16" Pardee Raw Water Transmission Line. The 12" Kreth Line starts at the Lake Amador Recreation Area and extends south approximately 4.3 miles serving irrigation and raw domestic customers. The Kreth Line system also supplies raw water to the JVID water treatment plant.

2.3.2.4 Treated Water Distribution System

JVID operates a treated water distribution system (**Figure 4**) that serves:

- Approximately 500 homes within its service area;
- 110 overnight campsites and 73 full RV hook up site within the Lake Amador Recreation Area;



D:\Projects\Stevens Consulting\Jackson Valley Irrigation District\MXD\PDF\vid_pd_figure_4.mxd

Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 4: Existing Treated Water Sphere of Influence and Distribution System

Jackson Valley Irrigation District

Amador County, CA

- A population of 30 full time residents of the Lake Amador Resort RV Park and a campground that can serve a population of up to 4,000 customers during camping season;
- An estimated population of about 1,300 people are served with JVID potable water within the Jackson Valley and Buena Vista area.

2.3.3 Water Treatment Plant

JVID owns and operates a potable water treatment plant with two 175 gpm capacity "Tri-mite" treatment units (**Figures 2** and **4**). The treatment plant was constructed in 2012, and expanded between 2018 and 2021 to include a 200,000-gallon storage tank and 14 miles of distribution pipeline.

2.4 District Operations

2.4.1 Water Sources

Inflows to Lake Amador are from two principal sources, inflows from Jackson Creek, and inflows from Pardee Reservoir. The inflows from Jackson Creek are not under JVID control, but the inflows from Pardee Reservoir are controlled by JVID in accordance with the June 22, 1999 agreement between JVID and EBMUD, as described in more detail below.

2.4.1.1 Inflows from Jackson Creek

JVID begins to store water from Jackson Creek, usually starting in the fall (typically October or November) when the rainy season begins. They continue to store water until spring (typically April or May). Per JVID irrigation policy, water releases down the 36" main pipeline and into the creek system start on April 1st and continue until October 31st. This water is picked up by farmers for irrigation. The City of Jackson wastewater plant releases approximately 0.3 cfs into Jackson Creek year-round; otherwise in a typical year, the creek would be dry from June/July through September/October. During severely dry years, the City of Jackson wastewater may not even make it downstream to Lake Amador due to evaporation and saturation losses.

2.4.1.2 Inflows from Pardee Reservoir

In February or March of each year, JVID submits a request for to EBMUD for "water availability" related to the JVID Mokelumne River water right (Permit 12167). EBMUD has been assigned by the SWRCB to monitor and calculate water availability for the downstream Mokelumne users, based on water right priority and stream flows. Annually, EBMUD hydrologists calculate water demands and water available from the estimated snowpack, and respond to the JVID request. Per Permit 12167, JVID is allowed to take water from the Mokelumne River through Pardee Reservoir year-round

for domestic and stockwatering uses, and between March 1 and November 1 for irrigation uses. During most years, JVID attempts to begin diverting water in the spring when irrigation demand increases. However, during years when inflows to the lake from Jackson Creek fill Lake Amador and result in water flowing over the dam spillway, JVID will wait until lake levels stabilize before beginning diversions from Lake Pardee (sometimes as late as June or July). In general, JVID operates the diversions from the Mokelumne River to attempt to match those diversions with reservoir releases to meet downstream demands, in order to keep the lake level as full and stable as possible, which benefits the District (by keeping water in storage), and recreation at the lake (by having a full usable lake for boating and fishing).

2.4.2 Water System Operations

2.4.2.1 Releases for Irrigation

During the irrigation season, farmers call JVID to request water deliveries. As noted above, JVID utilizes both Jackson Creek and the 36” mainline to deliver water to farmers. JVID requires 24-hour advance notice to allow them to schedule releases and to account for the time it takes for water to flow downstream to the pumps. For example, it takes about 8 hours for water released from Jackson Creek Dam to reach the closest pump and about 18 hours to reach the last pump in the district.

2.4.2.2 Releases for Fish Farms

Two fish farms below Jackson Creek Dam contract with JVID for water for their operations.

The Caviar fish farm operates from December through May each year, though they may keep raising some fish through the summer. Water supply for the farm is provided through a dedicated pipeline through the base of the dam. Water for this farm is pass-through (i.e. the water is circulated through the fish farm and released back into the creek), so there is minimal consumptive use. The farm regulates flows between 500 gpm and 3,500 gpm depending on the time of year, the number of fish in the farm, and general drought conditions. Because it is a flow-through system, during the irrigation season JVID counts the water provided to the Caviar fish farm as part of its releases to meet irrigation demand. Outside of the irrigation season, this water provided is not reused, and flows out of the District.

The Lake Amador Resort fish farm is a year-round operation that raises trout to be planted in Lake Amador for fishing. On average, the farm uses about 800 to 1,000 gpm, with little seasonal fluctuation. However, during droughts and outbreaks of fish illness, the farm may reduce their usage to 300 to 500 gpm. The Lake Amador fish farm is also a pass-through operation which diverts water from the 36" mainline. Thus, JVID releases through the 36" main line include the water needs for the Lake Amador fish farm, and this water is available for irrigation by downstream farmers.

2.4.2.3 Releases through the Hydroelectric Plant

During the winter, in the event that the lake becomes full or spills, JVID releases water through all four of their generation units for power generation. In most cases, the use of water to generate power occurs outside of the irrigation season and is thus not re-used, but flows out of the District.

2.4.2.4 Releases through the Kreth Line

The Kreth Line is a separate water delivery system serving irrigation and raw domestic customers on the district's south side. The primary water source is the Mokelumne River under Permit 12167, but it can also be supplied with water from Lake Amador via a pumping station located at the base of Jackson Creek Dam. The Kreth line also supplies raw water from the Mokelumne River to the JVID water treatment plant. In fact, because of its better quality, the water treatment permit conditions require JVID to use the Mokelumne source for raw water for both the treatment plant and serving the raw domestic customers of the Kreth Line. The poorer quality of the water from Jackson Creek is due primarily to the upstream discharges from the City of Jackson's sewer treatment plant into Jackson Creek, which accumulate in Lake Amador.

Because of the importance of serving domestic customers at all times, when water from the Mokelumne River is unavailable (e.g. due to drought curtailments), JVID can exercise two optional sources of water. A 2018 emergency water supply agreement with AWA provides JVID with the right to purchase up to 500 af of Mokelumne River water from AWA (under its pre-1914 water rights) which can be diverted using existing JVID facilities. Also, in extreme situations, JVID can supplement water for the Kreth Line from Lake Amador using the Lake Amador Dam pumping station. This bypass connection is only to be utilized under temporary, emergency situations and is not designed for routine or long-term service.

3. Description of the Proposed Project

On December 16, 2010, JVID filed Petitions for Extension of Time related to Permits 11224, 11589, and 12167 to provide additional time to put all water allowed under these water right permits to beneficial use. The Petitions for Extension of Time for Permits 11224, 11589 and 12167 were accepted and issued for public notice in 2012. JVID requests that the time provided to put all water authorized under these permits to beneficial use be extended to 30 years from the date that amended permits are issued for these three rights.

All of the petitions note that the facilities needed to implement the changes are existing, and that no new facilities are required.

The project area for this analysis refers to the JVID service area and the existing water diversion and distribution infrastructure owned and operated by the District, including Jackson Creek.

3.1 Purpose and Objectives of the Petitions for Extension of Time

Since the water right Permits were issued, JVID has been granted numerous extensions of the time needed to put all water to beneficial use. The most recent orders issued by the Division on June 7, 2000, granted JVID until December 31, 2010 to complete application of all requested water to beneficial use.

JVID's objective in filing the Petitions for Extension of Time for Permits 11224, 11589, and 12167 in 2010 was to request additional time for it to put the amount of water allowed under the permits to full beneficial use. JVID has completed the construction of all facilities needed to put all water to use (see *Section 2.3 Facilities*), but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010.

JVID cannot influence the rate at which private infrastructure improvements and market conditions allow additional agricultural lands to be irrigated using JVID water, nor which homes and other uses are constructed. While JVID is primarily irrigation focused, it is, however, required by law to provide municipal services, including treated water, to customers within its service area. Therefore, the purpose of this action is to take steps to ensure that the District has sufficient water resources available to it to serve projected future demand.

The following section describes the growth that has occurred within JVID's service area between 2000 and the present day, and future growth that is anticipated.

3.1.1 Growth Within JVID Service Area between 2000 and 2022

Between December 2000, when the Petitions for Extension of Time were filed, and the present, the following growth has occurred within the JVID service area:

- **Oaks Community Park** – 10 additional homes,
- **Five additional residential homes** - scattered throughout the District.

Between 2000 and 2022, the demand for water from JVID increased, as shown in **Table 2**.

Table 2: Growth in Water Demand from JVID Between 2000 and 2022

Year	Water Demand (afa)	Year	Water Demand (afa)
2000	13,298	2011	15,464
2001	13,891	2012	16,469
2002	13,750	2013	17,730
2003	14,610	2014	9,590[1,2]
2004	14,919	2015	11,830
2005	15,300	2016	14,313
2006	14,462	2017	22,477[3]
2007	11,287	2018	17,120
2008	15,054	2019	23,503[3]
2009	14,963	2020	14,194
2010	8,797	2021	12,407[2]
		2022	17,889

1. New meters were installed in 2014, after which data is more reliable.
2. Drought year
3. Reservoir spill year

3.1.2 Anticipated Future Growth in Demand

As a public water district, JVID has a responsibility to provide water to current and anticipated future customers, to the extent that water is available. JVID is aware of requests for water it has received from current and potential future customers. Some of these requests are more near-term and well defined than others. For these requests, some additional detail is provided below. **Table 3** provides a more complete evaluation of potential future demand for water from JVID, dividing potential future demand between requests for raw water and for treated water.

As of 2021, there were 114 meters connected to the treated water system, while 49 metered connections remain undeveloped within the JVID service area, for a total of

163 metered connections. It cannot be known when these lots will be developed, but JVID has a responsibility to ensure that water is available to serve them when they do. In addition, JVID is aware of the following existing and proposed projects that are not currently served by JVID, but for which preliminary discussions with the District have occurred:

- **Ione Band of Miwok Indians** – The houses on this parcel currently get their drinking water from a groundwater well which consistently has a sulfur smell. The Ione Band of Miwok Indians has requested that JVID provide treated drinking water to 12 housing units (up to 40 residents). This land is currently outside of the District boundaries and POU;
- **Buena Vista Rancheria of Me-Wuk Indians of California – Harrah's Northern California Casino** – Casino, hotel, restaurants, and RV park; completed in 2019, but not currently served by JVID;
- **Jackson Valley BioMass Power Plant** – Not currently operating, but maintaining a contract with JVID and may startup in the future; and
- **Potential Future Agricultural Development** – JVID has been contacted by landowners about the potential for the development and irrigation of approximately 4,500 acres of irrigable farmland within the JVID POU. The development of additional infrastructure would be needed to serve these areas.

As indicated in **Table 3**, future demand for water from JVID could total roughly between 13,000 and 30,000 af per year, of which treated water could total between 4 and 6 af per year.

JVID has a much greater capacity to provide raw water to customers than treated water. Treated water capacity is limited by the capacity of its water treatment plant. JVID owns and operates a domestic water treatment plant that serves the Lake Amador Resort with a population of 30 full-time residents and a campground with a population of up to 4,000 customers during camping season. In addition, a domestic water system was developed between 2014 and 2020 to serve an existing population of about 1,000 people within the Jackson Valley and Buena Vista areas (including The Oaks Mobile Home Park) and have adequate capacity for the known empty residential parcels [105 parcels at time of the 'JVID Potable Water System Capacity Analysis (Toma and Associates, 2020)]. Since publication of JVID's Potable Water System Capacity Analysis in 2020, the Western Amador Recycling Facility Transfer Station (1,000 gpd or 0.2 to 0.5 af per year) has connected to the potable water system, as anticipated. The Ione Band of Miwok Indians (approximately 12 homes, 3 -5 af per year) could connect within the next year.[3] The domestic water treatment plant was designed with a capacity that

[3] This was part of the original design capacity and is not considered future growth, although it has not yet been connected (Toma and Associates, 2020).

would allow approximately 20 additional hookups within the currently served areas. Any additional service beyond that capacity would require expanding both the treatment plant and storage tank, and there are no plans for any future expansions at this time.

Prior to authorizing any requests for water on lands outside of the current authorized POU, the District will need to file Petition(s) for Change and complete any required subsequent environmental review.

Table 3: Projection for Future JVID Water Demand

Use	Specifics	Quantity	Estimated Water Usage (af/yr)	Status
Treated Water				
Residences	Scattered throughout JVID service area	20 homes	4 – 6	1-20 years
Subtotal		20	4 – 6	
Raw Water				
Industrial	Jackson Valley Bio-Mass Power Plant	1 User	500 – 1,000	1-3 years
Industrial	U.S. Mines (existing operation)	1 User	500 – 750	1-3 years
Industrial	U.S. Mines (future expansion)	1 User	1,500 – 2,000	5-20 years
Hotel and Casino	Buena Vista Rancheria of Me-Wuk Indians of California-Harrah's California Casino	1 User	50 – 75	5-20 years
Agriculture	Lands within District	2,500 acres	5,000-10,000	1-20 years
Agriculture	Lands outside of District but within SOI	2,000 acres	4,000-8,000	1-20 years
Agriculture	Allocation for changes in cropping patterns	500 acres	500 – 2,000	1-5 years
Out-of-District Water Transfers	Potential Sale of surplus water	1 Transfer	500 – 3,000	10-30 years
In-Basin Groundwater Recharge	Work w/ Consumnes Groundwater Basin Recharge Projects	1 Transfer	500 – 3,000	10 – 30 years Amador, Sacramento, San Joaquin Counties
Subtotal			13,050 – 29,825	
TOTAL			13,054 – 29,831	

3.1.3 Reversions of Mokelumne River Water to AWA

As discussed in Section 2.2.3, the SWRCB has granted AWA water right application A5647X03 requesting the remaining 1,050 afa of its Mokelumne River right. This is water that otherwise would be available to JVID through Permit 12167. JVID will need additional time to perfect its Jackson Creek rights to supply its irrigation customers to replace the reduced availability of water from the Mokelumne River.

3.2 Requested Changes to JVID Water Rights

3.2.1 Diversion Amount, Timing, and Rate

Under the Petitions for Extension of Time, no changes to the amount, timing, or rate of diversions are being requested.

3.2.2 Purposes of Use

Under the Petitions for Extension of Time, no changes in the purposes of use for the water diversions are being requested.

3.2.3 Points of Diversion and Methods of Diversion

Under the Petitions for Extension of Time, no changes to the points of diversion or methods of diversion are being requested.

3.2.4 Places of Storage

Under the Petitions for Extension of Time, no changes to the places of storage for diverted water are being requested.

3.2.5 System Water Operations

Under the Petitions for Extension of Time, no changes to JVID water operations are being requested, though some minor changes to operations within the constraints provided by JVID water rights may occur in order to serve the additional demands anticipated in the future.

3.2.6 Time Provided for the Application of Water to Authorized Uses

JVID is requesting additional time to put all water authorized under P11224, P11589, and P12167 to full beneficial use. At present, the three Permits allowed until December 31, 2010, to put all water to beneficial use. The Petitions for Extension of Time, as amended, request until thirty years following the issuance of the amended water rights to make full beneficial use.

3.2.7 Construction Elements Associated with the Proposed Project

The proposed project would not directly result in any new construction, and no improvements are required or proposed. The proposed project may indirectly result in minor amounts of construction by allowing additional time for planned development to occur within the JVID service area, however insufficient information about these potential future activities is known to evaluate them at a project level. Therefore, where required by CEQA, an assessment of indirect effects is provided below to evaluate those future developments – predominantly residential and agricultural – that could occur should the Petitions for Extension of Time be granted.

4. Public Notices, Protests Received, and Permits and Approvals Required

4.1 Public Notice and Protests Received

Public Notice for the Petitions for Extension of Time for P11224, P11589, and P12167 was issued by the SWRCB on April 25, 2012. A protest against those petitions was filed by CDFW (then California Department of Fish and Game) on May 25, 2012. This protest expressed concerns regarding the potential adverse effects of the Petitions for Extension of Time related to:

- Direct, indirect, and cumulative impacts on resources within the Mokelumne River and Jackson Creek watersheds, and downstream tributaries; and
- Compliance with applicable Fish and Game Codes and Public Trust Uses within the subject watercourses.

The protest provides the following conditions, under which the protest may be dismissed:

- Provide adequate, complete, and scientifically supported environmental documentation for the project;
- Demonstrate compliance with applicable State laws, including sections of the Fish and Game Code;
- Demonstrate how basin plan-designated uses for streams will be protected;
- Complete studies to provide
    - Information, including instream flow studies, on aquatic resources in the Jackson Creek and Mokelumne River watersheds;
    - A habitat-based stream needs assessment that incorporates habitat, species and life stage criteria for fish and amphibian species specific to the Jackson Creek and Mokelumne River watersheds,
    - An instream flow assessment, including the identification of minimum bypass flows to maintain aquatic habitat, fish, and wildlife resources.

This protest has not yet been resolved.

4.2 Permits and Approvals Required

In addition to the issuance of amended permits by the SWRCB, it is expected that JVID will be required by CDFW to obtain a Streambed Alteration Agreement under Section 1600 et. seq. of the California Fish and Game Code. Because no new construction is anticipated to directly result from the proposed project, no other permits or approvals are anticipated to be required.

5. Impact Analysis

5.1 Overview of Impact Analysis

Pursuant to CEQA *Guidelines* Section 15063, an Initial Study (IS) should provide the lead agency with sufficient information to determine whether to prepare an Environmental Impact Report (EIR) or Negative Declaration (ND) for a proposed project. The CEQA *Guidelines* state that an IS may identify environmental impacts by use of a checklist, matrix, or other method, provided that conclusions are briefly explained and supported by relevant evidence. If it is determined that a physical impact to the environment could occur, then the checklist must indicate whether the impact is Potentially Significant, Less than Significant with Mitigation Incorporated, or Less Than Significant. A finding of No Impact may be used for issues that can be demonstrated not to apply to a proposed project and for which no further discussion is required.

5.2 Evaluation Terminology

The following terminology is used to describe the level of significance for the impacts identified for each resource topic discussed in Section 3.0.

- A conclusion of **no impact** is used when it is determined that the proposed project would not adversely impact the resource area under evaluation, even to only a minor degree.
- A conclusion of **less-than-significant impact** is used when it is determined that the proposed project's adverse impacts to a resource topic would not exceed the thresholds of significance identified in the analysis.
- A conclusion of **less-than-significant impact with mitigation incorporated** is used when it is determined that an adverse impact would be significant, but that mitigation measures are available to reduce the proposed project's adverse impact to below established thresholds of significance.
- A conclusion of **potentially significant impact** is used when it is determined that the proposed project's adverse impacts to a resource topic cannot be mitigated to a less-than-significant level and preparation of an environmental impact report would be required.

5.3 Environmental Topic Areas Potentially Affected

Impacts to the following topic areas are evaluated in Section 3.0. The topic areas indicated with check marks below indicate that the proposed project would have at

least one impact for which mitigation has been included to reduce it to a less-than-significant level. For the other topic areas, no mitigation is required.

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

SIGNIFICANCE DETERMINATION

On the basis of the environmental evaluation presented in **Section 5.0:**

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☑ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Signature	Date: 8/15/2025
Printed Name: Steven Fredrick	General Manager, Jackson Valley Irrigation District, Lead Agency

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?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In nonurbanized 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?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

ENVIRONMENTAL SETTING

The information in this section is taken from the Aesthetics chapter of the Amador County General Plan Final Environmental Impact Report (Amador County Planning Department [CPD] 2016).

Amador County is located in the central Sierra foothills between the South Fork of the Cosumnes River and the North Fork of the Mokelumne River. State Route (SR) 49 traverses the County from north to south through the historic mining areas of the Mother Lode, connecting the cities of Plymouth, Sutter Creek, Amador City, and Jackson.

Amador County, including within the JVID service area, has a broad range of landscapes that change with the gradual increase in elevation. Rolling hills dotted with mature oaks, oak woodlands and annual grasslands; agricultural land (e.g., field crops, vineyards, and livestock); conifer forests; rivers; lakes; and historic structures all contribute to the visual character found in the County. These visual resources contribute to the County's economy through tourism and recreational opportunities.

Scenic resources in Amador County consist of low-lying hills covered in annual grasslands in the western and central county, mountains in the eastern county, oak

woodlands, open space, and agricultural and rangeland with residences scattered throughout the hills.

The criteria for official designation and eligibility of roadways to be considered Scenic Roadways include the scenic quality of the landscape, how much of the natural landscape can be seen by travelers, and the extent to which development intrudes upon the traveler's enjoyment of the view. The California Department of Transportation (Caltrans) has designated SR 88 (Carson Pass Highway) as a state scenic highway from the Dew Drop Ranger Station, east, to the Alpine County line (Caltrans 2023). This facility is not within or near to the JVID service area.

A scenic vista is generally considered a distant view of an area that has remarkable scenery or of a resource that is endemic to the area. These scenic vistas are typically viewed from publicly accessible areas, including parks and roadways.

The most common scenic views in Amador County are open views of low-lying hills covered in annual grasslands, oak woodlands, and crop- and rangeland in the western portion of the County. Agricultural land uses, including barns, ponds, fences, and cultivated fields, as well as scattered rural residences, are visible throughout this area. Views gradually transition to conifer forests, including both forested rural residential areas and less built-up timber areas, in the eastern portion of the County.

ENVIRONMENTAL EVALUATION

Question a - Scenic Vista: Less-than-significant Impact.

No designated scenic vistas are identified by Caltrans or Amador County within the project area. Further, minor development that could occur within the service area in the future would not result in changes in land use, as land that is currently in urban uses would remain in urban uses, and lands in agricultural uses would remain in agricultural uses. Therefore, the proposed project would not change the character of views in the project area. Therefore, this impact is considered less than significant and no mitigation is required.

Question b - Scenic Resources: No Impact.

As noted above, no state Officially Designated or Eligible Scenic Highways are located within the project's viewshed or in the vicinity of the proposed project (Caltrans 2023). Thus, no scenic resources exist within the JVID service area that could be viewed from a scenic highway. Therefore, no impact would occur, and no mitigation is required.

Question c - Visual Character: No Impact.

The visual character within the project area includes many types of non-urban land uses, including residential areas, agricultural areas, open spaces, and forested areas. There are only small, isolated urban areas within the JVID service area. Implementation of the

proposed project would not result in any changes to the visual character of the lands within the JVID service area. Therefore, this impact would be less than significant and no mitigation is required.

Question d - Light and Glare: No Impact.

The proposed project would not result in the creation of any new sources of light or glare. Therefore, the project would result in no impact related to light or glare, and no mitigation is required.

II. AGRICULTURE AND FOREST 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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

ENVIRONMENTAL SETTING

Agriculture is important to Amador County because it contributes to the local economy, helps define the County's character, and provides access to a local food source. Amador County has identified eight major agricultural areas: Willow Springs, Ione Valley, Jackson Valley, Shenandoah Valley, the Fiddletown area, the Ridge Road area, Clinton Road/Tabeau area, and the Shake Ridge Road area. Other agricultural and timber areas of the County are generally characterized as the Rangeland and Timberland areas. Each of these areas has unique features that support a variety of agricultural land uses (Amador CPD, 2016).

JVID provides irrigation water to thousands of acres of agricultural lands within its service area, including lands producing nuts, vineyards, tree fruits, olives, grains, row crops, and irrigated pasture (AWA, 2017). JVID also provides water to support aquaculture uses.

Farmland Mapping and Monitoring Program

The California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) prepares, updates, and maintains Important Farmland Series Maps (Maps) as defined in subdivision (f) of Section 65560 of the Government Code, and prepares and maintains an automated map and data base system to record and report changes in the use of agricultural lands every two years on even numbered calendar years. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. Other farmlands are designated as Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.

FMMP maps indicate that much of the land within the Jackson Valley, and served by JVID, is designated as Prime Farmland. Other lands are listed as Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (DOC, 2023).

Williamson Act

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

Many of the agricultural parcels within the JVID service area are covered by Williamson Act contracts (Amador CPD, 2023).

ENVIRONMENTAL EVALUATION

Questions a, b, e - Important Farmland, Agricultural Production, Williamson Act, Zoning, Conversion to Non-Agricultural Use: No Impact.

The proposed project would involve extending the time allowed for JVID to provide irrigation water to lands not currently served by the District. Thus, the proposed project would support continued and expanded agricultural uses and production within the JVID service area. Further, the proposed project would not result in any lands being re-zoned or converted from agricultural to non-agricultural uses, nor affecting any properties under a Williamson Act contract. Therefore, there would be no impacts related to agricultural uses or conversion from agricultural uses.

Questions c, d - Forest Land/Timberland, Conversion to Non-Forest Use: No Impact.

No lands within the JVID service area are designated as Timberland Production Zone in the Amador County General Plan (Amador CPD, 2016). Therefore, there would be no impacts, including loss or conversion, related to forest land, timberland, or timberland zoned Timberland Production, and no mitigation is 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?				X
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?				X
c) Expose sensitive receptors to substantial pollutant concentrations?				X
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X

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.

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. Sources of ROG and NOX include motor vehicles, farming operations, 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 deep 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 (USEPA), 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 area is located in southwestern Amador County, within the Mountain Counties Air Basin (MCAB). Air quality planning and regulation within Amador County is under the jurisdiction of the Amador Air District (AAD). As required by the California Clean Air Act (CCAA), AAD has adopted rules and regulations concerning air pollutant sources to comply with the federal and state ambient air quality standards.

Criteria air pollutants, including ozone, ROG, NO_X, and inhalable particulate matter are regulated by the USEPA, the California Air Resources Board (CARB), and AAD. The CARB has established state 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 USEPA establishes federal 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."

Local Air Quality Regulations

Amador County is currently designated a nonattainment (moderate) area for federal ozone standards and a nonattainment (transitional) area for state ozone standards. All other federal and state air quality standards are designated as either attainment or unclassified (CARB 2023; USEPA, 2025).

SIGNIFICANCE THRESHOLDS

The AAD does not have adopted thresholds of significance that can be used to determine the significance of any project-related increases in emissions of criteria air pollutant emissions. AAD does maintain local standards for minimizing construction-related air quality impacts. Because there would not be any new direct construction- or operation-related emissions associated with the proposed project, the establishment of thresholds of significance for this analysis was not considered necessary.

ENVIRONMENTAL EVALUATION

Question a - Conflict with or obstruct air quality plan: No Impact.

The proposed project would extend the time allowed for JVID to perfect its water right permits and to serve any future increases in demand for water. The project itself would not directly result in any increases in emissions of air pollutants and would thus not conflict with or obstruct implementation of any applicable air quality plan. Therefore, the proposed project would have no impact and no mitigation measures are required.

Question b - Cumulatively considerable net increase of any criteria pollutant: No Impact.

As noted above, the proposed project would not result in any additional direct increases in emissions of air pollutants and thus would not result in a cumulative considerable net increase of any criteria pollutants. Therefore, the proposed project would have no impact and no mitigation measures are required.

Question c - Expose sensitive receptors to pollutants?: No Impact.

As noted above, the proposed project would not result in any additional direct increases in emissions of air pollutants and would thus not expose any sensitive receptors to substantial air pollutant concentrations. Therefore, the proposed project would have no impact and no mitigation measures are required.

Question d - Result in other emissions?: No Impact.

As noted above, the proposed project would not result in any additional direct increases in emissions of air pollutants and thus would not result in other emissions adversely affecting a substantial number of people. Therefore, the proposed project would have no impact and no mitigation measures are required.

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

REGULATORY SETTING

The following lists the various federal, state, and local environmental laws and regulations that apply to this project.

Federal

Federal Endangered Species Act - The federal 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 U.S. 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.

Compliance with ESA would be required if the proposed project if the construction or operation of the proposed project would result in "take" of any species listed under ESA or species identified as candidates for listing, or modification of their habitat.

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."

Compliance with CESA would be required if the construction or operation of the project would cause the incidental "take" of any State-listed plant or wildlife species known to occur within the project area.

California Fish and Game Code **-** California Fish and Game Code (CFGC) *§§*1600-1607 requires project proponents to obtain an LSAA from CDFW if a project would divert, obstruct, or change the natural flow of the bed, channel, or bank of any river, stream, or lake. An LSAA must also be issued if the project would use material from streambeds designated by CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit.

JVID may need to obtain an LSAA to cover the ongoing diversions from Lake Amador and Jackson Creek.

Amador County

The Amador County General Plan Open Space Element (Amador County, 2016) contains the following goals that may be applicable to the proposed project:

> Goal OS-3: Protect wildlife habitats, including sensitive environments and aquatic habitats, consistent with State and federal law.
>
> Goal OS-4: Protect special status species, including threatened and endangered species, consistent with State and federal law.

Amador County does not have specific policies or ordinances, such as a tree preservation ordinance, that address biological resources.

METHODOLOGY

The proposed project would not directly result in further development within its service area, so in consultation with CDFW, JVID determined that the proposed project was most likely to have impacts on aquatic habitats. In particular, the analysis focused on the biological resources of Jackson Creek. JVID conducted two evaluations of Jackson Creek:

- Biological Characterization – Jackson Creek (**Appendix B**; FISHBIO 2022a), and
- Jackson Creek Fish Community Characterization (**Appendix C**; FISHBIO 2022b).

The methodologies employed in these two studies are discussed below. In addition, a memorandum was prepared to evaluate the expected impacts of the changes in flows in Jackson Creek that would result from the projected changes in hydrology if the proposed project were implemented (**Appendix D**; FISHBIO 2025).

Biological Characterization – Jackson Creek

Study Purposes

The purposes of the biological characterization of the Jackson Creek watershed were to summarize JVID water operations, evaluate the flow regime of the creek, and provide information on the potential of special-status species to occur in the project area.

Methods and Data Sources

The City of Jackson operates a stream gauge upstream of the city's wastewater treatment facilities. Daily streamflow records from 2001 through 2021 (average cfs) were provided by the City of Jackson's wastewater operator.

Two readily accessible government websites were used to determine applicable critical habitat designations and aquatic species listed as threatened or endangered by the ESA. The first source is a project-planning tool (Information for Planning and Conservation; IPaC) provided by the USFWS (USFWS, 2015; accessed April 14, 2022).

The second source utilized was the National Oceanic and Atmospheric Administration (NOAA) Fisheries website (NOAA, 2015; accessed on April 14, 2022). Geographic information system (GIS) shapefiles were downloaded from the website and viewed using Google Earth Pro software.

CDFW's subscription service, the California Natural Diversity Database (CNDDB), was also used to determine the recent occurrence of aquatic and semi-aquatic amphibians and reptiles near the project area (accessed June 2022). The CNDDB is a dynamic database, updated by CDFW on a regular basis with new species survey results. While not an exhaustive or comprehensive inventory of all species, the data presented therein is the compilation of historical survey data presented to CDFW.

Research was conducted to determine if any previous assessments of the fish community of Jackson Creek below Lake Amador were available. None were found. CDFW staff visited the location in September and November, 2012. The first visit was intended to provide information about JVID's operation, while the second visit was to investigate the aquatic species present in the creek. There was no formal report produced and any data collected during this visit was not unavailable, despite recent efforts by CDFW staff to locate it.

Jackson Creek Fish Community Characterization

Study Purposes

After reviewing the Biological Characterization-Jackson Creek report, CDFW recommended that a field study be conducted to alleviate the lack of information on the fish communities occupying Jackson Creek below Lake Amador and to fulfill one of the suggested terms for dismissal of CDFW's Protest against JVID's Petitions for Extension of Time.

Methods and Data Sources

During correspondence with CDFW staff prior to the sampling event, it was agreed that backpack electrofishing was the most suitable method for evaluating the fish community composition of lower Jackson Creek. CDFW concurred that an effort of approximately 1,000 seconds of electrofishing at two different locations would provide an adequate sampling effort for characterizing the species and size classes present.

The fish community of lower Jackson Creek was sampled by backpack electrofishing on October 26, 2022 during sunny conditions. Discharge from Lake Amador was approximately 4.6 cfs (2,000 gpm). The two locations selected for sampling were sections upstream of the Buena Vista Road bridge and the SR 88 bridge. Sampling locations were considered representative of the aquatic habitat in the area, consisting of pool-run sequences with limited width (generally less than 2 m) and depth (typically less than 0.5 m). A single backpack electrofishing unit (Smith Root LR-24) was used to

sample fish from Jackson Creek at each location. The operator was assisted by two netters, proceeding upstream from the access points, and sampling until the target effort was reached. Fish were netted and placed in aerated holding buckets until processing.

Upon completion of sampling at each location, all fish were identified to species, using distinguishing morphometric[4] and meristic[5] characteristics. Anal fin ray counts were used to identify captured sculpin (riffle sculpin have 12–16 anal fin rays, while prickly sculpin have 16–19). Following identification, all individuals were measured to the nearest mm fork length (FL) for most species and total length (TL) for sculpin species and weighed to the nearest gram. Fish less than 30 mm in length were plus-counted[6]. Due to the moderate fish numbers in the catch, insufficient numbers were available to allow sub-sampling[7]. Sampled individuals were temporarily held in aerated holding buckets until processing was complete. After processing, all fish were released back into Jackson Creek near the point of capture.

ENVIRONMENTAL SETTING

General Watershed Conditions

During the summer months, under current conditions, Jackson Creek below Lake Amador receives flow from reservoir releases to satisfy water demand for commercial fish hatchery operations and agricultural irrigation. While this is expected to provide perennial or near-perennial aquatic habitat, discharge is managed to satisfy the demands of downstream users while minimizing outflow into Dry Creek. Thus, connectivity with Dry Creek, and subsequently the Mokelumne River, is naturally intermittent, providing limited opportunity for any anadromous fish species in those watercourses to use habitat in lower Jackson Creek.

The low elevation of this rain-fed system arguably contributes to intolerable thermal conditions for native salmonids and special status amphibians, even in years when downstream connectivity is temporarily established. Further, reptile and amphibian species of special concern are also unlikely to occur in the watershed, corroborated by lack of observations over the past several decades.

---

[4] Aspects of fish morphology that are measured (e.g., length, weight).

[5] Aspects of fish morphology that are counted (e.g., number of fins, spines, or later line pores).

[6] Fish of a particular species that are counted, but not measured.

[7] The practice of collecting detailed measurements of a subset of a catch to estimate population characteristics.

Evaluation of Presence of Special-Status Species

The report Biological Characterization-Jackson Creek (FISHBIO 2022a) evaluated the potential for a variety of fish, amphibian, and reptile species to occur within or near Jackson Creek below Lake Amador. The conclusions of this report with regard to individual species are summarized below:

- **Chinook salmon** (*Oncorhynchus tshawytscha*) - Due to the limited amount of discharge in Dry and Jackson creeks during the early portion of the migratory period, it is highly unlikely that FR Chinook salmon would be encountered in the project area.
- **Central valley Steelhead** (*O. mykiss*) - Much like Chinook salmon, *O. mykiss* presence is likely limited by naturally occurring low flows and elevated water temperatures. Therefore, *O. mykiss* presence is highly unlikely during the summer period, when aquatic habitat only persists in ponded areas with excessively high water temperatures.
- **California tiger salamander** (*Ambystoma californiense*) - As this species is generally reliant on vernal pool habitats and documented observations specifically within Jackson Creek are non-existent, it is unlikely that California tiger salamander occurs in lower Jackson Creek.
- **Foothill yellow-legged frog** (*Rana boylii*) - This species does not appear to utilize habitats in lower Jackson Creek.
- **California Red-legged frog** (*Rana aurora draytonii*) - This species does not appear to utilize habitats in lower Jackson Creek.
- **Sierra Nevada Yellow-legged frog** (*Rana sierrae*) - As this species generally occurs at elevations much higher than Lake Amador (325 ft) and lower Jackson Creek, it is unlikely that this species utilizes habitats in lower Jackson Creek.
- **Giant garter snake** (*Thamnophis gigas*) - As this species is highly reliant on rice fields common to the Sacramento Valley, it is unlikely that giant garter snakes occur in lower Jackson Creek, where no rice fields exist.
- **Northwestern pond turtle** (*Actinemys marmorata*) - While western pond turtles have been observed in Jackson Creek upstream of Lake Amador, there does not appear to be a substantial population as there are no additional documented observations of the species since 2002. Due to what appears to be a lack of a potential source population within lower Jackson Creek, it is unlikely that this species utilizes habitat in the creek downstream of Lake Amador.

In summary, lower Jackson Creek (downstream of Lake Amador) is highly unlikely to support any special status species due to its geographic and climate characteristics.

Lower Jackson Creek Fish Community

The fish community found at the two sampled locations, considered representative of lower Jackson Creek, consisted of a small number of native fishes, namely hitch (*Lavinia exilicauda*), Sacramento pikeminnow (*Ptychocheilus grandis*), Sacramento sucker (*Catostomus occidentalis*), and prickly sculpin (*C. asper*). The presence and abundance of hitch is perhaps the most noteworthy finding of this survey. Hitch, while having among the broadest environmental tolerances of native Central Valley fishes, can sometimes be found in cool, low-gradient streams such as Jackson Creek, although they more frequently occur in warm, low-velocity habitats. They are often closely associated with aquatic vegetation, which is abundant along the creek.

Hitch, as well as the three other species documented during the survey, were represented by multiple size and age classes. Given the infrequent connectivity to downstream habitats (flow typically does not reach Dry Creek or the Mokelumne River), it is assumed that their populations are self-sustaining and that successful reproduction occurs in Jackson Creek.

No non-native/introduced species were documented during the sampling event. Anecdotal accounts of anglers pursuing smallmouth bass (*Micropterus dolomieu*) suggest that non-native centrarchids may occur in the creek, though the failure to find these species in the survey suggests they are at low abundance levels. Discarded fishing tackle (braided line) at the Buena Vista Road bridge suggests that anglers may occasionally attempt to pursue sport fish in the creek. Their target species and angling success is unknown, but the latter is expected to be low based on the absence of bass or other species typically targeted by anglers from the results of sampling. The conspicuous absence of non-native fish fauna in Jackson Creek may be, at least partially, attributable to current operations of Lake Amador and Jackson Creek by JVID, which deliberately avoids connectivity to downstream habitats by only releasing the amount of water requested by the district's costumers, thus limiting opportunity for colonization of the creek by the abundant non-native fishes found in the Mokelumne River.

Critical Habitat

Lower Jackson Creek is not identified as critical habitat for any fish species.

ENVIRONMENTAL EVALUATION

Question a - Special-status species: Less-than-Significant Impact with Mitigation Incorporated.

Because the proposed project would not involve any ground disturbance, no impacts to terrestrial species are expected. Therefore, this analysis focuses on the impacts of changes in hydrology resulting from the extension of time for JVID to put all water under its water right permits to beneficial use.

FISHBIO (2022a, 2022b) identified no special-status species in lower Jackson Creek. FISHBIO did note that the fish assemblage of lower Jackson Creek was comprised of native warmwater species such as hitch, Sacramento pikeminnow, Sacramento sucker, and prickly sculpin. No non-native/introduced species were documented in this section of lower Jackson Creek. The conspicuous absence of non-native fish fauna in Jackson Creek stands in stark contrast to most other bodies of water in the Central Valley, and may be, at least partially, attributable to JVID operations, which deliberately avoids hydrologic connectivity to downstream habitats by only releasing the amount of water requested by the District's customers. This likely limits the opportunity for colonization of the creek by the abundant non-native fishes found in the Mokelumne River.

FISHBIO stated that "Given the infrequent connectivity to downstream habitats (flow typically does not reach Dry Creek or the Mokelumne River except during exceptionally wet conditions during the winter months, when Jackson Dam is spilling), it is assumed that their populations are self-sustaining and successful reproduction occurs in Jackson Creek."

The hydrologic regime would continue under the proposed project, with only very minor changes in flows in lower Jackson Creek. FISHBIO concluded that the current flow regime is protective of the current native fish community in Jackson Creek below Jackson Creek Dam. While no impacts on special status species or habitats are anticipated due to implementation of the proposed project, it is anticipated that CDFW and the SWRCB will require that water right holders implement a minimum instream flow to ensure that species and habitats are protected. Therefore, to ensure the protection of these biological resources, JVID will implement Mitigation Measure BIO-1.

Mitigation Measure BIO-1: JVID will Obtain a Streambed Alteration Agreement from CDFW

Within 30 days following the issuance of an amended permit pursuant to the Petitions for Extension of Time, JVID will submit an application to CDFW to obtain a Streambed Alteration Agreement (SAA). As part of this process, JVID will work with CDFW to identify a minimum bypass flow below Jackson Creek Dam that maintains the wetted area and supports a healthy and predominantly, perhaps exclusively, native fish community (FISHBIO 2022b). Bypass flows in accordance with past/historic operations (intended to be sufficient to meet downstream demands but without discharge leaving the Jackson Creek watershed during typical operations during the strive period) will serve to limit colonization opportunities for non-native species.

JVID will provide a copy of the SAA obtained from CDFW to the Deputy Director of Water Rights within 30 days following issuance of the SAA.

The implementation of Mitigation Measure BIO-1 will ensure that all biological resources in Jackson Creek below Jackson Creek are kept in good health and that no adverse impacts to them occur.

Question b – Riparian habitat: Less-than-Significant Impact with Mitigation Incorporated

As noted in FISHBIO (2025), "…the minor variation in discharge patterns predicted by hydrologic analysis is not expected to affect the extent, composition, or biological function of the wetland or riparian habitats along Jackson Creek…".

However, to ensure that these conditions are maintained, implement Mitigation Measure BIO-1, as described above.

The implementation of Mitigation Measure BIO-1 will ensure that all biological resources in Jackson Creek below Jackson Creek are kept in good health and that no adverse impacts to them occur.

Question c – State or Federally protected wetlands: Less-than-significant Impact with Mitigation Incorporated.

As noted in FISHBIO (2025), "…the minor variation in discharge patterns predicted by hydrologic analysis is not expected to affect the extent, composition, or biological function of the wetland or riparian habitats along Jackson Creek..."

Also, FISHBIO (2025) notes that "changes in reservoir operations that affect the amount of storage at various times of the year have the potential to influence wetland habitats along the margins of the reservoir. However, monthly changes in Lake Amador storage projected by hydrologic analysis generally do not exceed 1% of storage volume, except in November, when storage would increase by nearly 3%. Such minor projected variation is not expected to affect adjacent shoreline habitat or wetlands along the margin of the reservoir."

However, to ensure that these conditions are maintained, implement Mitigation Measure BIO-1, as described above.

The implementation of Mitigation Measure BIO-1 will ensure that all biological resources in Jackson Creek below Jackson Creek are kept in good health and that no adverse impacts to them occur.

Question d - Migratory Wildlife Movement: No Impact.

The proposed project does not include any elements that would create a barrier to wildlife movement, such as the development of lands currently serving as a wildlife movement corridor, or the erection of fences within such a corridor. As noted in FISHBIO (2025), "…the minor variation in discharge patterns predicted by hydrologic analysis is not expected to affect the extent, composition, or biological function of the

wetland or riparian habitats along Jackson Creek, nor alter the behavioral patterns of the wildlife that inhabit these areas."

Therefore, this impact is considered less than significant, and no mitigation measures are required.

Question e - Local Policy or Ordinance Conflicts: **Less-than-significant Impact.**

As noted in FISHBIO (2025), "In summary, the projected effects are sufficiently minor that no changes in condition are expected in Jackson Creek or adjacent biological communities, thus would not stand in conflict with any local policies or ordinances…"

Therefore, this impact is considered less than significant, and no mitigation measures are required.

Question f - Conservation Plan Conflicts: **No Impact.**

As of the preparation of this document, no conservation plans have been adopted within the JVID service area. Therefore, there would be no impact on an adopted conservation plan and no mitigation is 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?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?			X	
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

REGULATORY SETTING

CEQA requires that public agencies (e.g., JVID) having authority to finance or approve public or private projects assess the impacts of the projects on cultural resources. Cultural resources include buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance.

CEQA states that if a proposed project would result in an impact that may cause a substantial adverse change in the significance of a significant cultural resource (termed a "historical resource"), alternative plans or mitigation measures must be considered. Because only significant cultural resources need to be addressed, the significance of cultural resources must be determined before mitigation measures are developed.

CEQA §5024.1 (PRC §5024.1) and §15064.5 of the State CEQA Guidelines (14 CCR §15064.5) define a historical resource as "a resource listed or eligible for listing on the California Register of Historical Resources." A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2) Is associated with the lives of persons important to our past;
3) Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values; or
4) Has yielded, or may be likely to yield, information important to prehistory or history.

In addition, CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, and "unique archaeological resources." An archaeological resource is considered "unique" if it:

- Is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory;
- Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods (PRC §21083.2).

According to the State CEQA Guidelines, a project with an impact that may cause a substantial adverse change in the significance of a historical resource or a unique archaeological resource is a project that may have a significant impact on the environment (14 CCR §15064.5[b]). CEQA further states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

The State CEQA Guidelines (14 CCR §15064.5[e]) also require that excavation activities be stopped whenever human remains are uncovered, and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of a Native American, the Native American Heritage Commission must be contacted within 24 hours, and the provisions for treating or disposing of the remains and any associated grave goods as described in CCR §15064.5 must be followed.

CULTURAL SETTING

Prehistoric Archaeology

Based on archaeological evidence from decades of research, David Fredrickson proposed a sequence of cultural patterns for the central districts of the North Coast Range, identifying broad adaptive modes shared by multiple cultures across California (Fredrickson 1973, 1974, 1993). These different cultural modes could be characterized by similar technological skills and devices; economic modes, and mortuary and ceremonial practices.

More recent investigations (Rosenthal 2006) have proposed a revised cultural sequence for the central Sierra Nevada, identifying five major periods of Native American occupation over 11,000 years: Recent Prehistoric II (610–100 before present [BP]); Recent Prehistoric I (1,100–610 BP); Late Archaic (3,000–1,100 BP); Middle Archaic (7,000–3,000 BP); and Early Archaic (11,500–7,000 BP).

Rosenthal's sequence identifies a major shift between the Archaic and Recent Prehistoric periods. The Archaic period was a long-term, stable era characterized by small, mobile groups who relied primarily on pine nuts and used millingstones and handstones for food processing. In contrast, the Recent Prehistoric period was marked by population growth, intensified acorn processing and a wider range of plant foods, and more permanent settlement. Shifts in projectile point styles and the introduction of bedrock mortars reflect evolving subsistence strategies and increasing territoriality in the Sierra foothills (Rosenthal 2006).

Ethnographic Context

The Mi-Wuk people (also spelled Me-Wuk or Miwok) traditionally occupied the central Sierra Nevada range, adjacent foothills, and parts of the Sacramento-San Joaquin River valley (Barrett and Gifford 1933; Kroeber 1925). Although their precise arrival in the region is uncertain, linguistic evidence indicates that the Western (Bay/Coast) and Eastern (Valley/Foothill/Mountain) Mi-Wuk languages diverged approximately 2,500 years ago, with the internal time depth of the Sierra Mi-Wuk estimated at around 800 years (Levy 1978:398).

The first Euro-Americans entering the area found a well-established Mi-Wuk society whose territory stretched from the San Joaquin Valley to the high Sierra Nevada. Their

subsistence relied on the regions diverse plant and animal resources, with acorns serving as a staple food (Heizer and Elsasser 1980:10).

Within and near the JVID service area, the Buena Vista Peaks (the "Peaks") and the ethnographic village site of *Upüsani*, remain culturally significant to the regional Mi-Wuk people. These sites represent the tribe's origin in Mi-Wuk cosmology and reflect a long history of habitation and cultural continuity that persists through present-day practices (Davis-King and Younie 2019).

Historic Era Context

Although the Spanish had ventured into California's Central Valley as early as 1769, it was not until 1808 that Captain Gabriel Moraga explored the present-day Sacramento region; overall, the Spanish showed limited interest in the area (Lawson 2001; Wilson and Towne 1978). On the other hand, fur trappers, including Jedediah Smith in 1827, found the region highly profitable and established temporary camps and trading centers, but no permanent settlements (Peak & Associates 1997). The 1849 Gold Rush, however, led to a rapid influx of immigrants and the emergence of numerous mining camps along a 120-mile-long belt of gold mineralization known as the "Mother Lode" that ran through western Amador County.

Before California statehood, the area now known as Amador County included at least three voting precincts: Drytown, Volcano, and Buena Vista Ranch. When California became a state in 1850, Calaveras County was one of the original 27 counties that was organized (Hoover et al. 2002). However, due to local dissatisfaction, Amador County split from Calaveras in 1854, becoming a new county named after gold miner and native Californian Jose Maria Amador. Despite its small size, Amador County was a prosperous mining area during the Gold Rush, producing $180 million (Clark 1979:73). During this time, many towns within and near the JVID service area developed into important mining and agricultural hubs, including Buena Vista, which emerged at the intersection of present-day Buena Vista Road, and Jackson Valley Road.

Buena Vista Rancheria

Spanish colonial expeditions, the subsequent establishment of the mission system, and the Gold Rush caused widespread upheaval for California Native Americans through disease, violence, and cultural disruption (Castillo 1978:105). Between 1845 and 1855, the Native Californian population plummeted from approximately 150,000 to 50,000. By the late 19th century, the Me-Wuks in the Amador County area were reduced to a handful of individual families.

In the early 20th century, the federal government created a network of small "Rancherias" for landless Indian tribes in California. The United States purchased the Buena Vista Rancheria in 1927 with funds authorized under two acts, one in 1906 (34 Stat. 325–328), and another in 1908 (35 Stat. 70–76). However, in 1958, the U.S.

government terminated the Buena Vista Tribe's federal recognition through enactment of the California Rancheria Act. Subsequently, the Rancheria, which at the time comprised 67.5 acres, was conveyed in fee simple title to individual tribal members. In 1985, the Tribe regained its federal recognition under class action *Tillie Hardwick V. United States of America* (C-79-1710-SW) and the original boundaries of the Rancheria were restored and ordered to be treated as any other Indian reservation.

METHODOLOGY

Background Research

Typically, for projects where ground disturbance is expected to occur, a record search of the California Historical Resources Information System (CHRIS) would be conducted to determine if any previously-recorded cultural sites have been identified in the vicinity of the disturbance. For Amador County, the request would go to the North Central Information Center.

For this proposed project, no ground-disturbing activities are expected to occur as a direct result of implementing the proposed project. Further, the project area is a very large geographic area that encompasses the JVID service area and areas outside of it (see **Figure 1**). Because of these two factors, a record search was not determined to be necessary or appropriate.

Field Research

Because the proposed project would not directly result in any land disturbance, and because of the large size of the JVID service area, no field research was conducted for this project.

Native American Consultation

Solano Archaeological Services LLC (SAS) contacted the Native American Heritage Commission (NAHC) about the proposed project and received a response by letter from the NAHC indicating that a search of their Sacred Lands File resulted in a positive response, indicating that sacred lands had been identified within the JVID service area. The NAHC also provided a list of Native American tribes "who may also have knowledge of cultural resources in the project area".

SAS sent letters to each of the tribes listed in the NAHC letter on February 21, 2024. No responses have been received. Outreach to tribes as required by Assembly Bill 52 (AB 52) was also conducted, as described below under *XVIII. Tribal Cultural Resources*.

ENVIRONMENTAL EVALUATION

Questions a and b - Historical/Archaeological Resources: Less-than-significant Impact with Mitigation.

The proposed project would not directly involve any ground-disturbing activities or any construction. Therefore, there it is very unlikely that implementation of the proposed project would have a significant impact on any historical or archaeological resources. Therefore, this impact is considered less than significant, and no mitigation is required.

Question c – Human Remains: Less-than-significant Impact.

The proposed project would not directly involve any ground-disturbing activities or any construction, so it is very unlikely that implementation of the proposed project would have a significant impact related to human remains. Therefore, this impact is considered less than significant, and no mitigation is required.

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 impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				X
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

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 AB 1279 and Senate Bill [SB] 1020) sets a goal of 90 percent clean electricity by 2035, and 100 percent zero-carbon electricity by 2045.

On May 26, 2015 Amador County adopted the Energy Action Plan (EAP) as the County's roadmap for expanding energy-efficiency and renewable-energy (Amador County 2015).

The EAP was produced by Sierra Business Council, supported by Pacific Gas and Electric Company (PG&E), in Collaboration with County of Amador. The EAP contains goals, strategies, and actions related to energy consumed by buildings and municipal operations as well as the associated cost-savings from these efforts. It does not contain any goals, strategies, or actions related to water system operations or agricultural operations.

ENVIRONMENTAL EVALUATION

Question a – Wasteful, Inefficient, or Unnecessary Consumption of Energy: No Impact.

The proposed project would give JVID additional time to put all water under its water right permits to beneficial use. It would not directly require any new construction nor directly result in substantial changes to the amount of energy consumed or generated by JVID. It would not result in the wasteful, inefficient, or unnecessary consumption of energy resources; thus, there would be no impact related to energy consumption and no mitigation is required.

Question b – Conflict with State or Local Energy Plan: No Impact.

The proposed project does not involve any actions that would be covered by the Amador Energy Action Plan, as it would not change the amount of energy consumed by buildings or municipal operations, nor any significant direct changes to the operations of JVID. Therefore, the proposed project would not conflict with the EAP or any other energy-related plan, and no mitigation is 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? Refer to Division of Mines and Geology Special Publication 42			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
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?				X
f) Directly or indirectly destroy a unique paleontological site or unique geological feature?			X	

ENVIRONMENTAL SETTING

Geology and Soils

The information in this section is taken from the Amador County General Plan Final Environmental Impact Report Geology Chapter (Amador CPD, 2016)

Amador County is located in the foothills of the Sierra Nevada, on the eastern fringe of the Sacramento Valley. The County's elevation ranges from less than 300 feet above sea level at the western end of the County to a high of more than 9,000 feet in the easternmost portion of the County. The gently rolling Sierra Nevada foothills, in which the JVID service area is located, are comprised of metamorphosed sedimentary rocks that have been intruded by igneous rocks.

Amador County is located within an area with relatively low seismic activity. No Alquist-Priolo Earthquake Fault Zones are located in the County, though several inactive faults are known to be present. The likelihood for future earthquakes occurring in Amador County is relatively low. This conclusion is based on historical data and the location of Amador County in relation to potentially active faults. No major earthquakes have been recorded within Amador County, although ground shaking has been felt in Amador County from earthquakes with epicenters located elsewhere.

Liquefaction, which may occur under strong ground shaking during earthquakes, is the transformation of granular sediment or fill material from a solid state to a temporarily liquid state. Liquefaction is a serious hazard because buildings on ground which undergoes liquefaction may sink or suffer major structural damage.

Landslides refer to a wide variety of processes that result in the perceptible downward and outward movement of soil, rock, and vegetation under gravitational influence. Common names for landslide types include slump, rockslide, debris slide, lateral spreading, debris avalanche, earth flow, and soil creep. Although landslides are primarily associated with steep slopes (i.e., greater than 15 percent), landslides can also occur in areas of generally low relief. Landslides may be triggered by both natural- and human-induced changes in the environment resulting in slope instability Liquefaction and landslides can increase damage from ground-shaking. The only areas within the JVID service area that have been identified as potential landslide areas are located in the far eastern portion of the service area around Lake Amador.

Paleontological Resources

The potential paleontological importance of an area can be assessed by identifying the paleontological importance of exposed rock units within the project area. Because the areal distribution of a rock unit can be easily delineated on a topographic map, this method is conducive to delineating parts of a project site that are of higher and lower

sensitivity for paleontological resources and to delineating parts of the project site that may require monitoring during construction.

There are several sedimentary formations in Amador County ranging in age from Pleistocene to Eocene (Tertiary Period). The Modesto, Riverbank, Mehrten, and Ione Formations are known to have produced vertebrate fossils and therefore are considered to be of high paleontological sensitivity. A search of the University of California Museum of Paleontology (UCMP) database [conducted for the Amador County General Plan EIR] indicates that none of the other Tertiary Period deposits in Amador County are known to contain vertebrate fossils.

The remaining geologic formations in Amador County are of Mesozoic and Paleozoic age and have either been highly folded, faulted, and metamorphosed from high temperature and pressure; formed at depth beneath the earth's surface; or formed from eruption of lava on the earth's surface. These types of formations do not contain vertebrate fossils, and therefore are not considered to be paleontologically sensitive.

REGULATORY SETTING

Paleontological Resources

CEQA provides protection for unique paleontological resources and unique geologic features, and requires that impacts to such resources be evaluated. CEQA distinguishes between ubiquitous fossils that are of little scientific consequence, and those, which are of some importance by providing protection for the latter. While CEQA does not precisely define unique paleontological resources, criteria established by the Society of Vertebrate Paleontology (SVP) may provide guidance. The SVP defines a significant paleontological resource as one that meets one or more of the following criteria (SVP, 1995):

- Provides important information shedding light on evolutionary trends and/or helping to relate living organisms to extinct organisms;
- Provides important information regarding the development of biological communities;
- Demonstrates unusual circumstances in the history of life;
- Represents a rare taxon or a rare or unique occurrence, is in short supply and in danger of being destroyed or depleted;
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
- Provides important information used to correlate strata for which it may be difficult to obtain other types of age dates.

For the purpose of this analysis, a unique geologic feature is a resource or formation that:

- Is the best example locally or regionally;
- Embodies distinct characteristics of a geologic principal that is exclusive locally or regionally;
- Provides a key piece of geologic information important in geology or geologic history;
- Is a type locality of a geologic feature; or
- Contains a mineral not known to occur elsewhere locally or regionally; or is a common teaching tool.

ENVIRONMENTAL EVALUATION

Questions a – Risks to People and Structures from Seismic-Related Events. Less-than-significant Impact.

Implementation of the proposed project would not directly result in the construction of any habitable structures. While it is possible that some structures would be constructed as an indirect result of the requested extension of time to put all water to beneficial use, JVID is not aware of any such structures, and it would be speculative to try to determine where such structures, if any, would be built, but it is assumed that a building permit from Amador County would be required for any habitable structures, which would include an analysis of the site soils and adherence to the Amador County building code, including seismic requirements. Therefore, this impact is considered less than significant and no mitigation is required.

Question b - Soil Erosion. Less-than-significant Impact.

Implementation of the proposed project would not result in any activities that could contribute to soil erosion. JVID may be able to serve some additional agricultural customers if the extension of time is granted, but there is no evidence to suggest that this would result in increased soil erosion. Therefore, this impact is considered less than significant and no mitigation is required.

Question c, d - Unstable or Expansive Soils: Less-than-significant Impact.

Implementation of the proposed project would not directly result in the construction of any habitable structures. While it is possible that some structures would be constructed as an indirect result of the requested extension of time to put all water to beneficial use, JVID is not aware of any such structures, and it would be speculative to try to determine where such structures, if any, would be built, and on what types of soil. Further, it is assumed that a building permit from Amador County would be required for any

habitable structures, which would include an analysis of the site soils. Therefore, this impact is considered less than significant and no mitigation is required.

Question e - Septic: No Impact.

The proposed project does not directly include the creation of any wastewater or the creation of a septic system. If any new septic systems are required for residences or businesses that would be served by JVID in the future, it is assumed that the owners would be required to obtain permits from Amador County. Therefore, no impact would occur and no mitigation is required.

Question f - Unique Paleontological or Geologic Features: Less-than-significant Impact.

The proposed project would not directly result in any construction or ground-disturbing activities with the potential to directly or indirectly destroy a unique paleontological site or geological feature. While it is possible that some construction or ground-disturbing activities could occur as an indirect result of the requested extension of time to put all water to beneficial use, JVID is not aware of any planned construction, and it would be speculative to assess the location or extent of such activities. Therefore, this impact is considered less than significant, and no mitigation is 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?				X
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X

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, more frequent weather extremes, and increased 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 (Intergovernmental Panel on Climate Change [IPCC], 2013). The year 2023 was the warmest year since global records began in 1850. The 10 warmest years in the 174-year record have all occurred during the last decade (2014–2023). The global annual temperature increased at an average rate of 0.06°C (0.11°F) per decade since 1850 and more than three times that rate (0.20°C / 0.36°F) since 1982 (NOAA 2024).

Hotter days facilitate the formation of ozone, increases in the emission of air pollutants, and increases in impacts to public health and well-being (e.g., heat-related illness, heart and respiratory conditions, increased food-, water-, and vector-borne disease, mental health consequences) (USEPA 2023b). Because oceans tend to warm and cool more slowly than land areas, continents have warmed faster. If greenhouse gas emissions continue to increase, climate models predict that the average temperature at the Earth's surface is likely to increase by up to 8.3 degrees Fahrenheit above 2011 to 2020 levels by the end of this century, depending on future emissions and the response of the climate system to these changes (IPCC 2022).

Carbon is stored in nature within the atmosphere, soil organic matter, oceans, 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[8]. When the carbon cycle transfers more carbon to the atmosphere in the form of greenhouse gases, this can lead to global warming.

Naturally occurring greenhouse gases (GHGs) include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and O_3. Several classes of halogenated substances (those 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[9], do have an indirect effect by influencing the formation and destruction of ozone, which does absorb radiation. These gases, referred to here as ozone precursors, include CO, 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 heat absorptive characteristics of the atmosphere.

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

[8] Dissolution is the process whereby carbon dioxide from the atmosphere dissolves in water.

[9] Tending to lead to increased absorption of heat by the earth's atmosphere.

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 uses (6.9 percent), residential uses (5.8 percent), and agriculture (10 percent). Total U.S. emissions between 1990 and 2021 have decreased by 2.3 percent, 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. (USEPA 2023c[10])

REGULATORY SETTING

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, the 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, Executive Order B-30-15 and SB 32 extended the goals of AB 32 and set a 2030 goal of reducing emissions by 40 percent compared to 2020 levels. The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set in 2005 with Executive Order S-3-05.

The main initial strategies and roadmap for meeting the 1990 emission level reductions were outlined in a Scoping Plan approved in December 2008 and updated every five 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 human-caused greenhouse gas emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. The plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the human-caused 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)

[10] As of February 2024, the 1990 to 2021 greenhouse gas emissions inventory is the most recent approved source of data available for the United States. The Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022 was released February 14, 2024, but is not yet approved.

Significance Thresholds

The Amador County General Plan contains a variety of policies and programs aimed at reducing GHG emissions, including development and adoption of a comprehensive strategy to reduce GHGs within Amador County, and a GHG reduction plan to meet the reduction requirements of AB 32 and the Scoping Plan (Amador County 2016). CEQA Guidelines provides numerous tools for evaluating and addressing climate change in CEQA documents; however, the AAD and Amador County General Plan do not provide a quantitative significance threshold for project-related GHG emissions. Because there would not be any new construction- or operation-related emissions associated with the proposed project, the establishment of thresholds of significance for this analysis was not considered necessary.

ENVIRONMENTAL EVALUATION

Questions a and b: No Impact.

The proposed project would not directly result in the emission of greenhouse gases. No construction is required to implement the proposed project, and neither would the proposed project directly result in substantial changes in JVID operations. Therefore, the proposed project would not directly result in increased emissions of greenhouse gases, nor conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, there would be no impacts related to the emission of GHGs, and no mitigation is required.

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?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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?				X
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?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?			X	

ENVIRONMENTAL SETTING

Queries of the State Water Resources Control Board Geotracker (SWRCB 2023) and the California Department of Toxic Substances Control (DTSC) Envirostor (DTSC 2023) hazardous materials sites, and the USEPA Search for Superfund Sites Where You Live

(USEPA 2023a) indicate that several known hazardous materials sites are located near to the JVID service area (**Table 4**).

Table 4: List of Hazardous Materials Sites within the JVID Service Area

Source	Site	Status
Geotracker	Howard Properties – Old Stockton Road, Ione	LUST Cleanup Site, Completed
Geotracker	CDF Pine Lodge Forest Fire Station - 15035 Hwy 16, River Pines	LUST Cleanup Site, Completed
Geotracker	Caltrans Ione Maintenance Station – Marlette Road, Ione	LUST Cleanup Site, Completed
Envirostar	American Lignite Products Co, Inc. - Coal Mine Rd. Ione	Evaluation, No further action
Geotracker, Envirostor	MP Associates Inc. - 6555 Jackson Valley Road, Ione	State Response, Active
	Mother Lode Plating – 4482 Hwy 88, Ione	Inactive, Needs Evaluation

There are no construction activities directly associated with the proposed project.

There are no schools located within the JVID service area, or within 0.25 miles of the service area (Google Earth Pro 2023), and none are planned. The nearest schools to the project site are public schools in Ione, approximately 2 miles from the edge of the JVID service area.

Amador County Airport, also known as Westover Field, is a county-owned public-use airport located between the cities of Jackson and Sutter Creek. It is approximately 8 miles from the eastern edge of the JVID service area. Eagle's Nest Airport is a private airstrip located approximately 8 miles northwest of the City of Ione.

The Amador County Local Hazard Mitigation Plan 2020 (Amador County 2020) indicates that the area encompassing the JVID service area is within a wildland urban interface zone. The California Department of Forestry and Fire Protection (CAL FIRE; CAL FIRE, 2023) designates the areas within the JVID service area as generally Very High east of the community of Buena Vista, and a mix of Moderate and High west of Buena Vista.

The Amador County Office of Emergency Services (Amador County Fire Safe Council 2021) has designated several roadways within or near JVID as Evacuation Highways, including SR 88, SR 104, and SR 124. In addition, several roadways are designated as Primary Evacuation Routes, including: Buena Vista Road, Camanche Road, Camanche Parkway, Michigan Bar Road, Preston Avenue, West Marlette Street, Fairway Drive, and Shakeley Lane.

ENVIRONMENTAL EVALUATION

Question a - Hazardous Materials: Less-than-significant Impact.

The proposed project would not result in a significant change in project operations, so the use of hazardous materials involved in operating the proposed project would not materially change. Further, no construction would result directly from implementation of the proposed project, so no construction-related use of hazardous materials would occur. Therefore, this impact would be less than significant and no mitigation is required.

Question b - Accident Conditions: Less-than-significant Impact.

There would not be a change in the use of hazardous materials as a result of proposed project operations, and no construction would result directly from implementation of the proposed project. Therefore, the risk of accidental release of hazardous materials as a result of implementing the proposed project would not increase, this impact would be less than significant, and no mitigation is required.

Question c - One-Quarter Mile of School: No Impact.

No schools are located or planned within 0.25-mile of the project site. The nearest existing schools, in Ione, are located approximately 2 miles from the boundary of the JVID service area. Therefore, no impact related to the use of hazardous substances near a school would occur and no mitigation is required.

Question d - Hazardous Waste Site: No Impact.

While some hazardous waste sites are located in areas near the JVID service area, none are located within it. Further, the proposed project would not involve any changes that would expose persons or businesses to these hazards. Therefore, no impact related to public hazards due to the existence of a hazardous materials site would occur and no mitigation is required.

Questions e - Public 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 2 miles of the project site. Therefore, no impact would occur and no mitigation is required.

Question f - Interference with an Emergency Response Plan: No Impact.

Amador has designated several roads within and adjacent to the JVID service area as Evacuation Highways and Primary Evacuation Routes. The proposed project would not result in an increased concentration of large numbers of persons in any at-risk location, block any public roads that may be used as emergency routes, nor have a significant impact on the implementation of any emergency plans. Therefore, impacts would be less-than-significant impact and no mitigation is required.

Question g - Wildland Fire Hazards: Less-than-significant Impact.

The proposed project is in a wildland urban interface zone. However, the proposed project would not result in the construction of any new structures, increase population, nor in any other way expose people to an increased risk due to wildland fires. Therefore, this impact would be less than significant, and no mitigation is 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 ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, 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; iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	
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?			X	

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
ii. a significant reduction in water supply, either on an annual or seasonal basis, to senior water right holders downstream of the diversion? 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

Jackson Creek is a 26.4 mile-long tributary to Dry Creek, which is itself a tributary of the Mokelumne River (**Figure 2**). The Mokelumne River then flows into the San Joaquin River west of Lodi, CA. The overall Jackson Creek watershed drains an area of nearly 90 square miles in Amador County, about 62 percent (56 square miles) of which are above Lake Amador.

The climate of the Jackson Creek watershed is characterized by cool, relatively wet winters and hot, dry summers. With no portion of the watershed above 3,000 ft in elevation, the Jackson Creek hydrograph is entirely driven by rainfall during the fall, winter and spring, as well as associated minimal snow runoff. While primarily rainfall driven, at the creek's latitude of approximately 38.3, the snowline altitude on April 1 is about 5,000 ft.

In this sub-humid precipitation zone, the duration of surface flow can range from 90 to 365 days a year. Summers are long and hot with little or no rainfall.

Portions of the JVID service area adjacent to Jackson Creek are within a Special Flood Hazard Area Subject to Inundation by the 1% Annual Chance Flood, With No Base Flood Elevations (Federal Emergency Management Agency [FEMA], 2024). According to the DWR Best Available Maps (DWR 2024), the project area is not located within the 200-year or 500-year floodplain. 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.

The project area is within the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB; Region 5) and covered by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (CVRWQCB, 2019), within the San Joaquin Hydrologic Basin. Beneficial uses associated with Jackson Creek include municipal and

domestic drinking water supply, contact and non-contact recreation, fish migration, cold freshwater habitat, and fish spawning. Typical pollutants of concern associated with these beneficial uses include chloride, nitrates, specific conductivity, pH, bacteria, dissolved oxygen, and temperature, among others. Water quality in Jackson Creek is generally good and it is not listed on the SWRCB's Section 303(d) list of impaired water bodies for any of these pollutants (SWRCB 2024).

REGULATORY FRAMEWORK

Porter-Cologne Water Quality Control Act

California Water Code Section 13260 requires "any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements [WDRs])." Under the Porter-Cologne Water Quality Control Act definition, waters of the state are "any surface water or groundwater, including saline waters, within the boundaries of the state." Although all waters of the United States that are within the borders of California are also waters of the state, the reverse is not true. Therefore, California retains authority to regulate discharges of waste into any waters of the state, regardless of whether the U.S. Army Corps of Engineers (USACE) has concurrent jurisdiction under Clean Water Act (CWA) Section 404. If USACE determines that a wetland is not subject to regulation under Section 404, CWA Section 401 water quality certification is not required. However, the Regional Board may impose WDRs if fill material is placed into waters of the state.

Clean Water Act (Sections 404 and 401)

Any project that involves discharge of dredged or fill material into jurisdictional Waters of the U.S. must first obtain authorization from USACE, under Section 404 of the CWA. Projects requiring a 404 permit under the CWA also require a Section 401 certification from the Regional Water Quality Control Board (RWQCB). These two agencies also administer the National Pollutant Discharge Elimination System (NPDES) general permits for construction activities disturbing one acre or more.

METHODOLOGY

Hydrologic Modeling

Wagner & Bonsignore Consulting Engineers conducted a hydrologic analysis to evaluate potential impacts to Lake Amador storage and flows in lower Jackson Creek if the Petitions for Extension of Time are granted (Wagner & Bonsignore 2025).

Historical data for the period of January 2001 (beginning of last approved permit extension period) through December 2024 were evaluated based on the following information sources:

- District records of volume in storage in Lake Amador;
- District provided records of Jackson Creek flows measured at City of Jackson gage (through December 2024);
- District provided historical irrigation use and estimated built-out irrigation demand for irrigation water users receiving water delivered directly from the creek system and delivered via the 36" main line;
- District records of Lake Amador releases including records of amounts flowing through hydroelectric power Generators 1 through 4 and the 24" cone valve, Jackson Creek weir measurements, fish farm flow meters, the 36" irrigation main line flow meter, and spillway flow measurements;
- U.S. Geological Survey (USGS) StreamStats tool was used to correlate flows from City of Jackson gage to Jackson Creek Dam, which impounds Lake Amador, to evaluate the amount of inflow to Lake Amador from Jackson Creek;
- Annual reports for Statement S014122 were used to estimate monthly diversion amounts to be deducted from available flow into Lake Amador; and
- Records of Mokelumne River water diverted to Lake Amador by the District.

Together, these data of Lake Amador levels and Jackson Creek streamflows depict the typical existing or baseline operations of JVID. Potential impacts to Lake Amador storage and Jackson Creek flows below Lake Amador were evaluated by comparing the historic data against simulated conditions assuming full diversion of the authorized water requested under the water right permits.

The analysis assumed the proposed project would divert all Jackson Creek flows to direct diversion and storage up to the available flow for the period evaluated as limited by lake capacity (22,000 af), flow capacity of the 36" mainline (22,500 gpm), and limitations of the two permits.

ENVIRONMENTAL EVALUATION

Questions a and e - Water Quality: Less-than-significant Impact.

Because the proposed project would not involve any ground disturbance, no construction impacts to water quality are expected to occur. Therefore, this analysis focuses on the impacts of changes in hydrology resulting from the extension of time for JVID to put all water under its water right permits to beneficial use.

As discussed above, the project area is covered by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (CVRWQCB 2019), where typical pollutants

of concern include chloride, nitrates, specific conductivity, pH, bacteria, dissolved oxygen, and temperature, among others. Jackson Creek is not listed on the SWRCB's Section 303(d) list of impaired water bodies for any of these pollutants (SWRCB 2024), and additional time for JVID to put the full amount of water allowed under the proposed project to beneficial use would not result in new pollutants entering waterways. The only exception could be temperature, which could change due to changes in stream flows and thereby affect the beneficial use designated for fish (cold freshwater habitat). Water temperatures can increase when shading vegetation is removed, or when water is diverted from a stream, resulting in shallower water depths that are more susceptible to increases in temperature. No vegetation removal is proposed under this project and the results of the hydrologic analysis indicate that average monthly flows in Jackson Creek will increase every month of the year. Under existing and future operations, there is limited connectivity to Dry Creek and the Mokelumne River, as the District deliberately balances releases from Jackson Dam to ensure, to the maximum extent feasible, that water released for irrigation purposes is used by customers before the creek leaves the District's service area at the downstream end.

The hydrologic regime would continue under the proposed project, with only very minor changes in flows in lower Jackson Creek, and no significant changes in water temperature are expected. Therefore, the proposed project would have a less-than-significant impact on water quality and no mitigation is required.

Question b - Groundwater Supply: No Impact.

Operation of the proposed project would not result in any changes to the use of groundwater, replenishment of groundwater or the quality of groundwater. Therefore, no impacts would occur and no mitigation is required.

Question c - Stormwater Runoff: **Less-than-significant Impact.**

No construction is directly proposed with the proposed project that could result in erosion, an increase in the rate or amount of surface runoff, or impacts to flood flows. While it is possible that some structures would be constructed as an indirect result of the requested extension of time to put all water to beneficial use, JVID is not aware of any such structures, and it would be speculative to try to determine where such structures, if any, would be built. It is assumed that a building permit from Amador County would be required for any new structures, which would ensure that any development that occurs would implement a site-specific Stormwater Pollution Prevention Plan (SWPPP) as required under NPDES. Therefore, this impact is considered less than significant and no mitigation is required.

Question d - Seiche, Tsunami, Mudflow: No Impact.

The project area is located more than 100 miles from the Pacific Ocean, and thus not subject to impacts from tsunamis. Although near Lake Amador, the proposed project

does not directly include the construction of any habitable structures that could be at risk from seiches or mudslides, or any other form of mass wasting, which occur on steep slopes in areas that contain susceptible soils or geology. Therefore, no impact would occur and no mitigation is required.

Question f – Changes in Water Volume or Flows: Less-than-significant Impact.

The proposed project does not request an increase in the amount of water allowed to be appropriated under the water right permits, rather it is requesting additional time to put the previously approved volume of water to beneficial use. Therefore, this Initial Study does not need to assess whether there is sufficient total water available for Permits 11589 (A012342A), 11224 (A017605), and 12167 (A005648B), as the total amount of water available was deemed sufficient by the SWRCB when issuing the permits. This Initial Study therefore assesses whether the utilization of the total permitted water would cause significant impacts due to change in seasonal flows. As shown in **Table 5** below, the proposed project would not decrease flows in Jackson Creek, and therefore would not have a significant impact on water supply or riparian habitat. Average monthly flows in Jackson Creek below Lake Amador are projected to increase slightly (1.1 cfs or less) for every month of the year, except in March and April where flows are projected to increase by 3.4 and 2.2 cfs, respectively. These changes in flow are considered relatively minor compared to existing flows, and may be within the margin of error for the analysis (Wagner & Bonsignore 2025).

Table 5: Average Monthly Change in Flow Below Jackson Creek Dam

Month	Average Historical Flows (af)	Projected Average Flows with Project (af)	Estimated Volume Change (af)	Estimated Flow Change (cfs)	Estimated Change (%)
January	4,681	4,723	41.5	0.7	0.89%
February	4,237	4,260	22.4	0.4	0.53%
March	6,059	6,270	211.0	3.4	3.48%
April	3,041	3,170	128.7	2.2	4.23%
May	669	693	24.9	0.4	3.73%
June	702	750	48.0	0.8	6.84%
July	746	766	20.8	0.3	2.80%
August	730	787	56.8	0.9	7.78%
September	635	701	66.0	1.1	10.40%
October	342	411	68.5	1.1	20.01%
November	81	97	15.8	0.3	19.37%
December	636	661	25.2	0.4	3.96%

Source: Wagner & Bonsignore 2025

The proposed project would slightly increase the amount of water stored in Lake Amador prior to its release to Jackson Creek. Average monthly storage in Lake Amador is projected to increase by less than 200 af (less than 1% of lake capacity) for every month except for November, where storage is projected to increase by 342 af (less than 2% of lake capacity). These changes in storage are considered minor in relation to the storage capacity of Lake Amador, and probably within the margin of error for the analysis (Wagner & Bonsignore 2025). Furthermore, while "changes in reservoir operations that affect the amount of storage at various times of the year have the potential to influence wetland habitats along the margins of the reservoir, these monthly changes in Lake Amador storage projected by hydrologic analysis generally do not exceed 1% of storage volume, except in November, when storage would increase by nearly 3%. Such minor predicted variation is not expected to affect adjacent shoreline habitat or wetlands along the margin of the reservoir" (FISHBIO 2025).

Minor variations in Jackson Creek discharge patterns predicted by the hydrologic analysis are not expected to affect the extent, composition, or biological function of the wetland or riparian habitats along Jackson Creek, nor alter the behavioral patterns of the wildlife that inhabit these areas. During the irrigation season, releases into Jackson Creek are carefully managed such that, to the maximum extent feasible, all released water intended for irrigation uses will be taken up by customers before Jackson Creek leaves the District's service area at the downstream end, which ensures no invasive species from downstream Dry Creek and Mokelumne River become established in Jackson Creek. Therefore, the potential impacts to Jackson Creek due to changes in stream flows or volumes would be less than significant.

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?				X
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 mitigation an environmental effect?				X

ENVIRONMENTAL SETTING

The project site is located in an incorporated area of Amador County. Land uses in the project area are regulated by Amador County through the Amador County General Plan (Amador County, 2016) and the Amador County Ordinance Code, including the Zoning Code.

Lands within the JVID service area have General Plan designations and are zoned for a variety of uses. The predominant use is agricultural, but there are also some small areas with residential and industrial uses.

At present, there are no Habitat Conservation Plans or Natural Community Conservation Plans prepared under the Endangered Species Act or the California Endangered Species Act within Amador County.

ENVIRONMENTAL EVALUATION

Question a - Physically Divide a Community: **No Impact.** The proposed project would not result in any changes in land use, or the construction of major infrastructure projects that would lead to the division of a community. Therefore, there would be no impacts related to the division of a community and no mitigation is required.

Question b - Land Use Plan Conflict: No Impact. The proposed project does not involve and would not result in any changes in land use that could create a conflict with an existing land use plan. Therefore, there would be no impacts related to conflicts with a land use plan and no mitigation is 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?			X	
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?			X	

ENVIRONMENTAL SETTING

Mineral extraction is an important part of Amador County's history and economy. A variety of mineral resources are present in Amador County, many of them being actively mined. Portions of the JVID service area are within designated Mineral Resource Zones containing clay, sand, and lignite resources (Amador CPD 2016). There are several active mines north of the JVID service area, as well as within the service area, including the Jackson Valley Quarry.

ENVIRONMENTAL EVALUATION

Questions a and b: Loss of Availability of Mineral Resources. Less than Significant Impact.

Portions of the JVID service area are designated as Mineral Resource Zones and contain active mining operations or significant mineral deposits. However, the proposed project does not involve any construction activities or physical changes to the environment with the potential to adversely impact the availability of mineral resources or mining operations. 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 is 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?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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 areas to excessive noise levels?			X	

ENVIRONMENTAL SETTING

The JVID service area contains primarily agricultural and open space areas, removed from significant noise sources. The noise environment is characterized by sounds from recreational activities such as boating, general agricultural machinery use, trucks on agricultural roadways, sound generated from industrial uses, and sound generated when the generating station at Jackson Dam is operated (though the sound levels are minimal outside of the block building in which the generators are located).

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 also may include areas that contain threatened or endangered biological species that are known to be sensitive to noise.

The only substantial noise sources identified within the JVID service area in the Amador County General Plan Noise Element (Amador County 2016) are the arterial roadways (SR 88, SR 104, SR 124, Buena Vista Road, Jackson Valley Road, and Camanche Road). The General Plan also includes projected noise levels along these roadways in the year 2030, with increases in noise projected for SR 88, SR 104, and SR 124.

Amador County Airport, also known as Westover Field, is a county-owned public-use airport located between the cities of Jackson and Sutter Creek. It is approximately 8

miles from the eastern edge of the JVID service area. Eagle's Nest Airport is a private airstrip located approximately 8 miles northwest of the City of Ione.

No sensitive land uses are located within the JVID service area, or within 1,000 feet of the service area. The nearest sensitive noise receptors are public schools in Ione, approximately 2 miles from the edge of the JVID service area.

REGULATORY FRAMEWORK

Definitions

Sound is a change in air pressure, the level of which is expressed in decibels (dB). A decibel is logarithmic measure of the intensity of sound (change in air pressure) relative to zero (no change). Therefore, sound can be easily quantified and measured.

Although the human ear is able to detect a wide range of sound pressure changes, the ear is not equally sensitive to all sound frequencies. To account for the pitch of sounds and an average human ear's response to such sounds, a unit of measure called an A-weighted sound pressure level (dBA) is used.

CNEL (Community Noise Equivalent Level): CNEL is an average of 24-hour Leq (average sound level) with a 10 dBA "penalty" for noise events that occur during the noise-sensitive hours between 10:00 p.m. and 7:00 a.m. In other words, 10 dBA is added to noise events that occur in the nighttime hours, and thus contributes to a higher overall noise level when determining compliance with noise standards. An additional 5 dBA "penalty" is added to noise events that occur during the noise- sensitive hours between 7:00 p.m. to 10:00 p.m.

The Amador County General Plan Noise Element (Amador County 2016) provides local policies to control and abate environmental noise, and to protect the citizens of Amador County from excessive noise exposure.

The County General Plan contains exterior and interior noise level standards for residential and non-residential land uses. Table N-3 in the General Plan lists maximum interior and exterior noise levels for various land uses. An interior noise maximum of 45 dbA CNEL is set for all land uses to which this applies. An exterior noise maximum of between 60 and 75 dbA CNEL is set for various land uses.

ENVIRONMENTAL EVALUATION

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

Questions a, b, and c: Increased Exposure to Noise or Vibration. Less-than-significant Impact.

The JVID proposed project would not directly result in any construction, and while it may indirectly result in construction by allowing additional time for development within the JVID service area to occur, insufficient information about these indirect impacts is available to evaluate their noise impacts. Therefore, the proposed project would not result in any direct construction-related impacts.

The proposed project could result in some minor changes to the operation of Jackson Dam, including increases in the amount of time that water is released through the generator station to create hydroelectric power. While the projected noise decibels would not change due to the potential for longer operational time of the hydroelectric facility, the CNEL (average sound across a 24-hour period) could increase in the vicinity of Jackson Dam. However, there are no residential or other sensitive receptors within 500 feet of the dam and therefore any slight increases in CNEL would not affect any sensitive receptors. Therefore, impacts related to noise are considered less than significant and no mitigation is 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 unplanned growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

ENVIRONMENTAL SETTING

The JVID service area is designated principally for agricultural and open space uses, though JVID also serves some industrial and residential areas.

ENVIRONMENTAL EVALUATION

Question a – Growth Inducement: Less-than-significant Impact.

Implementation of the proposed project would not directly involve the construction of any new development. By allowing JVID some additional time to perfect their water right, the proposed project could allow JVID to provide water to a small amount of new development, but this new development would be relatively small (limited by the capacity of the drinking water treatment plant), as summarized in **Table 3**. Further, any growth would not be induced by JVID, but would allow JVID to accommodate a limited amount of growth approved by Amador County. Therefore, this impact is considered less than significant and no mitigation is required.

Questions b – Housing Displacement: No Impact.

The proposed project would not involve any actions that would displace either housing units or people, so no replacement housing would be required. No impact would occur and no mitigation is required.

XV. PUBLIC SERVICES

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

ENVIRONMENTAL SETTING

Public services provided by Amador County within the JVID service area include fire, police, school, library, and park services.

Fire protection and emergency services within the JVID service area are provided by the Jackson Valley Fire Protection District (JVFPD; JVFPD 2023). JVFPD has cooperation and mutual aid agreements with other surrounding fire protection districts in Amador County (Amador CPD 2016).

The Amador County Sheriff's Office (Sheriff's Office) provides law enforcement services to the unincorporated areas of Amador County. Amador County Sheriff's Office and Jail is located at 700 Court Street, in the City of Jackson (Amador CPD 2016).

The Amador County Unified School District operates 13 schools throughout Amador County (Amador CPD 2016). The closest schools to residents within the JVID service area are:

- Ione Elementary School, 415 South Ione, Ione
- Ione Junior High, 450 South Mill Street, Ione
- Argonaut High, 501 Argonaut Lane, Jackson

Amador County residents have access to several civic and cultural facilities, including community buildings, museums, programs by the Amador County Arts Council, and a senior center. The closest branch of the Amador County Library is located in Ione (Amador County Library 2023).

ENVIRONMENTAL EVALUATION

Questions a, b, c, d, and e - Fire/Police/Schools/Parks/Other Services: No Impact.

Implementation of the proposed project would not result directly in the construction of any new homes or businesses. By allowing JVID some additional time to perfect their water right, the proposed project could allow JVID to provide water to a small amount of new development as approved by Amador County. Therefore, the project would not directly result in an increase in the demand for fire or emergency services that would require the provision of new or physically altered fire facilities.

The proposed project would not create additional demand for, nor result in the need for new or altered facilities for police protection, schools, parks, libraries, or health services, as it does not include the construction of any new housing or employment opportunities, Therefore, the proposed project would have no impact related to public services, and no mitigation is required.

XVI. RECREATION

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

ENVIRONMENTAL SETTING

Many recreational opportunities exist within or near to the JVID service area. Within the JVID service area, Lake Amador provides many recreational opportunities including boating, fishing, wildlife viewing, and camping (Lake Amador Resort 2023). In addition, there are numerous recreational opportunities near to the JVID service area. Lake Pardee, operated by EBMUD and located east of Lake Amador, provides camping, fishing, boating, hiking and wildlife viewing opportunities (Calaveras Visitors Bureau 2023).

In addition, there are several public parks within the City of Ione, located just north of the JVID service area (Amador County Recreation Agency [ACRA], 2023), including:

- Grover Park,
- Heath Knoll Park,
- Perry Earl Park,
- Howard Park,
- Train Park, and
- Oakridge Park.

ENVIRONMENTAL EVALUATION

Question a: Increased Usage. No Impact.

Because the proposed project would not directly result in the creation of any new employment or housing, it would not create any increase in the use of or demand for neighborhood or regional parks. As such, the project would not result in substantial

physical deterioration of any recreation facilities. Therefore, no impact would occur and no mitigation is required.

Question b: Require New or Expanded Facilities. **No Impact.** Development of the proposed project would not include public recreation facilities, nor require the construction or expansion of any recreation facilities. Therefore, no impact would occur and no mitigation is required.

XVII. TRANSPORTATION/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 establishing addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

ENVIRONMENTAL SETTING

Access to and within the JVID service area is provided by a large number of arterial roadways, major collector roads, and local roads. All arterial roadways within Amador County are state highways (state routes). The major facilities include:

- SR 88,
- SR 104,
- SR 124,
- SR 49,
- Jackson Valley Road,
- Buena Vista Road, and
- Camanche Road.

Public transit in Amador County is provided by a single operator, Amador Transit. Amador Transit is administered by the Amador County Transportation Commission and was formed through a joint powers agreement with Amador County and each of the incorporated cities. It provides general public deviated fixed route service[1] within the unincorporated areas of Amador County and the five incorporated cities (Jackson, Sutter Creek, Ione, Plymouth, and Amador City). It also provides regional service to Sacramento County (Amador CPD 2016).

According to the Amador County Fire Safe Council (2021), the primary evacuation routes in the vicinity of the JVID service area are:

- SR 104,
- SR 124, and
- SR 88.

According to the Amador County Pedestrian and Bicycle Plan, adopted by the Amador County Transportation Commission (CTC; Amador CTC 2017), Amador Transit (AT) is the primary provider of public transportation services within Amador County. AT provides general public deviated fixed route service and Dial-a-Ride door to door service within Amador County as well as a regional service to Sacramento County. The only route within the JVID service area is Route 7 which travels between Ione, The Oaks/Buena Vista, and Sutter Creek (Amador Transit 2023).

According to the Amador County Pedestrian and Bicycle Plan, there are no pedestrian facilities within the JVID service area, as this area is rural and predominantly agricultural. The only designated bicycle route is U.S. Bicycle Route 50, which runs along Michigan Bar Road from the Sacramento County Line to its intersection with SR 104, then along SR 104 to its intersection with SR 88. The route then follows SR 88 east into the Sierra Nevada Mountains.

REGULATORY SETTING

In accordance with SB 743, CEQA Guidelines Section 15064.3, subdivision (b) was adopted in December 2018 by the California Natural Resources Agency. These revisions to the CEQA Guidelines criteria for determining the significance of transportation impacts are primarily focused on projects within transit priority areas, and shift the focus from driver delay to reduction of greenhouse gas emissions, creation of multi-modal networks, and promotion of a mix of land uses.

The impacts of a development are sometimes evaluated in terms of vehicle miles traveled, or VMT, which is a measure of the total number of miles driven to or from a development and is sometimes expressed as an average number of miles per trip or per person.

The Office of Planning and Research (OPR) published its Technical Advisory on Evaluating Transportation Impacts in CEQA Guidelines (Technical Guidelines) to provide California agencies with guidance regarding the implementation of CEQA Guidelines Section 15064.3. As part of OPR's Technical Guidelines, a number of project screening criteria were suggested to determine whether a quantitative VMT analysis is necessary, or if a land use project could be assumed to have a less-than-significant transportation impact due to certain project characteristics. One of those screening criteria is meant to address the transportation impact of "small projects". OPR's Technical Guidelines defines "small projects" as those projects that would generate fewer than 110 trips per day, which it states can generally be assumed to cause a less-than-significant transportation impact. The justification for this determination is provided by OPR is as follows:

> "CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact."

ENVIRONMENTAL EVALUATION

Question a – Circulation System Conflict: Less-than-significant Impact.

The proposed project would not directly result in the generation of a significant amount of additional traffic. A small amount of additional traffic may indirectly result from implementation of the proposed project, if irrigation water is provided to an area not currently in agricultural use, or if more intensive agricultural use would be allowed by the provision of irrigation water. JVID does not anticipate the provision of treated water to a significant number of new residences or businesses. However, by allowing JVID some additional time to perfect their water right, the proposed project could allow JVID to provide water to a small amount of new development as approved by Amador County. Therefore, at most only a small amount of additional traffic may be generated by the proposed project, but the amount of traffic would be very small and would not conflict with an existing transportation plan. This is a less-than-significant impact and no mitigation is required.

Question b – VMT: Less-than-significant Impact.

There is no construction associated with the proposed project and, as discussed under Question a) above, only a small amount of traffic may indirectly result from the additional time provided for the District to perfect its water rights. The proposed project would allow JVID to accommodate a limited amount of growth approved by Amador County, which would be in accordance with County or regional planning efforts. JVID is not aware of any such structures, and it would be speculative to try to determine where such structures, if any, would be built, but it is assumed that they would be developed in accordance with State and County law and ordinance addressing traffic and VMT. Therefore, this impact is considered less than significant and no mitigation is required.

Question c, d – Hazards and Emergency Access: No Impact. No modifications to any existing roadways are proposed either during project construction or operations, and the project would not change emergency access to the site. Therefore, no impact would occur and no mitigation is required.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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:				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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 § 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.				X

ENVIRONMENTAL SETTING

AB 52 mandates early tribal consultation prior to and during CEQA review for those California Native American tribes that have formally requested, in writing, notification on projects subject to AB 52, i.e., Lead Agencies that have published Notices of Preparation for Environmental Impact Reports or Notices of Intent to adopt Negative Declarations or Mitigated Negative Declarations since July 1, 2015. AB 52 establishes a new resource category of Tribal Cultural Resources (TCR) for which only tribes are experts; these resources may not necessarily be visible or archaeological, but could be religious or spiritual in nature. Significant impacts to a TCR are considered significant effects on the environment.

On June 12, 2025, JVID sent letters providing the opportunity to formally consult under AB 52 to the following Native American tribes: Buena Vista Rancheria of Me-Wuk Indians; Calaveras Band of Mi-Wuk Indians; Chicken Ranch Rancheria of Me-Wuk Indians; Ione Band of Miwok Indians; Jackson Rancheria Band of Miwuk Indians; Nashville Enterprise Miwok-Maidu-Nishinam Tribe; Shingle Springs Band of Miwok Indians; Tule River Indian Tribe; United Auburn Indian Community of the Auburn Rancheria; Washoe Tribe of Nevada and California; and Wilton Rancheria (see **Appendix E**). JVID received one response from Wilton Rancheria on June 26, 2025, declining further consultation. The Buena Vista Band confirmed receipt of the consultation letter but did not request consultation. No other responses have been received.

ENVIRONMENTAL EVALUATION

Question a(i) – Listed or eligible for listing: No Impact.

Of the letters sent by JVID to Native American tribes, only one response was received from Wilton Rancheria, declining further consultation. No other responses were received indicating the presence of Tribal Cultural Resources within or near the proposed project site. No Tribal Cultural Resources were identified in the cultural resources report prepared for the proposed project (Peak & Associates 2017), and no other information was found that indicated the presence of Tribal Cultural Resources within or near to the project site. Further, the proposed project would not directly result in any physical changes to the environment that could impact any Tribal Cultural Resources. Therefore, the project would have no impact on Tribal Cultural Resources listed or eligible for listing on the California Register of Historic Resources and no mitigation is required.

Question a(ii) – Significant resource: No Impact.

No Tribal Cultural Resources were identified as a result of the letters sent to interested tribes by JVID or in the cultural resources report; therefore, the proposed project would have no impact on any Tribal Cultural Resources that JVID deems to be significant per subdivision (c) of Public Resources Code Section 5024.1. No mitigation is required.

XIX. 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 stormwater drainage, electric power, natural gas, or telecommunications facilities which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			X	
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?				X
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?				X
e) Comply with federal, state, and local statutes and regulations related to solid waste?				X

ENVIRONMENTAL SETTING

Solid Waste

Solid waste disposal for Amador County is provided through an exclusive waste hauler franchise with ACES Waste Services. Waste that is collected is taken to the Western Amador Recycling Facility (WARF), also referred to as the Buena Vista Landfill Transfer Station, in Ione. WARF is permitted to accept a maximum daily disposal of 333 tons per day (tpd) (California Integrated Waste Management Board [CIWMB] 2008a). Recyclable materials are segregated at the WARF and residual municipal waste is disposed of at the Keifer Landfill. (Amador CPD 2016)

Domestic Water Treatment

JVID owns and operates a domestic water treatment plant that serves the Lake Amador Resort with a population of 30 full time residents and a campground with a population

of up to 4,000 customers during camping season. In addition, a domestic water system was developed between 2014 and 2020 to serve a population of about 1,300 people within the Jackson Valley and Buena Vista areas (including The Oaks Mobile Home Park). The domestic water treatment plant was designed with a capacity that would allow approximately 20 additional hookups beyond the currently served areas. Any additional service beyond that capacity would require expanding both the treatment plant and storage tank. JVID has no plans for an expansion of the plant or the storage capacity.

Wastewater Treatment

The Lake Amador Resort has a septic system that includes evaporation ponds. The resort operates this wastewater system, but the permit is held by JVID. All other domestic users served by JVID have their own treatment systems. The system has sufficient capacity to serve existing uses, and there are no plans for future expansion.

ENVIRONMENTAL EVALUATION

Questions a, c – Wastewater Treatment: No Impact.

The proposed project would not require or result in the construction of new wastewater treatment facilities, or the expansion of existing treatment facilities. Therefore, no impact would occur, and no mitigation is required.

Question b – Water Supply: Less-than-significant Impact.

Implementation of the proposed project involves the expansion of time allowed for JVID to put all water granted under its water right permits to beneficial use. Without the granting of the Petitions for Extension of Time, no additional time would be allowed and JVID's water rights would be limited to current usage volumes. However, the current raw water treatment plant has sufficient capacity to provide for current and projected future uses, and no expansion of the plant is anticipated or necessary. Therefore, this impact would be less-than-significant and no mitigation is required.

Questions d and e – Solid Waste: No Impact.

Implementation of the proposed project would not directly result in any increase in the amount of solid waste generated. Therefore, there would be no impact and no mitigation is required.

XX. WILDFIRE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
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?			X	
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?			X	
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?			X	

ENVIRONMENTAL SETTING

Amador County faces a high risk of catastrophic wildfires and has experienced several significant wildfires, including the 2004 Power Fire, which burned approximately 16,800 acres in the eastern portion of the county. Due to the distribution and density of wildland vegetation, much of the county is designated as a wildland urban interface (WUI) zone (Amador CPD 2016). The JVID service area is located within a State Responsibility Area (SRA) for fire protection. While most of the service area is designated as a moderate fire hazard severity zone, portions are designated as high and very high fire hazard severity zones (CAL FIRE, 2023).

ENVIRONMENTAL EVALUATION

Question a – Emergency Response Plan: No Impact.

The proposed project would not directly result in any construction activities or physical changes to the project area and therefore would not conflict with the County's emergency response and/or evacuation plans. No modifications to any existing

roadways are proposed, and the proposed project would not alter emergency access to the project area. There would be no impact and no mitigation is required.

Question b – Exacerbate Wildfire Risks: Less-than-significant Impact.

Portions of the project area are designated as moderate, high, or very high fire hazard severity zones (CAL FIRE, 2023). However, the proposed project would not directly result in any construction activities or physical changes to the project area with the potential to exacerbate wildfire risks. While it is possible that some construction could occur as an indirect result of the requested extension of time to put all water to beneficial use, JVID is not aware of any planned construction, and it would be speculative to assess the potential of such activities to exacerbate wildfire risk. However, it is assumed that any future development would be required to comply with the current California Fire Code and applicable Amador County fire protection regulations. Furthermore, as discussed in the Hydrology section above, the proposed project would generally result in additional water being stored in Lake Amador that could be available to emergency firefighting equipment, if necessary. Therefore, this impact is considered less than significant, and no mitigation is required.

Question c – Maintenance of Associated Infrastructure: Less-than-significant Impact.

All facilities and water diversion and distribution infrastructure associated with the proposed project are existing and owned and operated by the District. Therefore, the proposed project would not directly require the installation or maintenance of new infrastructure that could exacerbate wildfire risk or result in related environmental impacts. While it is possible that some infrastructure improvements could occur as an indirect result of the requested extension of time to put all water to beneficial use, JVID is not aware of any such improvements, and it would be speculative to assess the potential of such activities to exacerbate wildfire risk. However, it is assumed that any future infrastructure improvements would be required to comply with the current California Fire Code and applicable Amador County fire protection regulations. Therefore, this impact is considered less than significant, and no mitigation is required.

Question d – Expose People or Structures to Significant Risk: Less-than-significant Impact.

The proposed project would not directly result in any physical changes to the project area, including construction or ground-disturbing activities. Therefore, the proposed project would not expose people or structures to significant risks. While it is possible that some construction activities could occur as an indirect result of the requested extension of time to put all water to beneficial use, JVID is not aware of any planned construction, and it would be speculative to assess the potential of such activities to expose people or structures to significant risks. Therefore, this impact would be less than significant, and no mitigation is required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

E	Potentially Significant Impact	Potentially Significant Unless Mitigated	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?		X		
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.)			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Question a: Degrade the Environment. Less-than-significant Impact with Mitigation.

The potential project-related impacts to the habitats of fish and wildlife species are addressed in *Section IV. Biological Resources* of this document. Because the proposed project would not involve any construction activities or ground disturbance, no impacts to terrestrial species are expected and impacts to aquatic resources, including native fish communities residing within Jackson Creek, would be less than significant with the implementation of Mitigation Measure BIO-1. The proposed project would not substantially restrict the range or number of endangered plants or animals, nor would it impact historical resources. This impact would be less than significant and no mitigation is required.

Question b: Cumulative Impacts. Less-than-significant Impact.

The proposed project is a petition for extension of time related to three existing water right permits held by JVID. The approval of the proposed project would allow additional time for JVID and its customers within the service area to put the previously authorized water to full beneficial use. This would likely include the use of water on new lands devoted to agricultural production, and may include some limited additional domestic

supply. However, the proposed project does not directly involve any physical changes to the environment because these uses are not under the control of JVID. Furthermore, no changes to the amount, purpose, or place of use for the water is being requested under the petitions for extension of time, meaning that any future development that could lead to cumulative impacts was already anticipated in the original environmental review and approvals for JVID's water right permits. As analyzed throughout this Initial Study, while the proposed project could indirectly result in minor construction activities by allowing additional time for planned development within the JVID service area, there is insufficient information available about these potential future activities to evaluate them at a project level or to determine their potential contribution to cumulative impacts. The proposed project, when evaluated in combination with other past, present, and reasonably foreseeable future projects in the surrounding area, could contribute to cumulatively significant effects on the environment. JVID has submitted a Petition for Change to Permit 12167 (Application 5648B) to the State Water Board, requesting to add diversion to off-stream storage as an additional method of diversion for water currently available to JVID from the Mokelumne River at Pardee Reservoir under Permit 12167. However, because the petition for change has not yet been approved and no studies have been conducted to assess its potential impacts, its contribution to cumulative effects cannot be determined at this time. As such, the proposed project would not result in cumulatively considerable impacts, and this impact would be less than significant.

Question c: Effects on Humans. Less-than-significant Impact.

The proposed project would not result in significant impacts related to air quality, geology and soils, greenhouse gases, hazards and hazardous materials, and noise. Potential impacts on human beings would be less than significant, and no mitigation is required.

6. List of Preparers

Lead Agency

Jackson Valley Irrigation District

6755 Lake Amador Dr.

Ione, CA 95640

(209) 274-2037

Steven Frederick, General Manager

Document Preparation

Stevens Consulting

1241 Larkin Way

Sacramento, CA

(916) 710-0502

Craig Stevens – Project Manager

Acorn Environmental

Annalee Sanborn – Project Manager

Emma Miller – Environmental Analyst

Katie Francisco – Environmental Analyst

Dana Hirschberg – GIS Analyst

FISHBIO

Patrick Cuthbert

Michael Hellmair

Andrea Fuller

Solano Archaeological Services, LLC

Brian Ludwig – Cultural Resources and Tribal Cultural Resources sections

Fremont Environmental Consulting

Matt Fremont – Graphics and GIS

7. References

Amador County. 2015. Energy Action Plan. Accessed by Raadha Jacobstein on 02/05/24 at: <https://www.amadorgov.org/departments/planning/amador-county-energy-action-plan>

Amador County. 2016. Amador County General Plan. July. Accessed by Craig Stevens on October 20, 2023 and by Raadha Jacobstein on 02/15/24 at: <https://www.amadorgov.org/departments/planning/general-plan-update-draft-environmental-impact-report-and-draft-general-plan>

Amador County. 2020. Local Hazard Mitigation Plan 2020. Prepared by Foster Morrison Consulting. May. Accessed by Craig Stevens on 11/16/23 at: https://www.amadorgov.org/departments/office-of-emergency-services/local-hazard-mitigation-plan.

Amador County Fire Safe Council. 2021. Amador County Evacuation Areas and Evacuation Routes. July. Accessed by Craig Stevens on 10/23/23 at: https://www.amadorfiresafe.org/community-evacuation-route-maps.

Amador County Library. 2023. Website. Accessed by Craig Stevens on 10/23/23 at: https://www.amadorgov.org/departments/library

Amador County Planning Department (Amador CPD). 2016. Amador County General Plan Final Environmental Impact Report. July. Accessed by Craig Stevens on 9/26/23 at: https://www.amadorgov.org/departments/planning/general-plan-update-draft-environmental-impact-report-and-draft-general-plan.

Amador County Planning Department. 2023. GIS Viewer. Accessed by Craig Stevens on 10/16/23 at: https://gisviewer.amadorgov.org/gpv/Viewer.aspx.

Amador County Recreation Agency (ACRA). 2023. Website. Accessed by Craig Stevens on 10/20/23 at: https://amadorrec.com/parks-pools/.

Amador County Transportation Commission (Amador CTC). 2017. Amador Countywide Pedestrian and Bicycle Plan. Adopted October 2017.

Amador Transit. 2023. Website. Accessed by Craig Stevens on 10/24/23 at: https://amadortransit.com/schedules/

Amador Water Agency (AWA). 2017. Long Term Water Needs and Supply Study. July.

Barrett, S. A., and E.W. Gifford. 1933. Miwok Material Culture. Bulletin of the Milwaukee Public Museum 2(4):117-376.

Calaveras Visitors Bureau. 2023. Website. Accessed by Craig Stevens on 10/20/23 at: https://www.gocalaveras.com/business/outdoor-recreation/pardee-reservoir/.

California, State of, Air Resources Board (CARB), 2022. Scoping Plan for Achieving Carbon Neutrality. November 16, 2022. Accessed by Raadha Jacobstein on February 5, 2024 at: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>

California Air Resources Board (CARB). 2023. Maps of State and Federal Area Designations webpage. Updated November 2023. Available online at: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations. Accessed June 13, 2025.

California Department of Conservation (DOC). 2023. Farmland Mapping and Monitoring Program website. Accessed by Craig Stevens on 101/81/23 at: https://www.conservation.ca.gov/dlrp/fmmp/.

California Department of Forestry and Fire Protection (Calfire). 2023. State Responsibility Area Fire Hazard Severity Zones: Amador County. Accessed by Craig Stevens on 11/16/23 at: https://osfm.fire.ca.gov/fire-hazard-severity-zone-maps-2022/.

California Department of Toxic Substances Control (DTSC). 2023. Website: Envirostor. Accessed by Craig Stevens on 11/15/23 at: https://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&reporttype=CORTESE&site_type=CSITES,ERAP,OPEN,FUDS,CLOSE&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST.

California Department of Transportation (Caltrans). 2023. Scenic Highways webpage. Accessed by Craig Stevens on 10/16/23 at: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>

California Department of Water Resources (DWR). 2024. Risk Assessment and Mapping website. Accessed by Craig Stevens on 2/27/24 at: < https://water.ca.gov/Programs/Flood-Management/Risk-Assessment-and-Mapping>

California Regional Water Quality Control Board, Central Valley Region (CVRWQCB). 2019. The Sacramento River Basin And The San Joaquin River Basin, Fifth Edition. Revised February 2019. Available at: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/#basinplans

Castillo, Edward D. 1978. The Impact of Euro-American Exploration and Settlement. In Handbook of North American Indians, Volume 8: California, edited by Robert F. Heizer, pp. 99-127). Smithsonian Institution, Washington, D.C.

Clark, William B. 1979. Gold Districts of California. Bulletin 193, California Division of Mines and Geology, Sacramento, CA.

Davis-King, Shelly, and Angela M. Younie. 2019. Ethnographic and Ethnohistorical Investigation in the North Fork Mokelumne River Canyon Archaeological District (MRCAD) Area, Amador Ranger District of the Eldorado National Forest and the Calaveras Ranger District on the Stanislaus National Forest, Amador and Calaveras Counties. Volume 1. Prepared by Far Western Anthropological Research Group, Inc. for US Forest Service, Eldorado National Forest, Amador Ranger District; and the Stanislaus National Forest, Calaveras Ranger District.

Federal Emergency Management Agency (FEMA). 2024. FEMA Flood Map Service Center website. Accessed by Craig Stevens on February 27, 2024 at: <https://msc.fema.gov/portal/home>.

FISHBIO. 2022a. Biological Characterization – Jackson Creek. Prepared for the Jackson Valley Irrigation District. June 27.

FISHBIO. 2022b. Jackson Creek Fish Community Characterization. Prepared for the Jackson Valley Irrigation District and the California Department of Fish and Wildlife. November.

FISHBIO. 2025. Evaluation of Potential Impacts on the Jackson Creek Fish Community, as Related to the Continued Development of Water Right Permits 11224, 11589 and 12167. June 5.

Fredrickson, David A. 1973. Early Cultures of the North Coast Ranges, California. Ph.D. dissertation, Department of Anthropology, University of California, Davis, CA.

Fredrickson, David A. 1974. Cultural Diversity in Early Central California: A View from the North Coast Ranges. Journal of California Anthropology 1 (1):41–54.

Fredrickson, David A. 1993. Archaeological Taxonomy in Central California Reconsidered. In Toward a New Taxonomic Framework for Central California Archaeology, Essays by James A. Bennyhoff and David A. Fredrickson, edited by Richard E. Hughes. Contributions of the University of California Archaeological Research Facility, Berkeley No. 52.

Google Earth Pro. 2023. Accessed by Craig Stevens on 11/15/23.

Heizer, Robert F., and Albert B. Elsasser. 1980. The Natural World of the California Indians. California Natural History Guides 46. University of California Press, Berkeley, CA.

Hoover, Mildred B., Eugene Rensch, Ethel Rensch, William Abeloe. 2002. *Historic Spots in California*. Stanford University Press, Stanford, CA.

IPCC, 2022. Climate Change 2022. Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press. Accessed by Raadha Jacobstein on February 5, 2024 at: < https://www.ipcc.ch/report/ar6/wg2/ >

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 by Raadha Jacobstein on February 5, 2024 at < https://www.ipcc.ch/report/ar5/wg1/ >

Jackson Valley Fire Protection District (JVFPD). 2023. Website. Accessed by Craig Stevens on 10/2/23 at: http://www.jacksonvalleyfire.org/about%20us.

Kroeber, Alfred L. 1925. Handbook of the Indians of California. Smithsonian Institution, Bureau of American Ethnology Bulletin, 78. Reprinted (1976) Dover Publications, Inc., New York.

Lake Amador Resort. 2023. Website. Accessed by Craig Stevens on 10/20/23 at: http://lakeamador.com/.

Lawson, J. D. 2001. Sacramento County History. <http://www.cagenweb.com/ ~sacramen/ sachstry.htm>

Levy, Richard. 1978. Eastern Miwok. In California, edited by R. F. Heizer, pp. 398-413. Handbook of North American Indians, Vol., 8, W.C. Sturtevant, general editor, Smithsonian Institution, Washington, DC.

Peak & Associates. 1997. Sunrise Douglas Community Plan/Sunridge Specific Plan. Sacramento County Department of Environmental Review and Assessment, Sacramento, CA.

Rosenthal, Jeffery S. 2006. Chapter III. Chronology, Chronometrics, and Site Components. In: The Prehistory of the Sonora Region: Archaeological and Geoarchaeological Investigations for Stage I of the East Sonora Bypass Project, State Route 108, Tuolumne County, California, by J. S. Rosenthal, pp. 22-96. Report prepared for Caltrans District 10, Stockton, California.

State Water Resources Control Board (SWRCB), 2023. Geotracker Data Management System query conducted on 11/15/23 by Craig Stevens at: http://geotracker.waterboards.ca.gov/map/.

SWRCB, 2024. Final California 2024 Integrated Report (303(d) List/305(b) Report) for Jackson Creek (Amador County) CAR532400602019071604849 6. Accessed by Annalee Sanborn on 6/10/2025 at: https://www.waterboards.ca.gov/water_issues/programs/tmdl/2023_2024state_ir_reports/apx-b-factsheets/03790.shtml

Toma and Associates, 2020. JVID Potable Water System Capacity Analysis. By: Jesse Shaw, P.E. June 24, 2020.

United States Environmental Protection Agency (USEPA). 2023a. Website: Search for Superfund Sites Where You Live. Accessed by Craig Stevens on 11/15/23 at: https://www.epa.gov/superfund/search-superfund-sites-where-you-live.

United States, Environmental Protection Agency (USEPA), 2023b. Climate Change Indicators: Understanding the Connections Between Climate Change and Human Health. Last updated August 14, 2023. Accessed by Raadha Jacobstein on February 5, 2024 at: < https://www.epa.gov/climate-indicators/understanding-connections-between-climate-change-and-human-health >

United States, Environmental Protection Agency (USEPA), 2023c. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021. April 13, 2023. Accessed by Raadha Jacobstein on February 5, 2024 at < https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks >

United States, Environmental Protection Agency (USEPA), 2025. California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Available online at: https://www3.epa.gov/airquality/greenbook/anayo_ca.html. Accessed June 13, 2025.

United States, National Oceanic and Atmospheric Administration (NOAA), 2024. State of the Climate: Global Climate Report for Annual 2023. Published online January 2024. Accessed Accessed by Raadha Jacobstein on February 5, 2024 at: < https://www.ncei.noaa.gov/access/monitoring/monthly-report/global/202313>

Wagner & Bonsignore, 2025. Technical Memorandum: Hydrologic Analysis of Impacts to Lake Amador and Jackson Creek for Jackson Valley Irrigation District Petitions for Extension of Time of Water Right Permit 11589 (A012342A) and Water Right Permit 11224 (A017605). May 19, 2025.

Wilson, N. L. and A. H. Towne. 1978. Nisenan, in Handbook of North American Indians, Volume 8: California, pp. 387-397. R.F. Heizer, ed. Smithsonian Institution, Washington, DC.

Appendix A
Hydrologic Memorandum

Wagner&Bonsignore
Consulting Civil Engineers, A Corporation

Nicholas F. Bonsignore, P.E.
Robert C. Wagner, P.E.
Paula J. Whealen

Martin Berber, P.E.
Patrick W. Ervin, P.E.
David P. Lounsbury, P.E.
Vincent Maples, P.E.
Leah Orloff, Ph.D, P.E.
David H. Peterson, C.E.G., C.H.G.
Ryan E. Stolfus

TECHNICAL MEMORANDUM

To: Craig Stevens, Stevens Consulting
Annalee Sanborn, Acorn Environmental

From: Vince Maples P.E.

Date: May 19, 2025

Re: Hydrologic Analysis of Impacts to Lake Amador and Jackson Creek for Jackson Valley Irrigation District Petitions for Extension of Time of Water Right Permit 11589 (A012342A) and Water Right Permit 11224 (A017605)

This Memorandum is intended to describe the hydrologic analysis performed to evaluate potential impacts to Lake Amador storage and flows in Jackson Creek below Lake Amador resulting from continued development of water right Permits 11589 and 11224 under the requested Petitions for Extension of Time for the two permits. In order to evaluate potential impacts, available historical data was compared to estimated conditions under the fully-developed project.

Summary of District Water Rights

Jackson Valley Irrigation District (District) holds water rights to divert water from Jackson Creek under the two permits, as well as under pre-1914 appropriative and riparian rights named in Statement of Water Diversion and Use S014122 (Statement S014122). The two permits and Statement S014122 are summarized below as follows:

Permit 11589 (A012342A)

Priority Filing Date:	February 20, 1948
Diversion Season:	April 15 through May 31 (direct diversion for irrigation) November 1 through May 31 (direct diversion for domestic and industrial uses) November 1 through May 31 (diversion to storage in Lake Amador)
Source:	Jackson Creek
Allowed Uses:	Irrigation, Domestic, Industrial, Recreational, Wildlife Propagation, Fish Culture, Incidental Power
Diversion to Storage:	Maximum annual diversion to storage is 6,000 acre-feet annually
Direct Diversion:	Maximum rate is 60 cubic feet per second
Total Diversion:	Maximum annual diversion is 26,100 acre-feet annually

Permit 11224 (A017605)

Priority Filing Date:	May 14, 1957
Diversion Season:	March 1 through May 31 (direct diversion) November 1 through May 31 (diversion to storage in Lake Amador)
Source:	Jackson Creek
Allowed Uses:	Irrigation, Domestic, Recreational, Wildlife Propagation, Fish Culture, Incidental Power
Diversion to Storage:	Maximum annual diversion to storage is 30,000 acre-feet annually
Direct Diversion:	Maximum rate is 50 cubic feet per second
Total Diversion:	Maximum annual diversion is 39,000 acre-feet annually

Statement of Water Diversion and Use S014122

Claimed Priority:	1858
Basis of Right:	Pre-1914 and Riparian Claim
Source:	Jackson Creek
Recent Use:	Mining, Domestic, Fish Culture, Irrigation, Power, Municipal, Recreational, Stockwatering

The District also holds water rights to divert water from the Mokelumne River. Water from the Mokelumne River may at times be intermingled with water in Lake Amador and Jackson Creek.

Overview of Existing System Operations

Inflows to Lake Amador are from two sources: 1) natural flows from Jackson Creek upstream of the Jackson Creek Dam and 2) diversions from Pardee Reservoir (Mokelumne River) into Lake Amador that are under control of the District. Outflows from Lake Amador are managed by the District, whose irrigation water distribution system operates primarily from Lake Amador and accounts annually for over 80% of the District's water usage (**Figures 1 and 2**). Additionally, it should be noted that spillway or flood events are uncontrollable by the District once the lake is at full capacity. Under normal operations, raw water is released from Lake Amador at Jackson Creek Dam into a 36" mainline irrigation pipe for valved customers or directly into the mainstem channel of Jackson Creek via either the hydroelectric plant or a secondary release 24" cone valve that bypasses the hydroelectric plant. A 30" penstock runs through the base of the dam. This penstock then feeds the 36" irrigation line, hydroelectric plant (four generators) and 24" cone valve. During the irrigation season, the District carefully manages releases into Jackson Creek to ensure, to the maximum extent feasible, that water released for irrigation purposes is used by customers before the creek leaves the District's service area at the downstream end.

Methods for Evaluation of Potential Impacts

We prepared this Memorandum from a review of the following:

- State Water Resources Control Board (State Water Board) on-line electronic Water Rights Information Management System (eWRIMS);

- Operational information provided by the District, including records of various water movements throughout the water operations system and historical irrigation demand data and projections;
- Other industry information pertinent to water rights in the region.

Historical data for the period of January 2001 (beginning of last approved permit extension period) through December 2024 were evaluated based on the following information sources:

- District records of volume in storage in Lake Amador;
- District provided records of Jackson Creek flows measured at City of Jackson gage (through December 2024);
- District provided historical irrigation use and estimated built-out irrigation demand for irrigation water users receiving water delivered directly from the creek system and delivered via the 36" main line;
- District records of Lake Amador releases including records of amounts flowing through hydroelectric power Generators 1 through 4, 24" cone valve, Jackson Creek weir measurements, fish farm flow meters, 36" irrigation main line flow meter, and spillway flow measurements;
- USGS StreamStats tool was used to correlate flows from City of Jackson gage to Jackson Creek Dam, which impounds Lake Amador, to evaluate amount of inflow to Lake Amador from Jackson Creek;
- Annual reports for Statement S014122 were used to estimate monthly diversion amounts to be deducted from available flow into Lake Amador;
- Records of Mokelumne River water diverted to Lake Amador by the District.

This baseline stream and reservoir data includes the typical existing District operations at Lake Amador, as summarized above. This analysis is only intended to evaluate the incremental impacts of the full built-out/future operations, compared with the existing operations. The impacts of existing District operations are not the subject of this analysis; however, existing operations are useful in understanding expected incremental impacts of full built-out/future operations.

Adjustment of City of Jackson Gage Data for Jackson Creek Gage Upstream of Lake Amador

The City of Jackson's stream gage on Jackson Creek upstream of Lake Amador was used as the reference for estimating flows at Jackson Creek Dam[1], which impounds Lake Amador. The period of record evaluated for this gage includes January 2001 through December 2024. The streamflow at Jackson Creek Dam was estimated by adjusting the City of Jackson gage data for differences in drainage area and mean annual precipitation, using the following formula:

$$Q_2 = Q_1 \times (A_2/A_1) \times (MAP_2/MAP_1) \qquad Eqn.\ 1$$

[1] Watersheds were delineated using the United States Geological Survey (USGS) online StreamStats tool, which generates a watershed basin characteristics report, including values for mean annual precipitation and drainage area for the watersheds evaluated.

Where:
Q_2 = Flow at dam;
Q_1 = Flow at gage;
A_2 = Watershed area above dam;
A_1 = Watershed area above gage;
MAP_2 = Mean annual precipitation for watershed above dam;
MAP_1 = Mean annual precipitation for watershed above gage.

Exhibit 1 shows the watershed area tributary to the Jackson Creek gage. **Exhibit 2** shows the Jackson Creek Dam and tributary watershed area. **Table 1** lists watershed weighted mean annual precipitation values and watershed areas for the gage and dam.

Evaluation of Impacts to Lake Amador Storage and Jackson Creek Flows

Potential impacts to Lake Amador storage and flows in Jackson Creek below Lake Amador resulting from continued development of water right Permits 11589 and 11224 under the requested Petitions for Extension of Time for the two permits were evaluated by comparing available historical data (which reflects the ongoing operations of the District) to estimated future conditions of the fully developed project. The fully developed project was simulated by assuming the two permits operate to their maximum allowed diversion as limited by available creek flows.

Historic/ongoing and future operations of Lake Amador include releases of water from Lake Amador for irrigation through the 36" main line, which directs water around the reach of Jackson Creek immediately below the dam, as well as releases for irrigation, power generation, and other uses that enter Jackson Creek immediately below the dam. The District is expected to continue the historic/ongoing practice of releasing water into Jackson Creek for irrigation demands such that, as much as possible, all released water intended for irrigation uses will be taken up by irrigators before it reaches the downstream boundary of the District on Jackson Creek. Irrigation releases will continue to occur primarily during the period of April through October, while non-consumptive hydropower releases will continue to occur year-round.

The historical monthly flow below Jackson Creek Dam and historical monthly volume in Lake Amador storage includes the ongoing diversions and operations of the District, which allowed this analysis to assess potential impacts of a fully developed project condition through direct comparison of changes in stream flows and storage volumes due to built-out project conditions. The analysis assumes the built-out project would divert all Jackson Creek flows to direct diversion and storage up to the available flow for the period evaluated as limited by lake capacity, flow capacity of the 36" mainline, and limitations of the two permits. Jackson Creek gaged flows were correlated to the Jackson Creek Dam using the methodology described in the foregoing discussion.

Historical diversions under the two permits were calculated from the available flow measurements and estimation for 36" main line irrigation deliveries, flow through generators, flow through 24" cone valve (used to release water from Lake Amador into Jackson Creek), and fish farm releases plus the change in storage in Lake Amador, excluding water moved into Lake Amador from the

Mokelumne River. Monthly amounts delivered to Lake Amador from the Mokelumne River are accounted for under other water rights. For calculation purposes, historical/ongoing diversions were assigned to the two permits by first allocating water to storage rights and then to direct diversion rights.

Diversions under the fully developed project condition under the two permits were calculated assuming all Jackson Creek flow would be diverted up to the limits defined in the permits and further limited by the storage capacity of Lake Amador (22,000 acre-feet) and the maximum flow rate of the 36" main irrigation line. The maximum flow rate of the 36" main irrigation line is estimated to be 22,500 gallons per minute, equivalent to the capacity of the 30" penstock, which feeds the 36" line. For calculation purposes, built-out diversions were assigned first to the 36" main line, then other direct diversions, and then to storage under the permits.

For purposes of this analysis, impacts to Lake Amador storage and to stream flows in Jackson Creek below the dam are shown in the enclosed tables. These tables compare monthly values under the built-out condition with the values under historical/ongoing conditions over the period of record evaluated for the Jackson Creek stream gage (January 2001 through December 2024). The change in storage was evaluated as an average for each calendar month (January through December) for the period evaluated. The change in flow below the dam was evaluated similarly. Since weir flow measurements were not consistently available, they could not be relied upon as the only means of measuring creek flows below the dam; when weir flow measurements are not available, the sum of the flows through the generators and the 24" cone valve are considered equivalent to the weir flow.

Projection of Future Demand under Built-out Scenario

Future irrigation water deliveries were estimated by adding the ten-year mean of historical monthly irrigation demand and projections of future additional monthly irrigation demand at build-out. Projections of future demand are based on expected future irrigation demand of fully developed irrigated acreage and expected crop types.

Limits of Analysis

The analysis conducted for these Petitions for Extension of Time were conducted using available data and assumptions, as detailed above. However, as with any analysis, the accuracy of the analysis results is dependent on the availability and quality of data available to conduct the analysis, and the complexity of the system being modeled. Thus, while this analysis presents a reasonable and defensible assessment of the hydrologic impacts of granting the Petitions for Extension of Time, it is important to recognize the following assumptions and limitations of this analysis:

- Mokelumne River water is the primary source of domestic water supply for the District. Occasional secondary use of Jackson Creek water for domestic uses is considered negligible for purposes of this analysis.

- Evaporation and rainfall were assumed to be included in the total inflows and outflows resulting in the rise and fall of the lake water level (already part of the change in reservoir level), not separately evaluated in the analysis.
- Jackson Creek flow above Lake Amador is estimated (methodology described in a previous section of this memorandum) because direct measurement of these flows was not available.
- Data from the weir that measures flows below the dam is only available starting in January 2015.
- Weir flows include measured releases from the 24" cone valve and through the generators. Weir flows do not include spillway flows, 36" Main Line irrigation delivery flows, or fish farm releases, which return to the creek below the weir. Therefore, for this analysis, creek flows below the dam were calculated as weir flows plus spillway flows plus fish farm releases. 36" Main Line irrigation deliveries do not reenter the creek after being taken from Lake Amador.
- Fish farm release measurements are only available starting in 2017. Earlier fish farm release measurements are not available and are not included in the analysis.
- Data from the meter measuring flows through the 36" main line is only available starting January 2015. Values for earlier analysis months are estimated as the average of the values for each calendar-month from 2015 to 2024.
- Monthly reservoir storage and other measured data from the District was used when available. When historical data, such as monthly storage volume in Lake Amador was unavailable, water diversion and storage values from the District's annual water right reports were used.
- Diversion amounts in the District's annual reports appear to include more than just diversions under Statement S014122. Therefore, Diversions under Statement S014122 were capped at 3,000 acre-feet per calendar year, which is an estimated value for the pre-1914 rights reported under Statement S014122. Monthly diversions under Statement S014122 were estimated by taking the average of reported monthly diversions for each calendar month and normalizing to 3,000 acre-feet per calendar year.
- To the extent that hydrologic conditions are affected by future climate change, increases in future irrigation water demand may be limited at times when less water is available for irrigation use, and any increase in flows would not be exacerbated by the incremental increase in built-out/future irrigation demand because irrigation use would decrease creek flow as water is delivered from the creek to the irrigation uses.

Analysis Results

The analysis modeled both reservoir storage and flows in Jackson Creek below Lake Amador for each month of the analysis period (January 2001 through December 2024) both under historical conditions and built-out conditions. The results of the analysis are provided in enclosed **Tables 2 and 3**, which show estimated average changes to creek flow below the dam and amounts in reservoir storage for each calendar month over the analysis period. The results show that, on average, reservoir storage is projected to be less than under historical conditions during March and

April and greater than under historical conditions November through February and May, while flows below the dam will tend to be greater.

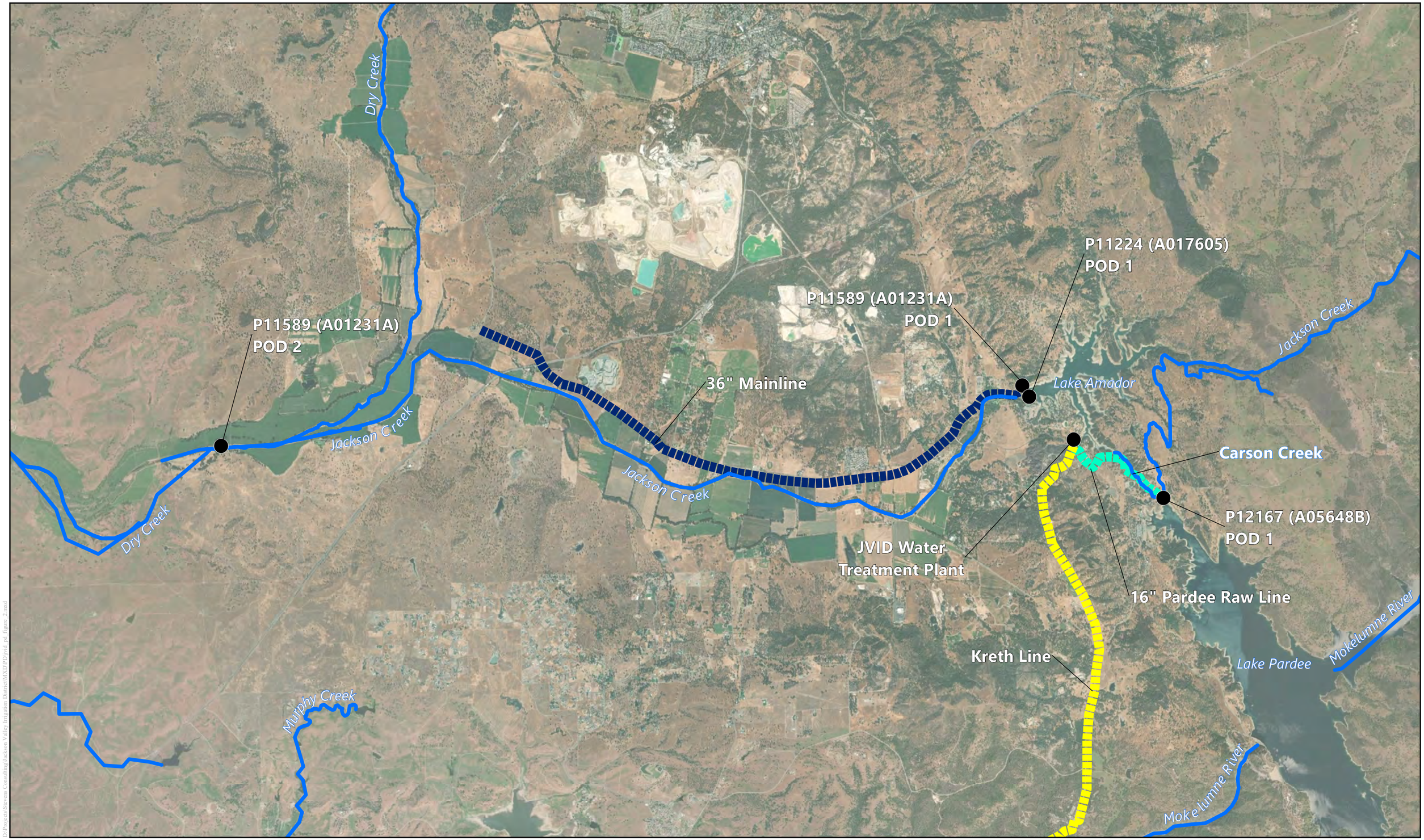
Table 2 shows that average monthly storage in Lake Amador is projected to change by less than 200 acre-feet (less than 1% of lake capacity) for every month except for November, where storage is projected to increase by 342 acre-feet (less than 2% of lake capacity). These changes in storage are considered minor in relation to the storage capacity of Lake Amador, and probably within the margin of error for the analysis.

Table 3 shows that average monthly flows in Jackson Creek below Lake Amador are projected to increase for every month of the year, but only by 1.1 cfs or less, except in March and April where flows are projected to increase by 3.4 and 2.2 cfs, respectively. The increases in flows in September and October result in higher percentage increases (10% and 20% respectively), but only due to the lower flows during these months. As with the Lake Amador storage projections, these changes in flow are considered relatively minor compared to existing flows, and probably within the margin of error for the analysis.

During drier hydrologic conditions (during dry or multiple dry years), the incremental increase in future irrigation water deliveries may be reduced, as less water would be available for irrigation use, and any increase in flows during wetter hydrologic conditions would not be exacerbated by the incremental increase in future/built-out irrigation demand because irrigation use would decrease creek flow as water is delivered from the creek to the irrigation uses.

* * * * *

Encl. √



Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 1: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

D:\Projects\Stevens Consulting\Jackson Valley Irrigation District\MXD\PD\jvid_pd_figure_2.mxd



D:\Projects\Stevens Consulting\Jackson Valley Irrigation District\MXD\PD\vid_pd_figure_3.mxd

Aerial Source: Maxar (09/2021)

0 250 500
Feet

N
W E
S

Figure 2: Project Location and Features

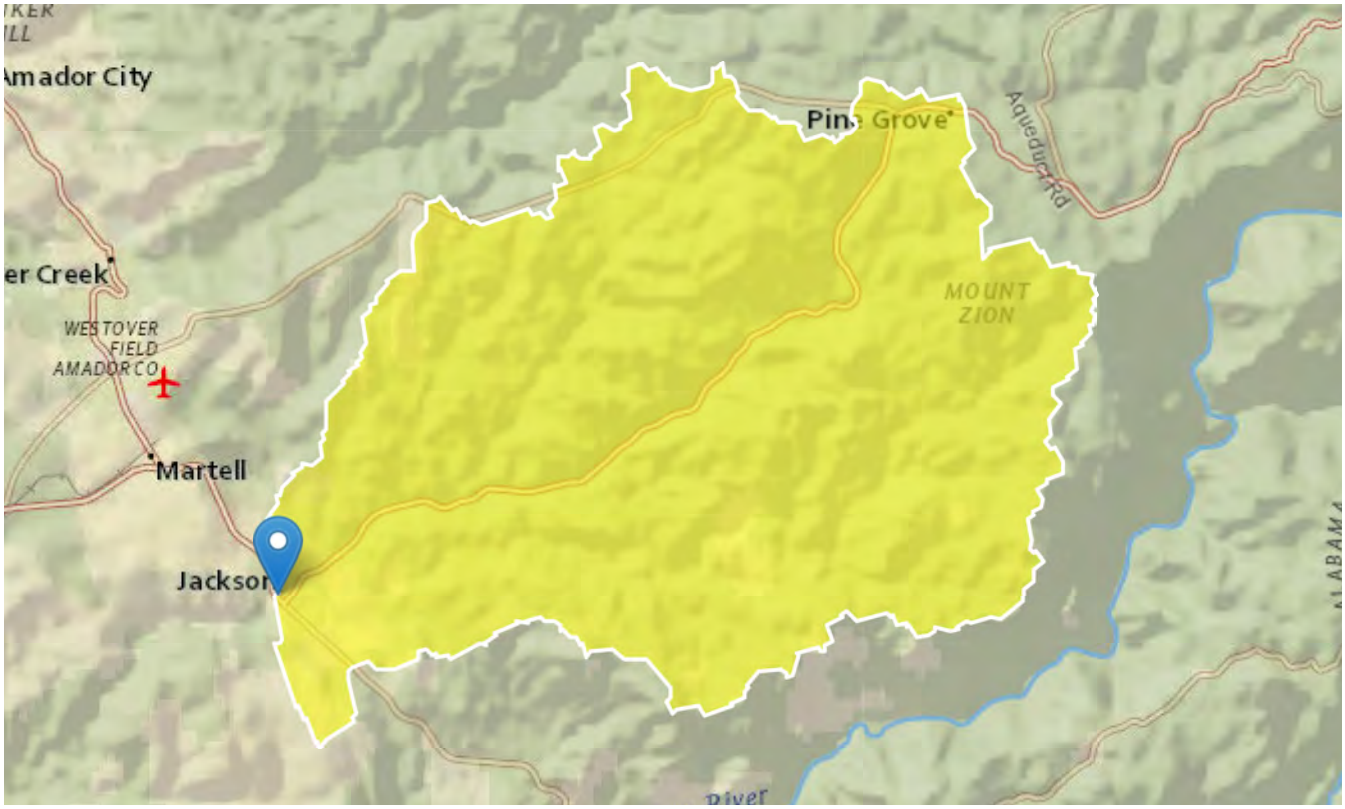
Jackson Valley Irrigation District

Amador County, CA

EXHIBIT 1

Jackson WTP Gage Watershed StreamStats Report

Region ID: CA
Workspace ID: CA20231212203335431000
Clicked Point (Latitude, Longitude): 38.34777, -120.77461
Time: 2023-12-12 12:34:02 -0800



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BASINPERIM	Perimeter of the drainage basin as defined in SIR 2004-5262	37.4	miles
BSLDEM30M	Mean basin slope computed from 30 m DEM	20.3	percent
CENTROXA83	X coordinate of the centroid, in NAD_1983_Albers, meters	-2113887.2	meters
CENTROYA83	Basin centroid horizontal (y) location in NAD 1983 Albers	1980963.9	meters

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	31.4	square miles
EL6000	Percent of area above 6000 ft	0	percent
ELEV	Mean Basin Elevation	1855	feet
ELEVMAX	Maximum basin elevation	2972	feet
FOREST	Percentage of area covered by forest	55.8	percent
JANMAXTMP	Mean Maximum January Temperature	53.86	degrees F
JANMINTMP	Mean Minimum January Temperature	35.77	degrees F
LAKEAREA	Percentage of Lakes and Ponds	0.2	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	5.6	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	1.9	percent
LFPLENGTH	Length of longest flow path	11	miles
MINBELEV	Minimum basin elevation	1184	feet
OUTLETELEV	Elevation of the stream outlet in feet above NAVD88	1194	feet
PRECIP	Mean Annual Precipitation	33.7	inches
RELIEF	Maximum - minimum elevation	1789	feet
RELRELF	Basin relief divided by basin perimeter	47.8	feet per mi

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government

shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.19.2

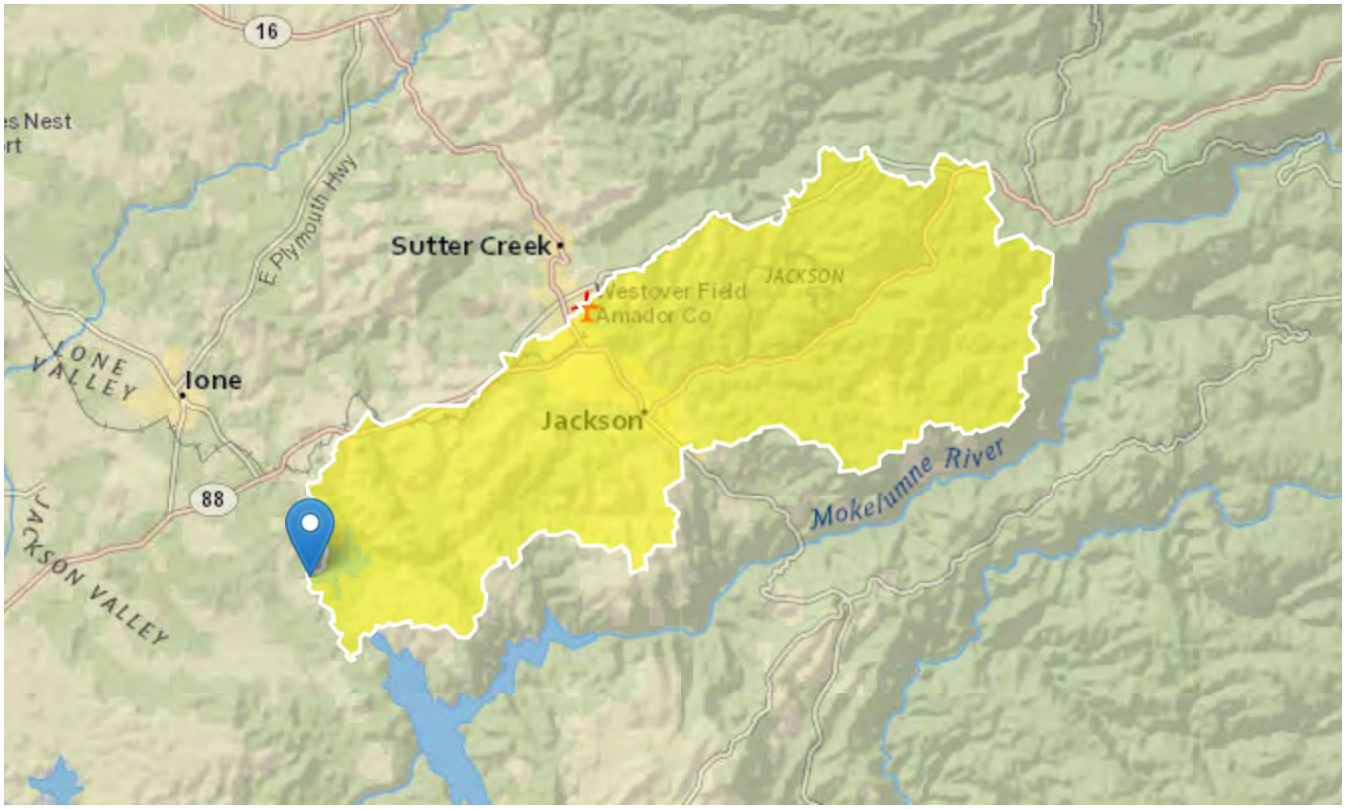
StreamStats Services Version: 1.2.22

NSS Services Version: 2.3.2

EXHIBIT 2

Lake Amador Watershed StreamStats Report

Region ID: CA
Workspace ID: CA20231212215323606000
Clicked Point (Latitude, Longitude): 38.30364, -120.88901
Time: 2023-12-12 13:53:48 -0800



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BASINPERIM	Perimeter of the drainage basin as defined in SIR 2004-5262	63	miles
BSLDEM30M	Mean basin slope computed from 30 m DEM	18.7	percent
CENTROXA83	X coordinate of the centroid, in NAD_1983_Albers, meters	-2119011.3	meters
CENTROYA83	Basin centroid horizontal (y) location in NAD 1983 Albers	1980204.8	meters

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	58.4	square miles
EL6000	Percent of area above 6000 ft	0	percent
ELEV	Mean Basin Elevation	1500	feet
ELEVMAX	Maximum basin elevation	2972	feet
FOREST	Percentage of area covered by forest	37.2	percent
JANMAXTMP	Mean Maximum January Temperature	53.78	degrees F
JANMINTMP	Mean Minimum January Temperature	36.05	degrees F
LAKEAREA	Percentage of Lakes and Ponds	0.87	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	6.8	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	2.3	percent
LFPLENGTH	Length of longest flow path	20	miles
MINBELEV	Minimum basin elevation	309	feet
OUTLETELEV	Elevation of the stream outlet in feet above NAVD88	311	feet
PRECIP	Mean Annual Precipitation	30.8	inches
RELIEF	Maximum - minimum elevation	2663	feet
RELRELF	Basin relief divided by basin perimeter	42.2	feet per mi

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government

shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.19.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.3.2

Table 1

Watershed Weighted Mean Annual Precipitation

Watershed	Area (mi^2)	Mean Annual Precipitation[(1)] (in)	Percent of Gage
Jackson Creek Stream Flow Gage at City of Jackson Water Treatment Plant	31.4	33.7	
Jackson Creek Dam	58.4	30.8	169.98%

Note:

(1) Watersheds were delineated using the United States Geological Services' online StreamStats tool, which generates a watershed basin characteristics report, including values for mean annual precipitation and drainage area for the watersheds evaluated.

Table 2
Average Monthly Change in Lake Amador Storage (Capacity 22,000 Acre-Feet)
Historical vs. Built-Out Condition

Month	Average Historical Volume in Storage (ac-ft)	Projected Average Built-Out Volume in Storage (ac-ft)	Estimated Change (ac-ft)	Estimated Change (%)
January	16,841	16,873	32	0.19%
February	18,343	18,466	124	0.67%
March	19,628	19,431	-198	-1.01%
April	20,274	20,120	-154	-0.76%
May	19,923	20,096	173	0.87%
June	18,838	18,838	0	0.00%
July	17,131	17,131	0	0.00%
August	15,047	15,047	0	0.00%
September	13,054	13,054	0	0.00%
October	12,106	12,106	0	0.00%
November	12,072	12,414	342	2.83%
December	14,662	14,709	47	0.32%

Table 3
Average Monthly Change in Flow Below Jackson Creek Dam
Historical vs. Built-Out Condition

Month	Average Historical Flows (ac-ft)	Projected Average Built-Out Flows (ac-ft)	Estimated Change (ac-ft)	Estimated Change (cfs)	Estimated Change (%)
January	4,681	4,723	41.5	0.7	0.89%
February	4,237	4,260	22.4	0.4	0.53%
March	6,059	6,270	211.0	3.4	3.48%
April	3,041	3,170	128.7	2.2	4.23%
May	669	693	24.9	0.4	3.73%
June	702	750	48.0	0.8	6.84%
July	746	766	20.8	0.3	2.80%
August	730	787	56.8	0.9	7.78%
September	635	701	66.0	1.1	10.40%
October	342	411	68.5	1.1	20.01%
November	81	97	15.8	0.3	19.37%
December	636	661	25.2	0.4	3.96%

Appendix B

Biological Characterization of Jackson Creek

Biological Characterization – Jackson Creek



Submitted To:
Jackson Valley Irrigation District

Prepared By:
Patrick Cuthbert
Michael Hellmair
Andrea Fuller

FISHBIO
1617 S. Yosemite Ave.
Oakdale, CA 95361
209.847.6300
www.fishbio.com
June 27, 2022

Table of Contents

Executive Summary 3
Background 4
Jackson Creek 4
Lake Amador 6
Summary of Water Operations 6
Aquaculture 6
Power Generation 7
Irrigation, Commercial and Domestic Use 8
Data Sources 9
Jackson Creek Flow Gaging Station 9
Aquatic Resources 9
Environmental Setting 10
Jackson Creek Flow 10
Aquatic Biological Resources 12
Fish 12
Chinook salmon 12
Central Valley Steelhead 13
Amphibians 14
California Tiger Salamander 14
Foothill Yellow-legged Frog 15
California Red-legged Frog 16
Sierra Nevada Yellow-legged frog 17
Reptiles 18
Giant garter snake 18
Western pond turtle 19
Conclusions 20
Literature Cited 21

Executive Summary

Jackson Valley Irrigation District (JVID; formed in 1956) provides irrigation water to the Jackson Valley in Amador County. JVID provides raw water for agricultural and industrial users, as well as treated water to domestic users. JVID owns and holds water rights for the storage of water in Lake Amador and has an agreement with a private concessionaire to operate the Lake's recreational facilities. In 2010, JVID filed Petitions for Extension of Time to provide additional time for it to put all water allowed under its water right permits to beneficial use. In addition, JVID filed a Petition for Change to Permit #12167 to allow water diverted from the Mokelumne River to be stored in Lake Amador, in order to provide operational flexibility and optimize use of the water available under the Mokelumne River right. No new diversion or storage facilities are required to accomplish this project.

The California Department of Fish and Wildlife (CDFW) has protested JVID's petition for the extension of time on its water right permits, citing adverse environmental impacts and insufficient conservation of public trust uses as concerns. CDFW states the potential of sensitive species, such as the western pond turtle, to occur in the vicinity of the project, and cites the need for the development of specific instream flows in order to adequately protect fishery resources, with specific reference to resident rainbow trout. CDFW subsequently recommended an assessment of instream flow-related needs, including endangered, threatened and locally unique species and sensitive species habitats. The list of studies requested by CDFW includes information on the aquatic resources in the watershed, a habitat-based stream needs assessment for fish and amphibian species, and an instream flow assessment.

This biological characterization of the Jackson Creek watershed summarizes water operations related to the above-mentioned petition, evaluates the flow regime of the creek, and provides information on the potential of special-status species to occur in the project area. The assessment demonstrates that lower Jackson Creek (downstream of Lake Amador) is highly unlikely to support any special status species due to its geographic and climatic characteristics.

Connectivity to other streams, namely Dry Creek and subsequently the Mokelumne River, is naturally intermittent, providing limited opportunity for anadromous fish species in those watercourses to use habitat in lower Jackson Creek. The low elevation of this rain-fed system arguably contributes to intolerable thermal conditions for native salmonids and special status amphibians, even in years when downstream connectivity is temporarily established. Further, reptile and amphibian species of special concern are also unlikely to occur in the watershed, corroborated by lack of observations over the past several decades.

Therefore, JVID's petition for extension is not expected to result in adverse environmental impacts to or jeopardize the public trust uses of Jackson Creek.

Background

Jackson Creek

Jackson Creek is a 26.4 mile-long tributary to Dry Creek, which is itself a tributary of the Mokelumne River (Figure 1). The Mokelumne River then flows into the San Joaquin River west of Lodi, CA.

The overall watershed of Jackson Creek drains an area of nearly 90 square miles in Amador County, CA, about 62 percent (56 square miles) of which are above Lake Amador (Table 1, Figure 1). The Jackson Creek basin climate is characterized by cool, relatively wet winters, and hot, dry summers. With no portion of the watershed above 3,000 ft, the Jackson Creek hydrograph is entirely driven by rainfall during the fall, winter and spring, as well as associated minimal snow runoff. While primarily rainfall driven, at the creek's latitude of approximately 38.3, the snowline altitude on April 1 is about 5,000 ft.

In this sub-humid precipitation zone, the duration of surface flow can range from 90 to 365 days a year (Rantz 1972). Summers are long and hot with little or no rainfall, and the creek is generally thought to be dry from early June each year, until cumulative precipitation reaches approximately 5 inches, usually by November.

Table 1. Summary of watershed area and mean annual precipitation amounts for the Jackson Creek watershed.

Location	Description	Area (sqm)	Mean Annual Precipitation (inches)	Minimum Elevation ft (m)	Maximum Elevation in Ft (m)
Upper watershed	Above Lake Amador to Headwaters	35.31	33.13	1152.9 (351.4)	2973.8 (906.4)
Middle Watershed	Lake Amador Area	23.12	26.76[a]	307.7 (93.8)	1709.4 (521.0)
Lower Watershed	Dry Creek confluence to Amador dam	28.87	22.25	180.2 (54.9)	926.0 (282.2)
Total	Upstream of Dry Creek Confluence	87.30	27.92	180.2 (54.9)	2973.8 (906.4)

[a] Rainfall records collected and maintained by Jackson Valley Irrigation District since 1965 indicate a mean annual precipitation of approximately 21.5 inches at JVID's office location (Ione, CA; elevation 320 ft [97.5 m]).

There are no permanent, publicly accessible stream flow or temperature gages in the Jackson Creek watershed, although some air temperature and precipitation sensors are available (e.g. PIN - Pine Grove Station, CA, approximately 13 miles NE of Lake Amador; air temperature and hourly rain tipping bucket; available on CDEC). Therefore, data on historic (pre-2000), unimpaired streamflow is not available. However, given that larger rivers draining the western side of the Sierra Nevada have naturally been intermittent (Mount et al. 2001), including the Cosumnes River (Moyle et al. 2003). It can be assumed that Jackson Creek, particularly the lower reaches (Middle and Lower Watershed, Figure 1) periodically dried up during the summer and fall months. The City of Jackson's streamflow monitoring provides a contemporaneous record of discharge in Jackson Creek (2001-2021), which has been made available for analysis; this information is discussed in the Environmental Setting section of this document.

Under current conditions, Jackson Creek below Lake Amador receives outflow from reservoir releases during the summer months to satisfy water demand for hatchery operation and agricultural irrigation. While this is expected to provide perennial or near-perennial aquatic habitat, discharge is managed to satisfy the demands of downstream users while minimizing outflow into Dry Creek.

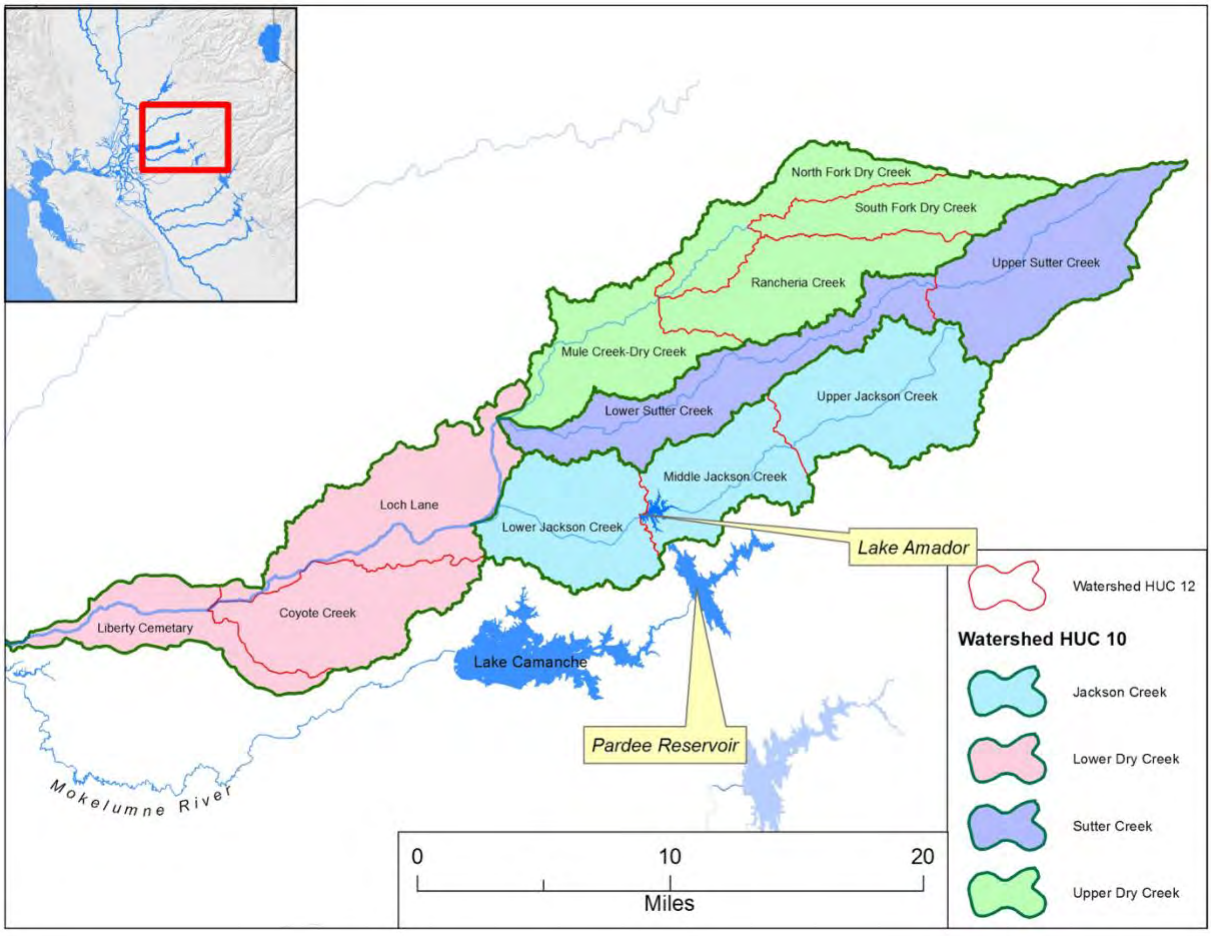


Figure 1. Map of the Jackson Creek and Dry Creek watersheds.

Lake Amador

Lake Amador is the largest reservoir in the watershed. Jackson Creek Dam, a 193-foot (59 m) high earth and rock construction, was built in 1965 and impounds Lake Amador. In addition to discharge from Jackson Creek and its tributaries upstream of the dam, the reservoir receives inflow from a diversion of Mokelumne River water. Lake Amador is owned by JVID and has a storage capacity of 22,000 acre feet (AF; 27,000,000 m^3), equating to a two-year supply of 11,000 acre feet. JVID owns and holds water rights for the storage of water in Lake Amador and currently provides raw water to irrigation, aquaculture, and industrial users and treated water to domestic users. JVID provides water for irrigation of various crops, industrial use for rock quarries and a biomass plant, two aquaculture facilities (described further below), and for stock watering purposes for over 1,000 head of cattle/horses. JVID also provides domestic water service to about 1,000 people. Water provided by JVID is also used for hydroelectric power generation. The lake and surrounding real estate are leased to a concessionaire who operates a campground, boat ramp, and recreational facilities including a Put & Take fishery supplied by the Lake Amador Hatchery, described below.

According to JVID staff, typical operational criteria are implemented to keep the lake level relatively constant from spring through fall by meeting operational demand through the request of diverted water from the Mokelumne River from the East Bay Municipal Utilities District (EBMUD; WR-A005648B0). The lake level is maintained at a relatively constant level for as long as feasible beginning in spring; once demand exceeds inflow, demand is satisfied by releasing water from the storage pool. Generally, storage is reduced to about 50% by December.

Summary of Water Operations

Aquaculture

Two aquaculture facilities receive water for their respective operations from Lake Amador, both located just downstream of the dam on Lake Amador Drive. The water used for aquaculture operations is stored, untreated lake water.

The first aquaculture facility that uses water from Lake Amador for its operation is the Lake Amador Resort and Hatchery, an aquaculture facility registered with CDFW, which rears trout year-round. Its primary purpose is to provide Lake Amador with trophy size trout for sport fishing, including Golden Rainbow Trout (a hatchery strain of *Oncorhynchus mykiss* with golden coloration, not to be confused with California Golden Trout, *O. mykiss aguabonita*) and "Cutbows", a cutthroat trout/rainbow trout hybrid (*O. mykiss* X *O. clarkii*). The former are propagated and raised to large size on site, while the latter are acquired as eggs from an aquaculture supplier and reared on site until they reach sufficient size for stocking.

This facility uses consistent flows of 800-1,000 gallons per minute. Their delivery system pulls water from the gravity pipe pressure system, which is then discharged into Jackson Creek downstream of the dam.

The second aquaculture facility is not a year-round operation. Sterling Caviar uses the facility to "purge" white sturgeon (*Acipenser transmontanus*) that were previously reared in the delta prior to caviar and meat harvest. The cold, clean water from Lake Amador is intended to improve the quality of maturing caviar over a period of several months, typically from November/December through June/July. The sturgeon are not fed during this time, therefore preserving water quality at the facility.

Depending on the number of fish in the facility during this period, water demand ranges from 500 to 3,000 gallons per minute, which is discharged into Jackson Creek downstream of the dam.

Water discharged at the two respective discharge points (about 1,200 and 1,800 feet downstream of the dam) into Jackson Creek from the aquaculture facilities is either diverted/pumped for agricultural irrigation or discharged out of the irrigation district's service area into the delta; discharge out of the service area is intentionally kept to a minimum. Water use is closely monitored at both facilities and incorporated into JVID's water calculation when water is released from Lake Amador for agricultural diversion downstream. Discharge from the aquaculture facilities constitutes the base flow in Jackson Creek downstream of the dam, supplemented by additional releases when required to fulfill agricultural demand.

Power Generation

When water is discharged to Jackson Creek for downstream agricultural use, the discharge is used to generate hydroelectric power. As per an order from the Federal Energy Regulatory Commission (FERC) issued March 1, 1982 (Project No. 5388-000), the JVID-owned hydroelectric project was granted an exemption from licensing due to its small size (5 megawatts or less; the JVID facility has a generating capacity of 500 kilowatts [e.g., 0.5 megawatt]). The order specifies that comments were requested from the U.S. Fish & Wildlife Service (USFWS) as well as CDFW; no agency had any objection relevant to the issuance of the exemption.

The hydropower facility consists of four generators, and operates at flows as low as seven cfs when water is discharged for agricultural use, but has a capacity to operate at up to 50 cfs during flood periods.

Irrigation, Commercial and Domestic Use

JVID has three distinct distribution systems. The first is the Creek System, whereby water is released from the reservoir into Jackson Creek, and then pumped by any of 12 separate pumping stations, ranging from 500 to 3,500 gallons per minute (gpm) to meet the demand of downstream agricultural users. The second is centered around a 36" main line that supplies pressurized water from the base of the dam to agricultural, residential and commercial users, including the two aquaculture facilities, two rock quarries and a biomass power plant. The third distribution system is the 12 in. Kreth Line that delivers water to the southern portion of the district for residential and agricultural use.

Overall, JVID provides irrigation water services to about 13,000 acres, but the number of consistently irrigated acres ranges from about 4,000 to 4,500 acres. Crops include nuts, grapes, fruit trees, corn, alfalfa and pasture. Water is also provided for approximately 1,000 livestock. A domestic water treatment plant and delivery system developed from 2014-2020 serves a population of about 800 people within the Jackson Valley and Buena Vista area, as well as the Lake Amador Resort, with its 30 full time residents and up to 4,000 customers that use the facilities during the camping season.

Data Sources

Jackson Creek Flow Gaging Station

The City of Jackson operates a stream gauge upstream of the city's wastewater treatment facilities. Daily streamflow records from 2001 through 2021 (average cubic feet per second) were provided by the City of Jackson's wastewater operator.

Aquatic Resources

Two readily accessible government websites were used to determine applicable critical habitat designations and aquatic species listed as threatened or endangered by the Endangered Species Act (ESA). The first source is a project-planning tool (Information for Planning and Conservation; IPaC) provided by the USFWS (USFWS 2015; accessed April 14, 2022).

The second source utilized was the NOAA Fisheries website (NOAA 2015; accessed on April 14, 2022). GIS shapefiles were downloaded from the website and viewed using Google Earth Pro software.

CDFW's subscription service, the California Natural Diversity Database (CNDDB), was also used to determine the recent occurrence of aquatic and semi-aquatic amphibians and reptiles near the project area (accessed June 2022). The CNDDB is a dynamic database, updated by CDFW on a regular basis with new species survey results. While not an exhaustive or comprehensive inventory of all species, the data presented therein is the compilation of historical survey data presented to CDFW.

Environmental Setting

Based on runoff patterns from nearby, larger watersheds (Cosumnes River, Calaveras River), it is expected that without flow releases from Lake Amador, Lower Jackson Creek would dry up during the summer and fall months. As a consequence, it is unlikely that the lower reaches of the stream could permanently support native species. However, during the winter and spring months, lower Jackson Creek may have historically served as a migratory corridor; in addition, the stream was likely seasonally utilized by the native hardhead-pikeminnow-sucker assemblage (Moyle 2002).

Although the historic use of Jackson Valley Creek by salmonids is uncertain, two primary environmental factors have limited salmonid populations within the basin: the area's geography/topography and its hydrology. The geography/topography of Jackson Valley Creek, with respect to salmonid abundance and distribution, can be partitioned into two zones, an upper and a lower zone, that are characterized by their flow regimes and ability to opportunistically support salmonid populations. Currently, the upper and lower zones are delineated by the presence of Amador Dam, but it is unknown how much farther upstream the lower zone may have extended prior to impoundment.

In the lower zone, the intermittent nature of flows would have historically limited the year-round use of this reach by salmonids and provided marginal habitat for various salmonid life stages. Due to the low elevation and associated low summer flows, the lower creek would not have supported spring-run or winter-run spawning and incubation, or late fall-run Chinook rearing. Nevertheless, high flows during the winter and spring months (i.e., December-April) of normal to wet years, as well as during the late fall (i.e., November) of years when significant rainfall and associated freshets occurred early, could have provided some opportunities for spawning, rearing, and emigration consistent with requirements of fall-run Chinook and steelhead.

However, the vast majority of Jackson Creek, including most reaches upstream of Lake Amador, are not considered suitable habitat for *O. mykiss* due to high temperatures. A possible exception are the uppermost reaches of the watershed; it is currently unknown if a resident trout population is present. Jackson Creek is not designated as critical habitat for Central Valley steelhead or Spring-run Chinook salmon.

Jackson Creek Flow

The assessment that Jackson Creek periodically dries during the summer months is corroborated by contemporary flow data, provided by the city of Jackson, which operates a stream gauge upstream of the city's wastewater treatment facilities. Streamflow records indicate that flow in Jackson Creek may cease by early May, with no natural streamflow until late October (Figure 2). Average streamflow over the period analyzed (2001-2021) remains below one cfs from early July

until mid-September. In addition to natural streamflow, discharge from the wastewater treatment facility has remained stable over the past several years, adding approximately 0.5 cfs to the streamflow of Jackson Creek (0.3 to 0.35 million gallons per day [mgd]), according to the operator.

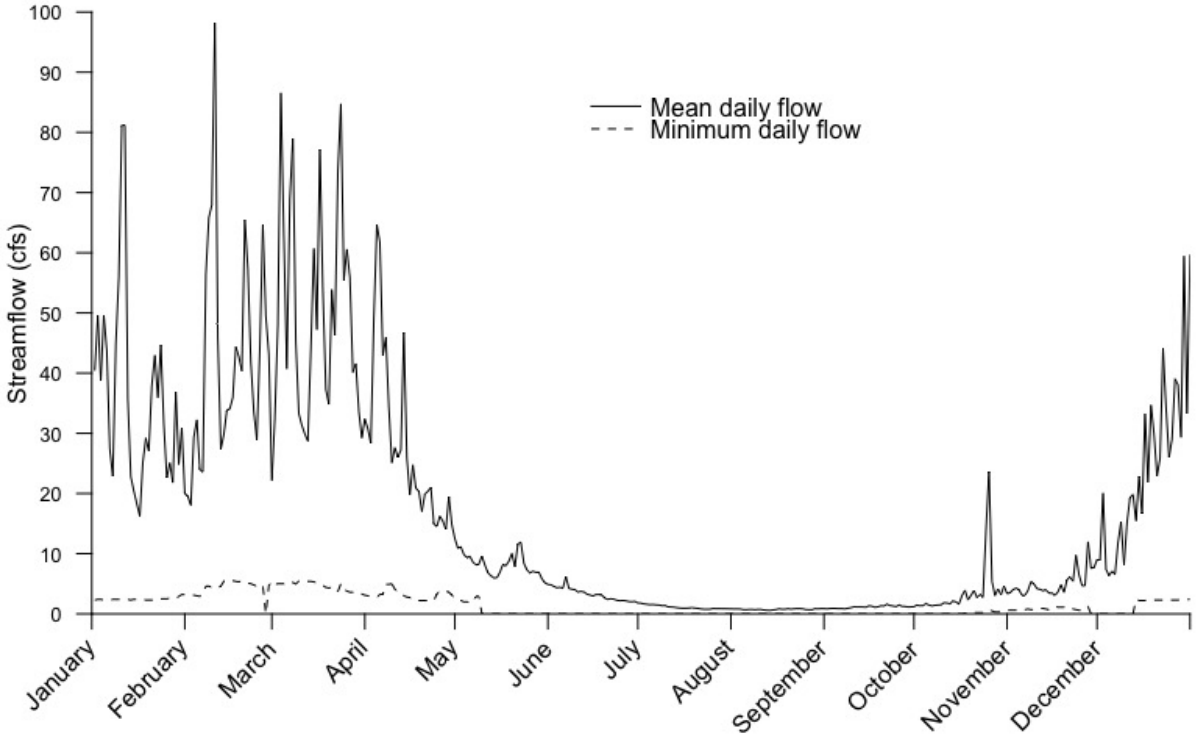


Figure 2. Average and minimum daily flow, in cubic feet per second (cfs), for the period from 2001 through 2021, as measured at the City of Jackson.

Aquatic Biological Resources

No previous assessments of the fish community of Jackson Creek below Lake Amador are available. CDFW staff visited the location in September and November, 2012. The first visit was intended to provide information about JVID's operation, while the second visit was to investigate the aquatic species present in the creek. There was no formal report produced and any data collected during this visit is currently unavailable, despite recent efforts by CDFW staff to locate it (Briana Seapy, CDFW, personal communication with Paula Whealen).

Fish

Chinook salmon

No critical habitat designations were found for winter- or spring-run (WR or SR) Chinook salmon (*O. tshawytscha*) near the location of the project; regardless, a brief description of each run's potential to occur near the project is provided. Sacramento River Evolutionarily Significant Unit (ESU) WR Chinook were listed as "endangered" under the ESA in January 1994 (NOAA 1994) and this designation is maintained to this day (NOAA 2016a). WR Chinook salmon exclusively rely on the upper Sacramento River system for spawning, rearing, and migration.

Central Valley Spring-run (SR) Chinook salmon were originally listed as "threatened" under the ESA in September 1999 (NOAA 1999). An updated review in April 2016 maintained the "threatened" designation (NOAA 2016b). The NOAA ESU definition specifically refers to naturally spawned SR Chinook salmon originating from the Sacramento River and its tributaries, and SR Chinook salmon from the Feather River Hatchery Spring-Run Chinook Program.

In recent years, the San Joaquin River Restoration Program (SJRRP) has taken steps to reintroduce SR Chinook salmon to the San Joaquin River, and the San Joaquin has since been designated critical habitat for SR Chinook salmon (NOAA 2005). As part of the SJRRP, juvenile SR Chinook salmon have been released into the San Joaquin River just upstream of the confluence with the Merced River annually beginning in 2015. The released San Joaquin River SR Chinook salmon are considered an "experimental population" under Section 10(j) of the Endangered Species Act. However, progeny of individuals that survive to adulthood and successfully reproduce are considered protected.

Fall-run (FR) Chinook salmon are the most abundant run in the San Joaquin River basin and are not currently listed under the ESA. They are, however, listed as a Species of Special Concern (SSC) under the California Endangered Species Act (CESA) due to concerns about population size and their dependence on hatcheries. The San Joaquin River, to which the Mokelumne River drains, acts as a migratory corridor for FR Chinook salmon, and fish would be quickly passing through the corridor, far downstream of the project areas. There is a substantial FR Chinook salmon

population that utilizes the Mokelumne River and annual monitoring of adult migration occurs at the fish ladder at the Woodbridge Irrigation District Diversion Dam.

Likelihood of Occurrence

Chinook salmon (all runs) are unlikely to occur in the affected area due to low habitat value for rearing and little potential spawning habitat for anadromous salmonids. WR Chinook salmon do not occur in the watershed and heavily rely on the Sacramento River system for spawning, rearing, and migration.

Similarly, SR Chinook salmon are also primarily relegated to the Sacramento River system throughout the freshwater portion of their lifecycle. In recent years, the SJRRP has taken steps to reintroduce SR Chinook salmon to the San Joaquin River, and portions of the San Joaquin River are designated critical habitat for SR Chinook salmon (NOAA 2005). Given the low number of juveniles released, coupled with poor survival during juvenile migration, the likelihood of adults returning is very low. The likelihood of juveniles rearing on the Jackson Creek watershed, if any are produced, is even more unlikely given (1) an expectation of low adult returns; (2) poor juvenile survival from the spawning grounds in the tributaries to the migratory corridor; (3) the overall distance of the project area from the primary spawning and rearing habitat available in the San Joaquin River Restoration Area; and (4) the elevated summer temperatures experienced in Jackson Creek due to the small size of the creek and anticipated low discharge, which would preclude straying adult SR Chinook accessing Jackson Creek or holding there over the summer.

FR Chinook salmon utilize the nearby San Joaquin River and Delta; however, this is primarily a migratory corridor as they move through the Delta and into the upper tributaries (e.g., Mokelumne, Stanislaus, Tuolumne, Merced) for spawning and rearing. As referenced, there is also a substantial FR Chinook salmon population that utilizes the Mokelumne River, into which Dry Creek drains. Observations of adult migration in the Mokelumne typically occur between September and February (EBMUD 2015). Data from rotary screw traps in the tributaries, including the Mokelumne (EBMUD 2013), and from the Mossdale Trawl show that most juvenile Chinook salmon outmigrate between late January and early June. Adult FR Chinook salmon typically begin their migration to spawning grounds in the San Joaquin River tributaries in early September and continue until late December. Due to the limited amount of discharge in Dry and Jackson creeks during the early portion of the migratory period, it is highly unlikely that FR Chinook salmon would be encountered in the project area.

Central Valley Steelhead

Steelhead (*O. mykiss*) is a species of salmonid native to California, commonly known by two names: steelhead (the anadromous form) and rainbow trout (the resident/freshwater form). The California Central Valley steelhead has been listed as “threatened” under the ESA since 1998.

Adult anadromous steelhead can be expected to enter freshwater streams between August and November; however, spawning typically takes place between December and April. Juveniles begin to emerge from late winter to summer and will then spend between one and three years in freshwater before emigrating in the spring (Williams 2006). Habitat modeling conducted by Lindley et al. (2006) suggests that waterways on the floor of the Central Valley are unfavorable spawning and rearing locations for steelhead due to their excessively high summer temperatures. This same study also noted that many of the small tributaries of the San Joaquin are generally too degraded to support viable populations.

Abundance data reveal that populations in the Central Valley are relatively low for naturally occurring steelhead. *O. mykiss* counts at the Red Bluff Diversion Dam from 1967 to 1993 revealed a precipitous decline in returns to the upper Sacramento River. While more recent data are scarce, an updated report from NOAA Fisheries (Good et al. 2005) estimated an average of 3,628 naturally spawning female steelhead occurring in the Central Valley between 1998 and 2000 based on the adipose-fin-clip ratio.

Likelihood of Occurrence

The potential of steelhead occurrence in the Jackson Creek watershed is low to none. For comparison, as fisheries data is limited for Jackson Creek, adult migration monitoring at the Woodbridge Irrigation District Dam have documented the presence of adult *O. mykiss* in the nearby lower Mokelumne River, being observed between September and March (EBMUD 2015). Juvenile outmigrants have been observed in the Mokelumne between mid-December and Mid-June in recent years, however, no specific data is available for Jackson Creek. Individual *O. mykiss* occurring within Jackson Creek may be limited to those straying from other nearby streams with viable populations, or from hatchery origin fish planted in Lake Amador or elsewhere to subsidize the recreational fishery.

Much like Chinook salmon, *O. mykiss* presence is likely limited by naturally occurring low flows and elevated water temperatures. Therefore, *O. mykiss* presence is highly unlikely during the summer period, when aquatic habitat only persists in ponded areas with excessively high water temperatures. While no water temperature data for locations near the project area are readily available, Nobriga (1995) notes that the nearby Cosumnes River had been considered as incapable of supporting a steelhead run due to excessive summer temperatures.

Amphibians

California Tiger Salamander

All populations of California tiger salamander (*Ambystoma californiense*) throughout their range are currently listed as threatened under the California Endangered Species Act, and some distinct

population segments (DPS) have been elevated to endangered status under the federal ESA. DPS elevated to endangered include those in Santa Barbara and Sonoma counties, while the Central California population remains threatened under the federal ESA. The Central California tiger salamander, the focus of this assessment, is a population that forms a ring along the foothills of the Central Valley and Inner Coastal Range from San Luis Obispo, Kern, and Tulare counties in the south to Sacramento and Yolo counties in the north (USFWS 2017).

Historically, Central California tiger salamanders were endemic to the San Joaquin-Sacramento River valleys, bordering foothills, and coastal valleys of Central California (Stebbins 1985; Shaffer et al. 2013). Their current distribution suggests that they may have been continuously distributed along the low-elevation grassland-oak woodland plant communities of the valleys and foothills (Shaffer et al. 1993; Shaffer et al. 2013). Their life cycle relies on both aquatic and terrestrial habitats (Shaffer et al. 2004), as young larvae develop in vernal pools and ponds where they were born; however, once leaving their natal waters, they spend the majority of their life underground (Trenham et al. 2001).
While pools are necessary to facilitate early life stages (e.g., spawning and larval), this species is found to primarily inhabit annual grasslands and open woodlands, demonstrating the importance of vernal pools to this species (Stebbings 1985; Shaffer et al. 2013). They also require upland habitat that is occupied by small burrowing mammals like ground squirrels or gophers that create the burrows utilized by adult salamanders (Shaffer et al. 1993; Seymour and Westphal 1994; Loredo et al. 1996; Pittman 2005). Upland habitats surrounding known breeding pools generally consist of grassland, oak savanna, or oak woodland.

A recent query of the CDFW's CNDDB (accessed on June 3, 2022), shows there have been multiple observations of this species within Jackson Valley, with the most recent occurring on February 7, 2010. However, none of these sightings have occurred specifically in Jackson Creek, with most occurring near Dry Creek to the north. Further, the habitats in which these observations occurred were generally in vernal pools or similar terrestrial ponds, showing that their reliance on Jackson Creek or similar waterways is likely limited.

Likelihood of Occurrence

As this species is generally reliant on vernal pool habitats and documented observations specifically within Jackson Creek are non-existent, it is unlikely that California tiger salamander occur in lower Jackson Creek.

Foothill Yellow-legged Frog

The entire species of Foothill yellow-legged frog (*Rana boylii*) is considered to be a species of special concern by CDFW, but it should be noted that *R. boylii* has been divided into six clades

(similar to DPSs) that are provided different listing statuses under CESA. The East/Southern Sierra clade, listed as endangered under CESA, will be the focus of this assessment.

The recent Notice of Findings for listing recommendations prepared by the California Fish and Game Commission (2020), notes that the East/Southern Sierra clade was extirpated from much of its historically occupied habitat as early as the 1970s (CDFW 2019). They also note that the region is relatively arid and that the effects of drought are greater here than in northern areas that exhibit more precipitation and less variation between drought years and the historical average precipitation (CDFW 2019).

These frogs appear to favor streams with at least some degree of shading (greater than 20 percent) provided by riparian vegetation (Hayes and Jennings 1988), but it should be noted that when there is dominant canopy closure over the stream (e.g., >90 percent) this species is rarely found (Van Wagner 1996). Olsen and Davis (2009) have indicated that stream order, minimum temperatures, precipitation frequency, stream gradient, and elevation were important variables in predicting species presence.

Breeding and rearing habitat is generally located in gently flowing, low-gradient stream sections with variable substrates predominated by cobble and boulder (Bondi et al. 2013, Van Wagner 1996, Yarnell 2008). In larger channels, breeding sites are often found at point bars or depositional environments near the tailout of pools, and in proximity to tributary confluences (Fuller and Lind 1992, Peek 2010). Egg masses are generally observed in smaller streams in depositional areas with cobble and boulder substrates such as runs, or the tails and outlets of pools (Van Wagner 1996).

A recent query of the CDFW's CNDDB (accessed on June 3, 2022) suggests that foothill yellow-legged frogs do not currently occur in lower Jackson Creek, as the most recent documentation of the species in the broader watershed dates to June 9, 1975 (observed on Dry Creek).

Likelihood of Occurrence

This species does not appear to utilize habitats in lower Jackson Creek.

California Red-legged Frog

California Red-legged frog (*Rana aurora draytonii*) is listed as threatened under the federal ESA and is considered a species of special concern by CDFW. Historically, this species was common in coastal habitats from the vicinity of Point Reyes National Seashore, Marin County, California and inland from Redding, Shasta County, southward to northwestern Baja California (Jennings and Hayes 1985, Hayes and Krempels 1986). Further, this species was known to occur in 46 counties, but is now believed to be extirpated from 24 of the aforementioned 46 (USFWS 1996). The California red-legged frog is now known only from isolated localities in the Sierra Nevada,

northern Coast, and northern Transverse ranges. Further, it is still common in the San Francisco Bay area and along the central coast (Jennings 1998). As such, for conservation purposes, much like the yellow-legged frog, red-legged frog populations have been divided into eight recovery regions. This assessment will focus on the Sierra Nevada Foothills and Central Valley Region.

This population was likely extirpated from the floor of the Central Valley prior to 1960 (USFWS 1996) and may never have been widespread across the valley as specimen-based records are scarce north of the Kern River drainage (USFWS 2002). Foothill populations along the western slope of the Sierras have been fragmented and nearly eliminated. Currently, only a few drainages are known to support California red-legged frog compared to over 60 known historic localities and 18 historic sites where specimens were collected (Barry 1999).

A recent query of the CDFW's CNDDB (accessed on June 3, 2022) appears to confirm USFWS (1996) findings. The query only produced one record for Amador County, generally described as the North Fork of the Cosumnes River, dated April 11, 1942.

Likelihood of Occurrence

This species does not appear to utilize habitats in lower Jackson Creek.

Sierra Nevada Yellow-legged frog

Sierra Nevada Yellow-legged frog (*Rana sierrae*) is listed as endangered under the federal ESA and as threatened under CESA. This species historically had a complementary range to that of foothill yellow-legged frog (Zweifel 1955) even overlapping in some portions of the Sierra Nevada (Stebbins 2003, Fellers 2005). It is because of this overlap and their similar phenotypic characteristics there is some uncertainty in their respective distributions (Zweifel 1955, Stebbins 2003). For instance, historical records from the Plumas National Forest were used to demonstrate that this species "...can occur as low as 3,500 ft (1,067 m) in the northern portions of their range," thus requiring the Forest Service to manage for Sierra Nevada yellow-legged frog down to 1,067 m elevation, and therefore lower than the 1,370 m required for the rest of the range (USFWS 2014:24259).

Generally, the Sierra Nevada yellow-legged frog is encountered in high elevation lakes and streams from 1,370-3,660 m (~4,500-12,000 ft) in the Sierra Nevada range (Vrendenburg et al. 2005). Brown et al. (2022) notes that the species is highly aquatic, but that its use of aquatic habitats may vary across its range. Based on observation in the central and southern Sierra Nevada Range, larvae may take two to three weeks to metamorphose and thus require permanent water that does not freeze over winter to survive (Zweifel 1955; Branford 1983). Therefore, the deep lakes are often used for breeding habitat (Knapp and Matthews 2000; Knapp et al. 2003).

A recent query of the CDFW's CNDDB (accessed on June 22, 2022), shows that observations of this species in Amador County occurred at higher elevations than Jackson Creek, either in the El Dorado National Forest or the Mokelumne Wilderness. This species had one documented observation in the Mokelumne Wilderness in 2013 and at least four separate observations in the El Dorado National Forest in 2013. There have been no other documented observations in Amador County.

Likelihood of Occurrence

As this species generally occurs at elevations much higher than Lake Amador (325 ft) and lower Jackson Creek, it is unlikely that this species utilizes habitats in lower Jackson Creek.

Reptiles

Giant garter snake

Currently, populations of the giant garter snake (*Thamnophis gigas*) are considered threatened under the California and Federal Endangered Species acts. The current range of the giant garter snake extends as far north as Butte County and as far south as Fresno County, however, populations remaining in the most southern portions of their range have dwindled (Rossman et al. 1996). Generally, this species is encountered in marshes, sloughs, drainage canals, and irrigation canals, showing a preference for slow moving creek-like habitat. Previously, their habitat relied heavily on the expansive network of permanent and seasonally flooded freshwater marshes common in the historic Central Valley Delta (Frayer et al. 1989; Garone 2011). In the modern configuration of the Central Valley wetlands, giant garter snakes spend more than 50 percent of their time basking on land or using cover like rodent burrows, with most of this terrestrial time spent within ten meters of water (Halstead et al. 2015). During brumation, nearly all snakes are found underground in the terrestrial environment (Halstead et al. 2015).

To expand, due to the loss of over 90 percent of historic marsh lands (Frayer et al. 1989; Garone 2011), the majority of current giant garter snake populations are closely associated with rice agriculture in the Sacramento Valley due to the expansive irrigation infrastructure creating the marsh-like habitat this species prefers (Halstead et al. 2010). Consequently, giant garter snakes with less rice agriculture in and near their home ranges have shown lower survival rates and as such should be considered reliant on rice agriculture in the Sacramento Valley (Halstead et al. 2019).

A recent query of the CDFW's CNDDB (accessed on June 3, 2022), shows that the only documentation of this species in Amador County was noted in August 1983 as "presumed extant." This occurrence was documented in the Carbondale and Folsom quad maps, more specifically the intersection of Michigan Bar Road and Cosumnes River, east of Rancho Murieta.

Likelihood of Occurrence

As this species is highly reliant on rice agricultural fields common to the Sacramento Valley, it is unlikely that giant garter snakes occur in lower Jackson Creek. The most recent Agricultural Crop and Livestock Report generated by the Amador County's Department of Agriculture (AmadorCounty 2021) notes that between 2019 and 2020, rice was not among the crops harvested within the 323,645 acres included in the report, indicating limited viable habitat for this species throughout the county. Further, the overwhelming majority of this acreage (96.9%) consisted of pasture and range field crops indicating the limited availability of suitable wetlands throughout the county.

Western pond turtle

Currently, populations of the Northwestern pond turtle (*Actinemys marmorata*) are considered Species of Special Concern under the California Endangered Species Act (CESA). The historic range of the western pond turtle extended as far north as the Puget Sound to as far south as Baja California, with isolated populations in Washington, Oregon, California, Nevada, and Idaho. They have an elevational range from sea level to approximately 2000 m, but are rarely encountered in elevations greater than 1500 m.

Mating season for this species generally occurs in late April or early May, but may occur year-round. While the act of mating takes place in water, females generally leave aquatic habitats to lay the eggs and may lay more than one clutch per year. Eggs are generally laid between the months of May and August (Reese 1996). Western pond turtle nests are usually found on sandy banks near water or in fields with sunny spots up to a few hundred feet from water. Hatchlings typically emerge from nests in the spring following similar overwintering timing patterns observed in adults.

A recent query of the CDFW's CNDDB (accessed on June 3, 2022), shows that the most recent documented observation of this species within the Jackson Creek watershed was in the South Fork of Jackson Creek on October 15, 2002. One individual was observed in habitat consisting of a slow, ponded portion of the creek, dominated by cattails and willows.

Likelihood of Occurrence

While western pond turtles have been observed in Jackson Creek upstream of Lake Amador, there does not appear to be a substantial population as there are no additional documented observations of the species since 2002. Due to what appears to be a lack of a potential source population within lower Jackson Creek, it is unlikely that this species utilizes habitat in the creek downstream of Lake Amador.

Conclusions

This biological characterization of the Jackson Creek watershed summarizes existing water operations, evaluates the existing flow regime of the creek, and provides information on the potential of special-status species to occur in the project area. The assessment demonstrates that lower Jackson Creek (downstream of Lake Amador) is highly unlikely to support any special status species due to its geographic and climate characteristics. Connectivity to other streams, namely Dry Creek and subsequently the Mokelumne River, is naturally intermittent, providing limited opportunity for anadromous fish species to use habitat in lower Jackson Creek. The low elevation of this rain-fed system arguably contributes to intolerable thermal conditions for native salmonids, even in years when downstream connectivity is temporarily established. Reptile and amphibian species of special concern are also unlikely to occur in the watershed, corroborated by lack of observations over the past several decades.

Literature Cited

Amador County, Department of Agriculture. 2021. Amador County 2020 agricultural crop and livestock report. Prepared for the California Department of Food and Agriculture and the Amador County Board of Supervisors, October 2021.

Barry, S. J. 1999. A study of the California red-legged frog (*Rana aurora draytonii*) of Butte County, California. Sacramento, California, PAR Environmental Services.

Bondi, C.A., Yarnell, S.M., and Lind, A.J. 2013. Transferability of habitat suitability criteria for a stream breeding frog (*Rana boylii*) in the Sierra Nevada, California. Herpetological Conservation and Biology. 8(1): 88–103.

Bradford, D. F. 1983. Winterkill, oxygen relations, and energy metabolism of a submerged dormant amphibian, Rana muscosa. Ecology 64:1171–1183.

Brown, L. R., and P. B. Moyle (2005), Native fishes of the Sacramento–San Joaquin drainage, California: A history of decline, Am. Fish. Soc. Symp 45,75–98.

California Department of Fish and Wildlife (CDFW). 2019. Report to the Fish and Game Commission a status review of the Foothill yellow-legged frog (*Rana boylii*) in California.

California Fish and Game Commission. 2020. Notice of findings for Foothill yellow-legged frog (*Rana boylii*). Prepared March 10, 2020.

East Bay Municipal Utility District (EBMUD). 2013. Emigration of juvenile Chinook salmon (Oncorhynchus tshawytscha) and steelhead (Oncorhynchus mykiss) in the lower Mokelumne River, December 2012 – July 2013. Annual report. Available online at: https://www.ebmud.com/recreation/protecting-natural-habitat/fisheries-and-wildlife-division-reports/

East Bay Municipal Utility District (EBMUD). 2015. Lower Mokelumne River upstream fish migration monitoring conducted at Woodbridge Irrigation District Dam August 2014 through July 2015. Annual report. Available online at: https://www.ebmud.com/recreation/protecting-natural-habitat/fisheries-and-wildlife-division-reports/

Fellers, G. M. 2005. Rana boylii Baird, 1854(b). Foothill yellow legged frog. Pages 534–536 in M. J. Lannoo, editor. Amphibian declines: conservation status of United States species. University of California Press, Berkeley, USA.

Frayer, W.E., Peters, D.D., and Pywell, H.R. 1989. Wetlands of the California Central Valley: status and trends 1939-mid 1980's. U.S. Fish and Wildlife Service, Region 1, Portland, OR, USA.

Fuller, D.D. and Lind, A.J. 1992. Implications of fish habitat improvement structures for other stream vertebrates. In: Harris, R.R.; Erman, D.C., tech. coords.; Kerner, H.M., ed. Proceedings of the symposium on biodiversity of northwestern California. Berkeley, CA: University of California, Wildland Resources Center, Division of Agriculture and Natural Resources: 96–104.

Garone, P. 2011. The fall and rise of the wetlands of California's Great Central Valley. University of California Press, Berkeley, CA, USA.

Good, T., Waples, R., and P. Adams. 2005. Updated status of federally listed ESUs of West Coast salmon and steelhead. United States Department of Commerce, NOAA Technical Memo. NMFS-WSFSC-66.

Halstead, B.J., Wylie, G.D., and Casazza, M.L. 2010. Habitat suitability and conservation of the giant garter snake (*Thamnophis gigas*) in the Sacramento Valley of California. Copeia (4): 591-599.

Halstead, B.J., Skalos S.M., Wylie, G.D., and Casazza, M.L. 2015. Terrestrial ecology of semi-aquatic giant garter snakes (*Thamnophis gigas*). Herpetological Conservation and Biology 10: 633-644.

Halstead, B.J., Rose, J.P., Reyes, G.A., Wylie, G.D., and Casazza, M.L. 2019. Conservation reliance of a threatened snake on rice agriculture. Global Ecology and Conservation 19: e00681.

Hayes, M.P. and D.M. Krempels. 1986. Vocal sac variation among frogs of the genus Rana from western North America. Copeia (4): 927-936.

Hayes, M.P. and Jennings, M.R. 1988. Habitat correlates of the distribution of California red-legged frog (Rana aurora draytonii) and foothill yellow-legged frog (Rana boylii): implication for management. In: Szaro, R.C..; Severson, K.E.; Patton, D.R., tech. coords. Proceedings of a symposium on the management of amphibians, reptiles, and small mammals in North America, Gen. Tech. Rep. RM-GTR-166. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station: 144–158.

Hogan, C.M., Deghi, G. et al. 1989. Scottsville Project Environmental Impact Report, Jackson California, Earth Metrics Inc., Report 7562, Sept., 1989.

Jennings, M.R. and Hayes, M.P. 1985. Pre-1900 overharvest of California red-legged frogs (Rana aurora draytonii):The inducement for bullfrog (Rana catesbeiana) introduction. Herpetological Review 31: 94-103.

Jennings, M. 1998. Electronic database of California red-legged frog occurrences.

Knapp, R. A. and Matthews, K.R. 2000. Non-native fish introductions and the decline of the mountain yellow-legged frog from within protected areas. Conservation Biology 14: 428–438.

Knapp, R. A., Matthews, K.R., Preisler, H.K. and Jellison, R. 2003. Developing probabilistic models to predict amphibian site occupancy in a patchy landscape. Ecological Applications 13: 1069–1082.

Lindley, S. T., et al. 2006. Historical population structure of Central Val-ley steelhead and its alteration by dams. San Francisco Estuary and Watershed Science: http://repositories.cdlib.org/jmie/sfews/vol4/iss1/art3.

Loredo, I., Van Vuren, D., and Morrison, M.L.. 1996. Habitat use and migration behavior of the California tiger salamander. Journal of Herpetology 30: 282-285.

Mount, J., G.E. Fogg, L. Kavvas, J. Fleckenstein, M. Anderson, Z.Q. Chen, & E. Suzuki. 2001. Linked surface water-groundwater model for the Cosumnes River watershed: Hydrologic evaluation of management options to restore fall flows. Report sponsored by U.S. Fish and Wildlife Service Anadromous Fish Restoration Program, Cooperative Agreement No. 11332-8-J264. September 2001. 49 pp. + appendices.

Moyle, P.B., P.K. Crain, K. Whitener, and J.F. Mount. 2003. Alien fishes in natural streams: fish distribution, assemblage structure, and conservation in the Cosumnes River, California, USA. Environmental Biology of Fishes 68: 143–162.

National Oceanic and Atmospheric Administration (NOAA). 1994. “Endangered and Threatened Species: Status of Sacramento River Winter-run Chinook salmon, Final Rule.” Federal Register 59 (2): 440-450.

NOAA. 1999. “Endangered and Threatened Species: Threatened Status for Two Chinook salmon Evolutionarily Significant Units (ESUs) in California, Final Rule.” Federal Register 64 (179): 50394-50415.

NOAA. 2005. "Endangered and Threatened Species: Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California, Final Rule." Federal Register 70 (170): 2488-52627.

NOAA. 2016a. 5-Year review: Summary and evaluation of Sacramento River Winter-run Chinook salmon evolutionarily significant unit. Available online at: https://repository.library.noaa.gov/view/noaa/17014

NOAA. 2016b. 5-Year review: Summary and evaluation of Central Valley Spring-run Chinook salmon evolutionarily significant unit. Available online at: https://repository.library.noaa.gov/view/noaa/17018

Nobriga, M. 1995. California Department of Fish and Game Cosumnes River Study. Report drafted by the CDFW Water Pollution Control Laboratory, Rancho Cordova, CA.

Olson, D.H. and Davis, R.J. 2009. Conservation assessment for the foothill yellow- legged frog (*Rana boylii*) in Oregon. Version 2.0. Portland, OR: U.S. Department of Agriculture, Forest Service, Region 6; and U.S. Department of the Interior, Bureau of Land Management, Interagency Special Status Species Program. http://www.fs.fed.us/r6/sfpnw/issssp/species-index/fauna-amphibians.shtml.

Peek, R. 2010. Landscape genetics of foothill yellow-legged frogs (*Rana boylii*) in regulated and unregulated rivers: assessing connectivity and genetic fragmentation. San Francisco, CA: University of San Francisco. 69 p. M.S. thesis.

Pittman, B.T. 2005. Observations of upland habitat use by California tiger salamanders based on burrow excavations. Transactions of the Western Section of the Wildlife Society 41: 26-30.

Rantz, S.E. 1972. Runoff characteristics of California Streams. In Contributions to the Hydrology of the United States. Library of Congress catalog-card No. 72-600016.

Reese, D.A. 1996. Comparative demography and habitat use of western pond turtles in northern California: the effects of damming and related alterations. Dissertation, University of California at Berkeley, Berkeley, California, USA.

Rossman, D.A., Ford, N.B., and Seigel, R.A. 1996. The garter snakes: evolution and ecology. University of Oklahoma Press, Norman, OK, USA.

Seymour, R. and Westphal, M. 1994. Distribution of California tiger salamanders in the eastern San Joaquin Valley: Results of the 1994 survey. Prepared for Coyote Creek Riparian Station. Prepared for the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office.

Shaffer, H.B., Fisher, R.N., and Stanley, S.E. 1993. Status Report: The California tiger salamander (Ambystoma californiense). Final report to California Department of Fish and Game, Inland Fisheries Division, Contract #FG9422 and FG1393.

Shaffer, H.B., Pauly, G.B., Oliver, J.C., and Trenham, P.C. 2004. The molecular phylogenetics of endangerment: Cryptic variation and historical phylogeography of the California tiger salamander, Ambystoma californiense. Molecular Ecology 13: 3033-3049.

Shaffer, H.B., Johnson, J., and Wang, I. 2013. Conservation genetics of California tiger salamanders. Prepared for Dan Strait, CVP Conservation Program Manager, Bureau of Reclamation, Sacramento, California. Final report. Bureau of Reclamation grant agreement no. R10AP20598.

Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. Pages 33-36 and plates.

Stebbins, R. C. 2003. A field guide to western reptiles and amphibians. Third edition. Houghton Mifflin Harcourt, New York, New York, USA.

Trenham, P.C. 2001. Terrestrial habitat use by adult California tiger salamanders. Journal of Herpetology 35: 343-346.

United States Fish and Wildlife Service (USFWS). 1996. Endangered and threatened wildlife and plants: determination of threatened status for the California red-legged frog. Federal Register 61 (101): 25813-25833.

USFWS. 2002. Recovery plan for the California Red-legged frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. viii + 173 pp.

USFWS. 2014. Endangered and threatened wildlife and plants; Endangered species status for Sierra Nevada yellow-legged frog and northern distinct population segment of the mountain yellow-legged frog, and threatened species status for Yosemite toad. Federal Register 79:24256–24310.

USFWS. 2015. Information for Planning and Conservation (IPaC); online project-planning tool. Available at: https://ecos.fws.gov/ipac/, accessed April 14, 2022.

USFWS. 2017. Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (Ambystoma californiense). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. v + 69pp.

Van Wagner, T.J. 1996. Selected life-history and ecological aspects of a population of foothill yellow-legged frogs (*Rana boylii*) from Clear Creek, Nevada County, California. Chico, CA: California State University. 143 p. M.S. thesis.

Vredenburg, V. T., Fellers, G.M. and Davidson, C. 2005. Rana muscosa Camp, 1917b. Mountain yellow-legged frog. Pages 563–566 in M. J. Lannoo, editor. Amphibian declines: conservation status of United States species. University of California Press, Berkeley, USA.

Williams, J. 2006. Central Valley Salmon: a perspective on Chinook and Steelhead in the Central Valley of California. San Francisco Estuary and Watershed Science, 4(3). Web.

Yarnell, S.M. 2008. Quantifying physical habitat heterogeneity in an ecologically meaningful manner: a case study of the habitat preferences of the foothill yellow- legged frog (*Rana boylii*). In: Dupont, A.; Jacobs, H., eds. Landscape ecology research trends. New York: Nova Science Publishers: 89–112. Chapter 5.

Zweifel, R. G. 1955. Ecology, distribution, and systematics of frogs of the Rana boylii group. University of California Publications in Zoology 54:207–292.

Appendix C

Jackson Creek Fish Community Characterization

Jackson Creek Fish Community Characterization



Submitted To:
Jackson Valley Irrigation District
California Department of Fish and Wildlife

Prepared By:
Michael Hellmair
Patrick Cuthbert
FISHBIO
1617 S. Yosemite Ave.
Oakdale, CA 95361
209.847.6300
www.fishbio.com
November 2022

Background

Jackson Creek is a 26.4-mile-long tributary to Dry Creek, which is itself a tributary to the Mokelumne River. The Mokelumne then flows into the San Joaquin River west of Lodi, CA. The overall watershed of Jackson Creek drains an area of nearly 90 square miles in Amador County, CA, about 62 percent (56 square miles) of which are above Lake Amador. The Jackson Creek basin climate is characterized by cool, relatively wet winters and hot, dry summers. With no portion of the watershed above 3,000 ft, the Jackson Creek hydrograph is entirely driven by rainfall during the fall, winter, and spring, as well as associated minimal snow runoff. In this sub-humid precipitation zone, the duration of surface flow can range from 90 to 365 days a year (Rantz 1972). Summers are long and hot with little or no rainfall, and without the dam and reservoir, the creek would generally be dry from early June each year until cumulative precipitation reaches approximately five inches, usually by November. As larger rivers draining the western side of the Sierra Nevada have naturally been intermittent (Mount et al. 2001), including the Cosumnes River (Moyle et al. 2003). It can be assumed that Jackson Creek, particularly the lower reaches, periodically dried up during the summer and fall months.

Lake Amador is the largest reservoir in the watershed, impounded by Jackson Creek Dam (height 193 ft; 59 m), built in 1965 and owned and operated by Jackson Valley Irrigation District (JVID). Under current conditions, Jackson Creek below Lake Amador receives outflow from reservoir releases to satisfy water demand for hatchery operation (year-round) and agricultural irrigation (summer). This provides perennial or near-perennial aquatic habitat downstream of Lake Amador, although outflow into Dry Creek is minimized by releasing only the volume of water required to meet the irrigation needs of downstream users in JVID's service area.

It is expected that without flow releases from Lake Amador, Lower Jackson Creek would dry up during the summer and fall months. As a consequence, it is unlikely that the lower reaches of the stream could permanently support native species without the perennial discharge provided by releases form Lake Amador. However, during the winter and spring months, lower Jackson Creek may have historically served as a migratory corridor for salmonids. Further, the stream was likely seasonally utilized by the native hardhead-pikeminnow-sucker assemblage (Moyle 2002). The intermittent nature of flows would have historically limited the year-round use of this reach by salmonids and provided marginal habitat for various salmonid life stages. However, the vast majority of Jackson Creek, including most reaches upstream of Lake Amador, are not considered suitable habitat for salmonids due to high temperatures.

No previous assessments of the fish community of Jackson Creek below Lake Amador are available. California Department of Fish and Wildlife (CDFW) staff visited the location in September and November 2012 to obtain information about JVID's operation and characterize the aquatic species present in the creek. There was no formal report produced and data collected during

this visit is not available, despite recent efforts by CDFW staff to locate it (Briana Seapy, CDFW, pers. comm. with Paula Whealen). To alleviate this knowledge gap and fulfill one of the suggested terms for dismissal of CDFW's Protest against JVID's Petitions for Extension of their water right permits, the fish community of lower Jackson Creek was sampled by backpack electrofishing on October 26, 2022. The results of this survey, with particular reference to the proposed dismissal terms, are summarized in this report.

Methods

During correspondence with CDFW staff (Tiffanee Hutton, Chris McKibbin, Skyler Burson) prior to the sampling event, it was agreed that backpack electrofishing was the most suitable method for evaluating the fish community composition of lower Jackson Creek. CDFW concurred that an effort of approximately 1,000 seconds of electrofishing at two different locations would provide an adequate sampling effort for characterizing the species and size classes present.

The two locations selected for sampling were sections upstream of the Buena Vista Road bridge (Figure 1) and the Highway 88 bridge (Figure 2). Sampling locations were considered representative of the aquatic habitat in the area, consisting of pool-run sequences with limited width (generally less than two m) and depth (typically less than 0.5 m). A single backpack electrofishing unit (Smith Root LR-24) was used to sample fish from Jackson Creek at each location. The operator was assisted by two netters, proceeding upstream from the access points, and sampling until the target effort was reached. Fish were netted and placed in aerated holding buckets until processing.

Upon completion of sampling at each location, all fish were identified to species, using distinguishing morphometric and meristic characteristics. Anal fin ray counts were used to identify captured sculpin (riffle sculpin have 12–16 anal fin rays, while prickly sculpin have 16–19). Following identification, all individuals were measured to the nearest mm fork length (FL) for most species and total length (TL) for sculpin species and weighed to the nearest gram. Fish less than 30 mm in length were plus-counted. Due to the moderate fish numbers in the catch, no sub-sampling procedure was employed. Sampled individuals were temporarily held in aerated holding buckets until processing was complete. After processing, all fish were released into Jackson Creek near the point of capture.

Sampling and fish processing was conducted by Chris McKibbin (CDFW), Skyler Burson (CDFW), Michael Hellmair (FISHBIO), and Craig Stevens (Stevens Consulting).



Figure 1. Representative section of the sampling reach on Jackson Creek, upstream of the Buena Vista Road bridge.



Figure 2. Representative section of the sampling reach on Jackson Creek, upstream of the Highway 88 bridge. Note that turbidity was temporary and caused by disturbance/wading by field personnel.

Results

Both locations were sampled sequentially on October 26, 2022, during sunny conditions. Discharge from Lake Amador was approximately 4.6 cfs (2,000 gallons per minute).

Buena Vista Road

At the upstream location, the creek was accessed directly under the Buena Vista Road Bridge, which crosses Jackson Creek approximately 1.95 miles downstream of Amador Dam. Instantaneous water quality parameters were measured at the time of sampling. The water temperature at this location was 12.1°C, dissolved oxygen concentration was 7.41 mg/L, and conductivity was 181 µS/cm.

Electrofishing was conducted for a total of 1,152 seconds at this location (190 V, 30 Hertz, 20% duty cycle).

Three species were captured at this location, including hitch (*Lavinia exilicauda*; n=38, Figure 3), Sacramento sucker (*Catostomus occidentalis*; n=15) and prickly sculpin (*Cottus asper*, n=1).

A small number of fish were missed by netters during electrofishing, including five Sacramento sucker and one sculpin (presumably the same species as the those captured and identified) in the same size range as those captured and processed.



Figure 3. Hitch (*Lavinia exilicauda*) captured in Jackson Creek just upstream of the Buena Vista Road bridge on October 26, 2022.

Highway 88

At the downstream location, the creek was accessed directly under the Highway 88 bridge, which crossed Jackson Creek approximately 6.06 miles downstream of Amador Dam (4.11 miles downstream of the Buena Vista Road Bridge), and 2.40 miles upstream of the confluence with Dry Creek. Again, instantaneous water quality parameters were measured taken at the time of sampling. The water temperature at this location was 12.5°C, dissolved oxygen concentration was 8.90 mg/L, and conductivity was 217 µS/cm.

Electrofishing was conducted for a total of 1,079 seconds at this location (190 V, 30 Hertz, 20% duty cycle).

Four species were captured at this location, including hitch (n=29), Sacramento pikeminnow (*Ptychocheilus grandis*, n=6), prickly sculpin (n=12) and Sacramento sucker (n=10; Figure 4). One prickly sculpin (TL=103 mm) was found dead in the creek during the survey and collected to obtain length and weight measurements. It appeared to be in the initial stages of decomposition, the cause of death is unknown.



Figure 4. Sacramento pikeminnow (*P. grandis*) captured in Jackson Creek just upstream of the Highway 88 bridge on October 26, 2022.

General

Overall, captured fish were relatively small (only one Sacramento sucker exceeded 200 mm FL). Each captured species appeared to be represented by multiple age/size classes (Figures 5-8). No mortalities were observed. Scans of the original datasheets are included in Appendix 1.

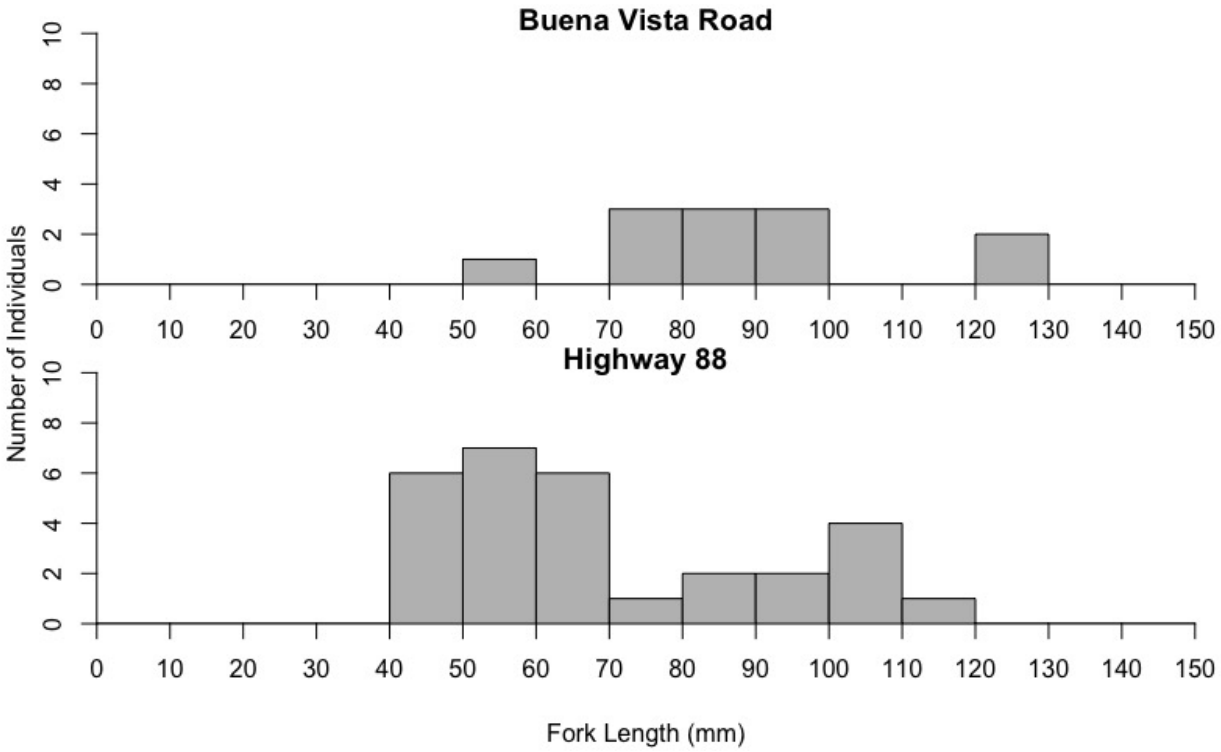


Figure 5. Length-frequency histogram of hitch (*Lavinia exilicauda*), captured during electrofishing surveys in lower Jackson Creek on October 26, 2022. Note: 26 individuals smaller than 30 mm captured at Buena Vista Road are not depicted.

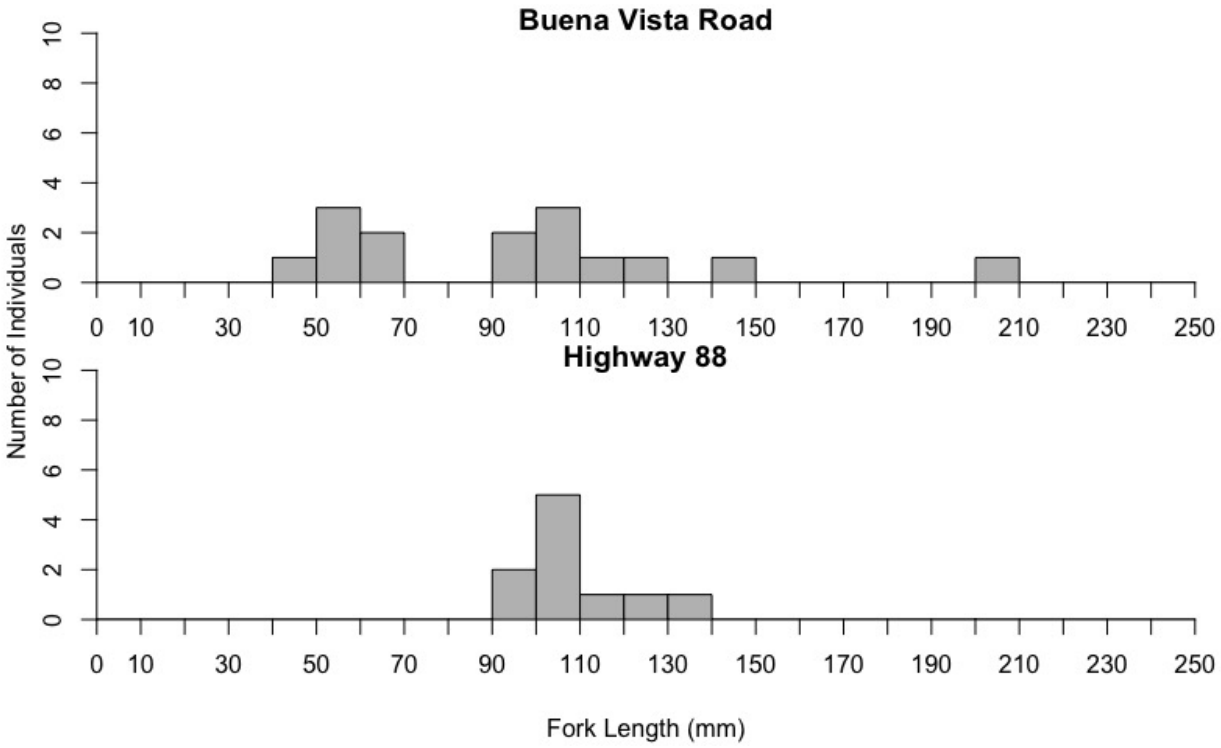


Figure 6. Length-frequency histogram of Sacramento sucker (*Catostomus occidentalis*), captured during electrofishing surveys in lower Jackson Creek on October 26, 2022.

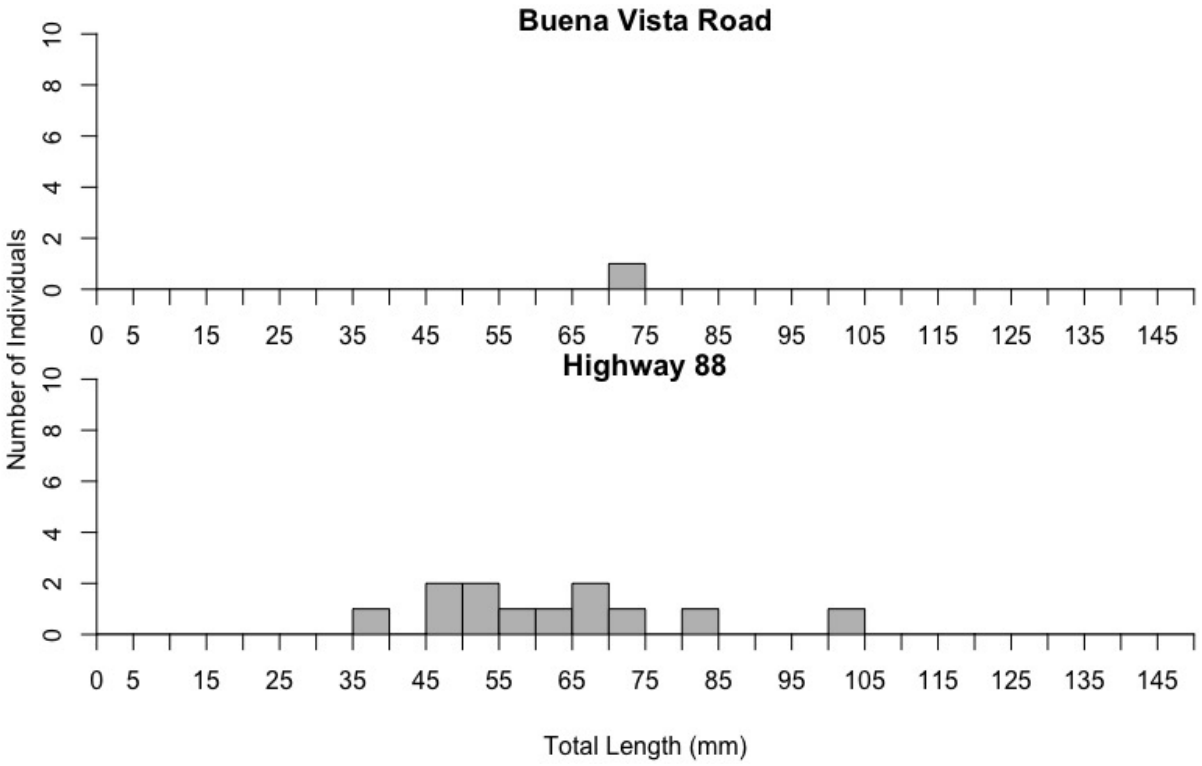


Figure 7. Length-frequency histogram of prickly sculpin (*Cottus asper*), captured during electrofishing surveys in lower Jackson Creek on October 26, 2022.

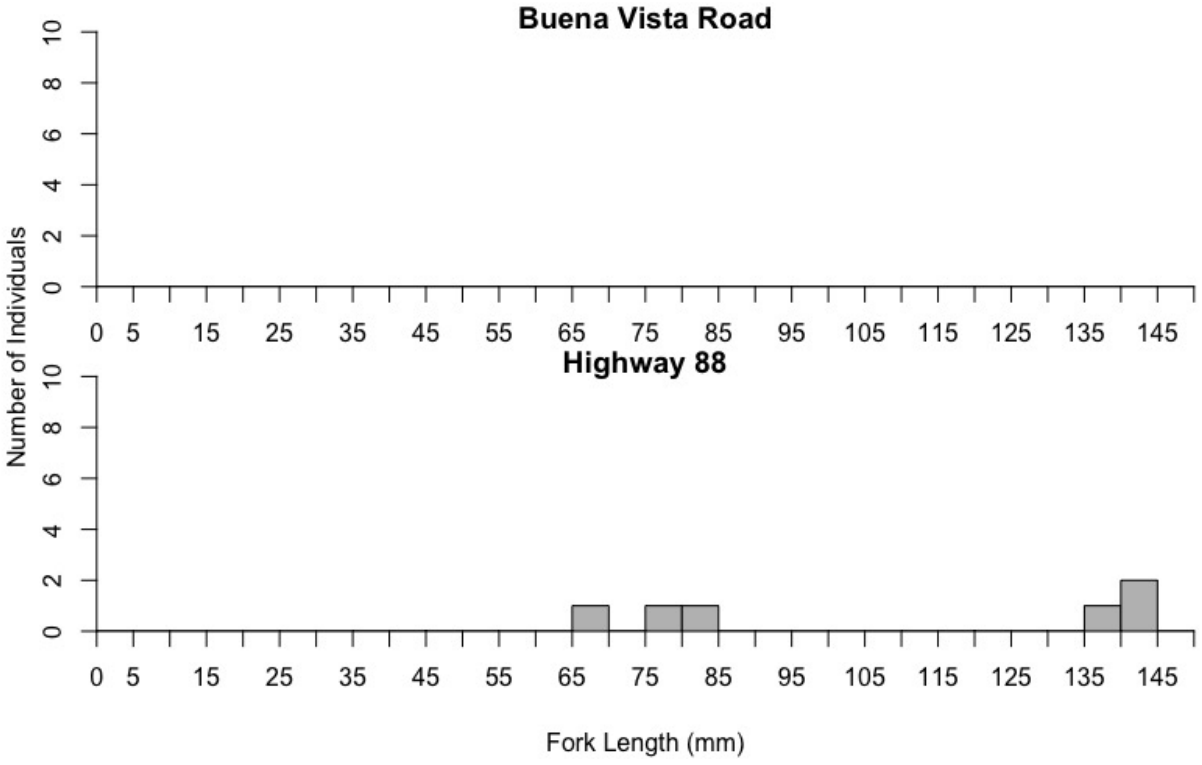


Figure 8. Length-frequency histogram of Sacramento pikeminnow (*Ptychocheilus grandis*), captured during electrofishing surveys in lower Jackson Creek on October 26, 2022.

Summary and Discussion

The fish community at the two sampled locations, considered representative of lower Jackson Creek, consisted of a small number of native fishes, namely hitch (*L. exilicauda*), Sacramento pikeminnow (*P. grandis*) Sacramento sucker (*C. occidentalis*), and prickly sculpin (*C. asper*). The presence and abundance of hitch is perhaps the most noteworthy finding of this survey. Hitch, while having among the broadest environmental tolerances of native Central Valley fishes, can sometimes be found in cool, low-gradient streams such as Jackson Creek, although they more frequently occur in warm, low-velocity habitats. They are often closely associated with aquatic vegetation, which is abundant along the creek (particularly bur marigold, *Bidens leavis*; see Figures 1 & 2).

Hitch, as well as the three other species documented during the survey, were represented by multiple size and age classes. Given the infrequent connectivity to downstream habitats (flow typically does not reach Dry Creek or the Mokelumne River), it is assumed that their populations are self-sustaining and successful reproduction occurs in Jackson Creek.

No non-native/introduced species were documented during the sampling event. Anecdotal accounts of anglers pursuing smallmouth bass (*Micropterus dolomieu*) suggest that non-native centrarchids may occur in the creek at low abundance levels. Discarded fishing tackle (braided line) at the Buena Vista Road bridge suggests that anglers may occasionally attempt to pursue sport fish in the creek. Their target species and angling success is unknown, but the latter is expected to be low based on the absence of bass or other species typically targeted by anglers from the results of sampling. The conspicuous absence of non-native fish fauna in Jackson Creek may be, at least partially, attributable to current operations of Lake Amador and Jackson Creek by JVID, which deliberately avoids connectivity to downstream habitats by only releasing the amount of water requested by the district's costumers, thus limiting opportunity for colonization of the creek by the abundant non-native fishes found in the Mokelumne River (e.g., Workman & Merz 2007).

With respect to the terms for dismissal listed in CDFW's protest letter, the assessment described in this report satisfies Condition 3:

> *Identification of existing aquatic resources within the Jackson Creek and Mokelumne River watershed. This information should include […] appropriate species surveys and population data for resident fish communities […].*

References

Mount, J., G.E. Fogg, L. Kavvas, J. Fleckenstein, M. Anderson, Z.Q. Chen, & E. Suzuki. 2001. Linked surface water-groundwater model for the Cosumnes River watershed: Hydrologic evaluation of management options to restore fall flows. Report sponsored by U.S. Fish and Wildlife Service Anadromous Fish Restoration Program, Cooperative Agreement No. 11332-8- J264. September 2001. 49 pp. + appendices.

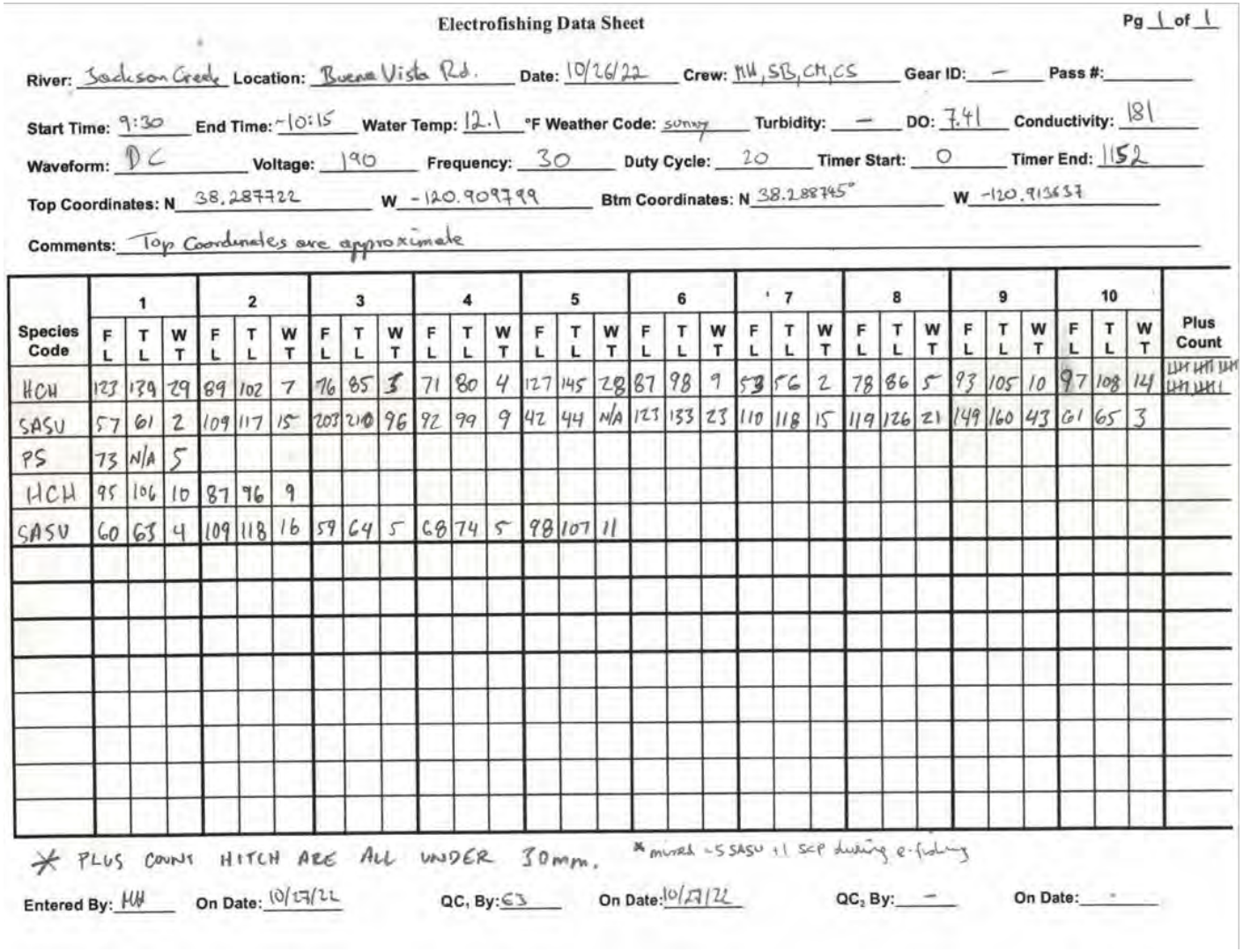
Moyle, P. B. 2002. Inland fishes of California: Revised and Expanded. University of California Press.

Moyle, P.B., P.K. Crain, K. Whitener, and J.F. Mount. 2003. Alien fishes in natural streams: fish distribution, assemblage structure, and conservation in the Cosumnes River, California, USA. Environmental Biology of Fishes 68: 143–162.

Rantz, S.E. 1972. Runoff characteristics of California Streams. In Contributions to the Hydrology of the United States. Library of Congress catalog-card No. 72-600016.

Workman, M.L., and J.E. Merz. 2007. Introduced Yellowfin Goby, Acanthogobius flavimanus: Diet and Habitat Use in the Lower Mokelumne River, California. San Francisco Estuary and Watershed Science, 5(1)

Appendix 1. Field Data Sheet Scans



Electrofishing Data Sheet

Pg 1 of 1

River: Jackson Creek Location: Buena Vista Rd. Date: 10/26/22 Crew: MH, SB, CM, CS Gear ID: — Pass #:

Start Time: 9:30 End Time: ~10:15 Water Temp: 12.1 °F Weather Code: sunny Turbidity: — DO: 7.41 Conductivity: 181

Waveform: DC Voltage: 190 Frequency: 30 Duty Cycle: 20 Timer Start: 0 Timer End: 1152

Top Coordinates: N 38.287722 W -120.909799 Btm Coordinates: N 38.288745° W -120.913637

Comments: Top Coordinates are approximate

Species Code	1 FL	1 TL	1 WT	2 FL	2 TL	2 WT	3 FL	3 TL	3 WT	4 FL	4 TL	4 WT	5 FL	5 TL	5 WT	6 FL	6 TL	6 WT	7 FL	7 TL	7 WT	8 FL	8 TL	8 WT	9 FL	9 TL	9 WT	10 FL	10 TL	10 WT	Plus Count
HCH	123	139	29	89	102	7	76	85	3	71	80	4	127	145	28	87	98	9	53	56	2	78	86	5	93	105	10	97	108	14	
SASU	57	61	2	109	117	15	203	210	96	92	99	9	42	44	N/A	123	133	23	110	118	15	119	126	21	149	160	43	61	65	3	
PS	73	N/A	5																												
HCH	95	106	10	87	96	9																									
SASU	60	63	4	109	118	16	59	64	5	68	74	5	98	107	11																

* PLUS COUNT HITCH ARE ALL UNDER 30mm.

* missed ~5 SASU +1 SCP during e-fishing

Entered By: MH On Date: 10/27/22 QC, By: CS On Date: 10/27/22 QC₂ By: — On Date: —

Figure A1. Field data sheet for the Buena Vista Road Bridge sampling location on Jackson Creek.

Electrofishing Data Sheet Pg 1 of 1

River: Jackson Creek Location: Hwy 88 Date: 10/26/22 Crew: MH, SB, CH, CS Gear ID: – Pass #: 1

Start Time: 11:30 End Time: ~12:15 Water Temp: 12.5 °F Weather Code: sunny Turbidity: – DO: 8.90(82%) Conductivity: 217

Waveform: DC Voltage: 190 Frequency: 30 Duty Cycle: 20 Timer Start: 0 Timer End: 1079

Top Coordinates: N 38.305834 W -121.973805 Btm Coordinates: N 38.307205 W -120.977620

Comments: Top coordinates are approximate

Species Code	1			2			3			4			5			6			7			8			9			10			Plus Count
	FL	TL	WT	FL	TL	WT	FL	TL	WT	FL	TL	WT	FL	TL	WT	FL	TL	WT	FL	TL	WT	FL	TL	WT	FL	TL	WT	FL	TL	WT	
HCH	114	130	19	69	76	3	57	64	2	53	59	2	58	66	2	46	52	1	92	102	9	103	114	14	62	67	2	54	62	2	
SASU	111	120	21	127	133	28	92	95	6	108	115	17	132	144	35	101	110	12	105	113	15	99	106	12	101	110	12	106	113	13	
PM	66	71	3	80	85	4	138	150	25	141	151	26	143	156	26	82	91	6													
HCH	51	55	1	46	52	1	47	53	1	49	55	1	56	62	2	46	52	1	102	113	12	81	94	6	62	71	3	61	69	2	
HCH	101	113	13	105	118	16	57	64	1	84	95	9	66	72	4	76	86	5	43	47	1	93	108	11							
PS	70	N/A	3	71	N/A	3	103	MORT	14	83	N/A	7	49	N/A	2	39	N/A	1	51	N/A	2	69	N/A	4	59	N/A	2	61	N/A	2	
SASU																															
PS	50	N/A	2	53	N/A	2																									

Entered By: MH On Date: 10/27/22 QC$_1$ By: ES On Date: 10/27/22 QC$_2$ By: – On Date: –

Figure A2. Field data sheet for the Highway 88 Bridge sampling location on Jackson Creek.

Appendix D

Jackson Creek Fish Community Memorandum

TO: Craig Stevens; Stevens Consulting
Annalee Sanborn; Acorn Environmental
FROM: FISHBIO
DATE: June 05, 2025
SUBJECT: Evaluation of Potential Impacts on the Jackson Creek Fish Community, as Related to the Continued Development of Water Right Permits 11224, 11589 and 12167.

Background

Jackson Creek is a 26.4-mile-long tributary to Dry Creek, which is itself a tributary to the Mokelumne River. The Mokelumne then flows into the San Joaquin River west of Lodi, CA. The watershed drains nearly 90 square miles in Amador County, CA, about 62 percent of which are above Lake Amador. The Jackson Creek hydrograph is predominantly driven by rainfall during the fall, winter, and spring. Summers are long and hot with little or no rainfall. As larger rivers draining the western side of the Sierra Nevada have naturally been intermittent (Mount et al. 2001), including the Cosumnes River (Moyle et al. 2003), it can be assumed that Jackson Creek, particularly the lower reaches, periodically dried up during the summer and fall months prior to construction of the dam and reservoir in 1965. Jackson Creek Dam is owned and operated by Jackson Valley Irrigation District (JVID). Under current conditions, Jackson Creek receives outflow from reservoir releases to satisfy water demand for hatchery operation (year-round) and agricultural irrigation (summer), which provides perennial or near-perennial aquatic habitat downstream of Lake Amador. However, outflow into Dry Creek is minimized by releasing only the volume of water required to meet the irrigation needs of downstream users in JVID's service area.

To provide a foundation for the evaluation of potential impacts to flows in Jackson Creek below the reservoir related to the continued development of water right Permits 11589 and 11224 under the requested Petitions for Extension of Time for the two permits, a fish community assessment (FISHBIO 2022) and hydrologic analysis (Wagner & Bonsignore 2025) were conducted. As no previous assessments of the fish community of Jackson Creek below Lake Amador was available, the fish community of lower Jackson Creek was sampled by backpack electrofishing in 2022.

In summary, four native fish species were captured during the assessment, including hitch (*Lavinia exilicauda*), Sacramento pikeminnow (*Ptychocheilus. grandis*) Sacramento sucker (*Catostomus occidentalis*), and prickly sculpin (*Cottus asper*). Each species was represented by multiple size and age classes. Given the infrequent connectivity to downstream habitats (flow typically does not reach Dry Creek or the Mokelumne River except during exceptionally wet conditions during the winter months, when Jackson Dam is spilling), it is assumed that their populations are self-sustaining and successful reproduction occurs in Jackson Creek.

No non-native/introduced species were documented during the sampling event. Anecdotal accounts of anglers pursuing smallmouth bass (*Micropterus dolomieu*) suggest that non-native centrarchids may occur in the creek at low abundance levels. However, overcoming the distance

of over 20 miles to the Mokelumne River, a likely source of non-native species including black basses (*Micropterus sp*.) and sunfishes (*Lepomis sp*.), is improbable during the low frequency and short duration of connectivity, thus limiting colonization opportunities for non-native fish species.

This conspicuous absence of non-native fish fauna in Jackson Creek stands in stark contrast to most other bodies of water in the Central Valley, and may be, at least partially, attributable to JVID operations, which deliberately avoid connectivity to downstream habitats by only releasing the amount of water requested by the district's costumers, thus limiting opportunity for colonization of the creek by the abundant non-native fishes found in the Mokelumne River (e.g., Workman & Merz 2007).

Effects of Projected Discharge on the Biological Communities in the Watershed

A hydrologic analysis forecasting reservoir storage and discharge under future development of the above-mentioned water rights is summarized in Table 1 below. Mean discharge in lower Jackson Creek is forecast to increase slightly during all months of the year, but by only 1.1 cfs or less, except in March and April where mean discharge is projected to increase by 3.4 and 2.2 cfs, respectively. These minor increases are likely within the margin of error of the hydrologic analysis (Wagner & Bonsignore 2025).

As projected flows would remain of comparable magnitude to past and current discharge regimes, no changes to the fish community of Jackson Creek are expected as a consequence. Therefore, Jackson Creek is expected to continue to provide suitable habitat for reproduction, growth and persistence of native fishes, which will comprise the vast majority of fish biomass in the creek. A continuation of the practice to limit discharge to volumes requested by downstream consumers is recommended to limit the potential of colonization by introduced fish species from downstream areas.

Table 1. Average monthly change in flow below Jackson Creek Dam, historical vs. built-out condition (reproduced from Wagner & Bonsignore 2025).

Month	Average Historical Flows (af)	Projected Average Built-Out Flows (af)	Estimated Change (af)	Estimated Change (cfs)	Estimated Change (%)
January	4,681	4,723	41.5	0.7	0.89%
February	4,237	4,260	22.4	0.4	0.53%
March	6,059	6,270	211.0	3.4	3.48%
April	3,041	3,170	128.7	2.2	4.23%
May	669	693	24.9	0.4	3.73%
June	702	750	48.0	0.8	6.84%
July	746	766	20.8	0.3	2.80%
August	730	787	56.8	0.9	7.78%
September	635	701	66.0	1.1	10.40%
October	342	411	68.5	1.1	20.01%
November	81	97	15.8	0.3	19.37%
December	636	661	25.2	0.4	3.96%

Similarly, the minor variation in discharge patterns predicted by hydrologic analysis is not expected to affect the extent, composition, or biological functions of the wetland or riparian habitats along Jackson Creek, nor alter the behavioral (e.g. migration) patterns of the wildlife that inhabit these areas.

Changes in reservoir operations that affect the amount of storage at various times of year have the potential to influence wetland habitats along the margins of the reservoir. However, monthly changes in Lake Amador storage projected by hydrologic analysis generally do not exceed 1% of storage volume, except in November, when storage would increase by nearly 3%. Such minor predicted variation is not expected to affect adjacent shoreline habitat or wetlands along the margin of the reservoir.

In summary, the projected effects are sufficiently minor that no changes in condition are expected in Jackson Creek or adjacent biological communities, thus would not stand in conflict with any local policies or ordinances, which include:

- Goal OS-3: Protect wildlife habitats, including sensitive environments and aquatic habitats, consistent with State and federal law.
- Goal OS-4: Protect special status species, including threatened and endangered species, consistent with State and federal law (Amador County General Plan Open Space Element; Amador County 2016).

The Project does not conflict with any adopted conservation plans, as the county does not have specific policies or ordinances (such as a tree preservation ordinance) that address biological resources (Sutter County 2010a).

References

FISHBIO. 2022. Jackson Creek Fish Community Characterization. Report to Jackson Valley Irrigation District and California department of Fish and Wildlife. November 2022. 13pp.

Mount, J., G.E. Fogg, L. Kavvas, J. Fleckenstein, M. Anderson, Z.Q. Chen, & E. Suzuki. 2001. Linked surface water-groundwater model for the Cosumnes River watershed: Hydrologic evaluation of management options to restore fall flows. Report sponsored by U.S. Fish and Wildlife Service Anadromous Fish Restoration Program, Cooperative Agreement No. 11332-8- J264. September 2001. 49 pp. + appendices.

Moyle, P.B., P.K. Crain, K. Whitener, and J.F. Mount. 2003. Alien fishes in natural streams: fish distribution, assemblage structure, and conservation in the Cosumnes River, California, USA. Environmental Biology of Fishes 68: 143–162.

Wagner and Bonsignore. 2025. Technical Memorandum: Hydrologic Analysis of Impacts to Lake Amador and Jackson Creek for Jackson Valley Irrigation District Petitions for Extension of Time of Water Right Permit 11589 (A012342A) and Water Right Permit

11224 (A017605). Memorandum to Stevens Consulting and Acorn Environmental. May 19, 2025. 18 pp.

Workman, M.L., and J.E. Merz. 2007. Introduced Yellowfin Goby, Acanthogobius flavimanus: Diet and Habitat Use in the Lower Mokelumne River, California. San Francisco Estuary and Watershed Science, 5(1)

Appendix E

AB 52 Consultation Letters

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Ms. Rhonda Morningstar Pope
Chairperson
Buena Vista Rancheria of Me-Wuk Indians
1418 20th Street, Suite 200
Sacramento, CA, 95811

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Ms. Pope:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

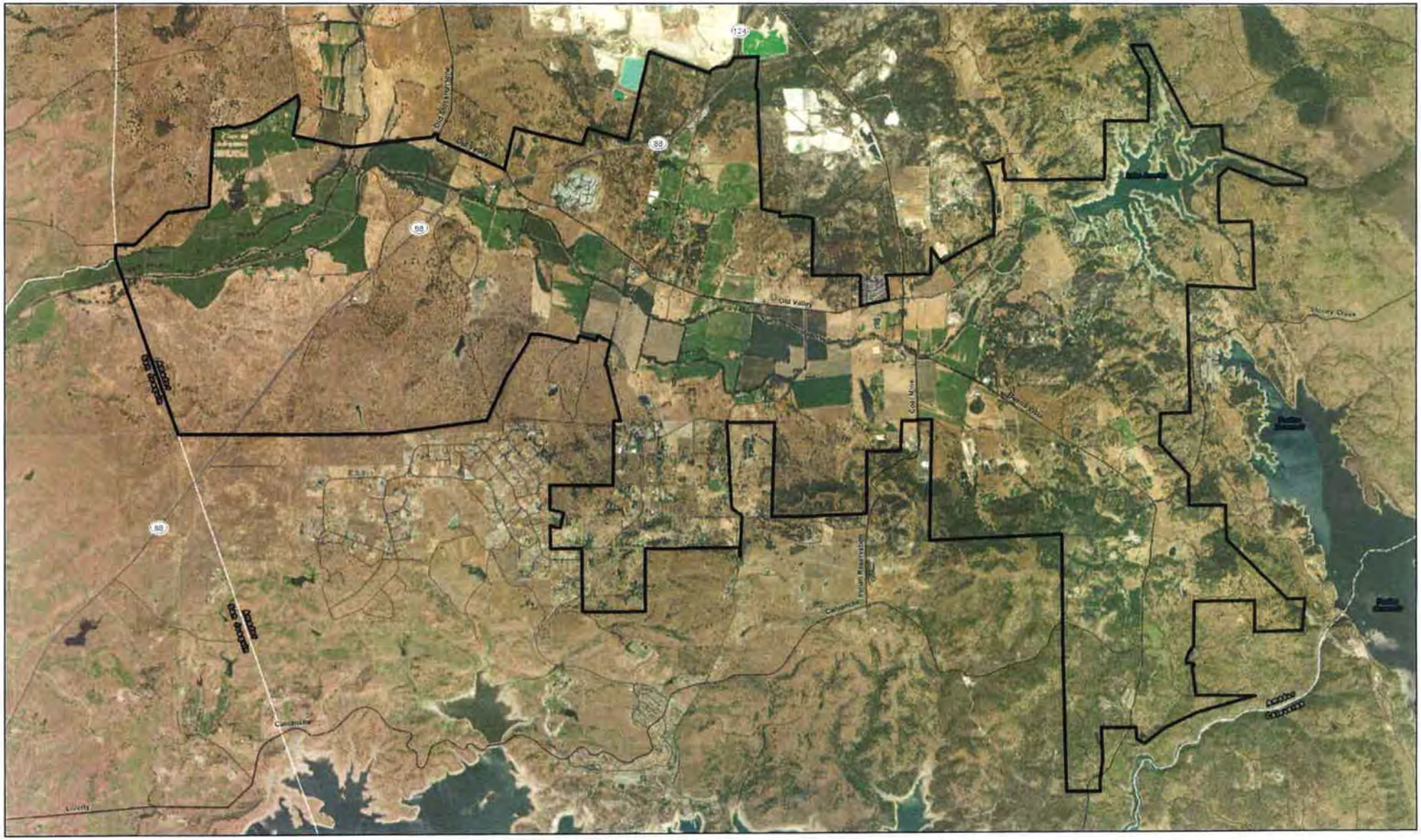
Very Respectfully,

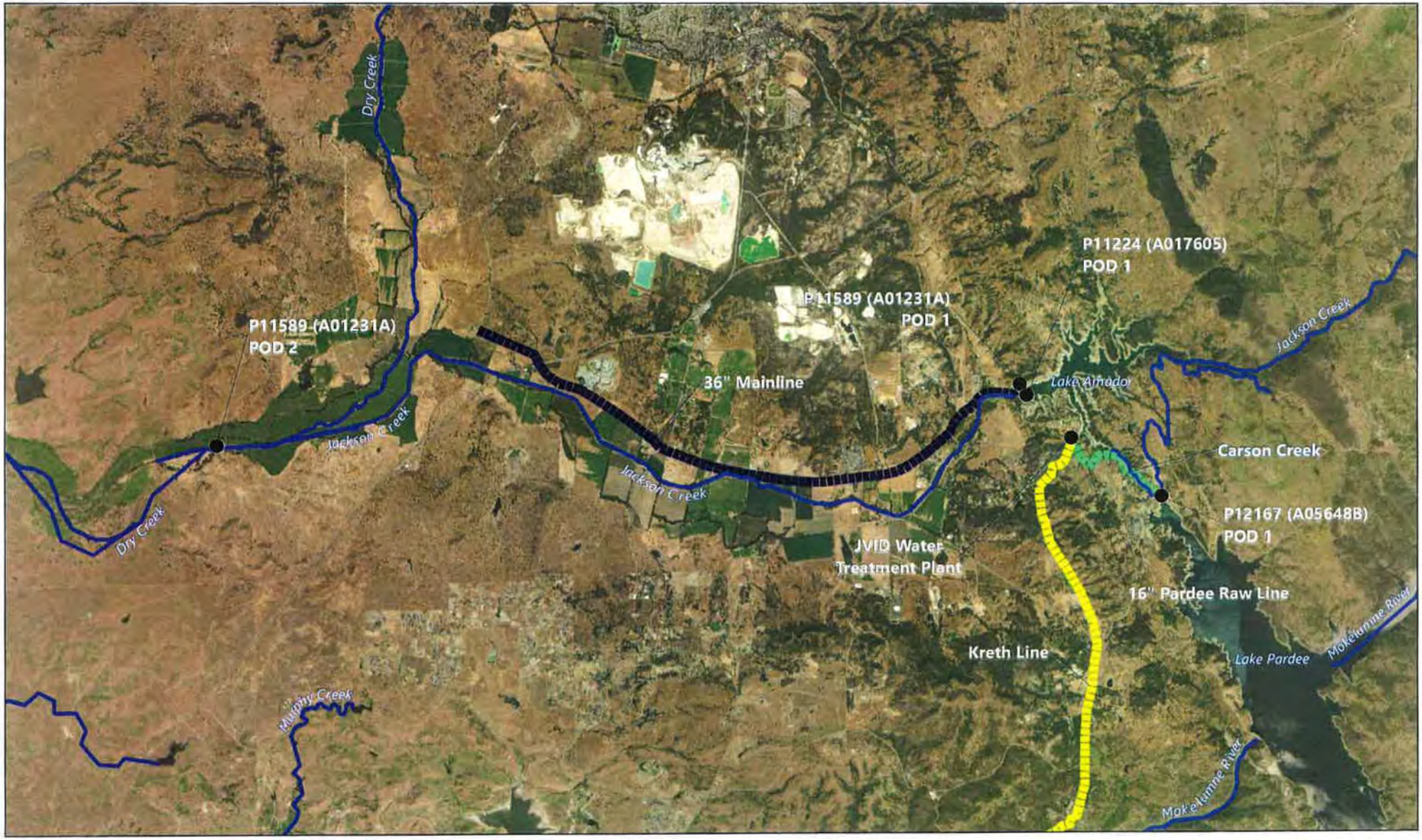
Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson


124
88
88
88
Old Valley
Old Valley
Old Kennedy Rd
Old Kennedy Rd
Old Kennedy Rd
Old Kennedy Rd
Cold Mine
Cold Mine
Cemetery
Indian Reservation
Cemetery
Liberty
Liberty
Amador County
Amador County
Amador County



Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Nearmap (09/2021)

0 250 500
Feet

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Ms. Gloria Grimes
Chairperson
Calaveras Band of Mi-Wuk Indians
P.O. Box 899
West Point, CA, 95255

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Ms. Grimes:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

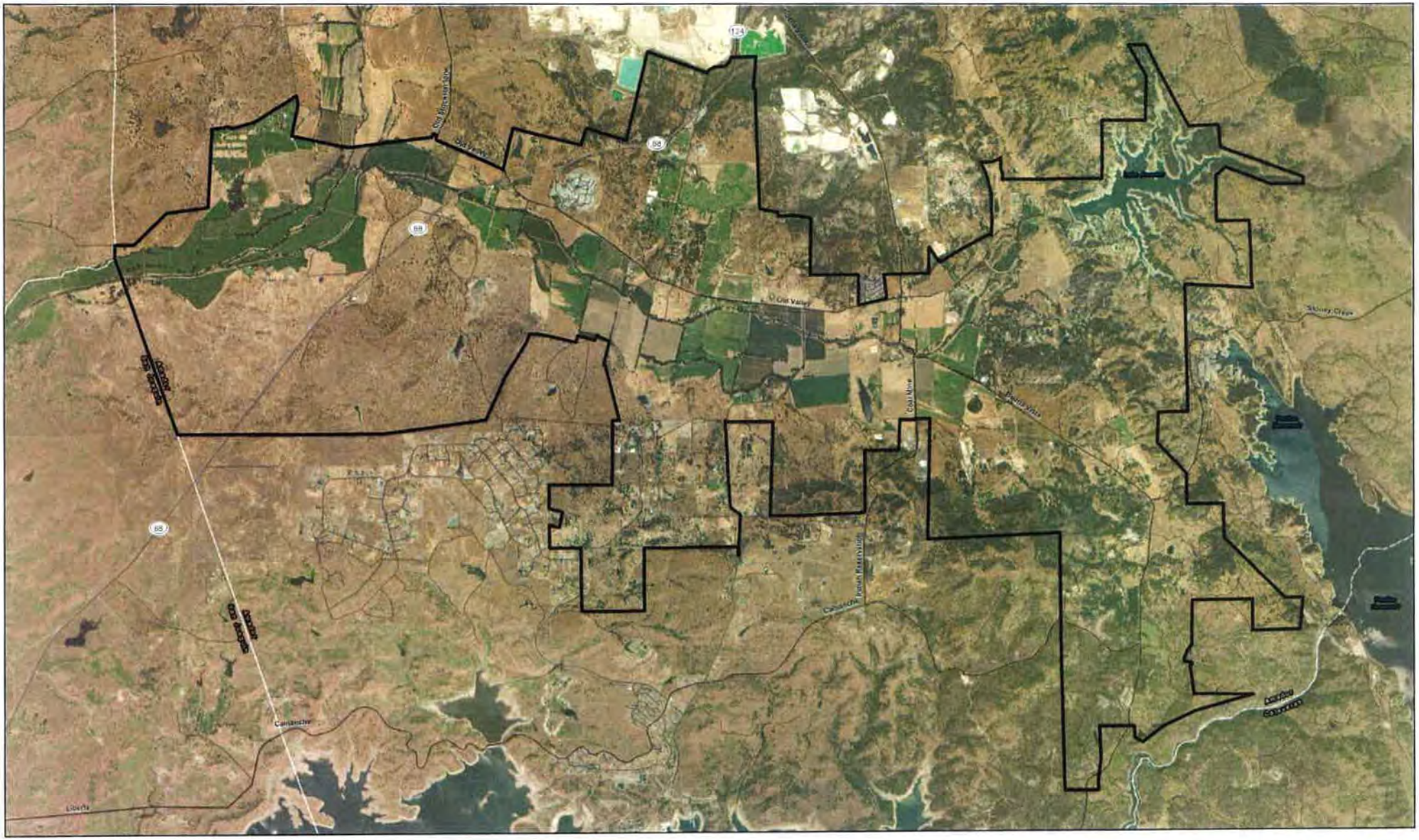
Very Respectfully,

Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson



Aerial Source: Maxar (09/2021)

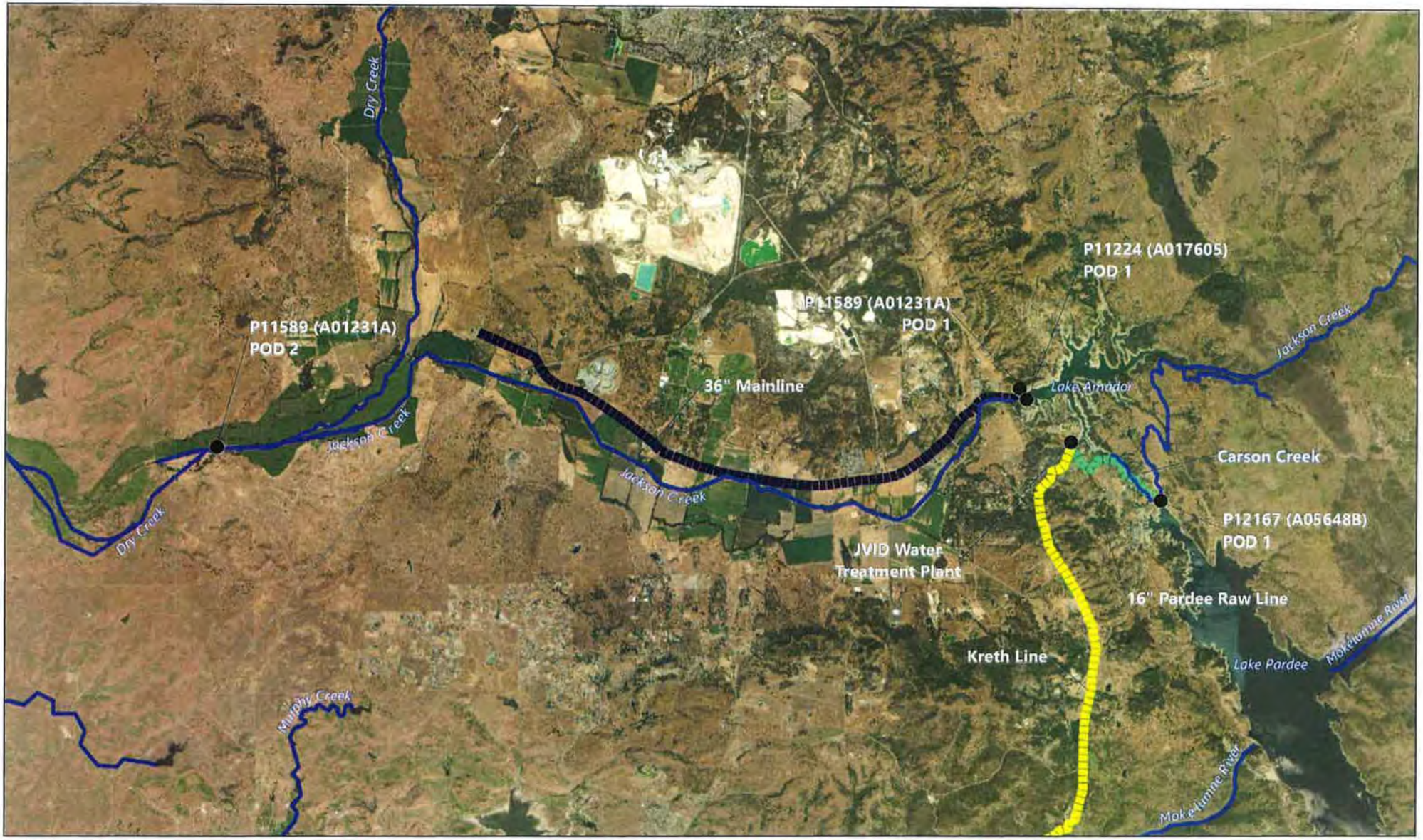
0 1 2
Miles

N
W E
S

Figure 1: Place of Use (POU)

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 1 2
Miles

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 250 500
Feet

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Mr. Lloyd Mathiesen
Chairperson
Chicken Ranch Rancheria of Me-Wuk Indians
P.O. Box 1159
Jamestown, CA, 95327

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Mr. Mathiesen:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

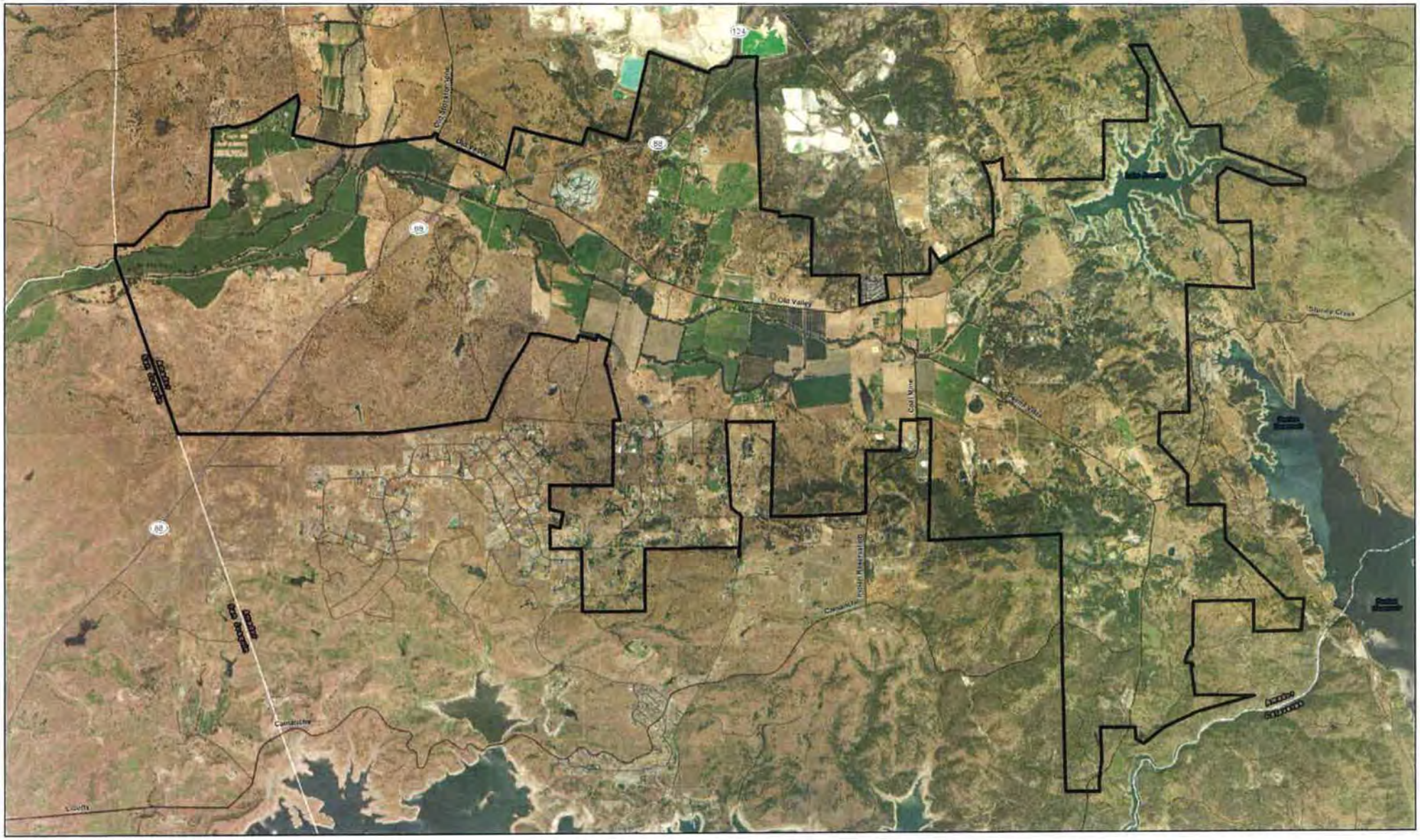
Very Respectfully,

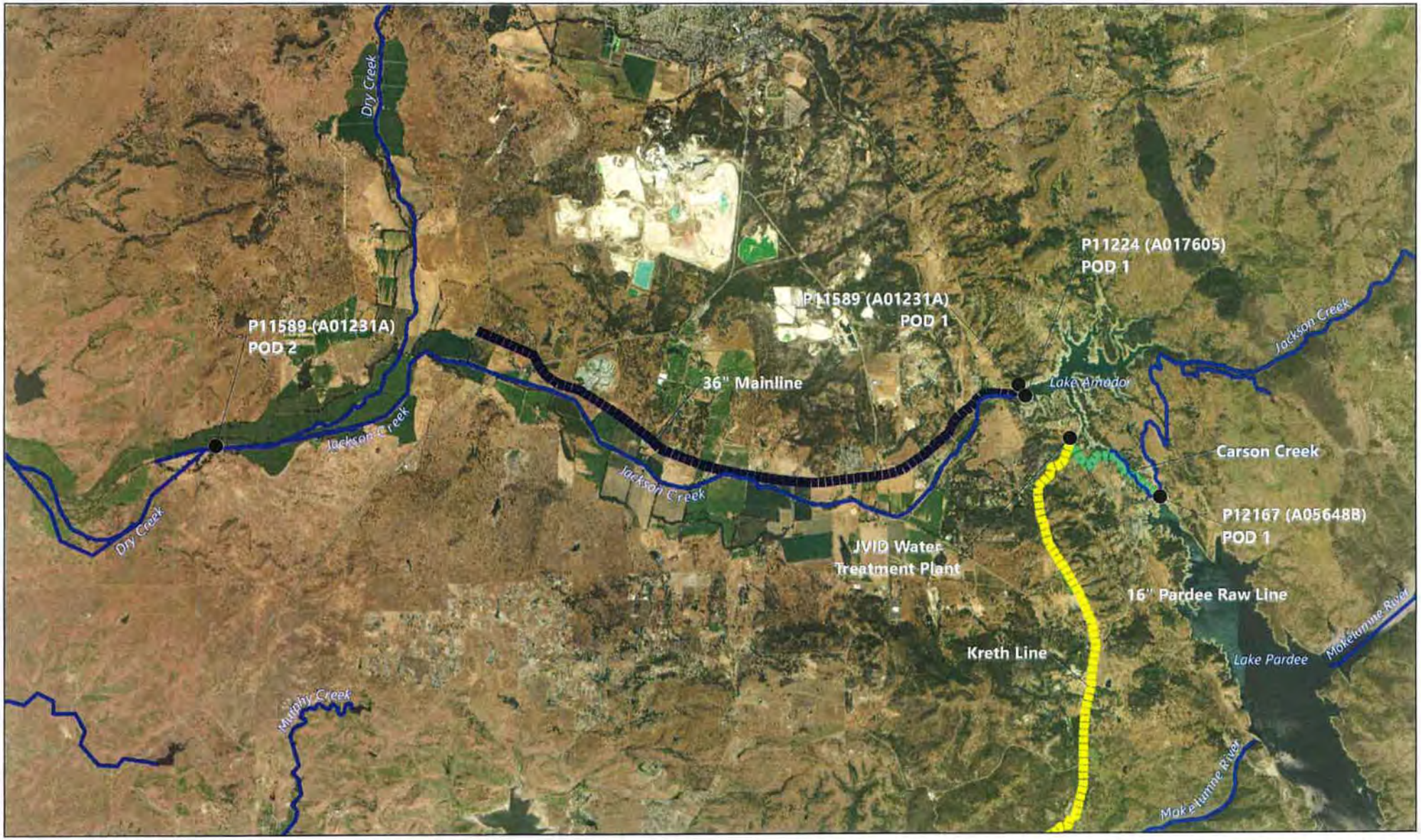
Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson


124
88
Old Valley
Jackson Valley
Old Valley
Jackson Valley
Old Valley
Stanley Creek
Old Valley
Jackson Valley
Old Valley
Jackson Valley
Old Valley
Jackson Valley



Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 250 500
Feet

N
W E
S

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Ms. Sara Dutschke
Chairperson
Ione Band of Miwok Indians
9252 Bush Street
Plymouth, CA, 95669

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Ms. Dutschke:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

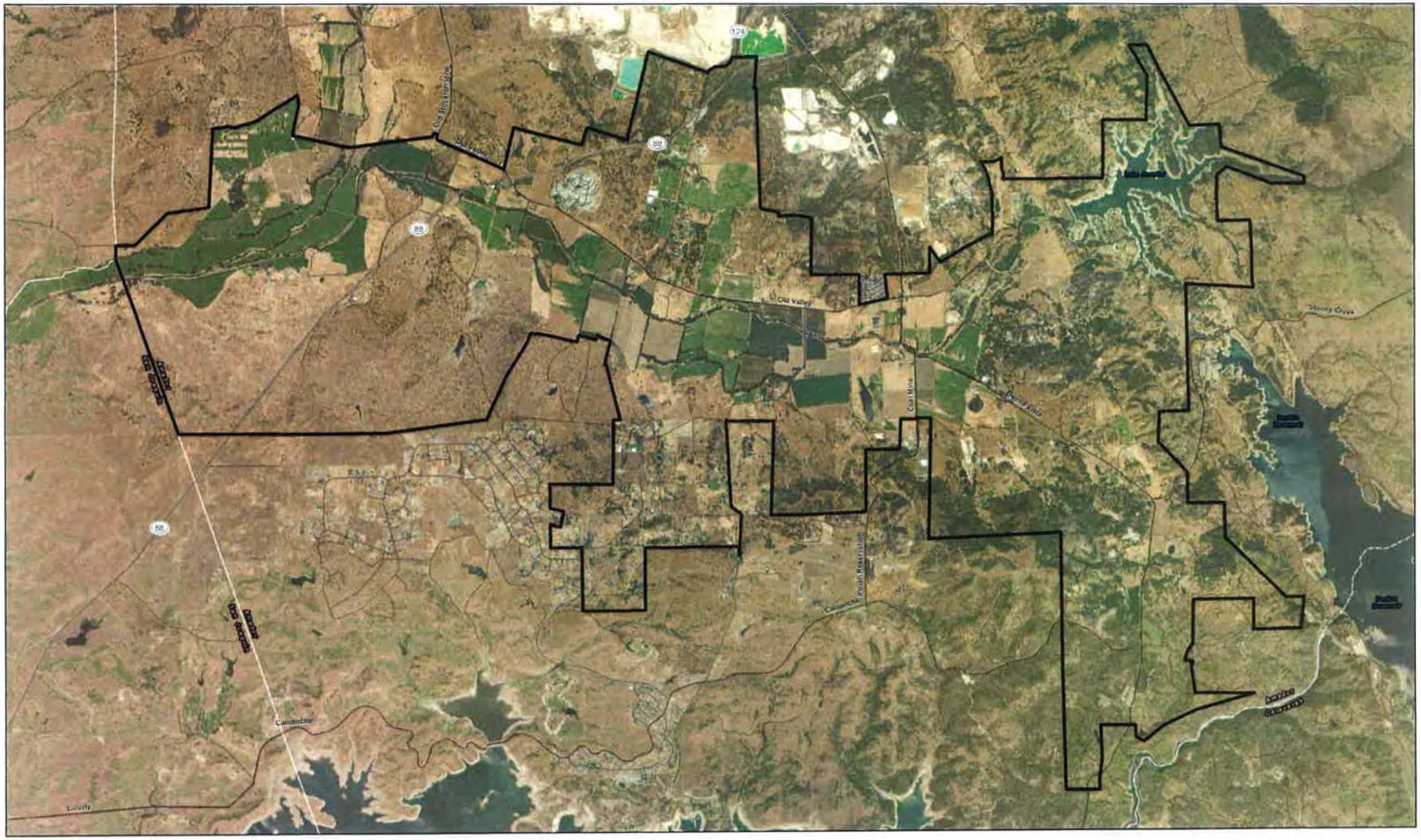
Very Respectfully,

Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson



Aerial Source: Maxar (09/2021)

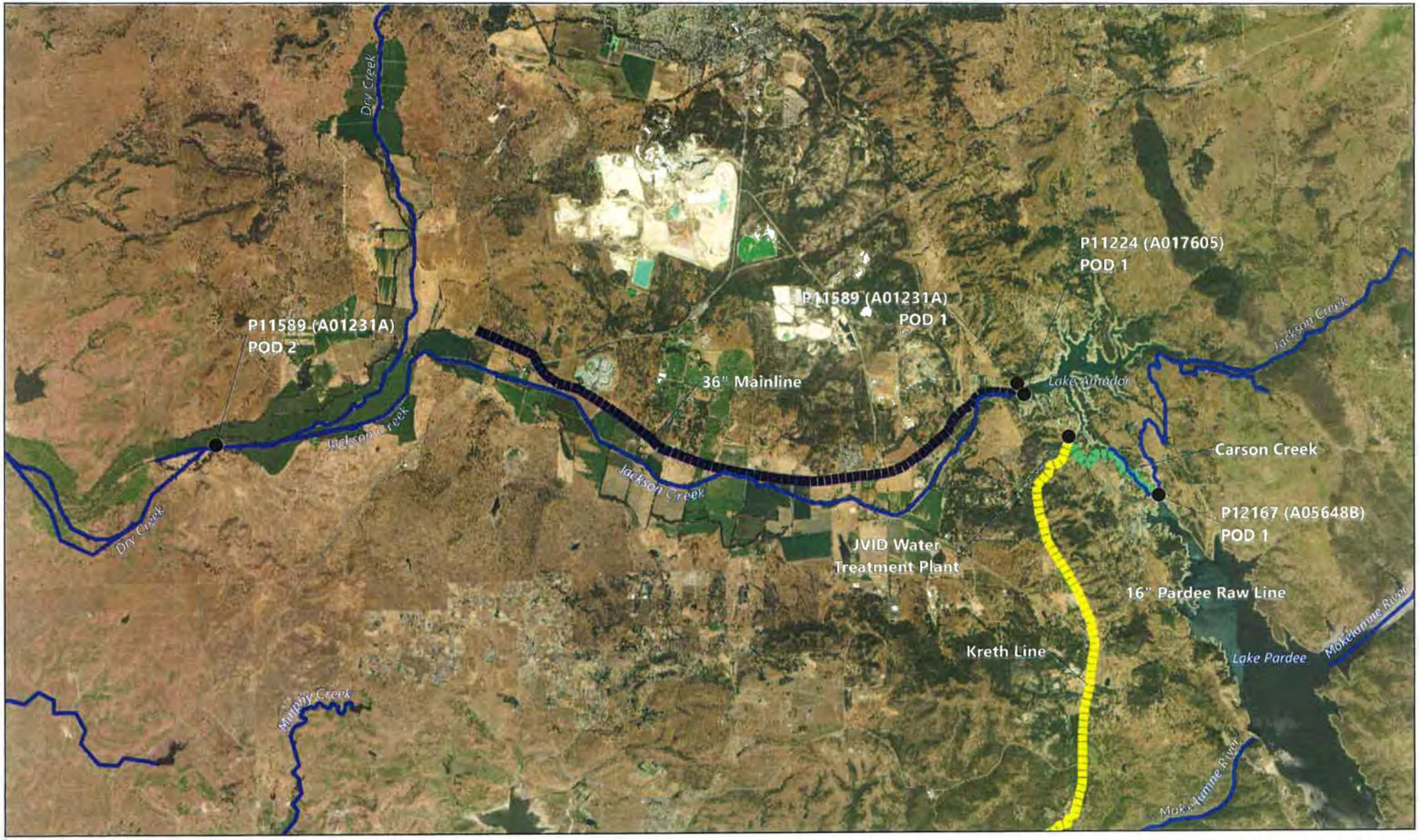
0 1 2
Miles

N
W E
S

Figure 1: Place of Use (POU)

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 1 2
Miles

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 250 500
Feet

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Mr. Adam Dalton
Chairperson
Jackson Rancheria Band of Miwuk Indians
P.O. Box 1090
Jackson, CA, 95642

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Mr. Dalton:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

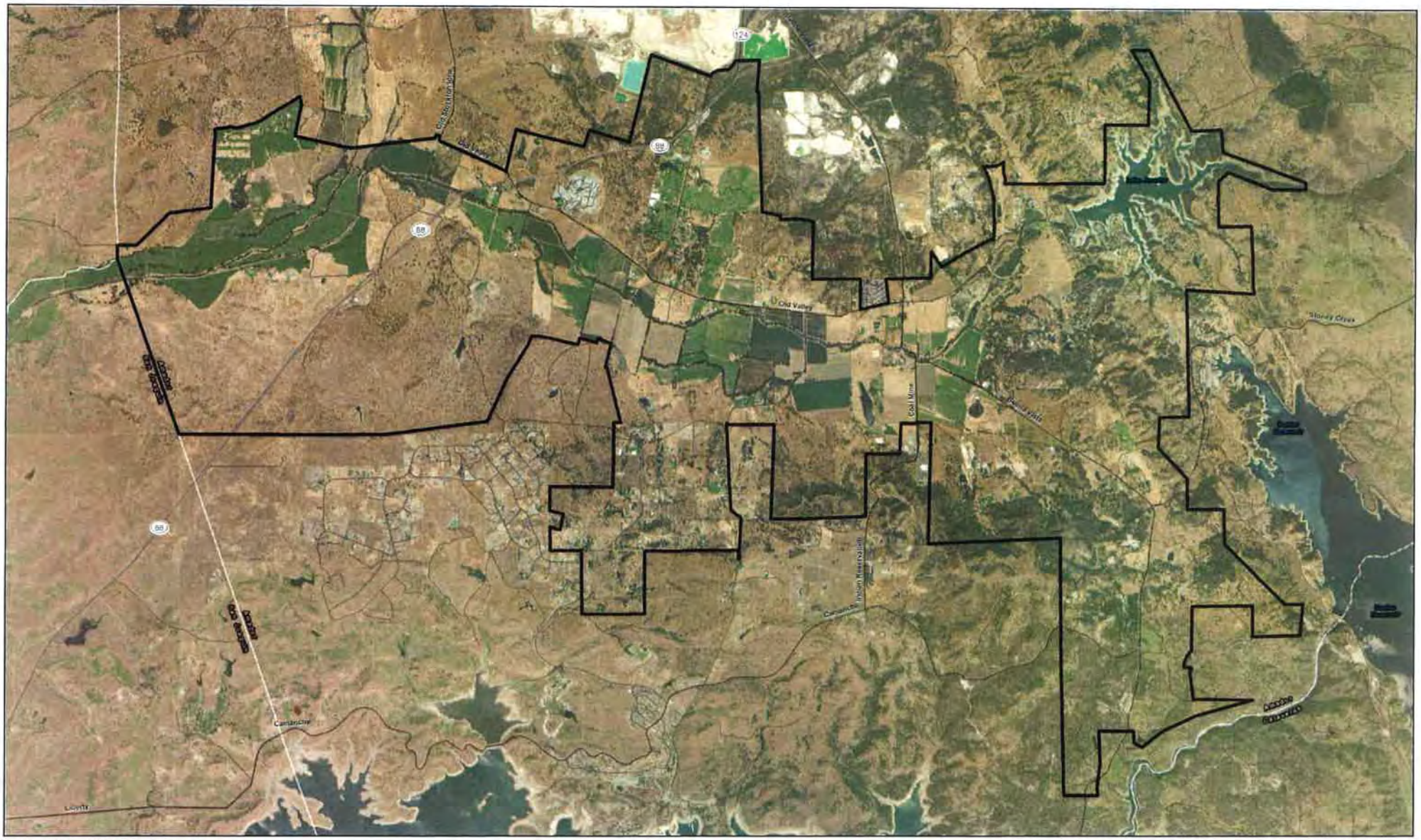
Very Respectfully,

Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson



Aerial Source: Maxar (09/2021)

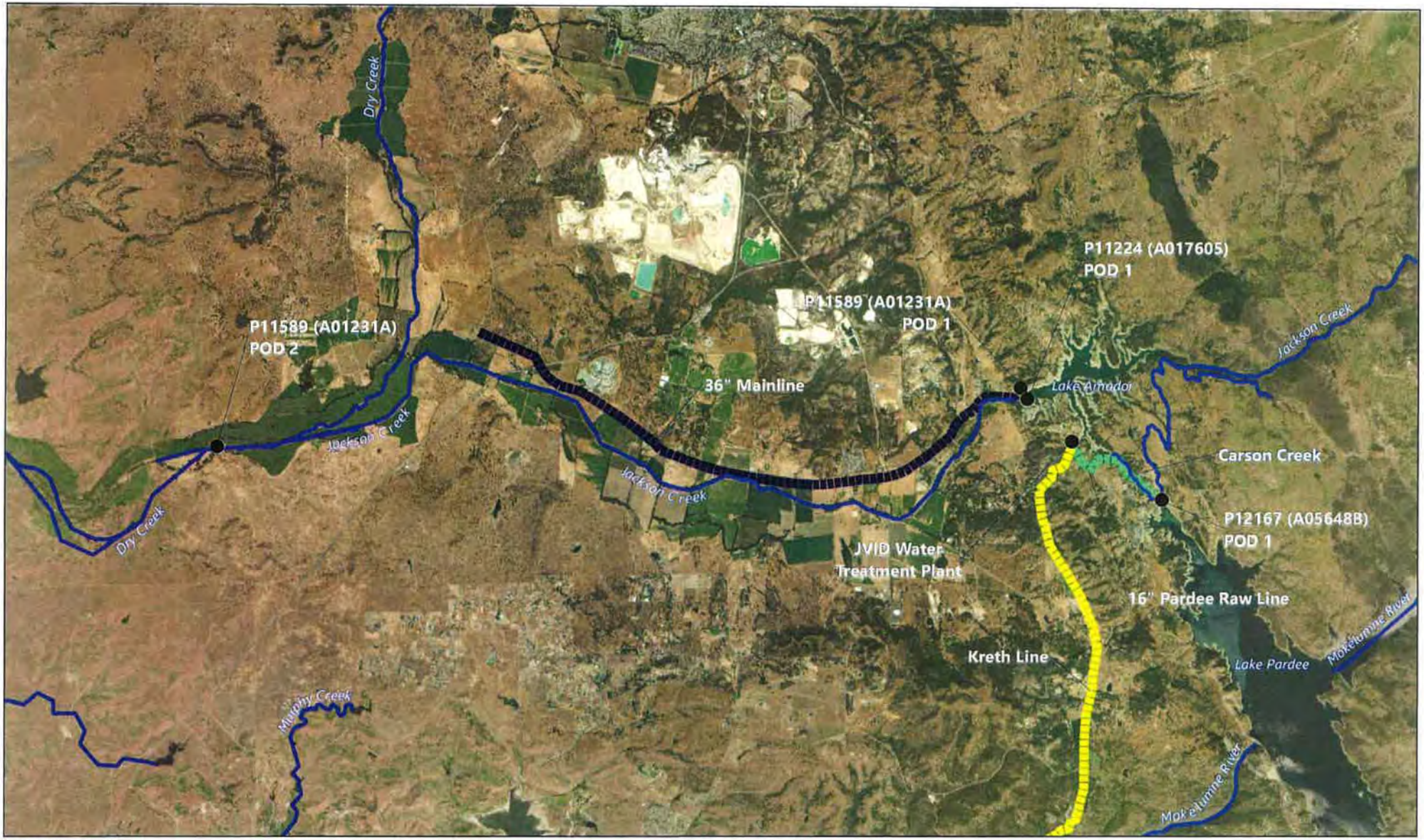
0 1 2
Miles

N
W E
S

Figure 1: Place of Use (POU)

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 250 500
Feet

N
W E
S

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Mr. Cosme Valdez
Chairperson
Nashville Enterprise Miwok-Maidu-Nishinam Tribe
P.O. Box 580986
Elk Grove, CA, 95758-0017

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Mr. Valdez:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS

Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

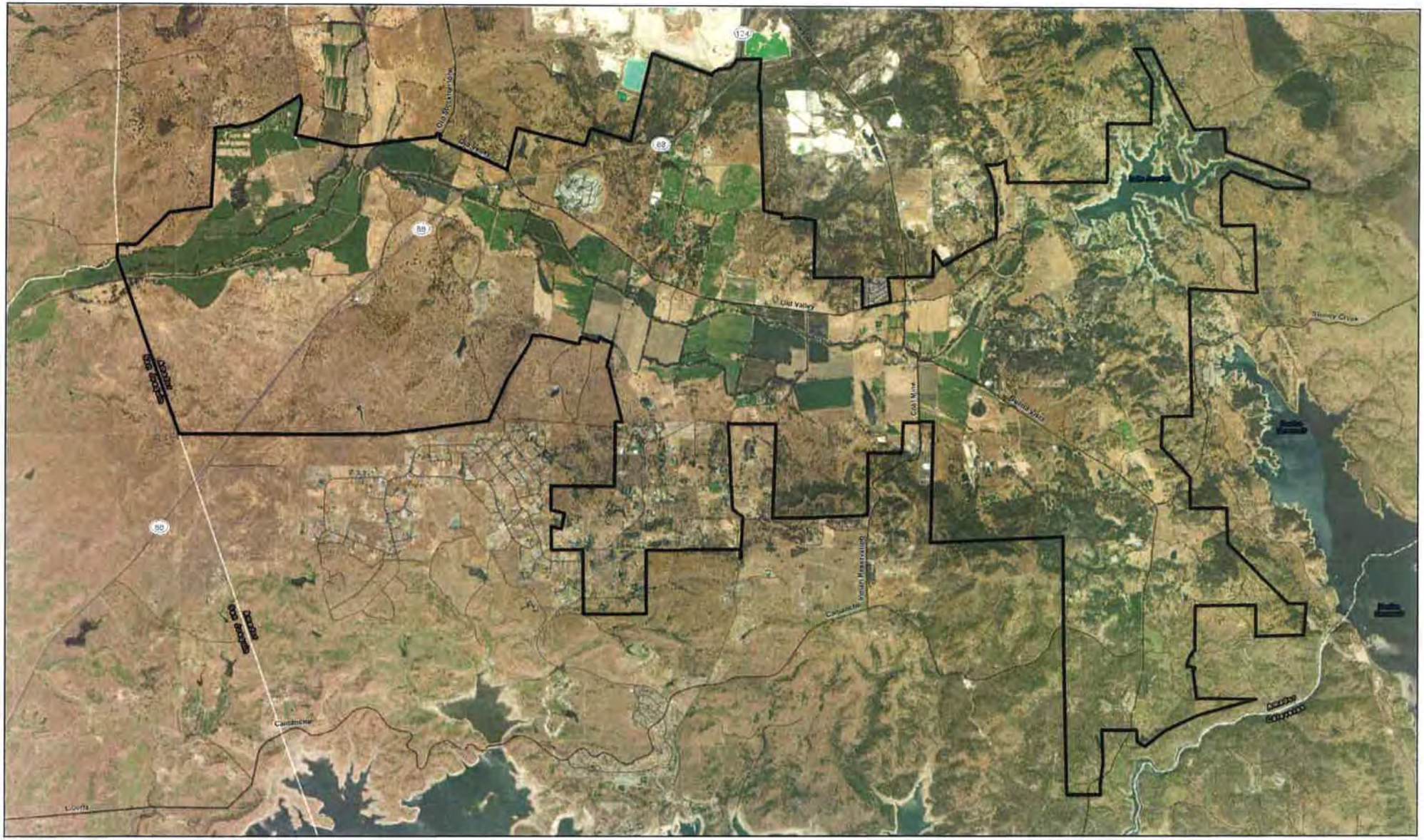
Very Respectfully,

Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson



Aerial Source: Maxar (09/2021)

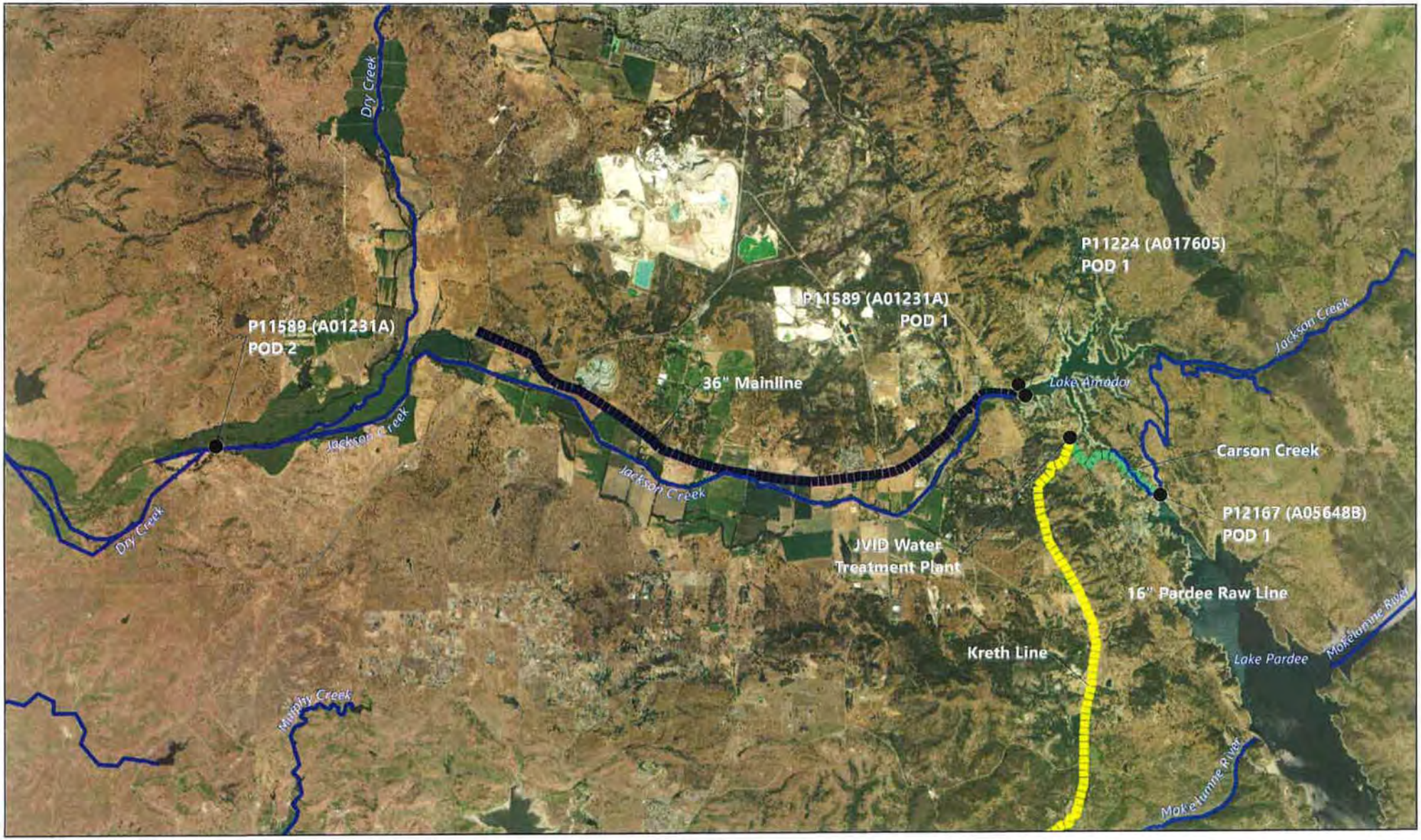
0 1 2
Miles

N
W E
S

Figure 1: Place of Use (POU)

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 250 500
Feet

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Ms. Regina Cuellar
Chairperson
Shingle Springs Band of Miwok Indians
5281 Honpie Road
Placerville, CA, 95667

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Ms. Cuellar:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

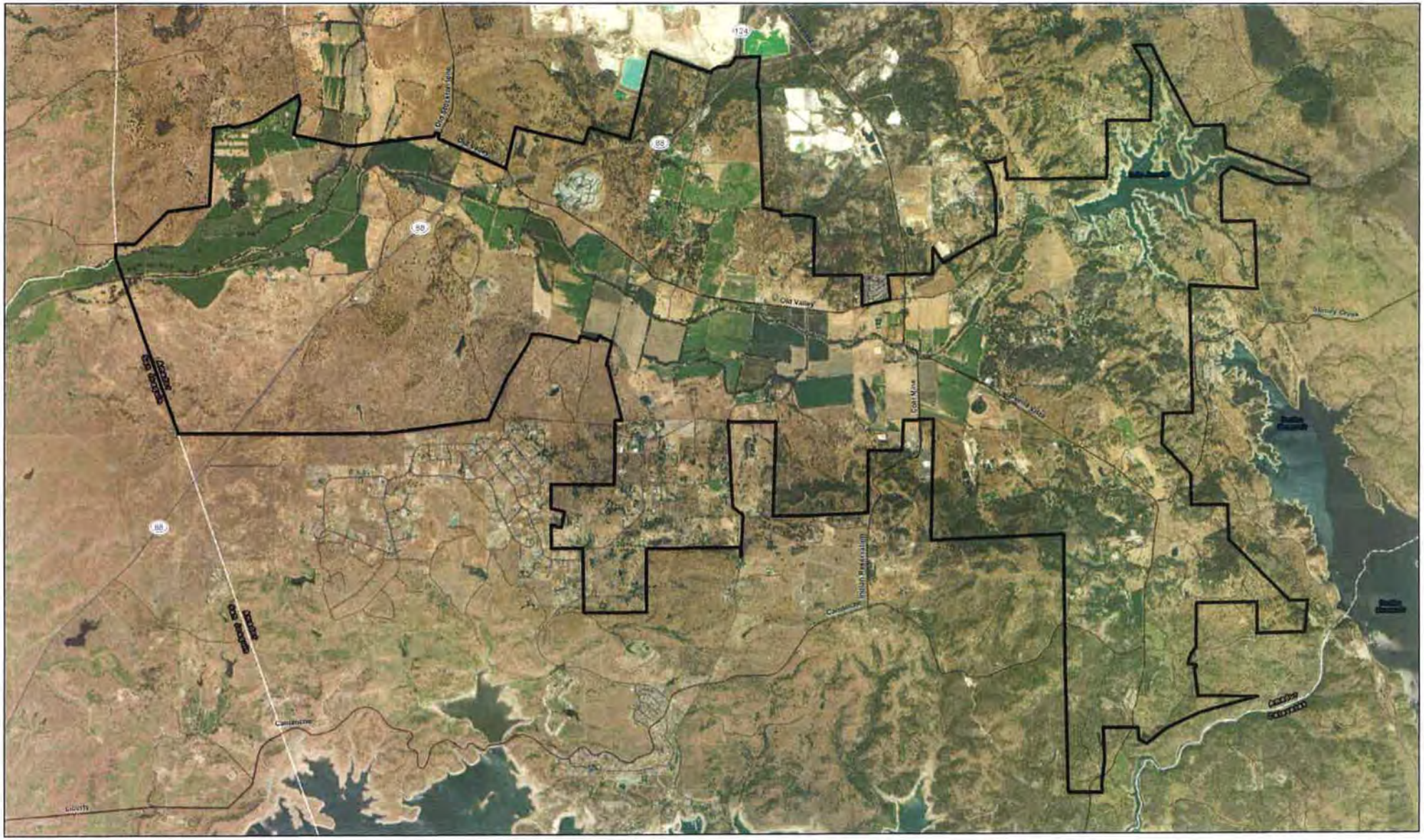
Very Respectfully,

Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson



Aerial Source: Maxar (09/2021)

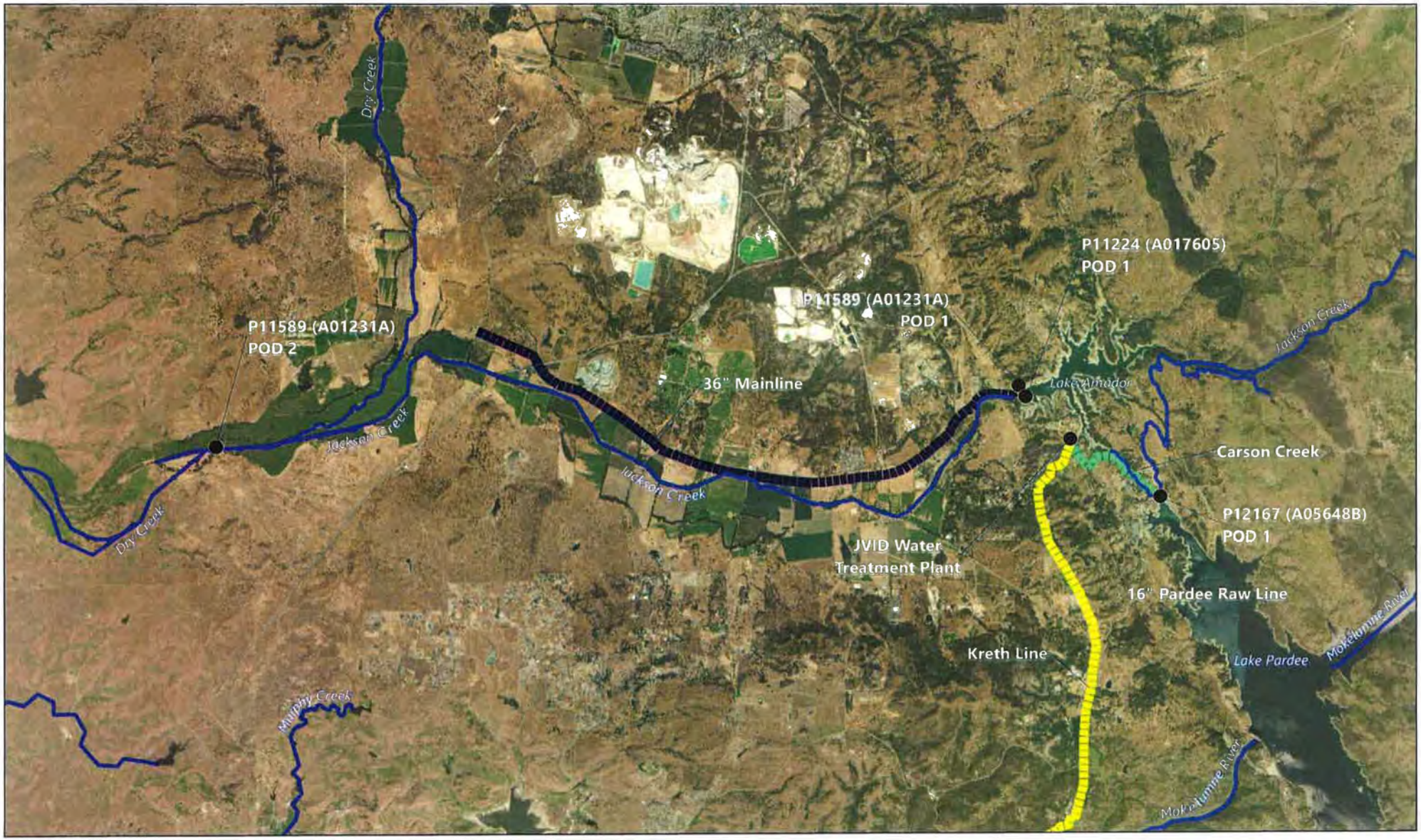
0 1 2
Miles

N
W E
S

Figure 1: Place of Use (POU)

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 250 500
Feet

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Mr. Neil Peyron
Chairperson
Tule River Indian Tribe
P.O. Box 589
Porterville, CA, 93258

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Mr. Peyron:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

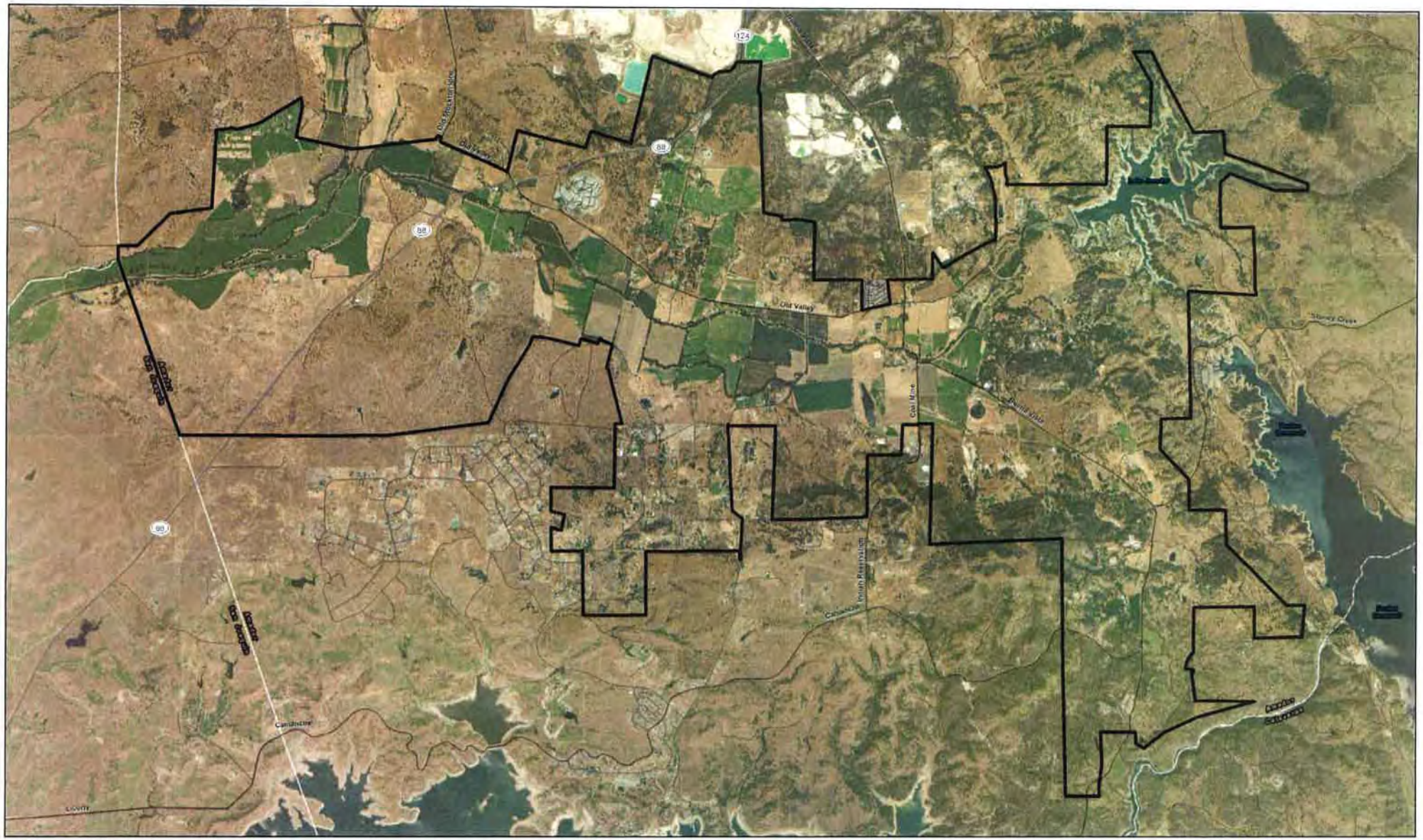
Very Respectfully,

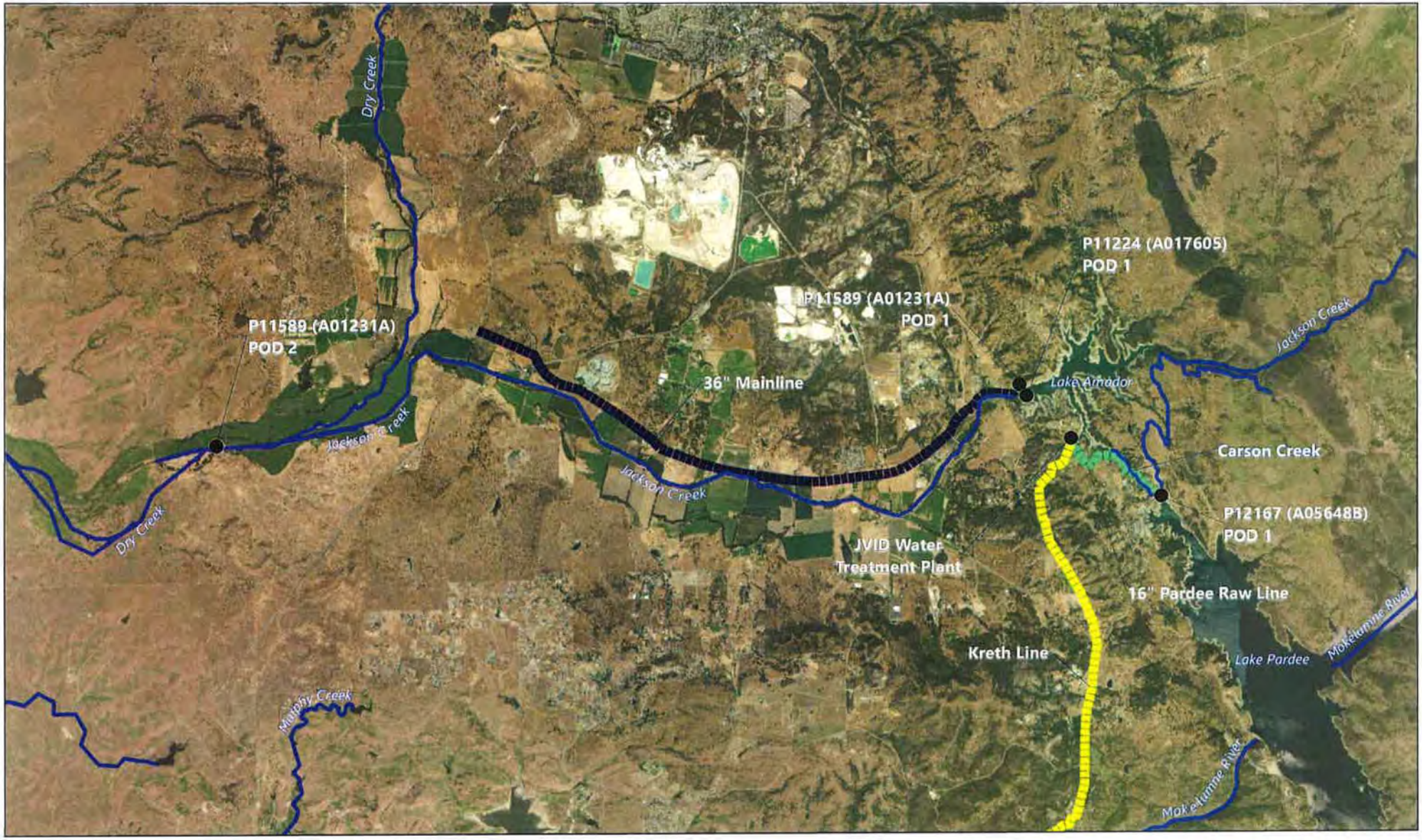
Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson


124
88
88
Old Valley
Stanley Creek
Coal Mine
Jackson Valley Irrigation District
Canal Rate
Canal Rate
Canal Rate



Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 250 500
Feet

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Mr. Matt Moore
Tribal Historic Preservation Officer
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA, 95603

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Mr. Moore:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

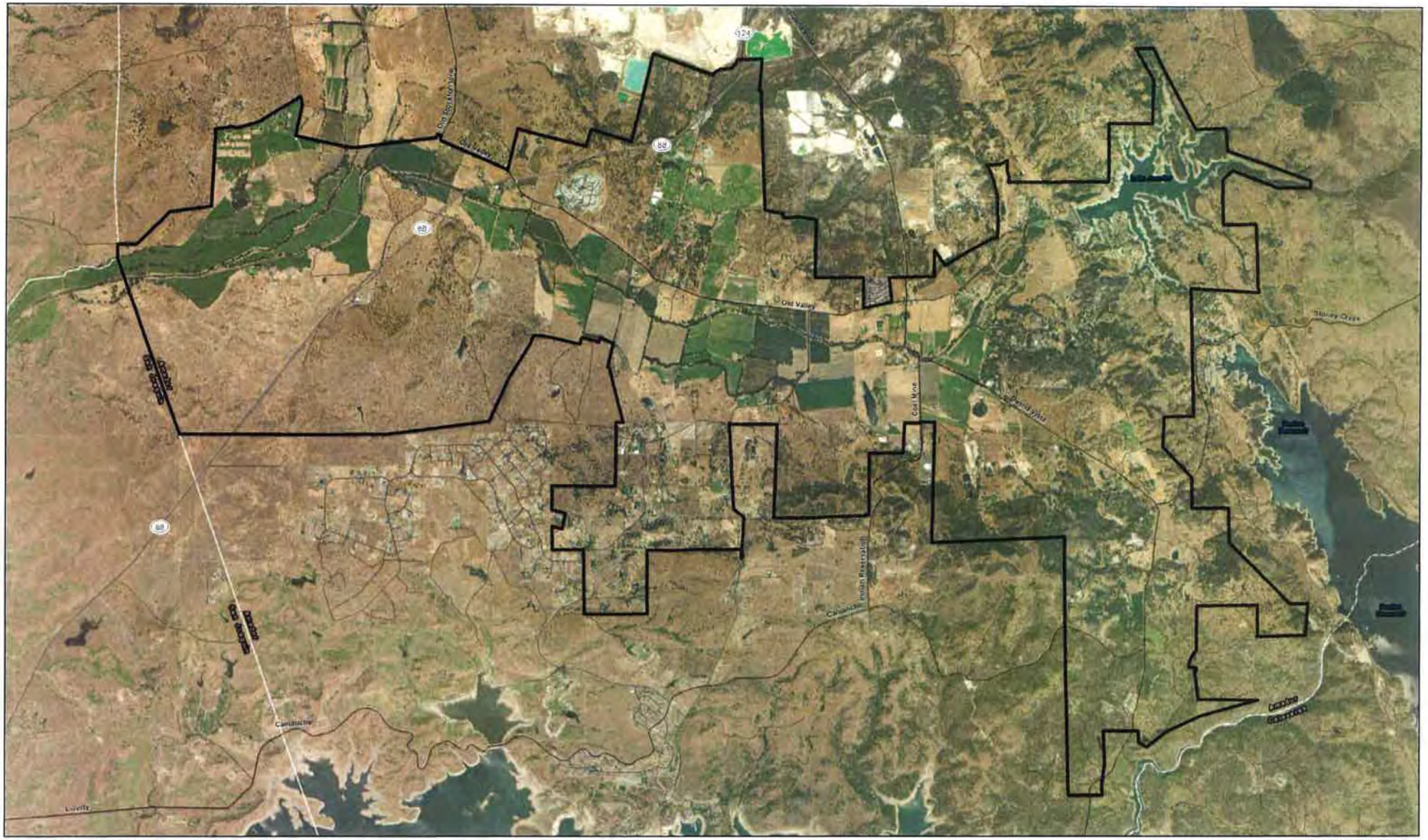
Very Respectfully,

Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson

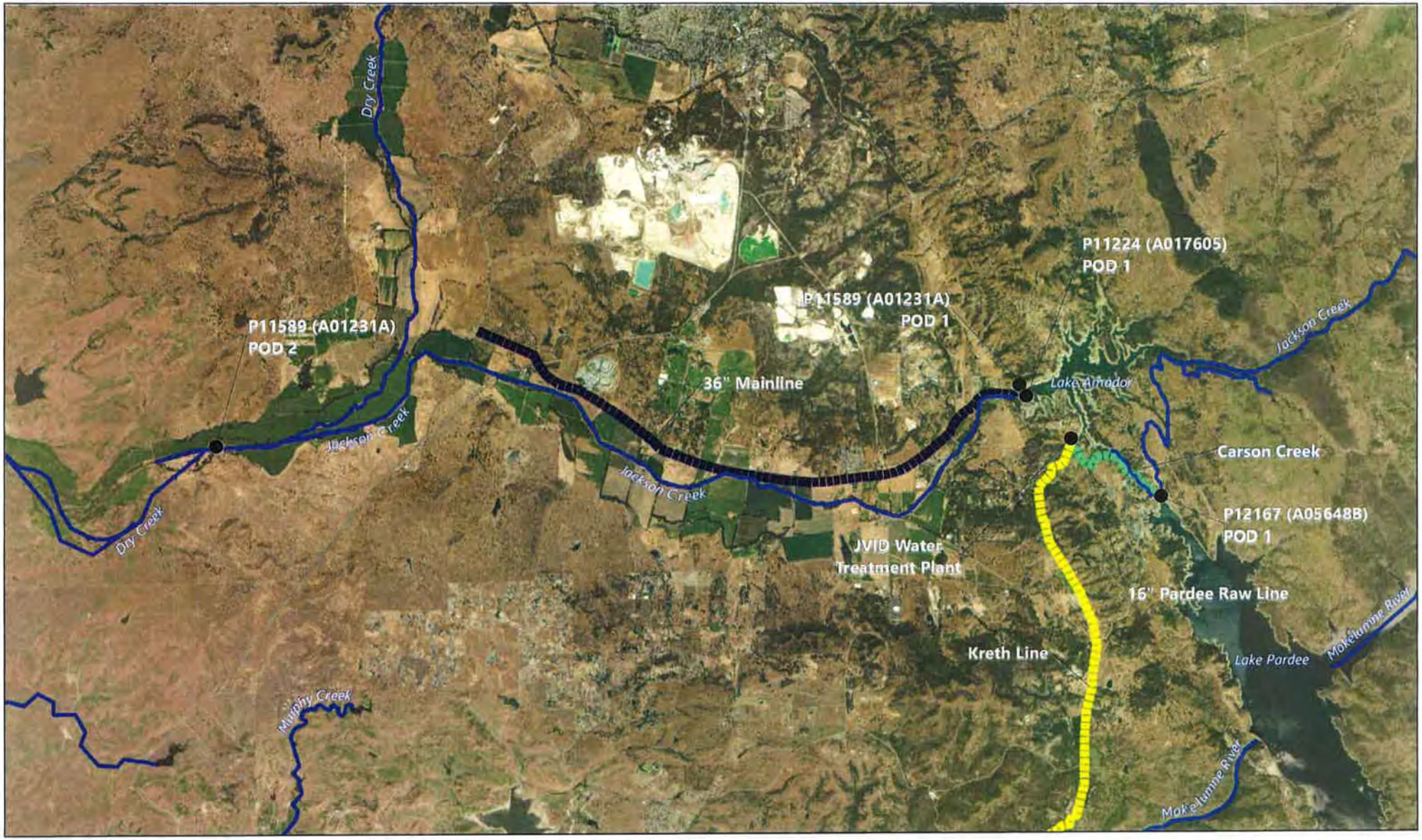


Aerial Source: Maxar (09/2021)

Figure 1: Place of Use (POU)

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 250 500
Feet

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Mr. Darrel Cruz
Cultural Resources Department
Washoe Tribe of Nevada and California
919 Highway 395
North Gardnerville, NV, 89410

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Mr. Cruz:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

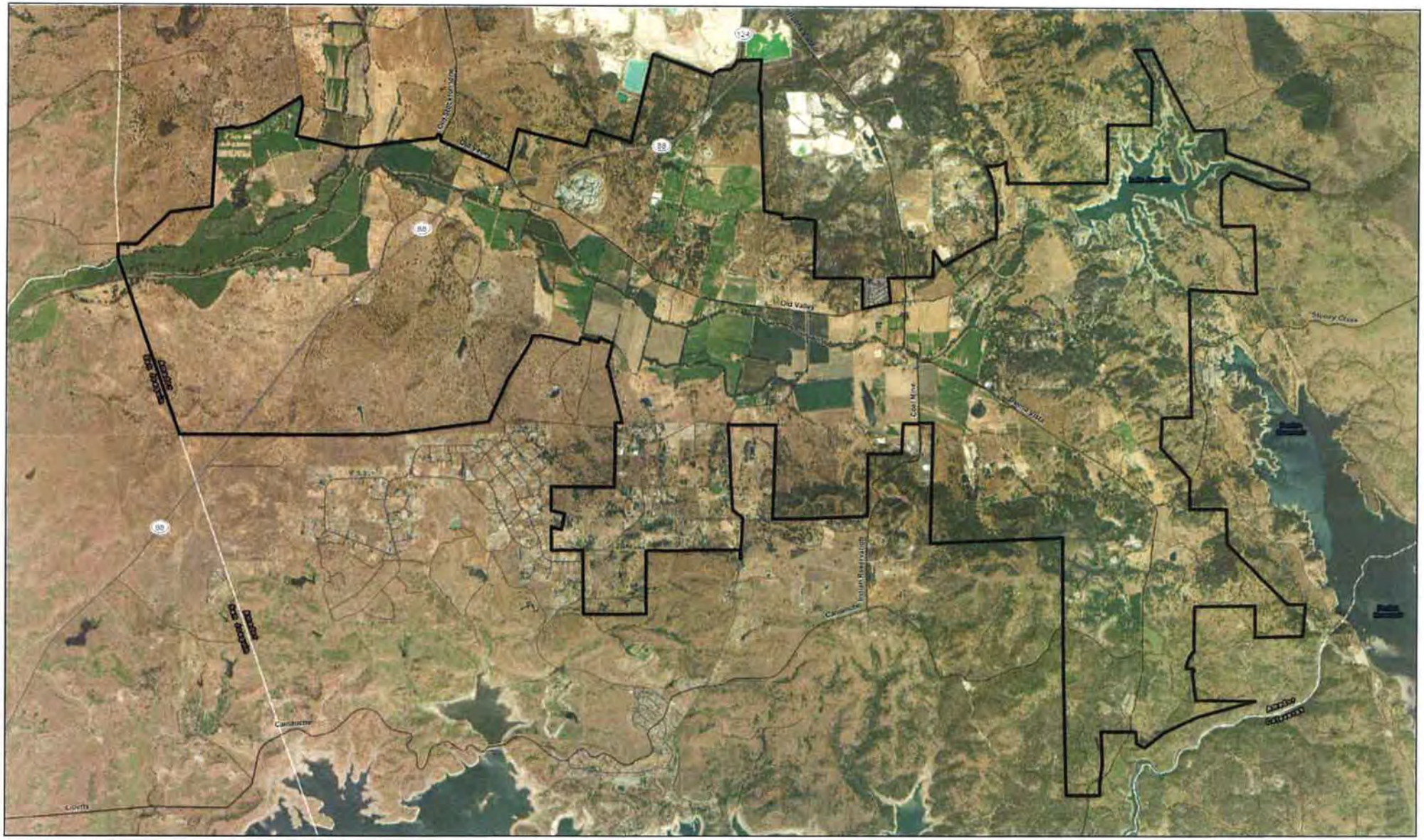
Very Respectfully,

Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson



Aerial Source: Maxar (09/2021)

Figure 1: Place of Use (POU)

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 1 2
Miles

N
W E
S

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Nearmap (09/2021)

0 250 500
Feet

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA

JACKSON VALLEY IRRIGATION DISTRICT

6755 Lake Amador Drive
Ione, California 95640
(209) 274-2037
office@jvid.org

June 12, 2025

Mr. Herbert Griffin
Executive Director of Cultural Preservation
Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624

SUBJECT: AB 52 Consultation for Jackson Valley Irrigation District Petitions for Extension of Time

Dear Mr. Griffin:

The Jackson Valley Irrigation District (JVID) has filed three Petitions for Extension of Time related to its Water Rights Permits 11224, 11589, and 12167. JVID will be the lead agency in the preparation of an Initial Study for the project pursuant to the California Environmental Quality Act (CEQA), and the State Water Resources Control Board (State Water Board), Division of Water Rights will be a responsible agency under CEQA. Below, please find a description of the proposed project and its location, and the name of our project point of contact.

Project Description

The Petitions for Extension of Time related to Permits 11224, 11589, and 12167 request that the time allowed to put all water authorized under these permits to beneficial use be extended to 20 years from the date amended permits are issued for the three rights. JVID has completed the construction of all facilities needed to put all water to use, but conditions outside of its control have prevented it from putting all water to beneficial use by December 31, 2010, which is the deadline specified by the present permits. Therefore, the proposed project does not include any construction or other ground-disturbing activities. JVID has two principal sources of water: diversions from Jackson Creek and from the Mokelumne River at Pardee Reservoir. To deliver this water, JVID owns and operates four separate distribution systems, the Creek System, the Kreth Line, the Main Line, and the Treated Water Distribution System. JVID supplies irrigation water throughout Jackson Valley in Amador County, providing raw water to agricultural and industrial users, and treated water to domestic customers. Under the requested Petitions for Extension of Time, no changes are proposed to the amount, timing, or rate of diversions; purposes of use; points of diversion or methods of re-diversion; places of storage for diverted water; or JVID water operations.

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Scott Dockter Ed Gonzalez Kylie Windley

Project Location

The JVID service area is approximately 21 square miles and is located in southwestern Amador County, west of Pardee Reservoir and east of the Amador-San Joaquin County line. Lake Amador is located within the northeast portion of the District. The township of Buena Vista and the residential communities of Buena Vista Estates, The Oaks Community, Lake Amador Ranch, and Lake Amador Resort are within the boundary of the JVID service area. Other communities in the vicinity of JVID include the City of Ione, Buena Vista Rancheria, Camanche Village, and Camanche North Shore. Please see the enclosed maps.

Point of Contact

The point of contact for this Project is Steven Fredrick, General Manager, who may be contacted at steve@jvid.org or (209) 274-2037. Written correspondence or inquiries should be addressed to:

Jackson Valley Irrigation District
Attention: Steven Fredrick
6755 Lake Amador Dr.
Ione, CA 95640

Please consider this letter and project information as formal notification of a project pursuant to Public Resources Code (PRC) Section 21080.3.1. Therefore, consistent with Section 21080.3.1, you have 30 days from the receipt of this letter to respond in writing if you wish to request consultation with JVID.

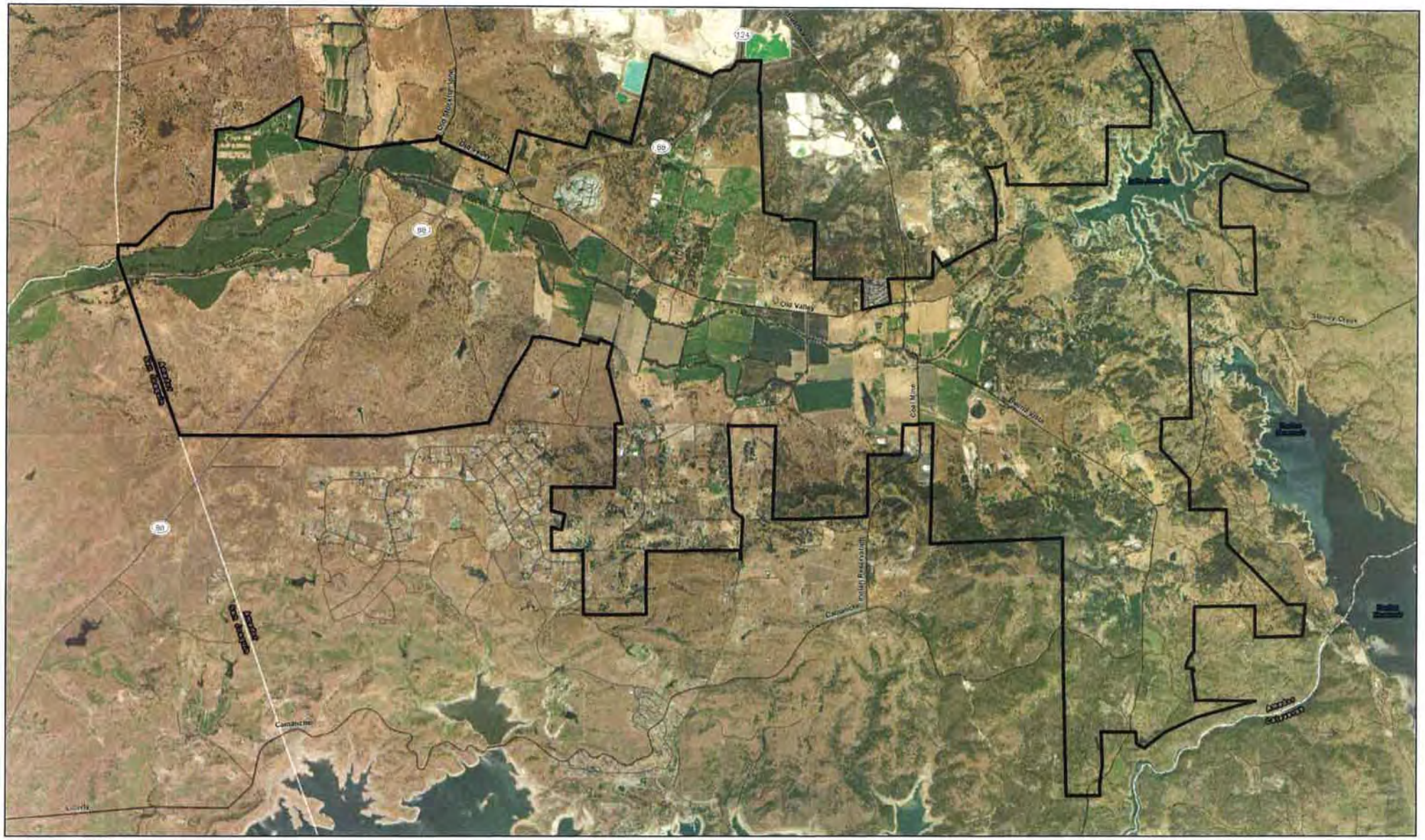
Very Respectfully,

Steven Fredrick
General Manager, JVID

Enclosures:

Figure 1: Place of Use (POU)
Figure 2: Project Location and Features
Figure 3: Project Location and Features

BOARD OF DIRCTORS
Connie Jess, President Todd Ohm, Vice President Richard Brand Ed Gonzalez Matt Gibson



Aerial Source: Maxar (09/2021)

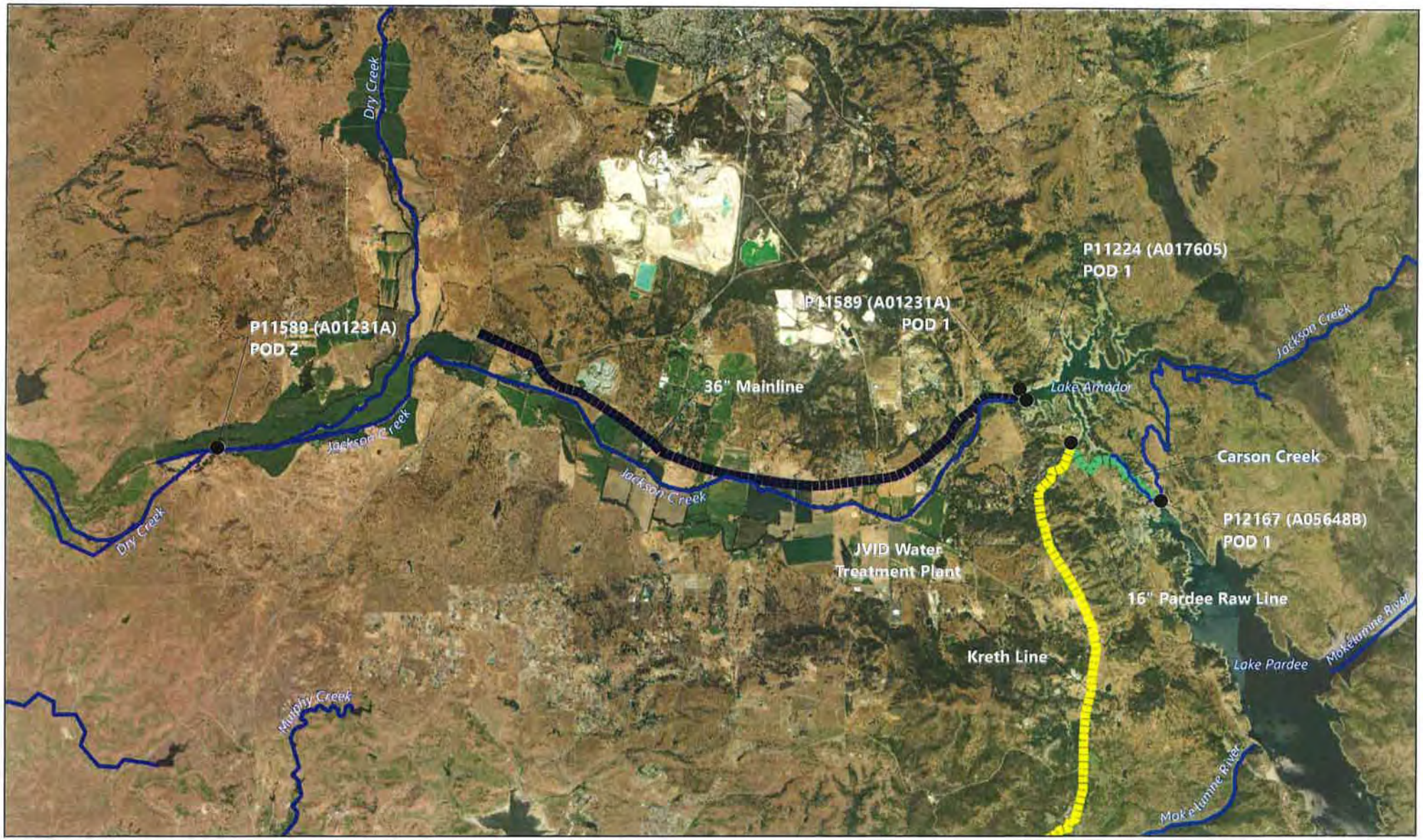
0 1 2
Miles

N
W E
S

Figure 1: Place of Use (POU)

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 1 2
Miles

Figure 2: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA



Aerial Source: Maxar (09/2021)

0 250 500
Feet

Figure 3: Project Location and Features

Jackson Valley Irrigation District

Amador County, CA