



Central Valley Regional Water Quality Control Board

WATER QUALITY ORDER NO. R5-2023-0037 WASTE DISCHARGE REQUIREMENTS

Effective Date:	10 August 2023	Reg. Meas. ID:	443810
Expiration Date:	10 August 2028	Place ID:	874767
Program Type:	Fill/Excavation	WDID No.:	5B07CR00234
Project Type:	Residential Development		
Project:	The Ranch in Antioch Master Planned Residential Community Project (Project)		
Applicant:	Richland Planned Communities, Inc		
Applicant Contact:	Kyle Masters, Richland Planned Communities, Inc 601 University Avenue, Suite #125 Sacramento, CA 95825 Phone: (916) 715-4083 Email: kmasters@richlandcommunities.com		
Applicant's Agent:	Ben Watson, Madrone Ecological Consulting 8421 Auburn Blvd. Suite 248 Citrus Heights, CA 95610 Phone: (916) 822-3230 Email: bwatson@madroneeco.com		
Water Board Staff:	Nicholas Savino Environmental Scientist 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670 Phone: (916) 464-0335 Email: Nicholas.Savino@waterboards.ca.gov		

Water Board Contact Person: If you have any questions, please call Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) Staff listed above or (916) 464-3291 and ask to speak with the Water Quality Certification Unit Supervisor.

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FINDINGS

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) finds the following:

1. Application

The Central Valley Water Board received an application from Richland Planned Communities, Inc. (Permittee) on 19 May 2021. These Waste Discharge Requirements (Order) is for the purpose described in application and supplemental information submitted by the Permittee. Central Valley Water Board staff requested additional information necessary to supplement the contents of the application, and the Permittee responded to the request for supplemental information on 7 July 2021. The application was deemed complete on 15 July 2021.

2. Project Description

The 562-acre Project consists of developing 1,177 residential homes that will be arranged into two villages separated by Sand Creek. The villages will be accompanied by parks, a system of improved and natural pedestrian trails, a trail staging area, a private recreation facility, a fire station, a series of roads throughout the development, a vehicular bridge, two storm drain basins with outfalls into the creek, a village center, and offsite road improvements.

3. Project Location

Address: 6275 Deer Valley Road

County: Contra Costa

Assessor's Parcel Number(s): 057-010-002, 057-010-003, 057-021-003

Nearest City: Antioch

Section 5, 6, 7, 8, 9, Township 1 North, Range 2 East, MDB&M.

Latitude: 37.949689° and Longitude: -121.792842°

Maps showing the Project location are found in Attachment A of this Order.

4. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of the Central Valley Water Board. Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fifth Edition, February 2019 (Basin Plan). The plan for the region and other plans and policies may be accessed at the [State Water Resources Control Board's Plans and Policies Web page](http://www.waterboards.ca.gov/plans_policies/) (http://www.waterboards.ca.gov/plans_policies/). The Basin Plan includes water quality standards, which consist of existing and potential beneficial uses of waters of the state, water quality objectives to protect those uses, and the state and federal antidegradation policies.

Project impact and receiving waters information can be found in Attachment B. Table 1 of Attachment B shows the receiving waters and beneficial uses of waters of the state impacted by the Project. Individual impact location and quantity is shown in Table 2 of Attachment B.

5. Description of Direct Impacts to Waters of the State

The Project consists of mass grading the project site to prepare for the construction of residential homes. The Project will also construct one pedestrian bridge and one vehicular bridge over Sand Creek, as well as two outfalls into Sand Creek.

Aquatic resources impacted by the project consist of a seasonal wetland swale, seasonal wetlands, ephemeral tributaries to Sand Creek, and Sand Creek, an intermittent tributary to Marsh Creek. The Project will permanently impact 0.966/855 linear feet of wetland habitat and 0.094/1,019 linear feet of stream channel habitat. The project will temporarily impact 0.011 acre/52 linear feet of stream channel habitat.

Total Project fill/excavation quantities for all impacts are summarized in Tables 1 and 2. Permanent impacts are categorized as those resulting in a physical loss in area and also those degrading ecological condition.

Table 1: Total Project Fill/Excavation Quantity for Temporary Impacts¹

Aquatic Resources Type	Acres	Cubic Yards	Linear Feet
Stream Channel	0.011	18	52

Table 2: Total Project Fill/Excavation Quantity for Permanent Physical Loss of Area Impacts

Aquatic Resources Type	Acres	Cubic Yards	Linear Feet
Stream Channel	0.094	150	1,019
Wetland	0.966	1,559	855

6. Description of Indirect Impacts to Waters of the State

The Central Valley Water Board recognizes the potential for indirect impacts to waters of the state associated with the Project. Indirect impacts to aquatic resources may reduce the functions of remaining wetlands. Additionally, increased impervious surfaces may reduce water quality of receiving waters. Indirect impacts are included

¹ Includes only temporary direct impacts to waters of the state and does not include area of temporary disturbance which could result in a discharge to waters of the state. Temporary impacts, by definition, are restored to pre-project conditions and therefore do not include a physical loss of area or degradation of ecological condition.

in established mitigation ratios and potential adverse effects may be offset by beneficial indirect effects of required mitigation.

Two large storm water quality basins have been incorporated into the design to provide biofiltration of storm water from the Project Site prior to entering Sand Creek. The basins have been engineered and designed to current standards to have a low impact to Sand Creek and to maintain flows within the creek to pre-project conditions. By incorporating the storm water quality basins into the project design, and by implementing the avoidance and minimization measures (AMMs) and construction best management practices (BMPs) described by the Permittee, indirect impacts are unlikely to occur.

7. Fees Received

An application fee of \$2,066.00 was received on 7 July 2021. The fee amount was determined as required by California Code of Regulations, Title 23, sections 3833(b)(3) and 2200(a)(3) and was calculated as Category A - Fill & Excavation Discharges (Fee Code 84)

\$19,110.00 based on total Project impacts was received on 7 July 2021.

8. Avoidance and Minimization

To minimize the potential effects of construction on water quality and resources, the Permittee shall implement all measures required as described in the Order. According to the Permittee, the following measures will be in place during construction activities to avoid, reduce, and minimize impacts to waters of the state:

- The Project would minimize impacts to water quality through the implementation of appropriate Best Management Practices (BMPs) during construction and post-construction. The Project would comply with the NPDES Construction General Permit and utilize appropriate scheduling, erosion control, sediment control, and non-visible pollutant BMPs during construction. BMPs may include fiber rolls, silt fencing, hydroseed, straw mulch, soil binders, as outlined in the Storm Water Pollution Prevention Plan (SWPPP).
- A SWPPP would be prepared prior to initiation of grading activities and would provide site specific measures for the Project. Initial measures typically include stabilized construction entrances, tackified mulch, 3-step hydroseeding, spray-on soil stabilizers, and anchored blankets. Sediment controls could include rock bags to protect storm drain inlets, staked or weighted straw wattles/fiber rolls, and silt fences. BMPs may also include filtering water from dewatering operations, providing proper washout areas for concrete trucks and stucco/paint contractors, containing wastes, managing portable toilets properly, and dry sweeping instead of washing down dirty pavement.
- In the post-construction conditions, the Project shall incorporate a number of low impact design standards to reduce water quality impacts. The two

proposed detention basins that outfall into Sand Creek would be approximately 11.6 and 9.3 acres and used as flood control detention and water quality treatment.

- Prior to each phase of construction, temporary orange fencing shall be installed at the edge of the project footprint. The location of the fencing shall be determined by the contractor and the qualified biologist prior to the start of staging or ground disturbing activities. The fencing shall remain in place throughout the duration of the project and shall be regularly inspected and fully maintained.
- Work within Sand Creek would not occur if water were flowing. If ponded water is present, then dewatering may occur by installing gravel bag coffer dams and diverting water around the work area through a bypass pipe. Cofferdam and associated diversions will be constructed of washed pea gravel, sandbags, visqueen, bentonite clay (to seal the diversion pipe to the cofferdam), and 24-inch minimum diameter bypass pipe. Dewatering activities would occur for periods ranging from 0 to 90 days.

9. Compensatory Mitigation

The Permittee is required to provide compensatory mitigation for direct impacts, described in Section K, for permanent impacts.

10. Basin Plan

Receiving waters potentially impacted by this Project are protected in accordance with the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fifth Edition*, rev. February 2019 (Basin Plan). The plan for the region and other plans and policies may be accessed at the [State Water Resources Control Board's \(State Water Board\) Plans and Policies Web page](http://www.waterboards.ca.gov/plans_policies/) (http://www.waterboards.ca.gov/plans_policies/). The Basin Plan includes water quality standards, which consist of existing and potential beneficial uses of waters of the state, water quality objectives to protect those uses, and the state and federal antidegradation policies.

11. Waste Discharge Requirements

This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides, in pertinent part, the following:

The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge..., with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.

Compliance with section 13263, subdivision (a), including implementation of the Basin Plan, is discussed below. The Central Valley Water Board has considered the factors in section 13241 in establishing the requirements in this Order.

12. Monitoring and Reporting Requirements

The monitoring and technical reporting provisions in this Order are adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides, in pertinent part, the following:

[T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

The reports required under this Order are necessary to verify and ensure compliance with permitting requirements and protect waters of the state. The burden associated with such reports is reasonable relative to the need for their submission.

13. California Environmental Quality Act (CEQA)

On 13 August 2020, the City of Antioch, as lead agency, certified an environmental impact report (EIR) (State Clearinghouse (SCH) No. 2019060012) for the Project and filed a Notice of Determination (NOD) at the SCH on 17 August 2020. Pursuant to CEQA, the Central Valley Water Board has made Findings of Facts (Findings) which support the issuance of this Order and are included in Attachment C.

14. Liability for Noncompliance

Failure to comply with this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act and/or Clean Water Act. The Permittee may then be subject to administrative and/or civil liability pursuant to Water Code sections 13268, 13350 and/or 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

15. Additional Monitoring and Reporting

In response to a suspected violation of any condition of this Order, the Central Valley Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Boards deem appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.

16. Construction General Permit

This Order does not provide coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ; NPDES No. CAS000002, as amended.

17. Endangered Species Act

This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & Wildlife Code, sections 2050-2097) or the federal Endangered Species Act (16 U.S.C. sections 1531-1544). If a "take" will result from any act authorized under this Order held by the Permittee, the Permittee must comply with the California Endangered Species Act and federal Endangers Species Act prior to any construction or operation of the portion of the Project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.

18. Public Notice

This Order was publicly noticed with an opportunity to submit written comments pursuant to Water Code section 13167.5.

19. Public Hearing

At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.

20. Petitions for Reconsideration

Any person aggrieved by this action may petition the State Water Board to reconsider this Order in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions are available on the Internet (at the address below) and will be provided upon request.

[State Water Resources Control Board Law and Regulations for Filing Petitions](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)
(http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

21. Regulatory Considerations

A. Waste Discharge Requirements and Water Quality Certification Authority.

This Order is adopted pursuant to Clean Water Act section 401, Water Code section 13160, and applicable regulations for discharges of fill material to waters of the United States and Water Code section 13263 for discharges of waste to waters of the state. Conditions have been added to this Order to ensure that all

activities will comply with applicable water quality standards and other appropriate requirements. (Cal. Code Regs., tit. 23, section 3859.) Compliance with section 13263, subdivision (a), including implementation of applicable water quality plans, is discussed in these Findings. The Central Valley Water Board has considered the factors in section 13241 in establishing the requirements in this Order.

- B. Right to Water.** Pursuant to Water Code section 106.3, subdivision (a), it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
- C. No Vested Right to Discharge.** The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste (Water Code, Section 13263, subdivision (g).)
- D. No Net Loss and Antidegradation.** Executive Order W-59-93, dated 23 August 1993, establishes a California Wetlands Conservation Policy including an objective to ensure no overall net loss of and a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California (“No Net Loss Policy”). The State Water Board and regional water quality control boards are committed to increasing the quantity, quality, and diversity of wetlands that qualify as waters of the state.

State Water Board Resolution No. 68-16, “Statement Of Policy With Respect To Maintaining High Quality Of Waters In California” (“Antidegradation Policy”) requires that the quality of existing high-quality water be maintained unless any change will be consistent with the maximum benefit to the people of the state, will not unreasonably affect present or anticipated future beneficial uses of such water, and will not result in water quality less than that prescribed in water quality control plans or policies. The Antidegradation Policy further requires best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the state will be maintained.

Filling wetlands and other waters causes partial or complete loss of the beneficial uses provided by those waters. To reconcile such losses with the State’s No Net Loss and Antidegradation Policies, this Order requires adherence to the requirements in the mitigation monitoring and reporting program, including compensatory mitigation for impacts that cannot be feasibly avoided or minimized; implementation of the approved compensatory mitigation plan; and other requirements to minimize the potential effects of construction on water quality and resources.

REQUIREMENTS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267, that the Permittee shall comply with the following:

A. Authorization

Impacts to waters of the state shall not exceed quantities shown in Tables 1 through 2.

B. Reporting and Notification Requirements

The following section details the reporting and notification types and timing of submittals required pursuant to Water Code sections 13267, subdivision (b)(1), and 13383. Requirements for the content of these reporting and notification types are detailed in Attachment D, including specifications for photo and map documentation during the Project. Written reports and notifications must be submitted using the Reporting and Notification Cover Sheet located in Attachment D, which must be signed by the Permittee or an authorized representative.

The Permittee must submit all notifications, submissions, materials, data, correspondence, and reports in a searchable Portable Document Format (PDF). Documents less than 50 MB must be emailed to:

centralvalleysacramento@waterboards.ca.gov

In the subject line of the email, include the Central Valley Water Board Contact, Project name, and WDID No. Documents that are 50 MB or larger must be transferred to a disk and mailed to the Central Valley Water Board Contact.

1. Project Reporting

- a. **Monthly Reporting:** The Permittee must submit a Monthly Report to the Central Valley Water Board on the 1st day of each month beginning the month after the submittal of the Commencement of Construction Notification. Monthly reporting shall continue until the Central Valley Water Board issues a Notice of Project Complete Letter to the Permittee.
- b. **Annual Reporting:** The Permittee shall submit an Annual Report each year on the 1st day of August beginning one year after the effective date of the Order. Annual reports shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. Project Status Notifications

- a. **Commencement of Construction:** The Permittee shall submit a Commencement of Construction Report at least seven (7) days prior to start of initial ground disturbance activities, and include the corresponding Waste Discharge Identification Number (WDID#) issued under this Order. Additionally, if applicable, the Report shall also include the Enrollee number issued for coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ; NPDES No. CAS000002).

- b. Request for Notice of Completion of Discharges Letter:** The Permittee shall submit a Request for Notice of Completion of Discharges Letter following completion of active Project construction activities, including any required restoration and permittee-responsible mitigation. This request shall be submitted to the Central Valley Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, Central Valley Water Board staff shall issue a Notice of Completion of Discharges Letter to the Permittee which will end the active discharge period.
- c. Request for Notice of Project Complete Letter:** The Permittee shall submit a Request for Notice of Project Complete Letter when construction and/or any post-construction monitoring is complete, and no further Project activities will occur. Completion of post-construction monitoring shall be determined by Central Valley Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria. This request shall be submitted to Central Valley Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the Central Valley Water Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end the post discharge monitoring period.

3. Conditional Notifications and Reports:

The following notifications and reports are required as appropriate.

a. Accidental Discharges of Hazardous Materials²

Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Water Code, Section 13271):

- i. As soon as (A) Permittee has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:
 - first call – 911 (to notify local response agency)
 - then call – Office of Emergency Services (OES) State Warning Center at:(800) 852-7550 or (916) 845-8911

² "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (Health & Safety Code, Section 25501.)

- Lastly, follow the required OES, procedures as set forth in the [Office of Emergency Services' Accidental Discharge Notification Web page](http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf)
(http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf)
 - ii. Following notification to OES, the Permittee shall notify Central Valley Water Board, as soon as practicable (ideally within 24 hours). Notification may be delivered via written notice, email, or other verifiable means.
 - iii. Within five (5) working days of notification to the Central Valley Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.
- b. Violation of Compliance with Water Quality Standards:** The Permittee shall notify the Central Valley Water Board of any event causing a violation of compliance with water quality standards. Notification may be delivered via written notice, email, or other verifiable means. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.
- c. In-Water Work and Diversions:**
- i. The Permittee shall notify the Central Valley Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be delivered via written notice, email, or other verifiable means.
 - ii. Within three (3) working days following completion of work in water or stream diversions, an In-Water Work/Diversions Water Quality Monitoring Report must be submitted to Central Valley Water Board staff.
- d. Project Modifications:** Project modifications may require an amendment of this Order. The Permittee shall give advance notice to Central Valley Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting a Modifications to Project Report. The Permittee shall inform Central Valley Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order. Notification may be made in accordance with conditions in the certification deviation section of this Order.
- e. Transfer of Property Ownership and Long-Term Best Management Practices (BMPs) Maintenance:** This Order is not transferable in its entirety or in part to any person or organization except after notice to the Central Valley Water Board in accordance with the following terms:

- i. The Permittee must notify the Central Valley Water Board of any change in ownership or interest in ownership of the Project area by submitting a Transfer of Property Ownership Report. The Permittee and purchaser must sign and date the notification and provide such notification to the Central Valley Water Board at least 10 days prior to the transfer of ownership. The purchaser must also submit a written request to the Central Valley Water Board to be named as the permittee in a revised order. Until such time as this Order has been modified to name the purchaser as the permittee, the Permittee shall continue to be responsible for all requirements set forth in this Order.
- ii. If maintenance responsibility for post-construction BMPs is legally transferred, the Permittee must submit to the Central Valley Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer or designer specifications. The Permittee must provide such notification to the Central Valley Water Board with a Transfer of Long-Term BMP Maintenance Report at least 10 days prior to the transfer of BMP maintenance responsibility. Until such time as this Order has been modified to name the transferee as the permittee, the Permittee shall continue to be responsible for all requirements set forth in this Order.

C. Water Quality Monitoring

1. General:

If surface water is present continuous visual surface water monitoring shall be conducted during active construction periods to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete). Sampling is not required in a wetland where the entire wetland is being permanently filled, provided there is no outflow connecting the wetland to surface waters. The Permittee shall perform surface water sampling:

- a. when performing any in-water work;
- b. during the entire duration of temporary surface water diversions;
- c. in the event that the Project activities result in any materials reaching surface waters; or
- d. when any activities result in the creation of a visible plume in surface waters.

2. Accidental Discharges/Noncompliance:

Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, Central Valley Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.

3. In-Water Work or Diversions:

During planned in-water work or during the entire duration of temporary water diversions, any discharge(s) to waters of the state shall conform to the following water quality standards:

- a. Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.
- b. Activities shall not cause turbidity increases in surface water to exceed:
 - i. where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTU;
 - ii. where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU;
 - iii. where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
 - iv. where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
 - v. where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be used with prior permission of the Central Valley Water Board Executive Officer

Sampling during in-water work or during the entire duration of temporary water diversions shall be conducted in accordance with Table 3 sampling parameters.³ The sampling requirements in Table 3 shall be conducted upstream out of the influence of the Project, and approximately 300 feet downstream of the work area.

The sampling frequency may be modified for certain projects with written approval from Central Valley Water Board staff. An In-Water Work and

³ Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations Part 136; where no methods are specified for a given pollutant, the method shall be approved by Central Valley Water Board staff. Grab samples shall be taken between the surface and mid-depth and not be collected at the same time each day to get a complete representation of variations in the receiving water. A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring shall be maintained onsite.

Diversion Water Quality Monitoring Report, as described in Attachment D, shall be submitted within two weeks on initiation of in-water construction, and every two weeks thereafter. In reporting the data, the Permittee shall arrange the data in tabular form so that the sampling locations, date, constituents, and concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the Project complies with Order requirements. The report shall include surface water sampling results, visual observations, and identification of the turbidity increase in the receiving water applicable to the natural turbidity conditions specified in the turbidity criteria in Section C.3.

If no sampling is required, the Permittee shall submit a written statement stating, "No sampling was required" within two weeks on initiation of in-water construction, and every two weeks thereafter.

Table 3: Sample Type and Frequency Requirements

Parameter	Unit of Measurement	Type of Sample	Minimum Frequency
Turbidity	NTU	Grab	Every 4 hours
Visible construction related pollutants ⁴	Observations	Visual Inspections	Continuous throughout the construction period

4. Post-Construction:

Visually inspect the Project site during the rainy season for one year following completion of active Project construction activities to ensure excessive erosion, stream instability, or other water quality pollution is not occurring in or downstream of the Project site. If water quality pollution is occurring, contact the Central Valley Water Board staff member overseeing the Project within three (3) working days. The Central Valley Water Board may require the submission of a Violation of Compliance with Water Quality Standards Report. Additional permits may be required to carry out any necessary site remediation.

D. Standard

1. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, sections 2050-2068 and/or California Code of Regulations, title 23, sections 3867-3869. Additionally, the Central Valley Water Board may review and revise the

⁴ Visible construction-related pollutants include oil, grease, foam, fuel, petroleum products, and construction-related, excavated, organic or earthen materials.

requirements in this Order as necessary. (Water Code, section 13263, subdivision (e).)

2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to subsection 3855(b) of chapter 28, title 23 of the California Code of Regulations, and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. This Order is conditioned upon total payment of any fee required under Title 23 of the California Code of Regulations and owed by the Permittee.

E. General Compliance

1. Failure to comply with any condition of this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act. The Permittee and/or discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.
2. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Regional Water Board or any applicable State Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.
3. In response to a suspected violation of any condition of this Order, the Central Valley Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Boards deem appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.
4. The Permittee must, at all times, fully comply with engineering plans, specifications, and technical reports submitted to support this Order; and all subsequent submittals required as part of this Order. The conditions within this Order and Attachments supersede conflicting provisions within Permittee submittals.
- 5.. The Permittee shall adhere to all requirements in the mitigation monitoring and reporting program (MMRP) which is incorporated herein by reference and any additional measures as outlined in Attachment C, CEQA Findings of Fact.

- 6. Construction General Permit Requirement:** The Permittee shall obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ; NPDES No. CAS000002), as amended, for discharges to surface waters comprised of storm water associated with construction activity, including, but not limited to, demolition, clearing, grading, excavation, and other land disturbance activities of one or more acres, or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres.

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment E of this Order.
2. This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & Wildlife Code, sections 2050-2097) or the federal Endangered Species Act (16 U.S.C. sections 1531-1544). If a “take” will result from any act authorized under this Order held by the Permittee, the Permittee must comply with the California Endangered Species Act and federal Endangers Species Act prior to any construction or operation of the portion of the Project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.
3. The Permittee shall grant Central Valley Water Board staff, or an authorized representative (including an authorized contractor acting as a Water Board representative), upon presentation of credentials and other documents as may be required by law, permission to:
 - a. Enter upon the Project or compensatory mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records are kept.
 - b. Have access to and copy any records that are kept and are relevant to the Project or the requirements of this Order.
 - c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.
 - d. Sample or monitor for the purposes of assuring Order compliance.
4. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project site for the duration of this Order. The Permittee shall be

responsible for work conducted by its consultants, contractors, and any subcontractors.

5. A copy of this Order must be available at the Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the Project shall be familiar with the content of this Order and its posted location at the Project site.
6. **Lake or Streambed Alteration Agreement:** The Permittee shall submit a signed copy of the California Department of Fish and Wildlife's Lake or Streambed Alteration Agreement or other authorization letter to the Central Valley Water Board immediately upon receipt and prior to any discharge to waters of the state.

G. Construction

1. Dewatering

- a. Dewatering will occur within the Project area.
- b. If water is present, the Permittee shall notify Central Valley Water Board staff and the area must be dewatered prior to start of work.
- c. If water is present, the Permittee shall develop and maintain on-site a Surface Water Diversion and/or Dewatering Plan(s). The Plan(s) must be developed prior to initiation of any water diversions. The Plan(s) shall include the proposed method and duration of diversion activities and include water quality monitoring conducted, as described in Section C.3, during the entire duration of dewatering and diversion activities. The Plan(s) must be consistent with this Order and must be made available to the Central Valley Water Board staff upon request.
- d. For any temporary dam or other artificial obstruction being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream, to maintain beneficial uses of waters of the state below the dam. Construction, dewatering, and removal of temporary cofferdams shall not violate Section C.3.
- e. The temporary dam or other artificial obstruction shall only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel which will cause little or no siltation. Stream flow shall be temporarily diverted using gravity flow through temporary culverts/pipes or pumped around the work site with the use of hoses.
- f. This Order does not allow permanent water diversion of flow from the receiving water. This Order is invalid if any water is permanently diverted as a part of the project.
- g. The Permittee shall work with the Central Valley Water Board to obtain coverage under an NPDES permit for dewatering activities that result in discharges into surface water. The Permittee shall work with the Central

Valley Water Board to obtain coverage under Waste Discharge Requirements (WDRs) for dewatering activities that result in discharges to land.

2. Directional Drilling—Not Applicable

3. Dredging—Not Applicable

4. Fugitive Dust

Dust abatement activities can cause discharges of sediment to streams and uplands through application of water or other fluids. Dust abatement chemicals added to water can be hazardous to wildlife and, if allowed to enter streams, detrimental to water quality. Therefore, dust abatement activities shall be conducted so that sediment or dust abatement chemicals are not discharged into waters of the state. Dust abatement products or additives that are known to be detrimental to water quality or wildlife shall not be used, unless specific management needs are documented, and product-specific application plans are approved by Central Valley Water Board staff.

5. Good Site Management “Housekeeping”

- a. The Permittee shall develop and maintain onsite a project-specific Spill Prevention, Containment and Cleanup Plan outlining the practices to prevent, minimize, and/or clean up potential spills during construction of the Project. The Plan must detail the Project elements, construction equipment types and location, access and staging and construction sequence. The Plan must be made available to the Central Valley Water Board staff upon request.
- b. Refueling of equipment within the floodplain or within 300 feet of the waterway is prohibited. If critical equipment must be refueled within 300 feet of the waterway, spill prevention and countermeasures must be implemented to avoid spills. Refueling areas shall be provided with secondary containment including drip pans and/or placement of absorbent material. No hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, or other construction-related potentially hazardous substances should be stored within a floodplain or within 300 feet of a waterway. The Permittee must perform frequent inspections of construction equipment prior to utilizing it near surface waters to ensure leaks from the equipment are not occurring and are not a threat to water quality.
- c. All materials resulting from the Project shall be removed from the site and disposed of properly.

6. Hazardous Materials

- a. The discharge of petroleum products, any construction materials, hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, raw cement, concrete or the washing thereof, asphalt, paint, coating material,

drilling fluids, or other substances potentially hazardous to fish and wildlife resulting from or disturbed by project-related activities is prohibited and shall be prevented from contaminating the soil and/or entering waters of the state. In the event of a prohibited discharge, the Permittee shall comply with notification requirements in sections Sections B.3.a, and B.3.b.

- b. No wet concrete will be placed into wetland or stream channel habitat.

7. Invasive Species and Soil Borne Pathogens

Prior to arrival at the project site and prior to leaving the project site, construction equipment that may contain invasive plants and/or seeds shall be cleaned to reduce the spread of noxious weeds.

8. Post-Construction Storm Water Management

- a. The Permittee must minimize the short and long-term impacts on receiving water quality from the Project by implementing the following post-construction storm water management practices and as required by local agency permitting the Project, as appropriate:
 - i. Minimize the amount of impervious surface;
 - ii. Reduce peak runoff flows;
 - iii. Provide treatment BMPs to reduce pollutants in runoff;
 - iv. Ensure existing waters of the state (e.g., wetlands, vernal pools, or creeks) are not used as pollutant source controls and/or treatment controls;
 - v. Preserve and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones;
 - vi. Limit disturbances of natural water bodies and natural drainage systems caused by development (including development of roads, highways, and bridges);
 - vii. Use existing drainage master plans or studies to ensure incorporation of structural and non-structural BMPs to mitigate the projected pollutant load increases in surface water runoff;
 - viii. Identify and avoid development in areas that are particularly susceptible to erosion and sediment loss, or establish development guidance that protects areas from erosion/ sediment loss; and
 - ix. Control post-development peak storm water run-off discharge rates and velocities to prevent or reduce downstream erosion, and to protect stream habitat.
- b. The Permittee shall ensure that all development within the Project provides verification of maintenance provisions for post-construction

structural and treatment control BMPs as required by the local agency permitting the Project. Verification shall include one or more of the following, as applicable:

- i. The developer's signed statement accepting responsibility for maintenance until the maintenance responsibility is legally transferred to another party; or
- ii. Written conditions in the sales or lease agreement that require the recipient to assume responsibility for maintenance; or
- iii. Written text in Project conditions, covenants and restrictions for residential properties assigning maintenance responsibilities to a homeowner's association, or other appropriate group, for maintenance of structural and treatment control BMPs; or
- iv. Any other legally enforceable agreement that assigns responsibility for storm water BMPs maintenance.

9. Roads

- a. The number of access routes, number and size of staging areas, and the total area of the activity must be limited to the minimum necessary to achieve the project goal. Routes and work area boundaries must be clearly demarcated.
- b. Bridges, culverts, dip crossings, or other structures must be installed so that water and in-stream sediment flow is not impeded. Appropriate design criteria, practices and materials must be used in areas where access roads intersect waters of the state.
- c. Temporary materials placed in any water of the state must be removed as soon as construction is completed at that location, and all temporary roads must be removed or re-contoured and restored according to approved re-vegetation and restoration plans.
- d. Any structure, including but not limited to, culverts, pipes, piers, and coffer dams, placed within a stream where fish (as defined in California Fish and Game Code section 45) exist or may exist, must be designed, constructed, and maintained such that it does not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish due to impedance of their upstream or downstream movement. This includes, but is not limited to, maintaining the supply of water and maintaining flows at an appropriate depth, temperature, and velocity to facilitate upstream and downstream fish migration. If any structure results in a long-term reduction in fish movement, the discharger shall be responsible for restoration of conditions as necessary (as determined by the Water Board) to secure passage of fish across the structure.
- e. A method of containment must be used below any temporary bridge, trestle, boardwalk, and/or other stream crossing structure to prevent any

debris or spills from falling into the waters of the state. Containment must be maintained and kept clean for the life of the temporary stream crossing structure.

10. Sediment Control

- a. Silt fencing, straw wattles, or other effective management practices must be used along the construction zone to minimize soil or sediment along the embankments from migrating into the waters of the state through the entire duration of the Project.
- b. The use of netting material (e.g., monofilament-based erosion blankets) that could trap aquatic dependent wildlife is prohibited within the Project area.

11. Stabilization/Erosion Control

- a. All areas disturbed by Project activities shall be protected from washout and erosion.
- b. Hydroseeding shall be performed with California native seed mix.

12. Storm Water

During the construction phase, the Permittee must employ strategies to minimize erosion and the introduction of pollutants into storm water runoff. These strategies must include the following an effective combination of erosion and sediment control Best Management Practices (BMPs) must be implemented and adequately working prior to the rainy season and during all phases of construction.

H. Site Specific—Not Applicable

I. Total Maximum Daily Load (TMDL)—Not Applicable

J. Mitigation for Temporary Impacts

1. The Permittee shall restore all areas of temporary impacts, including Project site upland areas, which could result in a discharge to waters of the state to pre-construction contours and conditions upon completion of construction activities as described in a final restoration plan.
2. The Permittee submitted a draft restoration plan on 18 May 2021 that met the requirements of Section IV.A.2.d of the Procedures. The final restoration plan shall be submitted for written acceptance by Central Valley Water Board staff prior to the Commencement of Construction notification. The final restoration plan shall describe the restoration of all temporarily disturbed areas to pre-project conditions.
3. The Central Valley Water Board may extend the monitoring period beyond requirements of the final restoration plan upon a determination by Executive

Officer that the performance standards have not been met or are not likely to be met within the monitoring period.

4. If restoration of temporary impacts to waters of the state is not completed within 90 days of the impacts, compensatory mitigation may be required to offset temporal loss of waters of the state.
5. Total required Project compensatory mitigation information for temporary impacts is summarized in Table 4. [Establishment (Est.), Re-establishment (Re-est.), Rehabilitation (Reh.), Enhancement (Enh.), Preservation (Pres.), Unknown].

Table 4: Required Project Mitigation Quantity for Temporary Impacts by Method

Aquatic Resource Type	Mitigation Type	Units	Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Stream Channel	Permittee Responsible	Acres		0.011				

K. Compensatory Mitigation for Permanent Impacts:

Compensatory Mitigation is for permanent physical loss and permanent ecological degradation of a water of the state.

1. Draft Compensatory Mitigation Plan

- a. The Permittee has submitted a draft compensatory mitigation plan as part of a complete application. The Permittee shall provide a final compensatory mitigation plan for written acceptance by Central Valley Water Board staff. Impacts to waters of the state are not authorized and shall not occur until a compensatory mitigation plan has been approved by Central Valley Water Board staff. Upon acceptance by Central Valley Water Board staff, the Permittee shall implement the approved plan.
- b. The final compensatory mitigation plan shall include all plan elements as outlined in the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State and the State Supplemental Dredge or Fill Guidelines, Subpart J – Compensatory Mitigation for Losses of Aquatic Resources.

2. Purchase of Mitigation Credits by Permittee for Compensatory Mitigation

- a. A copy of the fully executed agreement for the purchase of mitigation credits shall be provided to the Central Valley Water Board prior to the initiation of in water work.
- b. The Permittee shall retain responsibility for providing the compensatory mitigation and long-term management until Central Valley Water Board

staff has received documentation of the credit purchase and the transfer agreement between the Permittee and the seller of credits.

3. Total Required Compensatory Mitigation

- b. The Permittee is required to provide compensatory mitigation for the authorized impact to 0.966 acre of wetland habitat by purchasing a minimum of 0.966 establishment or re-establishment wetland mitigation credits.

The Permittee is required to provide compensatory mitigation for the authorized impact to 0.094 acre of stream channel habitat by purchasing a minimum of 0.094 stream channel mitigation credits.

- c. Total required Project compensatory mitigation information for permanent physical loss of area is summarized in Table 5. [Establishment (Est.), Re-establishment (Re-est.), Rehabilitation (Reh.), Enhancement (Enh.), Preservation (Pres.), Unknown].

Table 4: Total Required Project Compensatory Mitigation Quantity for Permanent Physical Loss of Area

Aquatic Resource Type	Mitigation Type	Units	Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Wetland	Mitigation Bank Credits	Acres						0.966
Stream Channel	Mitigation Bank Credits	Acres						0.094

L. Project Deviation

1. Minor modifications of Project locations or predicted impacts may be necessary as a result of unforeseen field conditions, necessary engineering re-design, construction concerns, or similar reasons. Some of these prospective Project modifications may have impacts on water quality. Some modifications of Project locations or predicted impacts may qualify as Project Deviations as set forth in Attachment F. For purposes of this Order, a “Project Deviation” is a Project locational or impact modification that does not require an amendment of the Order, because the Central Valley Water Board has determined that any potential water quality impacts that may result from the change are sufficiently addressed by the Order conditions and the CEQA Findings.
2. A Project modification shall not be granted a Project Deviation if it warrants or necessitates changes that are not addressed by the Order conditions or the

CEQA environmental document. In this case a supplemental environmental review and revised Order will be required.

CERTIFICATION

I, Patrick Pulupa, do hereby certify that the foregoing is a full, true, and correct copy of Waste Discharge Requirements Order R5-2023-00XX adopted by the Central Valley Water Board on 10 August 2023.

PATRICK PULUPA
Executive Officer
Central Valley Regional Water Quality Control Board

- Attachment A:** Project Maps
- Attachment B:** Receiving Waters, Impacts, and Mitigation Information
- Attachment C:** CEQA Findings of Facts
- Attachment D:** Report and Notification Requirements
- Attachment E:** Signatory Requirements
- Attachment F:** Project Deviation Procedures

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Figure 1: Project Location

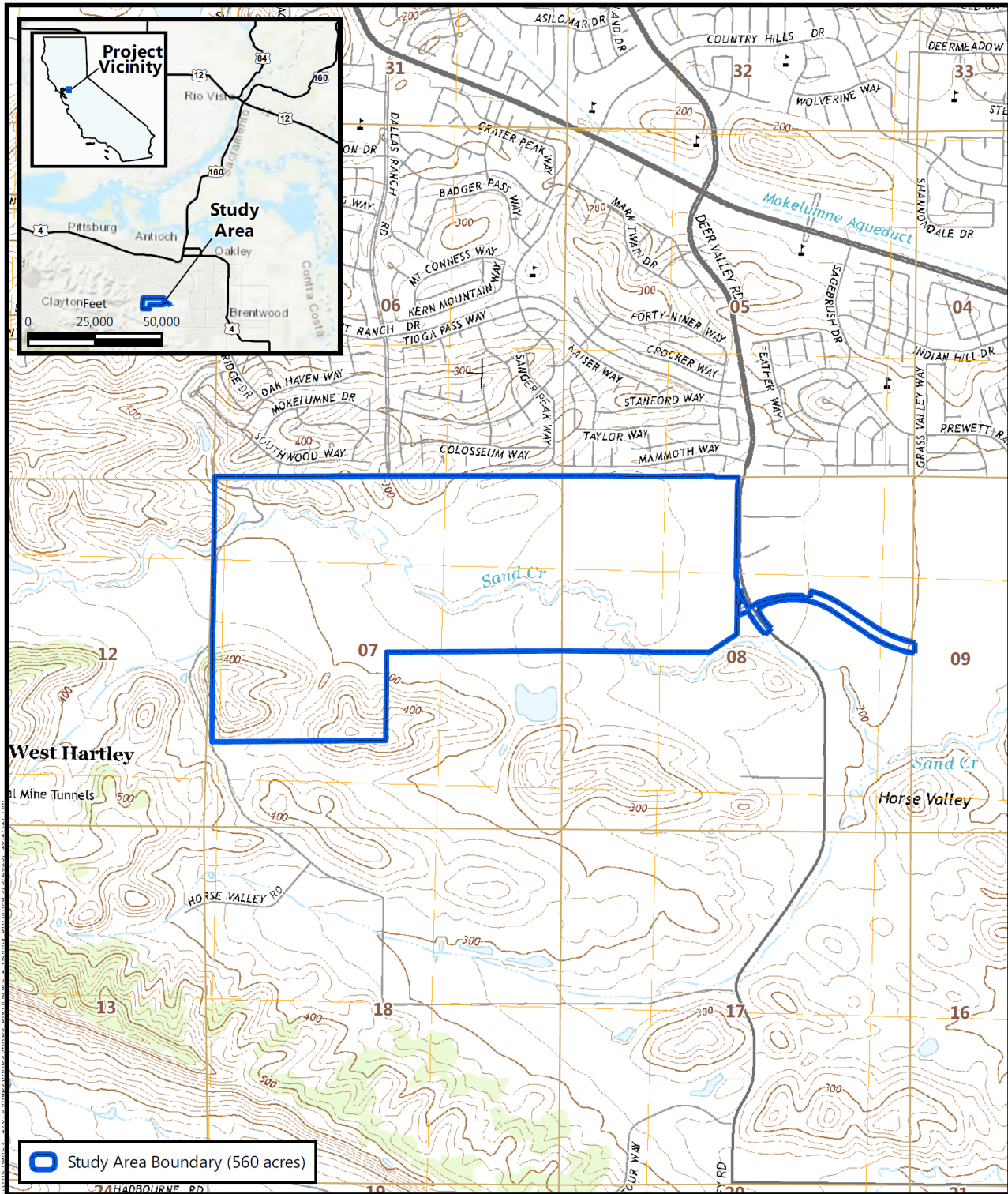
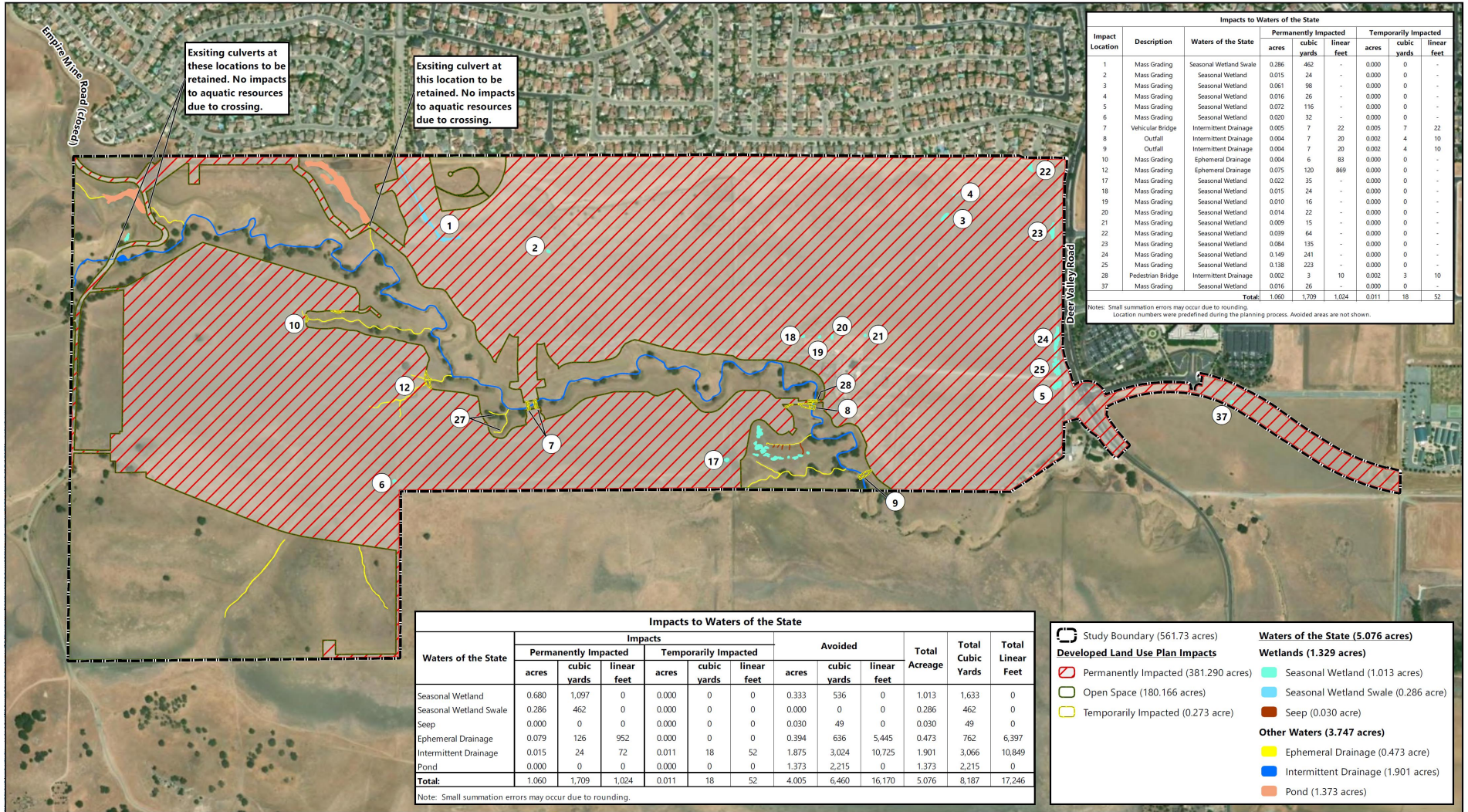


Figure 2: Impacts



Waters of the State Source: Live Oak Associates, Inc., March 2015.
Madrone Ecological Consulting, LLC, 2019
Aerial Source: Maxar, 26 May 2021.

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Receiving Waters, Impacts and Mitigation Information

The following table shows the receiving waters associated with each impact site.

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	California Rapid Assessment Method ID
Yes	AR 1	Unnamed Wetland	Seasonal Wetland Swale	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 2	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 3	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	California Rapid Assessment Method ID
Yes	AR 4	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 5	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 6	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
No	AR 7	Sand Creek	Stream Channel	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	California Rapid Assessment Method ID
No	AR 8	Sand Creek	Stream Channel	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
No	AR 9	Sand Creek	Stream Channel	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
No	AR10	Unnamed Tributary to Sand Creek	Stream Channel	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
No	AR 12	Unnamed Tributary to Sand Creek	Stream Channel	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	California Rapid Assessment Method ID
Yes	AR 17	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 18	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 19	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 20	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	California Rapid Assessment Method ID
Yes	AR 21	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 22	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 23	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 24	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	California Rapid Assessment Method ID
Yes	AR 25	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
No	AR 28	Sand Creek	Stream Channel	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	
Yes	AR 37	Unnamed Wetland	Seasonal Wetland	544.00 San Joaquin Delta Hydrologic Unit	Marsh Creek	REC-1, REC-2, WARM, WILD, RARE, COMM	Bifenthrin, Cyfluthrin, Cyhalothrin, Lambda, Indicator Bacteria, Mercury, Permethrin, Pyrethroids, Toxicity	

Individual Direct Impact Locations

The following tables show individual impacts.

Table 2: Individual Temporary Fill/Excavation Impact Information

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Acres	Cubic Yards	Linear Feet
AR 7	37.948733°	-121.792822°	No	0.005	7	22
AR 8	37.948759°	-121.785128°	No	0.002	4	10
AR 9	37.947283°	-121.783747°	No	0.002	4	10
AR 28	37.948884°	-121.785088°	No	0.002	3	10

Table 3: Individual Permanent Fill/Excavation Impact Information

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Acres	Cubic Yards	Linear Feet
AR 1	37.952907°	-121.795706°	No	0.286	462	855
AR 2	37.952065°	-121.792422°	No	0.015	24	
AR 3	37.952917°	-121.781572°	No	0.061	98	
AR 4	37.953401°	-121.781298°	No	0.016	26	
AR 5	37.949307°	-121.778439°	No	0.072	116	
AR 6	37.947009°	-121.796557°	No	0.020	32	

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Acres	Cubic Yards	Linear Feet
AR 7	37.948732°	-121.792821°	No	0.005	7	20
AR 8	37.948759°	-121.785128°	No	0.004	7	30
AR 9	37.947283°	-121.783744°	No	0.004	7	30
AR 10	37.950572°	-121.799036°	No	0.004	6	101
AR 12	37.948931°	-121.796254°	No	0.075	120	828
AR 17	37.947589°	-121.787463°	No	0.022	35	
AR 18	37.950295°	-121.78542°	No	0.015	24	
AR 19	37.950289°	-121.784962°	No	0.010	16	
AR 20	37.950294°	-121.784621°	No	0.014	22	
AR 21	37.95033°	-121.783714°	No	0.009	15	
AR 22	37.954028°	-121.779249°	No	0.039	64	
AR 23	37.952659°	-121.778625°	No	0.084	135	
AR 24	37.95026°	-121.778463°	No	0.149	241	
AR 25	37.949697°	-121.778453°	No	0.138	223	
AR 28	37.948885°	-121.785087°	No	0.002	3	10
AR 37	37.948981°	-121.773631°	No	0.016	26	

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A. Environmental Review

On 13 August 2020, the City of Antioch, as lead agency, certified a Final Environmental Impact Report (FEIR) (State Clearinghouse (SCH) No. 2019060012) for the Project and filed a Notice of Determination (NOD) at the SCH on 17 August 2020. The Central Valley Water Board is a responsible agency under CEQA (Public Resources Code, section 21069) and in making its determinations and findings, must presume that the City of Antioch's certified environmental document comports with the requirements of CEQA and is valid. (Public Resources Code, section 21167.3.) The Central Valley Water Board has reviewed and considered the environmental document and finds that the environmental document prepared by the City of Antioch addresses the Project's water quality impacts. (California Code of Regulations, Title 14, section 15096, subd. (f).) The environmental document includes the mitigation monitoring and reporting program (MMRP) developed by the City of Antioch for all mitigation measures that have been adopted for the Project to reduce potential significant impacts. (Public Resources Code, section 21081.6, subd. (a)(1); California Code of Regulations, Title 14, section 15091, subd. (d).)

B. Incorporation by Reference

Pursuant to CEQA, these Findings of Facts (Findings) support the issuance of this Order based on the Project FEIR, the application for this Order, and other supplemental documentation.

The [Program Environmental Impact Report \(EIR\)](https://ceqanet.opr.ca.gov/Search/serp?q=2019060012), which includes analyses of broad impacts and serves as a first tier document for the FEIR, is available at: (<https://ceqanet.opr.ca.gov/Search/serp?q=2019060012>).

All CEQA project impacts, including those discussed in subsection C below, are analyzed in detail in the Project FEIR which is incorporated herein by reference. The [Project FEIR](https://ceqanet.opr.ca.gov/Search/serp?q=2019060012) is available at: (<https://ceqanet.opr.ca.gov/Search/serp?q=2019060012>).

Requirements under the purview of the Central Valley Water Board in the MMRP are incorporated herein by reference.

The Permittee's application for this Order, including all supplemental information provided, is incorporated herein by reference.

C. Findings

The FEIR describes the potential significant environmental effects to water quality. Having considered the whole of the record, the Central Valley Water Board makes the following findings:

- (1) Findings regarding impacts that will be avoided or mitigated to a less than significant level. (Public Resources Code, section 21081, subd. (a)(1); California Code of Regulations, Title 14, section 15091, subd. (a)(1).)

Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR.

a.i. Potential Significant Impact:

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

a.ii. Facts in Support of Finding:

MM BIO-1a Special-status Plant Species: The project Applicant hired a qualified Biologist to conduct protocol surveys of the shining navarretia in the 2018-2019 and submitted them to the city for independent peer review. (See Appendix D) To the extent construction moves forward within 5 years of these surveys, they shall be deemed valid, and no further surveys shall be required. However, if construction does not occur on affected areas on or before 5 years of the protocol surveys, the project Applicant shall hire a qualified Biologist to survey the project area prior to construction. All survey results shall be submitted to the City of Antioch Planning Division prior to approval of grading permits. Where populations are outside of the project footprint, qualified Biologists shall demarcate these areas for complete avoidance.

Where shining navarretia populations are within the project footprint, this shall be considered a direct impact. If the project will avoid the mapped populations, but will impact a portion of the avoidance zone, then that will be considered an indirect impact.

The project Applicant shall have the following options to mitigate for direct and/or indirect impacts to the shining navarretia. Options one and two are listed by order of effectiveness:

Option 1: The project Applicant shall identify one or more existing, unprotected populations of shining navarretia in Contra Costa County (or nearest other jurisdiction) and acquire land that supports those populations. Under this Option, once the proposed mitigation area is approved by the City of Antioch Planning Division, the mitigation habitat shall be protected by a recorded conservation easement and managed in accordance with a long-term management plan, the goal of which is to maintain the shining navarretia population and its habitat. The project Applicant shall provide an endowment in favor of the conservation easement holder to fund the long-term management outlined in the long-term management plan. As this option would preserve an existing, established population, there would be no temporal loss, and no risk of failure. As a result, the mitigation ratio for this option would be 1:1. Alternatively, the project Applicant may purchase mitigation credits (at a

1:1 ratio) from an established mitigation bank for all directly impacted shining navarretia locations.

Option 2: The project Applicant shall mitigate for any direct impacts at a ratio of 3:1 (preserved habitat: impacted habitat), and for any indirect impacts at a 1:1 ratio. The ratio shall be reduced to 1.5:1 if the project Applicant chooses to develop a monitoring plan, monitor the relocated seeds/plants in accordance with that plan, and meet established success criteria for successful establishment of a new population of the impacted special-status plant. The success criterion for Option 2 would be 1:1 replacement of special-status plants by Year 5 or later following transplantation. This would require documentation of the number of plants within the proposed impact area such that the number of impacted plants could be compared to the number of established plants at the mitigation site. The monitoring plan and monitoring reports shall be submitted to the City of Antioch Planning Division for review and approval. If the success criteria are not met, additional habitat shall be set aside as set forth under Option 1. As population sizes for annual plants can vary widely from year to year, population counts shall be conducted in the last 3 years of monitoring, and the highest count shall be at least equivalent to the number of impacted plants.

Option 3: As an alternative Options 1 and 2, the project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the shining navarretia would be fully mitigated, including payment of applicable fees, provided that the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1b Crotch and western bumblebee: To avoid take of crotch and western bumblebee species the project Applicant shall implement one of the following options:

Option 1: Prior to each phase of construction, a qualified Biologist shall conduct a take avoidance survey for active bumblebee colony nesting sites. To maximize detection of active bee colonies, the take avoidance survey shall be conducted during the spring, summer, or fall during appropriate weather (not during cool overcast, rainy, or windy days). The Biologist shall walk the entire area proposed for grading and inspect all ground squirrel burrows for bumblebee activity. The survey shall specifically target the slopes that face west to southwest as these areas are specifically utilized by western bumblebee. If any bumblebees are identified during the survey, they shall be identified by specific species.

All active colonies of crotch bumblebee or western bumblebee shall be avoided, and no work shall occur within 50-feet of the colony, unless pursuant to consultation with the California Department of Fish and

Wildlife (CDFW) an Incidental Take Permit is obtained prior to disturbance. If a colony can be fully avoided and work will not occur within 50 feet of the colony, no mitigation shall be required.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the western bumblebee would be fully mitigated, including payment of applicable fees, provided that California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1c Vernal pool fairy shrimp and vernal pool tadpole shrimp: Prior to the issuance of any grading permit, the project Applicant shall implement one of the following options:

Option 1: Consult with the United States Fish and Wildlife Service (USFWS) regarding impacts of the project on vernal pool fairy shrimp and vernal pool tadpole shrimp. The project Applicant shall obtain the appropriate take authorization (Section 7 or 10 of the Federal Endangered Species Act [FESA], as appropriate) from the USFWS prior to issuance of grading permits. The project Applicant shall comply with all terms of the endangered species permits, including any mitigation requirements, which shall be determined during consultation with USFWS.

Mitigation may be accomplished through permittee-responsible mitigation and/or through the preservation of vernal pool fairy shrimp habitat at USFWS-approved ratios at a USFWS-approved mitigation bank. A minimum ratio of 1:1 mitigation shall be required.

Option 2: The project Applicant shall demonstrate compliance with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts on the fairy and tadpole shrimp would be fully mitigated, including payment of applicable fees, provided that the California Department of Fish and Wildlife (CDFW) and USFWS have approved the conservation plan.

MM BIO-1d Valley elderberry longhorn beetle: The project Applicant shall implement one of the following options:

Option 1: The elderberry shrub within the project site shall be avoided. Although there were no signs of the valley elderberry longhorn beetle, the following measures will ensure that there are no significant impacts to valley elderberry longhorn beetle:

All elderberry shrubs (which are defined for the purposes of this section as those with stems greater than 1 inch in diameter) shall be avoided completely during project construction with a buffer of at least 20 feet, and the following avoidance and minimization measures [as outlined in the

Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle shall be implemented for all work within 165 feet of a shrub:

- All areas to be avoided during construction activities shall be fenced and/or flagged as close to construction limits as feasible.
- Activities that could damage or kill an elderberry shrub (e.g., trenching, paving, etc.) shall receive an avoidance area of at least 20 feet from the dripline.
- A qualified Biologist shall provide training for all contractors, work crews, and any on-site personnel on the status of the valley elderberry longhorn beetle, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for noncompliance, prior to the commencement of work.
- A qualified Biologist shall monitor the work area at project appropriate intervals to assure that all avoidance and minimization measures are implemented.
- As much as feasible, all activities within 165 feet of an elderberry shrub shall be conducted between August and February.
- Elderberry shrubs shall not be trimmed.
- Herbicides shall not be used within the dripline of the shrub. Insecticides shall not be used within 100 feet of an elderberry shrub.
- Mechanical weed removal within the dripline of the shrub shall be limited to the season when adults are not active (August–February) and shall avoid damaging the elderberry shrub.

If either a 20-foot diameter avoidance area around the elderberry shrub is found later to not be feasible or an elderberry shrub must be removed to accommodate construction, then the project Applicant shall notify the City and implement additional mitigation measures required by the Framework after consultation with the United States Fish and Wildlife Service (USFWS).

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts on the elderberry beetle would be fully mitigated, including payment of applicable fees, provided that the California Department of Fish and Wildlife (CDFW) and USFWS have approved the conservation plan.

MM BIO-1e California tiger salamander: Prior to the commencement of construction activities, the project Applicant shall implement one of the following options:

Option 1: The project Applicant shall obtain take coverage from the United States Fish and Wildlife Service (USFWS) under Sections 7 or 10

of the Federal Endangered Species Act (FESA) for any impacts to the California tiger salamander and/or its habitat. In addition, the project Applicant shall obtain take coverage from the California Department of Fish and Wildlife (CDFW) under Section 2081 of the California Fish and Game Code for any impacts to the California tiger salamander and/or its habitat. Any required compensatory mitigation shall be determined during consultation with USFWS and CDFW and may include permittee-responsible mitigation and/or the purchase of mitigation credits from a USFWS- and CDFW approved mitigation bank. Should consultation with the USFWS and CDFW result in required mitigation measures in conflict with the measures included here, USFWS and CDFW measures shall take precedence. A minimum ratio of 1:1 shall apply.

The project Applicant shall preserve both aquatic habitat and upland habitat that are either known to be California tiger salamander breeding habitat and upland habitat, or which have the proper hydrology to support breeding California tiger salamander, on off-site mitigation properties and within the on-site open space or as otherwise required as a result of consultation with the USFWS.

Project activities shall occur during the dry season (May 1 through October 15) unless otherwise authorized by the CDFW and USFWS.

Prior to the start of construction, a qualified Biologist shall conduct a training program for all construction personnel including contractors and subcontractors. The training shall include, at a minimum, a description of the California tiger salamander and its habitat within the project area; an explanation of the species status and protection under State and federal laws; the avoidance and minimization measures to be implemented to reduce take of this species; communication and work stoppage procedures in case a listed species is observed within the project site; and an explanation of the importance of the Environmentally Sensitive Areas (ESAs) and Wildlife Exclusion Fencing (WEF). A fact sheet conveying this information shall be prepared and distributed to all construction personnel by the Biologist. The training shall provide interpretation for non-English speaking workers. The same instruction shall be provided to any new workers before they are authorized to perform project work.

Prior to the start of each phase of construction, ESAs (defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) shall be clearly delineated using high visibility orange fencing. The ESA fencing shall remain in place throughout the duration of the construction and shall be regularly inspected and fully maintained at all times by the project Applicant's contractor.

A qualified Biologist shall be on-site during all activities that may result in take of California tiger salamander. The qualifications of the Biologist(s)

shall be submitted to the USFWS and CDFW for review and approval at least 30 calendar days prior to the date earthmoving is initiated at the project site.

Prior to the start of each phase of construction, WEF shall be installed at the edge of the project footprint in all areas where sensitive species could enter the construction area. The location of the fencing shall be determined by the contractor and the qualified Biologist. The WEF shall remain in place throughout the duration of the project phase and shall be regularly inspected and fully maintained by the project Applicant's contractor. Repairs to the WEF shall be made within 24 hours of discovery. Upon project completion, the WEF shall be completely removed, and the area cleaned of debris and trash and returned to natural conditions. Exceptions to the foregoing fencing measures include work sites where the duration of work activities is very short (e.g., 3 days or less), occur during the dry season, and the installation of exclusion fencing will result in more ground disturbance than from project activities. In this case, the boundaries and access areas and sensitive habitats may be staked and flagged (as opposed to fully fenced) by the qualified Biologist prior to disturbance and species monitoring would occur during all project activities.

If a water body is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh no larger than 5 millimeters and the intake shall be placed within a perforated bucket or other method to attenuate suction to prevent California tiger salamander from entering the pump system. Pumped water shall be managed in a manner that does not degrade water quality and then upon completion released back into the water body, or at an appropriate location in a manner that does not cause erosion. No rewatering of the water body is necessary if sufficient surface or subsurface flow exists to fill it within a few days, or if work is to be completed during the time of year the water body would have dried naturally.

When constructing a road improvement within California tiger salamander habitat, the project Applicant shall enhance or establish wildlife passage for the California tiger salamander across roads, highways, or other anthropogenic barriers. This may include upland culverts, tunnels, and other crossings designed specifically for wildlife movement, as well as making accommodations in curbs (no vertical faced curbs), median barriers, and other impediments to terrestrial wildlife movement at locations most likely to be beneficial to the California tiger salamander.

Preconstruction surveys shall be provided to the City of Antioch Planning Division and shall be conducted by a USFWS or CDFW approved Biologist within 72 hours of the initiation of any ground disturbing activities and vegetation clearing that may result in take of the California tiger salamander. All suitable aquatic and upland habitat, including refugia

habitat such as small woody debris, refuse, burrow entries, etc., shall be duly inspected. The approved Biologist(s) shall conduct clearance surveys at the beginning of each day and regularly throughout the workday when construction activities are occurring that may result in take of the California tiger salamander. Where feasible and only on a case-by-case basis, rodent burrows and other ground openings suspected to contain Central California tiger salamanders that would be destroyed from project activities may be carefully excavated under supervision of the Biologist. If the California tiger salamander is observed, the approved Biologist shall implement the species observation and handling protocol outlined below.

At least 15 days prior to initiation of ground disturbance activities the project Applicant's Biologist shall prepare and submit a Relocation Plan for the California tiger salamander for the USFWS and CDFW written approval. The plan shall include protocol to be followed should a California tiger salamander be encountered during project activities. The Relocation Plan shall contain the name(s) of the approved Biologist(s) to relocate the California tiger salamander, method of relocation, a map, and description of the proposed release site(s) within 300 feet from the project, unless at a distance otherwise agreed to by the USFWS and CDFW, and written permission from the landowner to use their land as a relocation site.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the California tiger salamander would be fully mitigated, including payment of applicable fees, provided that the CDFW and USFWS have approved the conservation plan.

MM BIO-1f California red-legged frog: Prior to issuance of any grading permits, the project Applicant shall implement one of the following options:

Option 1: The project Applicant shall consult with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) regarding impacts to California red-legged frog from the proposed project. The project Applicant shall obtain the appropriate take authorization from the USFWS (Section 7 or 10 of the Federal Endangered Species Act [FESA]) and/or from the CDFW (Section 2081 of the California Fish and Game Code). The project Applicant shall comply with all required compensatory mitigation determined during consultation with the USFWS and CDFW and provide proof of compliance to the City of Antioch Planning Division.

Should consultation with the USFWS result in required mitigation measures in conflict with the measures included here, USFWS measures shall take precedence.

Approximately 1.40 acres of California red-legged frog aquatic habitat shall be preserved on-site as part of the proposed project.

Prior to the start of construction, a qualified Biologist shall conduct a training program for all construction personnel including contractors and subcontractors. The training shall include, at a minimum, a description of the California red-legged frog and their habitats within the project site; an explanation of the species status and protection under State and federal laws; the avoidance and minimization measures to be implemented to reduce take of this species; communication and work stoppage procedures in case a listed species is observed within the project site; and an explanation of the importance of the Environmentally Sensitive Areas (ESAs) and Wildlife Exclusion Fencing (WEF). A fact sheet conveying this information shall be prepared and distributed to all construction personnel. The training shall provide interpretation for non-English speaking workers. The same instruction shall be provided to any new workers before they are authorized to perform project work.

Prior to the start of each phase of construction, ESAs (defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) shall be construction activities are ongoing and shall be regularly inspected and fully maintained at all times.

A qualified Biologist shall be on-site during all activities that may result in take of the California red-legged frog. The qualifications of the Biologist(s) shall be submitted to the USFWS for review and approval at least 30 calendar days prior to the date earthmoving is initiated at the project site.

Prior to the start of each phase of construction, WEF shall be installed at the edge of the project footprint in all areas where sensitive species could enter the construction area. The location of the fencing shall be determined by the contractor and the qualified Biologist prior to the start of staging or ground disturbing activities. The WEF shall remain in place throughout the duration of the project and shall be regularly inspected and fully maintained. Repairs to the WEF shall be made within 24 hours of discovery. Upon project completion, the WEF shall be completely removed, and the area cleaned of debris and trash and returned to natural conditions. An exception to the foregoing fencing measures is that for work sites where the duration of work activities is very short (e.g., 3 days or less) and that occur during the dry season, and the installation of exclusion fencing will result in more ground disturbance than from project activities. In this case, the boundaries and access areas and sensitive habitats may be staked and flagged (as opposed to fenced) by the qualified Biologist prior to disturbance and species monitoring would occur during all project activities at that site.

No more than 24 hours prior to the date of initial ground disturbance, a preconstruction survey for the California red-legged frog shall be conducted by the qualified Biologist at the project site. The results shall be provided to the City of Antioch Planning Division. The survey shall consist

of walking the project limits and within the project site to ascertain the possible presence of the species. The Biologist shall investigate all potential areas that could be used by the California red-legged frog for feeding, breeding, sheltering, movement, and other essential behaviors. This includes an adequate examination of mammal burrows, such as California ground squirrels or gophers. If any adults, subadults, juveniles, tadpoles, or eggs are found, the Biologist shall contact the USFWS to determine if moving any of the individuals is appropriate. In making this determination, the USFWS shall consider if an appropriate relocation site exists. Only USFWS-approved Biologists may capture, handle, and monitor the California red-legged frog.

To the extent practicable, initial ground-disturbing activities shall be avoided between November 1 and March 31 because that is the time period when the California red-legged frog are most likely to be moving through upland areas. When ground-disturbing activities must take place between November 1 and March 31, the project Applicant shall ensure that daily monitoring by the USFWS-approved Biologist is completed.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the California red legged frog would be fully mitigated, including payment of applicable fees, provided that CDFW and USFWS have approved the conservation plan.

MM BIO-1g Western spadefoot: Prior to initiation of construction activity, the project Applicant shall implement one of the following options:

Option 1: The project Applicant shall retain a qualified Biologist to survey all suitable aquatic habitat within the project site (including features proposed for avoidance) by sampling the features thoroughly with dipnets during March or early April, when spadefoot tadpoles would be present. In addition, one nocturnal acoustic survey of all areas within 300 feet of suitable aquatic habitat shall be conducted. Acoustic surveys shall consist of walking through the area and listening for the distinctive snore-like call of this species. The results shall be provided to the City of Antioch Planning Division. Timing and methodology for the aquatic and acoustic surveys shall be based on those described in Distribution of the western spadefoot in the Northern Sacramento Valley of California, with Comments on Status and Survey Methodology. If both the aquatic survey and the nocturnal acoustic survey are negative, further mitigation is not necessary.

If western spadefoot is observed within aquatic habitat proposed for impact, the tadpoles shall be captured by a qualified Biologist and relocated either to aquatic habitat to be avoided on-site (and implement the fencing requirement outlined below), or to an off-site open space

preserve with suitable habitat in the vicinity of the project site. If western spadefoot is observed within aquatic habitats proposed for avoidance, then the project Applicant shall install a keyed in silt fence along the edge of the proposed impact area within 300 feet of the occupied aquatic habitat to prevent metamorphose individuals from dispersing into the construction area.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the western spadefoot would be fully mitigated, including payment of applicable fees, provided that the California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1h Western Pond turtle: Prior to construction activities, the project Applicant shall implement one of the following options:

Option 1: Within 14 days prior to the initiation of any construction activities for each phase, a qualified Biologist shall conduct preconstruction surveys for northwestern pond turtles. The results shall be provided to the City of Antioch Planning Division. If northwestern pond turtles are found prior to the initiation of, and/or during, construction activities, a qualified Biologist shall relocate them outside of the project site, subject to review and approval by the appropriate resource agencies (i.e., California Department of Fish and Wildlife [CDFW]).

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the western pond turtle would be fully mitigated, including payment of applicable fees, provided that the CDFW and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1i Northern California legless lizard, Alameda whipsnake, and coast horned lizard: Prior to construction, the project Applicant shall implement one of the following options:

Option 1: Within 14 days prior to the initiation of any construction activities for each phase of the project, a qualified Biologist shall conduct preconstruction surveys for northern California legless lizard, Alameda whipsnake, and coast horned lizard. The results shall be provided to the City of Antioch Planning Division. If Alameda whipsnake is identified during the survey, it will be allowed to leave the work area on its own, subject to confirmation by a qualified Biologist. If Northern California legless lizard or coast horned lizard are found during the survey, a qualified Biologist shall relocate them to suitable habitat outside of the project site, subject to review and approval by the appropriate resource agencies (i.e., California Department of Fish and Wildlife [CDFW] and/or

the United States Fish and Wildlife Service [USFWS], and the City of Antioch Planning Division).

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the lizards and whipsnake would be fully mitigated, including payment of applicable fees, provided that the CDFW and the USFWS have approved the conservation plan.

MM BIO-1j Swainson's hawk:

Option 1: Where construction activities will occur during nesting and breeding season (typically February 15 through September 1), the project Applicant shall conduct a targeted Swainson's hawk nest survey throughout all accessible areas within 0.25 mile of the proposed construction area no later than 14 days prior to construction activities. The results shall be provided to the City of Antioch Planning Division. If active Swainson's hawk nests are found within 0.25 mile of a construction area, construction shall cease within 0.25 mile of the nest until a qualified Biologist determines that the young have fledged, or it is determined that the nesting attempt has failed. If the project Applicant desires to work within 0.25 mile of the nest, the project Applicant shall consult with the California Department of Fish and Wildlife (CDFW) to determine if the nest buffer can be reduced. The project Applicant, the Biologist, and the CDFW shall collectively determine the nest avoidance buffer and what (if any) nest monitoring is necessary. If an active Swainson's hawk nest is found within the project site prior to construction and is in a tree that is proposed for removal, then the project Applicant shall implement additional mitigation recommended by a qualified Biologist based on CDFW Guidelines and obtain any required permits from the CDFW. Prior to project construction, a qualified Biologist shall conduct a review of Swainson's hawk nest data available in the California Natural Diversity Database (CNDDDB) and contact the CDFW to determine if they have any additional nest data. A Biologist shall conduct a survey of these nests to determine if they are still present and provide the City with a summary of the findings. If it is determined that the project site is within 10 miles of an active Swainson's hawk nest (an active nest is defined as a nest with documented Swainson's hawk use within the past 5 years), the project Applicant shall mitigate for the loss of suitable Swainson's hawk foraging habitat by implementing one of the below measures:

Active nest identified within 1 mile of the project site: 1 acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. Protection shall be via purchase of mitigation bank credits or other land protection mechanism acceptable to the City.

Active nest identified within 5 miles (but greater than 1 mile) of the project site: 0.75 acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. Protection shall be via purchase of mitigation bank credits or other land protection mechanism acceptable to the City.

Active nest identified within 10 miles (but greater than 5 miles) of the project site: 0.5 acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. Protection shall be via purchase of mitigation bank credits or other land protection mechanism acceptable to the City.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the Swainson's hawk would be fully mitigated, including payment of applicable fees, provided that the CDFW and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1k Burrowing owl:

Option 1: A targeted take avoidance burrowing owl nest survey shall be conducted of all accessible areas within 500 feet of the proposed construction area within 14 days prior to construction activities utilizing 60 foot transects as outlined in the Staff Report on Burrowing Owl Mitigation. The results shall be provided to the City of Antioch Planning Division.

If an active burrowing owl nest burrow (i.e., occupied by more than one adult owl, and/or juvenile owls are observed) is found within 250 feet of a construction area either before or during construction, no construction shall occur within 250 feet of the nest burrow until a qualified Biologist determines that the young have fledged, or it is determined that the nesting attempt has failed. If the project Applicant desires to work within 250 feet of the nest burrow, the project Applicant shall consult with the California Department of Fish and Wildlife (CDFW) to determine if the nest buffer can be reduced. During the non-breeding season (late September through the end of January), the project Applicant may choose to conduct a survey for burrows or debris that represent suitable nesting habitat for burrowing owls within areas of proposed ground disturbance, exclude any burrowing owls observed, and collapse any burrows or remove the debris in accordance with the methodology outlined by the CDFW. If any nesting burrowing owl are found during the pre-construction survey, mitigation for the permanent loss of burrowing owl foraging habitat (defined as all areas of suitable habitat within 250 feet of the active burrow) shall be accomplished at a 1:1 ratio. The mitigation provided shall be consistent with recommendations in the 2012 CDFW Staff Report and may be accomplished within the Swainson's hawk foraging habitat mitigation area if burrowing owls have been documented utilizing that area, or if the

Biologist, the City, and the CDFW collectively determine that the area is suitable.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to the burrowing owl would be fully mitigated, including payment of applicable fees, provided that the CDFW and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1I Survey Report: Prior to construction activities, the project Applicant shall implement one of the following options to reduce impacts to Swainson's hawk and Burrowing owl:

Option 1: For any nesting raptor or songbird pre-construction survey conducted pursuant to Mitigation Measure (MM) BIO-2i through MM BIO-2k, a report summarizing the survey(s), including those for Swainson's hawk and burrowing owl, shall be provided to the City and the California Department of Fish and Wildlife (CDFW) within 30 days of the completed survey. The survey report shall be valid for one construction season. If no nests are found, no further mitigation is required.

Where birds are nesting during construction and construction activities cause a nesting bird to do any of the following in a way that would be considered a result of construction activities: vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, the exclusionary buffer shall be increased such that activities are far enough from the nest to stop this agitated behavior. The exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified Biologist in consultation with the CDFW.

Construction activities may only resume within the buffer zone after a follow-up survey by the biologist has been conducted and a report has been prepared indicating that the nest (or nests) is no longer active, and no new nests have been identified.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to nesting birds would be fully mitigated, including payment of applicable fees, provided that the CDFW and United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1m Other birds:

Option 1: A pre-construction nesting bird survey shall be conducted by a qualified Biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 3 days prior to the initiation of construction. The results shall be provided to

the City of Antioch Planning Division. If there is a break in construction activity of more than 2 weeks, subsequent surveys shall be conducted.

If active raptor nests are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer shall be established. These no-disturbance buffers may be reduced if a smaller buffer is proposed by the Biologist and approved by the City (and California Department of Fish and Wildlife (CDFW) if it is a tricolored blackbird nesting colony) after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (are there visual or acoustic barriers between the proposed activity and the nest). A qualified Biologist shall visit the nest as needed to determine when the young have fledged the nest and are independent of the site or the nest can be left undisturbed until the end of the nesting season.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, to the extent that all project impacts to raptors and songbirds would be fully mitigated, including payment of applicable fees, provided that the CDFW and the United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1n Roosting bats: Prior to construction activities, the project Applicant shall implement one of the following options:

Option 1: A qualified Biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees within the proposed development footprint. This habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to 1 year prior to the start of construction. The results shall be provided to the City of Antioch Planning Division.

If potential roosting habitat is identified (cavities in trees) within the areas proposed for development, the Biologist shall survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50°F (degrees Fahrenheit) to determine presence of roosting bats. These surveys are recommended to be conducted utilizing methods that are considered acceptable to the California Department of Fish and Wildlife (CDFW) and bat experts, including but not limited to evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiber optic cameras or a combination thereof.

If roosting bats are identified within any of the trees planned for removal, or if presence is assumed, the trees shall be removed outside of pup season only on days when temperatures are in excess of 50°F. Pup season is generally during the months of May through August. Two-step

tree removal shall be utilized under the supervision of the qualified Biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree.

Additionally, all other tree removal shall be conducted from January through March on days with temperatures in excess of 50°F to avoid potential impacts to foliage-roosting bat species.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, including payment of applicable fees, to the extent that all project impacts to roosting bats would be fully mitigated, provided that the CDFW and United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1o American badger:

Option 1: Within 48 hours prior to the initiation of any construction activities for any project phase, a qualified Biologist shall conduct a preconstruction-level American badger den survey within the project site. The results shall be provided to the City of Antioch Planning Division. If American badger or burrows with American badger sign are found within the project site or Off-site Improvement Area during the preconstruction surveys, consultation with the California Department of Fish and Wildlife (CDFW) shall occur prior to the initiation of any construction activities to determine an appropriate burrow excavation and/or relocation method. If American badger burrows are not found, further measures are not necessary. All survey results shall be submitted to the City of Antioch Planning Division prior to the initiation of any construction activities or where construction has been halted for 30 days or more.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, including payment of applicable fees, to the extent that all project impacts to the American badger would be fully mitigated, provided that the CDFW and United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

MM BIO-1p Worker Environmental Awareness Training: Prior to any ground-disturbing or vegetation-removal activities, the project Applicant shall implement one of the following options:

Option 1: The project Applicant shall hire a qualified Biologist to conduct a Worker Environmental Awareness Training (WEAT) with the construction crews. The WEAT shall include the following information: discussion of the California Endangered Species Act (CESA) and Federal Endangered Species Act (FESA), the Clean Water Act, the project permits and California Environmental Quality Act (CEQA) documentation, and

associated mitigation measures; consequences and penalties for violation or noncompliance with these laws and regulations; identification of special-status wildlife, location of any avoided waters of the United States; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status wildlife species.

The WEAT shall also discuss the different habitats used by the species' different life stages and the annual timing of these life stages. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT training, workers shall sign a form stating that they attended the training, understand the information presented and will comply with the regulations discussed. Workers shall be shown designated "avoidance areas" during the WEAT training, and worker access shall be restricted to outside of those areas to minimize the potential for inadvertent environmental impacts.

Option 2: The project Applicant shall comply with a habitat conservation plan and/or natural community conservation plan if developed and adopted by the City, including payment of applicable fees, to the extent that all project impacts to special-status wildlife species would be fully mitigated, provided that the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have approved the conservation plan.

b.i. Potential Significant Impact

The project could 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.

b.ii. Facts in Support of Finding

MM BIO-3: Prior to the issuance of a grading permit for the project, the project Applicant shall obtain all required resource agency approvals for the project, including as follows:

The project Applicant shall obtain for a Section 404 permit from the United States Army Corps of Engineers (USACE). Waters that will be impacted shall be replaced or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE.

The project Applicant shall apply for and obtain a Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB) and adhere to the certification conditions. The project Applicant shall apply for and obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). The information provided will include a description of all the activities associated with the proposed project,

not just those closely associated with the drainages and/or riparian vegetation. Impacts will be outlined in the application and are expected to be in substantial conformance with the impacts to biological resources outlined in this document. Impacts for each activity will be identified as temporary or permanent with a description of the proposed mitigation for the associated biological resource impacts. Information regarding project-specific drainage and hydrology changes resulting from project implementation will be provided as well as description of stormwater treatment methods. Minimization and avoidance measures shall be proposed as appropriate and may include preconstruction species surveys and reporting; protective fencing around avoided biological resources; worker environmental awareness training; seeding disturbed areas adjacent to open space areas with native seed; and installation of project-specific stormwater Best Management Practices (BMPs). Mitigation may include restoration or enhancement of resources on- or off-site, purchase of habitat mitigation credits from an agency-approved mitigation/conservation bank, purchase of off-site land approved by resource agencies for mitigation, working with a local land trust to preserve land, or any other method acceptable to the CDFW.

c.i. Potentially Significant Impact

The project could 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 wildlife nursery sites.

c.ii. Facts in Support of Finding

No permanent or temporary fencing shall be erected that will hinder migratory wildlife from utilizing the Sand Creek corridor. Utility and bridge crossings of Sand Creek shall be designed to be free spanning of the creek.

d.i. Potentially Significant Impact

The project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

d.ii. Facts in Support of Finding

MM BIO-5: The project Applicant shall preserve and incorporate existing trees into the project design to the extent feasible. If any Protected Trees (i.e., indigenous trees, street trees, mature trees, and/or landmark trees) are required to be removed due to project-related activities, the removal shall be mitigated in accordance with the City of Antioch Code of Ordinances Title 9, Chapter 5, Article 12 Section 9-5.1205: Tree Preservation and Regulation by either paying the requisite fee as outlined in the City's ordinance, or through conducting on-site plantings at the ratios required by the City's Tree Ordinance.

Efforts shall be made to save trees where feasible. This shall include the use of retaining walls, planter islands, pavers, or other techniques commonly

associated with tree preservation. The Improvement Plans shall include a note and show placement of temporary construction fencing around trees to be saved: The project Applicant shall install a 4-foot tall, brightly colored (typically orange), synthetic mesh material fence (or an equivalent) approved by the City at the following locations prior to any construction equipment being moved on-site or any construction activities taking place: at the limits of construction; outside the Protected Zone of all native oaks, California buckeye, or landmark trees; within 50 feet of any grading, road improvements, underground utilities, or other development activity; or as otherwise shown on the tentative subdivision map. Any encroachment within these areas, including Protected Zones of trees to be saved, shall first be approved by the City of Antioch Community Development Director. Grade cuts and fills, hardscapes, structures, and utility lines shall be located outside of the drip line of any trees being preserved. All required protective fencing shall be installed prior to the commencement of grading any particular phase.

e.i. Potentially Significant Impact:

The project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

e.ii. Facts in Support of Finding:

MM HAZ-2a: Performance of Pre-Construction Hazardous Materials Surveys Prior to the issuance of a demolition permit for each of the structures on-site, the Applicant shall hire a California Registered Asbestos Abatement Contractor to inspect, and if necessary, remove all asbestos containing materials, and conduct final clearance inspections (visual) to document the completion of the action. All demolition activities shall be completed in accordance with California Code of Regulations Title 17, Division 1, Chapter 8, Article 1. All construction work where an employee may be occupationally exposed to lead-containing paint, including demolition, must comply with Occupational and Safety Health Administration (OSHA) Regulation 29 Code of Federal Regulations 1926.62, and California Occupational and Safety Health Administration (Cal/OSHA) Title 8 California Code of Regulations 1523.1.

MM HAZ-2b: Agrichemical Soil Assessment The Applicant shall conduct a limited agrichemical soil assessment within the areas where the two orchards were located on-site to determine if residual agrichemicals are present within on-site soils in excess of applicable limits. If found to be present in excess of applicable limits, the Applicant shall have a remedial action plan developed and implemented to ensure that all residual soils are removed to the satisfaction of the Department of Toxic Substance Control (DTSC) and City of Antioch prior the issuance of a grading permit.

MM HAZ-2c: Obtain an Abandonment Permit Prior to any ground disturbance activities within 50 feet of any water well or septic tank on the

project site, the Applicant shall hire a licensed contractor to obtain an abandonment permit from the Contra Costa County Environmental Management Department, and properly abandon the on-site well(s) and/or septic tank, pursuant to review and approval by the City Engineer.

MM HAZ-2d: Well Abandonment Proper abandonment of Well No. 1 is required in accordance with current California Department Division of Oil, Gas, and Geothermal Resources (DOGGR) regulations to address past oil and gas exploration and production activities.

Prior to final map approval, the Applicant shall submit to the City of Antioch Engineering Department, for review and approval, plans which show that future inhabited structures will not be located over the two abandoned oil/gas wells. The plans shall be completed in compliance with the DOGGR Construction Site Review Program, which includes guidelines and recommendations for setbacks and mitigation measures for venting systems.

If grading is proposed proximate to the two abandoned well locations, DOGGR shall be consulted to determine if the wells will require modification in casing height. A Soil Management Plan (SMP) shall be prepared to address potential impacted soil that may be encountered during grading activities within the area of the two abandoned wells.

MM HAZ-2e: Removal of Hazardous Material Containers Prior to site grading, the Applicant shall cause all noted potentially hazardous material containers and tanks to be removed from the parcel.

MM HAZ-2f: Conduct a Phase II Environmental Site Assessment Prior to issuance of a grading permit, the Applicant shall hire a certified Soils Engineer to prepare a Phase II Environmental Site Assessment (Phase II ESA) to address all concerns identified in the Phase I ESAs. The Applicant shall comply with all Phase II recommendations.

MM HAZ-2g: Petroleum Pipeline Abandonment/Removal Prior to commencement of residential construction, the Applicant shall ensure that all petroleum pipelines within the areas of the project site planned for development shall be abandoned and/or removed in accordance with applicable federal, state, and/or local standards to the satisfaction of the Contra Costa Environmental Health Department and the City Engineer. If any indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are found at the project site associated with the petroleum pipelines, the impacted area shall be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with applicable regulatory residential screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). Where the soil contaminant concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of off-site at a licensed landfill facility to

the satisfaction of the Contra Costa Environmental Health Department. If soil contaminants do not exceed the applicable regulatory residential screening levels, further action is not required.

MM HAZ-2h: Preparation of Safety Guidelines In the event the pipelines are abandoned and not removed, prior to commencement of grading, the construction contractor, the pipeline operator, and a representative from the City's Engineering Department shall meet on the project site and prepare site-specific safety guidelines for construction in the field to the satisfaction of the City Engineer. The safety guidelines and field-verified location of the pipelines shall be noted on the improvement plans and be included in all construction contracts involving the project site.

D. Determination

The Central Valley Water Board has determined that the Project, when implemented in accordance with the MMRP and the conditions in this Order, will not result in any significant adverse water quality or supply impacts. (California Code of Regulations, Title 14, section 15096, subd. (h).) The Central Valley Water Board will file a NOD with the SCH within five (5) working days from the issuance of this Order. (California Code of Regulations, Title 14, section 15096, subd. (i).)

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REPORTS AND NOTIFICATION REQUIREMENTS

I. Copies of this form

In order to identify your project, it is necessary to include a copy of the Project specific Cover Sheet below with your report; please retain for your records. If you need to obtain a copy of the Cover Sheet, you may download a copy of this Order as follows:

- A. [Central Valley Regional Water Quality Control Board's Adopted Orders Web page](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/401_wqcerts/)
(https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/401_wqcerts/)
- B. Find your Order based on the County, Permittee, WDID No., and/or Project Name.

II. Report Submittal Instructions

- A. Check the box on the Report and Notification Cover Sheet next to the report or notification you are submitting. **(See your Order for specific reports required for your Project)**
 - **Part A (Monthly & Annual Reports):** These reports will be submitted monthly and annually until a Notice of Project Complete Letter is issued.
 - **Part B (Project Status Notifications):** Used to notify the Central Valley Water Board of the status of the Project schedule that may affect Project billing.
 - **Part C (Conditional Notifications and Reports):** Required on a case-by-case basis for accidental discharges of hazardous materials, violation of compliance with water quality standards, notification of in-water work, or other reports.
- B. Sign the Report and Notification Cover Sheet and attach all information requested for the Report Type.
- C. Electronic Report Submittal Instructions:
 - Submit signed Report and Notification Cover Sheet and required information via email to: centralvalleysacramento@waterboards.ca.gov and cc: Nicholas.Savino@waterboards.ca.gov
 - Include in the subject line of the email:
ATTN: Nicholas Savino; Project Name; and WDID No. 5B07CR00234

III. Definition of Reporting Terms

- A. Active Discharge Period:** The active discharge period begins with the effective date of this Order and ends on the date that the Permittee receives a Notice of Completion of Discharges Letter or, if no post-construction monitoring is required, a Notice of Project Complete Letter. The Active Discharge Period includes all elements of the Project including site construction and restoration, and any Permittee responsible compensatory mitigation construction.
- B. Request for Notice of Completion of Discharges Letter:** This request by the Permittee to the Central Valley Water Board staff pertains to projects that have post construction monitoring requirements, e.g. if site restoration was required to be monitored for 5 years following construction. Central Valley Water Board staff will review the request and send a Completion of Discharges Letter to the Permittee upon approval. This letter will initiate the post-discharge monitoring period and a change in fees from the annual active discharge fee to the annual post-discharge monitoring fee.
- C. Request for Notice of Project Complete Letter:** This request by the Permittee to the Central Valley Water Board staff pertains to projects that either have completed post-construction monitoring and achieved performance standards or have no post-construction monitoring requirements, and no further Project activities are planned. Central Valley Water Board staff will review the request and send a Project Complete Letter to the Permittee upon approval. Termination of annual invoicing of fees will correspond with the date of this letter.
- D. Post-Discharge Monitoring Period:** The post-discharge monitoring period begins on the date of the Notice of Completion of Discharges Letter and ends on the date of the Notice of Project Complete Letter issued by the Central Valley Water Board staff. The Post-Discharge Monitoring Period includes continued water quality monitoring or compensatory mitigation monitoring.
- E. Effective Date:** 10 August 2023

IV. Map/Photo Documentation Information

When submitting maps or photos, please use the following formats.

A. Map Format Information:

Preferred map formats of at least 1:24000 (1" = 2000') detail (listed in order of preference):

- **GIS shapefiles:** The shapefiles must depict the boundaries of all project areas and extent of aquatic resources impacted. Each shape should be attributed with the extent/type of aquatic resources impacted. Features and boundaries should be accurate to within 33 feet (10 meters). Identify datum/projection used and if possible, provide map with a North American Datum of 1983 (NAD83) in the California Teale Albers projection in feet.

- **Google KML files** saved from Google Maps: My Maps or Google Earth Pro. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. Include URL(s) of maps. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
 - **Other electronic format** (CAD or illustration format) that provides a context for location (inclusion of landmarks, known structures, geographic coordinates, or USGS DRG or DOQQ). Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
 - Aquatic resource maps marked on paper **USGS 7.5-minute topographic maps** or **Digital Orthophoto Quarter Quads (DOQQ)** printouts. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
- B. Photo-Documentation:** Include a unique identifier, date stamp, written description of photo details, and latitude/longitude (in decimal degrees) or map indicating location of photo. Successive photos should be taken from the same vantage point to compare pre/post construction conditions.

V. Report and Notification Cover Sheet

Project: The Ranch in Antioch Master Planned Residential
Community Project

Permittee: Richland Planned Communities, Inc

WDID: 5B07CR00234

Reg. Meas. ID: 443810

Place ID: 874767

Order Effective Date: 10 August 2023

Order Expiration Date: 10 August 2028

VI. Report Type Submitted

A. Part A – Project Reporting

Report Type 1 Monthly Report

Report Type 2 Annual Report

B. Part B – Project Status Notifications

Report Type 3 Commencement of Construction

Report Type 4 Request for Notice of Completion of Discharges Letter

Report Type 5 Request for Notice of Project Complete Letter

C. Part C – Conditional Notifications and Reports

Report Type 6 Accidental Discharge of Hazardous Material Report

Report Type 7 Violation of Compliance with Water Quality Standards Report

Report Type 8 In-Water Work/Diversions Water Quality Monitoring Report

Report Type 9 Modifications to Project Report

Report Type 10 Transfer of Property Ownership Report

Report Type 11 Transfer of Long-Term BMP Maintenance Report

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

Print Name¹	Affiliation and Job Title
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Signature	Date
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¹STATEMENT OF AUTHORIZATION (include if authorization has changed since application was submitted)

I hereby authorize _____ to act in my behalf as my representative in the submittal of this report, and to furnish upon request, supplemental information in support of this submittal.

Permittee's Signature	Date
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*This Report and Notification Cover Sheet must be signed by the Permittee or a duly authorized representative and included with all written submittals.
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A. Part A – Project Reporting

1. Report Type 1 - Monthly Report

- a. Report Purpose** - Notifies Central Valley Water Board staff of the Project status and environmental compliance activities on a monthly basis.
- b. When to Submit** - On the 1st day of each month after the submittal of the Commencement of Construction Notification until a Notice of Project Complete Letter is issued to the Permittee.
- c. Report Contents** -
 - i. Construction Summary

Describe Project progress and schedule including initial ground disturbance, site clearing and grubbing, road construction, site construction, and the implementation status of construction storm water Best Management Practices (BMPs). Best Management Practices (BMPs) is a term used to describe a type of water pollution or environmental control. If construction has not started, provide estimated start date.
 - ii. Event Summary

Describe distinct Project activities and occurrences, including environmental monitoring, surveys, and inspections.
 - iii. Photo Summary

Provide photos of Project activities. For each photo, include a unique site identifier, date stamp, written description of photo details, and latitude/longitude (in decimal degrees) or map indicating location of photo. Successive photos should be taken from the same vantage point to compare pre/post construction conditions.
 - iv. Compliance Summary
 - List name and organization of environmental surveyors, monitors, and inspectors involved with monitoring environmental compliance for the reporting period.
 - List associated monitoring reports for the reporting period.
 - Summarize observed incidences of non-compliance, compliance issues, minor problems, or occurrences.
 - Describe each observed incidence in detail. List monitor name and organization, date, location, type of incident, corrective action taken (if any), status, and resolution.

2. Report Type 2 - Annual Report

- a. **Report Purpose** - Notify the Central Valley Water Board staff of Project status during both the active discharge and post-discharge monitoring periods.
- b. **When to Submit** - Annual reports shall be submitted each year on the 1st day of January Annual reports shall continue until a Notice of Project Complete Letter is issued to the Permittee.
- c. **Report Contents** - The contents of the annual report shall include the topics indicated below for each project period. Report contents are outlined in Annual Report Topics below.

During the Active Discharge Period

- **Topic 1: Construction Summary**
- **Topic 2: Mitigation for Temporary Impacts Status**
- **Topic 3: Compensatory Mitigation for Permanent Impacts Status**

During the Post-Discharge Monitoring Period

- **Topic 2: Mitigation for Temporary Impacts Status**
- **Topic 3: Compensatory Mitigation for Permanent Impacts Status**

- i. Annual Report Topic 1 - Construction Summary

When to Submit - With the annual report during the Active Discharge Period.

Report Contents - Project progress and schedule including initial ground disturbance, site clearing and grubbing, road construction, site construction, and the implementation status of construction storm water best management practices (BMPs). If construction has not started, provide estimated start date and reasons for delay.

- 1) Map showing general Project progress.
- 2) If applicable:
 - a) Summary of Conditional Notification and Report Types 6 and 7 (Part C below).
 - b) Summary of Certification Deviations. See Certification Deviation Attachment for further information.

- ii. Annual Report Topic 2 - Mitigation for Temporary Impacts Status

When to Submit - With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.

Report Contents -

- 1) Planned date of initiation and map showing locations of mitigation for temporary impacts to waters of the state and all upland areas of temporary disturbance which could result in a discharge to waters of the state.
- 2) If mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of performance standards contained in the restoration plan.
- iii. Annual Report Topic 3 - Compensatory Mitigation for Permanent Impacts Status

When to Submit - With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.

Report Contents - *If not applicable report N/A.

1) Part A. Permittee Responsible – Not Applicable

2) Part B. Mitigation Bank or In-Lieu Fee

- a) Status or proof of purchase of credit types and quantities.
- b) Include the name of bank/ILF Program and contact information.
- c) If ILF, location of project and type if known.

B. Part B – Project Status Notifications

1. Report Type 3 - Commencement of Construction

- a. **Report Purpose** - Notify Central Valley Water Board staff prior to the start of construction.
- b. **When to Submit** - Must be received at least seven (7) days prior to start of initial ground disturbance activities.
- c. **Report Contents** -
 - i. Date of commencement of construction.
 - ii. Anticipated date when discharges to waters of the state will occur.
 - iii. Project schedule milestones including a schedule for onsite compensatory mitigation, if applicable.
 - iv. Construction Storm Water General Permit WDID No.
 - v. Proof of purchase of compensatory mitigation for permanent impacts from the mitigation bank or in-lieu fee program.

2. Report Type 4 - Request for Notice of Completion of Discharges Letter

- a. **Report Purpose** - Notify Central Valley Water Board staff that post-construction monitoring is required and that active Project construction, including any mitigation and permittee responsible compensatory mitigation, is complete.

b. When to Submit - Must be received by Central Valley Water Board staff within thirty (30) days following completion of all Project construction activities.

c. Report Contents -

- i. Status of storm water Notice of Termination(s), if applicable.
- ii. Status of post-construction storm water BMP installation.
- iii. Pre- and post-photo documentation of all Project activity sites where the discharge of dredge and/or fill/excavation was authorized.
- iv. Summary of Certification Deviation discharge quantities compared to initial authorized impacts to waters of the state, if applicable.
- v. An updated monitoring schedule for mitigation for temporary impacts to waters of the state and permittee responsible compensatory mitigation during the post-discharge monitoring period, if applicable.

3. Report Type 5 - Request for Notice of Project Complete Letter

a. Report Purpose - Notify Central Valley Water Board staff that construction and/or any post-construction monitoring is complete, or is not required, and no further Project activity is planned.

b. When to Submit - Must be received by Central Valley Water Board staff within thirty (30) days following completion of all Project activities.

c. Report Contents -

- i. Part A: Mitigation for Temporary Impacts
 - 1) A report establishing that the performance standards outlined in the restoration plan have been met for Project site upland areas of temporary disturbance which could result in a discharge to waters of the state.
 - 2) A report establishing that the performance standards outlined in the restoration plan have been met for restored areas of temporary impacts to waters of the state. Pre- and post-photo documentation of all restoration sites.
- ii. Part B: Permittee Responsible Compensatory Mitigation
 - 1) A report establishing that the performance standards outlined in the compensatory mitigation plan have been met.
 - 2) Status on the implementation of the long-term maintenance and management plan and funding of endowment.
 - 3) Pre- and post-photo documentation of all compensatory mitigation sites.
 - 4) Final maps of all compensatory mitigation areas (including buffers).

- iii. Part C: Post-Construction Storm Water BMPs and Monitoring
 - 1) Date of storm water Notice of Termination(s), if applicable.
 - 2) Report status and functionality of all post-construction BMPs.
 - 3) Dates and report of visual post-construction inspection during the rainy season as indicated in Section C.4.

C. Part C – Conditional Notifications and Reports

1. Report Type 6 - Accidental Discharge of Hazardous Material Report

- a. **Report Purpose** - Notifies Central Valley Water Board staff that an accidental discharge of hazardous material has occurred.
- b. **When to Submit** - Within five (5) working days of notification to the Central Valley Water Board of an accidental discharge. Continue reporting as required by Central Valley Water Board staff.
- c. **Report Contents** -
 - i. The report shall include the OES Incident/Assessment Form, a full description and map of the accidental discharge incident (i.e. location, time and date, source, discharge constituent and quantity, aerial extent, and photo documentation). If applicable, the OES Written Follow-Up Report may be substituted.
 - ii. If applicable, any required sampling data, a full description of the sampling methods including frequency/dates and times of sampling, equipment, locations of sampling sites.
 - iii. Locations and construction specifications of any barriers, including silt curtains or diverting structures, and any associated trenching or anchoring.

2. Report Type 7 - Violation of Compliance with Water Quality Standards Report

- a. **Report Purpose** - Notifies Central Valley Water Board staff that a violation of compliance with water quality standards has occurred.
- b. **When to Submit** - The Permittee shall report any event that causes a violation of water quality standards within three (3) working days of the noncompliance event notification to Central Valley Water Board staff.
- c. **Report Contents** - The report shall include: the cause; the location shown on a map; and the period of the noncompliance including exact dates and times. If the noncompliance has not been corrected, include: the anticipated time it is expected to continue; the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and any monitoring results if required by Central Valley Water Board staff.

3. Report Type 8 - In-Water Work and Diversions Water Quality Monitoring Report

- a. **Report Purpose** - Notifies Central Valley Water Board staff of the start and completion of in-water work. Reports the sampling results during in-water work and during the entire duration of temporary surface water diversions.
- b. **When to Submit** – At least forty-eight (48) hours prior to the start of in-water work. Within three (3) working days following the completion of in-water work. Surface water monitoring reports to be submitted two (2) weeks on initiation of in-water construction and during entire duration of temporary surface water diversions. Continue reporting in accordance with the approved water quality monitoring plan or as indicated in Section C.3.
- c. **Report Contents** - As required by the approved water quality monitoring plan or as indicated in Section C.3.

4. Report Type 9 - Modifications to Project Report

- a. **Report Purpose** - Notifies Central Valley Water Board staff if the Project, as described in the application materials, is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority.
- b. **When to Submit** - If Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority.
- c. **Report Contents** - A description and location of any alterations to Project implementation. Identification of any Project modifications that will interfere with the Permittee's compliance with the Order.

5. Report Type 10 - Transfer of Property Ownership Report

- a. **Report Purpose** - Notifies Central Valley Water Board staff of change in ownership of the Project or Permittee-responsible mitigation area.
- b. **When to Submit** - At least 10 days prior to the transfer of ownership.
- c. **Report Contents** -
 - i. A statement that the Permittee has provided the purchaser with a copy of this Order and that the purchaser understands and accepts:
 - 1) the Order's requirements and the obligation to implement them or be subject to administrative and/or civil liability for failure to do so; and
 - 2) responsibility for compliance with any long-term BMP maintenance plan requirements in this Order. Best Management Practices

(BMPs) is a term used to describe a type of water pollution or environmental control.

- ii. A statement that the Permittee has informed the purchaser to submit a written request to the Central Valley Water Board to be named as the permittee in a revised order.

6. Report Type 11 - Transfer of Long-Term BMP Maintenance Report

- a. **Report Purpose** - Notifies Central Valley Water Board staff of transfer of long-term BMP maintenance responsibility.
- b. **When to Submit** - At least 10 days prior to the transfer of BMP maintenance responsibility.
- c. **Report Contents** - A copy of the legal document transferring maintenance responsibility of post-construction BMPs.

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SIGNATORY REQUIREMENTS

All Documents submitted in compliance with this Order shall meet the following signatory requirements:

- A.** All applications, reports, or information submitted to the Central Valley Water Quality Control Board (Central Valley Water Board) must be signed and certified as follows:
 - 1.** For a corporation, by a responsible corporate officer of at least the level of vice-president.
 - 2.** For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
 - 3.** For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

- B.** A duly authorized representative of a person designated in items 1.a through 1.c above may sign documents if:
 - 1.** The authorization is made in writing by a person described in items 1.a through 1.c above.
 - 2.** The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - 3.** The written authorization is submitted to the Central Valley Water Board Staff Contact prior to submitting any documents listed in item 1 above.

- C.** Any person signing a document under this section shall make the following certification:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

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PROJECT DEVIATION PROCEDURES

I. Introduction

These procedures are put into place to preclude the need for Order amendments for minor changes in the Project routing or location. Minor changes or modifications in project activities are often required by the Permittee following start of construction. These deviations may potentially increase or decrease impacts to waters of the state. In such cases, a Project Deviation, as defined in Section L of the Order, may be requested by the Permittee as set forth below:

II. Process Steps

- A. Who may apply:** The Permittee or the Permittee's duly authorized representative or agent (hereinafter, "Permittee") for this Order.
- B. How to apply:** By letter or email to the 401 staff designated as the contact for this Order.
- C. Project Deviation Request:** The Permittee will request verification from the Central Valley Water Board staff that the project change qualifies as a Project Deviation, as opposed to requiring an amendment to the Order. The request should:
1. Describe the Project change or modification:
 - a. Proposed activity description and purpose;
 - b. Why the proposed activity is considered minor in terms of impacts to waters of the state;
 - c. How the Project activity is currently addressed in the Order; and,
 - d. Why a Project Deviation is necessary for the Project.
 2. Describe location (latitude/longitude coordinates), the date(s) it will occur, as well as associated impact information (i.e., temporary or permanent, federal or non-federal jurisdiction, water body name/type, estimated impact area, etc.) and minimization measures to be implemented.
 3. Provide all updated environmental survey information for the new impact area.
 4. Provide a map that includes the activity boundaries with photos of the site.
 5. Provide verification of any mitigation needed according to the Order conditions.
 6. Provide verification from the CEQA Lead Agency that the proposed changes or modifications do not trigger the need for a subsequent environmental document, an addendum to the environmental document, or a supplemental EIR. (Cal. Code Regs., tit. 14, §§ 15162-15164.)
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D. Post-Discharge Project Deviation Reporting:

1. Within 30 calendar days of completing the approved Project Deviation activity, the Permittee will provide a post-discharge activity report that includes the following information:
 - a. Activity description and purpose;
 - b. Activity location, start date, and completion date;
 - c. Erosion control and pollution prevention measures applied;
 - d. The net change in impact area by water body type(s) in acres, linear feet and cubic yards;
 - e. Mitigation plan, if applicable; and,
 - f. Map of activity location and boundaries; post-construction photos.

E. Annual Summary Deviation Report:

1. Until a Notice of Completion of Discharges Letter or Notice of Project Complete Letter is issued, include in the Annual Project Report (see Construction Notification and Reporting attachment) a compilation of all Project Deviation activities through the reporting period with the following information:
 - a. Site name(s);
 - b. Date(s) of Project Deviation approval;
 - c. Location(s) of authorized activities;
 - d. Impact area(s) by water body type prior to activity in acres, linear feet and cubic yards, as originally authorized in the Order;
 - e. Actual impact area(s) by water body type in, acres, linear feet and cubic yards, due to Project Deviation activity(ies);
 - f. The net change in impact area by water body type(s) in acres, linear feet and cubic yards; and
 - g. Mitigation to be provided (approved mitigation ratio and amount).