



STATE OF CALIFORNIA  
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

**TEMPORARY PERMIT TO DIVERT  
AND USE WATER**

APPLICATION T033258

TEMPORARY PERMIT 21423

Temporary Permittee:

Omochumne-Hartnell Water District  
P.O Box 211  
Wilton, CA 95613-0211

The State Water Resources Control Board (State Water Board or Board) authorizes the temporary diversion and use of water by the Temporary Permittee in accordance with the limitations and conditions herein SUBJECT TO ALL WATER RIGHTS. This temporary permit does not create a vested right, even of a temporary nature (Wat. Code, § 1430) and does not bind future permitting actions for this or other similar projects. This temporary permit is issued in accordance with the State Water Board delegation of authority to the Executive Director (Resolution 2012-0029) and redelegation of authority to act upon applications for temporary permits by the Executive Director to the Deputy Director for Water Rights, dated October 19, 2017.

The State Water Board finds that, subject to the terms and conditions included in this temporary permit: (1) The applicant has an urgent need for the water proposed to be diverted and used; (2) the water may be diverted and used without injury to any lawful user of water; (3) the water may be diverted and used without unreasonable effect upon fish, wildlife, or other instream beneficial uses; and (4) the proposed diversion and use is in the public interest (Wat. Code, § 1425, subd. (b).). The State Water Board has also complied with its independent obligation to consider the effects of the proposed project on public trust resources and to protect these resources where feasible (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419.).

### **1.0 Application to Appropriate Water by Temporary Permit**

Omochumne-Hartnell Water District (District or Temporary Permittee) filed Application T033258 to divert water by temporary permit pursuant to Water Code section 1425 et seq. on November 24, 2021. The application requests diversion to underground storage of up to 2,444 acre-feet (af) from the Cosumnes River in Sacramento County during high flow events. The application requests diversion to underground storage between December 1, 2021 and February 15, 2022. Water may be diverted at a rate of up to 11.14 and 4.46 cubic feet per second (cfs) at Point of Diversion (POD) 1 and POD 2, respectively, with a total combined maximum rate of 15.60 cfs, via the two

existing PODs. Diverted water would be infiltrated to storage in the underlying South American and Cosumnes Groundwater Subbasins, on two dormant vineyards comprising 1,168 acres of agricultural lands within the District's service area. Water stored underground would be extracted by overlying permitted private wells for irrigation use within 30,000 acres of the District's 30,779.76-acre service area (13,223.62 cultivated acres) of which 12,822.70 acres are irrigated lands in the District during the 2022 irrigation season.

The District's "Notice of Decision to Serve as a Groundwater Sustainability Agency" contains background information regarding the District and its water supply. The District is a California Water District. The District historically purchased and managed supplemental water from the Central Valley Project (CVP) for the benefit of the District's agricultural users. Irrigators within the District rely heavily on groundwater extractions to meet their water needs, particularly in the summer months when the Cosumnes River is typically dry.

The South American Groundwater Subbasin (DWR Bulletin 118) is a high priority subbasin within the larger Sacramento Valley Groundwater Basin. A majority of the subbasin is surrounded by rivers including the American River on the northern boundary, the Cosumnes and Mokelumne Rivers to the south, and the Sacramento River on the western boundary. The eastern boundary is not bounded by a river, and is located where the alluvial sediments of the groundwater basin give way to the foothills of the Sierra Nevada. The subbasin shares boundaries with five adjacent subbasins, the Yolo Subbasin to the northwest, Solano Subbasin to the west, North American Subbasin to the north, and the Eastern San Joaquin and Cosumnes Subbasins to the south.

The Cosumnes Groundwater Subbasin (DWR Bulletin 118) is a medium priority subbasin that is bounded on the south and southwest by the Eastern San Joaquin Subbasin and on the north to northwest by the South American Subbasin of the Sacramento Valley Groundwater Basin. The subbasin drains westward through three major rivers, namely the Cosumnes on the north, Dry Creek in the middle of the basin, and the Mokelumne River on the south.

#### 1.1 T033152 (Temporary Permit 021418)

As described below, the State Water Board previously issued a temporary permit to OHWD for diversion to underground storage. The Division of Water Rights (Division) issued Temporary Permit 021418 (Application T033152) on January 19, 2021. Temporary Permit 021418 authorized the same project requested in Application T033258.

The summary report of diversion and use required by that temporary permit was submitted on September 10, 2021, within 60 days after expiration of the permit. In its September 10, 2021 summary report, OHWD describes its compliance with the terms of

the temporary permit. Staff reviewed the summary report and found no compliance issues.

OHWD was authorized to divert up to 2,444 acre-ft, at a maximum combined rate of 15.6 cfs, from January 19, 2021, to February 15, 2021, from the Cosumnes River to underground storage for irrigation use. OHWD diverted 68 acre-ft to underground storage at Teichert Ranch. Diversions occurred on January 29 to 31, February 2 to 3, and February 12 to 15. Infiltration occurred over 373.3 acres at Teichert Ranch. OHWD was limited by hydrologic conditions and that the date of authorization limited the diversion season. The permit authorized use of up to 1,168 acres of agricultural land for infiltration.

To determine the incidental direct diversion component for last year's effort, OHWD calculated their crop (grape vines) evapotranspiration (ET) rates using the Fair Oaks CIMIS Station in the Sacramento Valley with a crop coefficient for grapes of 0.4 based on expected dormant season conditions. The approximate area flooded was 373.3 acres. With this information, OHWD determined that the total volume used over the flooded time-period is 12.96 acre-ft.

The total quantity of water put to beneficial use is calculated using the total amount of water recharged into the groundwater and the expected amount of irrigation required. The summary report did not include any other losses of stored water. The calculated irrigation is based on a crop coefficient of 0.8 for wine grapes with drip irrigation for the growing season. The summary report indicated the period of April 1, 2021 to April 14, 2021 was found to require enough irrigation to surpass the amount of water recharged. Thus, the applicant reports the amount placed into storage was put to beneficial use within OHWD's service area by April 14, 2021. Temporary Permit 021418 was automatically revoked six months after issuance.

## 1.2 Beneficial Use Accounting

Continuing the same approach as T033152, the District proposes to use a "last in-first out" method to track groundwater recharge and extraction. The water diverted under this temporary permit will be "last in" to the aquifer and will be extracted before other sources of water allowing consumption within the 2022 irrigation season. The District does not intend to extract the water itself, rather it will rely on extraction by parties with private wells irrigating land within the District boundaries. The District has calculated that the 12,822.70 acres of irrigated land in the District have an irrigation requirement of 30,312.9 af annually, predominantly focused in the spring and summer months.

To ensure timely extraction of the temporary permit water the District indicated in its application that it has passed a resolution directing participating well owners to use this permit water first, prior to any existing overlying groundwater right they may have. While this approach has been used by other temporary permittees, if the District continues to pursue temporary or standard permit applications relying on third party extractors, it should explore establishing individual agreements with well owners utilizing

the water diverted to underground storage pursuant to the temporary permit, instead of a blanket resolution.

The District will assess groundwater levels at the start of the irrigation season and continue to assess levels as the irrigation season progresses to confirm extraction of surface water stored in the basin under the temporary permit. The District and private well owners intend to use a magnetic flow meter system to measure the amount of groundwater pumped on agricultural lands. Groundwater monitoring wells already exist, and additional wells will be installed along the recharge corridor which, along with streamflow measurements, will be used to determine the amount of water applied to the fields. Installed groundwater monitoring wells are currently collecting baseline level data and will be used to assess the benefits and any impacts of any diversions made pursuant to the temporary permit and to help quantify storage losses to lateral movement, evaporation, and other types of losses. The data collected through operation of the District's pilot project, including T033152 and this temporary permit will allow future refinements and decisions regarding future applications.

### 1.3 Requested Diversion Limitations

The applicant has requested the same diversion limitation as T033152. For the protection of lawful users of water and instream beneficial uses, in its application the District indicated it will only divert when the following minimum instream flow conditions are present: (1) flow measured at the Michigan Bar Gage on the Cosumnes River is at least 230.0, 228.3, and 273.7 cfs in the months of December, January, and February, respectively; (2) flow measured at the McConnell gage is at least 201.5, 201.5, and 206.0 cfs in the months of December, January, and February, respectively. The McConnell gage, also on the Cosumnes River, is a stage-only gage and an updated rating curve is necessary to determine the listed flowrates. Also, the McConnell gage will be utilized to measure suitable bypass flows, if a suitable rating curve is available, and the gage is operational. If the McConnell gage is not available, the District will monitor the river flowrate from the Michigan Bar gage to assure a minimum baseline flow before diverting water. The Michigan Bar Gage is located near the unincorporated community of Rancho Murrieta and the McConnell Gage is located near the city of Elk Grove, both in Sacramento County.

#### 1.3.1 Incidental Direct Diversion

In regard to method of diversion in T033152 the Board authorized incidental direct diversion for irrigation of the dormant crop during recharge. For this application, the applicant requested that incidental direct diversion be removed, citing that the grape vines are dormant during the time the water is applied to the fields. They assert there will be essentially zero water taken up by the vines, as precipitation in the diversion time period will satisfy low-rate dormant metabolic demand of the vines such that the applied water will not irrigate the vines. They state that as there will only be sufficient water in the Cosumnes River to divert by the Project if there is precipitation, the diverted water will not supply the grape vines.

As discussed in Section 1.1, in the T033152 summary report the applicant estimated incidental direct diversion of 12.96 acre-ft. Staff acknowledges that the applicant provided this estimate of incidental direct diversion, but believes the estimate is too high. Based on crop coefficients provided by the University of California,<sup>1</sup> Central Valley grapes could be expected to have a baseline crop coefficient between 0.06 and 0.35, at the initiation of the spring rapid growth period. Minimum crop coefficients are also estimated by the Food and Agriculture Organization as between 0.15 and 0.20.<sup>2</sup> These lower crop coefficients would suggest a lower total crop ET would be expected during the diversion period. Additionally, as reported by the Fair Oaks CIMIS station, precipitation that occurred around the diversion period between January 29 and February 15 exceeded 4.0 inches, while the total depth of applied water applied water was about 2.2 inches, on 373.3 acres. This implies that if crop ET occurred during this period, it could have been satisfied by a blend of water sources, precipitation and applied recharge water, further lessening the potential incidental direct diversion (crop ET) from the project. The ratio of applied water to precipitation is approximately 1 to 2, which implies that for every three units of potential crop ET, only one unit, or approximately one-third of the total would have been satisfied by applied water. The available information suggests that incidental direct diversion for grapes that could occur due to the proposed project could be much lower than was estimated. This finding supports the applicant's request that incidental direct diversion be removed from this permit, citing that the grape vines are dormant during the time the water is applied to the fields.

Staff review of T033152 as discussed above concluded dormant crop direct diversion amount of 12.96 ac-ft of the diverted water may be too high. The likely amount is assumed to be significantly less. This reported information warrants further consideration if future applications are pursued, including more detailed evaluation of the crop coefficient relied upon. For this temporary permit, per the applicant request, incidental direct diversion has been removed. The final report required by Term 0100500V and Term 0000010V will require a showing that no incidental direct diversion and use occurred in the water diverted under this temporary permit.

### 1.3 Source Description

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<sup>1</sup> See "Using Reference Evapotranspiration (ET<sub>o</sub>) and Crop Coefficients to Estimate Crop Evapotranspiration (ET<sub>c</sub>) for Trees and Vines," from the Cooperative Extension, University of California, Division of Agriculture and Natural Resources, Leaflet 21428, 1989. Available at: <https://cimis.water.ca.gov/Content/PDF/21428-KcTreesandVines.pdf>

<sup>2</sup> See "Crop evapotranspiration - Guidelines for computing crop water requirements - FAO Irrigation and drainage paper 56," by Allen et al., Food and Agriculture Organization of the United Nations, 1998. Available at: <https://www.fao.org/3/X0490E/x0490e00.htm#Contents>

As authorized by T033152, the proposed project continues to consist of two Points of Diversions (PODs), located on the Lower Cosumnes River within Sacramento County. The Cosumnes River drains a portion of the western slope of the Sierra Nevada and flows into the Mokelumne River which flows into the San Joaquin River and then the Sacramento-San Joaquin Delta (Delta). The river experiences an intermittent and perennial cycle of large flow peaks in the winter and low flows in the summer.

## **2.0 Public Notice and Past Comments**

Application T033258 was noticed on December 1, 2021. The notice requested comments by January 10, 2022. An objection letter was received by Richard Morat that reiterated the comments on T033152.

On October 15, 2020 Application T033152 was noticed. The project described in T033152 is identical to Application T033258. Objections letters for that application were received from the U.S Bureau of Reclamation (Reclamation) and Richard Morat.

### **2.1 T033152 Objection: United States Bureau of Reclamation**

Reclamation objected to the District's application on the grounds of potential interference with prior water rights held by Reclamation for operation of the CVP, and requested inclusion of Standard Permit Terms 80, 90, and 91 in any permit issued pursuant to the District's application. Terms 80, 90, and 91 were included as conditions of T033152 and included in this temporary permit. T033152 and this temporary permit also contains Term 0360898, which is complementary to Term 91 and requires the Temporary Permittee to check the CVP- State Water Project Coordinated Operation Agreement data to determine whether the Delta is in balanced conditions or excess conditions, and to only divert when the Delta is in excess conditions.

### **2.2 T033152 Objection: Richard Morat**

Mr. Morat objected to the District's application citing concerns that the diversion and use of water would cause environmental harm to fisheries resources. Mr. Morat requested a term be included that limits diversions to only during those days when: a) the Delta is not in balanced conditions, b) the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan) standards are in full effect with no relaxations, and c) Bay-Delta Plan salinity and flow standards for a wet-year condition are being achieved. While not addressing Mr. Morat's requests in full, T033152 included, and this permit likewise contains sufficient terms relevant to Bay-Delta Plan standards (Terms 80, 90, 91 and 0360898) in light of the temporary nature of this permit and its focus on a limited wintertime season of diversion. In regard to fisheries resources on the Cosumnes River, T033152 included and this temporary permit includes a term requiring fish screens (Term 213) and a term requiring minimum bypass (Term 0360400).

### **3.0 California Environmental Quality Act Requirements and Application Fees**

#### **3.1 California Environmental Quality Act (CEQA)**

Under CEQA, the Omochumne-Hartnell Water District acted as the lead agency for preparation of environmental documentation for the temporary permit. On September 18, 2018, the District adopted a Mitigated Negative Declaration for the Groundwater Recharge Project (SCH No. 2018072026). The District filed a Notice of Determination (NOD) with the County of Sacramento. The State Water Board is a CEQA responsible agency for purposes of considering whether to approve the temporary permit that will allow the District to proceed with this project. As a CEQA responsible agency, the State Water Board must consider the environmental documentation prepared by the lead agency and any other relevant evidence in the record, and must reach its own conclusions on whether and how to approve the project involved. (Cal. Code Regs., tit. 14, § 15096, subd. (a).) The State Water Board will prepare a Mitigation and Monitoring Reporting Plan and will include this mitigation as a requirement of this temporary permit (Term 400500 and an attachment to this permit). The State Water Board will issue a NOD within five days of the date of this order.

#### **3.2 Requirements of California Code of Regulations, title 23, section 1062**

The District submitted the application fee required by California Code of Regulations, title 23, section 1062, subdivision (a)(1)(E). In order to qualify for the fee specified under this particular subdivision, the temporary permit application must be solely for purposes of diverting water from high flow events to underground storage for later beneficial use. Application T033258 requests diversion of up to 2,444 af during conditions of high flow to underground storage. The stored water will be later extracted by well owners for irrigation on a 30,000-acre place of use during the 2021/2022 irrigation season. Staff has reviewed the application and determined that T033258 is identical to T033152 in all pertinent respects. Accordingly, application T033258 qualifies for the renewal fee set by California Code of Regulations, title 23, section 1062, subdivision (a)(1)(E).

### **4.0 Requirements of Water Code Section 1425 and 1427**

The State Water Board must make the following findings prior to issuing a temporary water right permit (Wat. Code, § 1425, subd. (b)):

1. The applicant has an urgent need for the water proposed to be diverted and used;
2. The water may be diverted and used without injury to any lawful user of water;
3. The water may be diverted and used without unreasonable effect upon fish, wildlife, or other instream beneficial uses; and

4. The proposed diversion and use are in the public interest.

Prior to making these findings, the State Water Board must consult with representatives of California Department of Fish and Wildlife (CDFW) and review available records, files, and decisions which relate to the availability of water from the source at the proposed point(s) of diversion to serve the proposed temporary diversion and use, and which relate to the rights of downstream users. (Wat. Code, § 1427, subds. (b), (c).)

#### 4.1 CDFW Consultation (Wat. Code, § 1427, subd. (b))

The State Water Board consulted with staff from CDFW's North Central Region Office on November 17, 2020 during the review of previous temporary permit application (T033152). During that consultation on T033152, CDFW requested fish screens on the diversion pumps. As a result, Term 213, requiring fish screens, is included as a condition of this temporary permit. On January 12, 2022 State Water Board staff confirmed with CDFW staff that they had no comment on application T033258.

#### 4.2 Review of Water Availability (Wat. Code, § 1427, subd. (c))

State Water Board staff reviewed available records, files, and decisions relating to the availability of water for the District's application and the rights of downstream users when taking action on T033152, and that analysis is relevant to this filing as it is the same project. Historic flows and existing diversion reporting demonstrate that there is a reasonable likelihood that unappropriated water will be available for this project during high-flow winter months. The State Water Board's eWRIMS database was used to determine the amounts of diversion from the Cosumnes River. For each riparian diversion, the demand was determined by the maximum amount reported in the available supplemental statements of water diversion and use for the months of December, January, and February. Where a flowrate was not provided, the volume of diversion was divided by the number of days in the month. For appropriative diversions, the licenses and permits were reviewed to determine the allowable timeframe of diversion and, specifically, the amount allowable in December, January, and February. Analysis of historical diversion demands and consideration of flows required for fish migration indicates diversion of surplus flows up to 15.60 cfs will be protective of both water users and species alike when flow at the Michigan Bar are at least 230.0, 228.3, and 273.7 cfs in the months of December, January, and February, respectively.

A statistical analysis of water flows from the 1908 to 2016 water years was completed by the District in conjunction with the University of California, Davis, to establish a flow baseline and determine appropriate minimum bypass flows. With an assumption of baseline flows, the availability of surplus water in the Cosumnes River to divert 15.60 to the adjacent fields over a minimum of 60 days historically occurs in approximately thirty percent of years. In drier years, there are fewer days with sufficient flow in the river to allow the diversion of 15.60 cfs and less than 1,904 af would be diverted over the temporary permit's diversion season. In approximately five percent of years diversion would be possible over the entire December 1 to February 15 period allowing 2,444 af



of recharge applied to the fields. Using the December to February Michigan Bar gage flow records from 1907-2017, the average amount of flows diverted at the Michigan Bar gage for the Project would comprise just 0.3 percent of the total Michigan Bar gage flow.

The analysis incorporated minimum instream flow criteria for the Cosumnes River that were estimated by U.S Fish and Wildlife as protective of fish, other instream beneficial uses and other lawful users of water (See Section 4.2.1). These estimated minimum instream flow criteria were included in a minimum bypass term (Term 0360400) of T033152 and are included in this temporary permit.

As discussed, diversion of 68 acre-feet (out of up to 2,444 af) occurred under T033152 during January and February 2021. Staff reviewed the hydrologic data for the diversion period and found that the applicant was limited by dry hydrologic conditions and the limited diversion window.

On August 20, 2021, the State Water Board issued initial orders imposing curtailment and reporting requirements to all water right holders and claimants in the Delta watershed. The most recent Water Supply Index (WSI), dated December 1, 2021 and valid through the end of November states the San Joaquin watershed is in a Critical water year type, as determined by the State Water Board in Decision-1641. Despite the critically dry conditions, it is possible that hydraulic conditions will exist to supply the project. This temporary permit has no priority date and is of lowest priority compared to all other existing right holders in the watershed. Diversions under this temporary permit must cease upon notification of the Deputy Director for Water Rights as stated in Term 0480600V. Additionally, this temporary permit includes Term 0000499C that advises the temporary permittee that diversion is prohibited if any other parties in the watershed are curtailed.

#### *4.2.1 Minimum Instream Flow Criteria*

As was the case for T033152, the minimum flow requirements at the McConnell and Michigan Bar gages are based in part on a hydrologic analysis that was conducted by the U.S Fish and Wildlife Service for this temporary permit. Minimum bypass flows were assessed at the McConnell and Michigan Bar gages. There were three components: demand for project diversion, demand by senior diverters, and flow needed for fish migration.

Senior appropriative and riparian rights, to the point of the legal Delta are as follows: downstream of Michigan Bar, 33.95, 32.30, and 77.70 cfs during the months of December, January, and February, respectively; downstream of McConnell, 5.50, 5.50, and 9.96 cfs during the months of December, January, and February, respectively.

Flow needed for fish migration was determined using a HEC-RAS model of flow rate and stage. It was found that a flow rate of 180 cfs is associated with a channel depth of 0.9 feet. This is the minimum depth required for adult Chinook Salmon and the highest

depth of all fish listed in the Standard Operating Procedure for Critical Riffle Analysis for Fish Passage in California.

The summation of the above components results in the following minimum bypass flow conditions, the same as was contained in T033152:

Michigan Bar: 230.0, 228.3, and 273.7 cfs during the months of December, January, and February, respectively.

McConnell: 185.5, 185.5, and 190.0 cfs during the months of December, January, and February, respectively.

#### 4.3 Urgent Need (Wat. Code, § 1425, subd. (b)(1))

The State Water Board finds that the District has an urgent need for the water proposed to be diverted and used.

The South American Subbasin (DWR Bulletin 118, basin 5-21.65) is designated as a high priority subbasin within the larger Sacramento Valley Groundwater Basin. The District is one of six Groundwater Sustainability Agencies (GSAs) that are responsible for overseeing the development and implementation of Groundwater Sustainability Plans (GSPs) for the South American Subbasin, with the ultimate goal of achieving long term sustainable groundwater management. In accordance with the January 31, 2022 deadline to develop and adopt one or more GSPs for the South American Subbasin, Omochochumne-Hartnell Water District is developing its GSP.

The Cosumnes Groundwater Subbasin (DWR Bulletin 118, basin 5-22.16) is a medium priority subbasin within the larger Sacramento Valley Groundwater Basin. The District is one of seven GSAs that are responsible for overseeing the development and implementation of GSPs for the Cosumnes Groundwater Subbasin, with the ultimate goal being to achieve long-term sustainable groundwater management. In accordance with the January 31, 2022 deadline to develop and adopt one or more GSPs for the Cosumnes Subbasin, Omochochumne-Hartnell Water District is developing its GSP.

Diversion to storage of water from the Cosumnes River during periods of high flow would provide near-term benefits to aquifer conditions by reducing demand on percolating groundwater in the South American subbasin. If the District is able to divert water under the temporary permit, the project would offset a corresponding amount of demand on percolating groundwater within District boundaries. Implementation of the project during the 2022 water year would also afford the District and other GSAs with jurisdiction over lands adjacent to the Cosumnes River a timely opportunity to evaluate whether the pilot project represents a viable strategy to assist with long term sustainable groundwater management in the South American subbasin. Furthermore, historic precipitation and Cosumnes River flow data indicate that the diversions proposed by the District would only occur under wet and above normal water year conditions when the demand of existing legal users of water is likely satisfied, and

would, therefore, further the State's constitutional policy that the water resources of the State be put to beneficial use to the fullest extent possible.

Application T033258 is the second temporary permit authorization request submitted by OHWD for diversion of 2,444 acre-ft. OHWD has stated that information gathered in pursuit of the authorization of temporary permits T033152 and T033258 will feed into a standard water right permit, but OHWD has not submitted a standard application to date. Temporary permits are authorized under Wat. Code, § 1430 and are intended for projects with an urgent need and for applicants seeking longer term water supplies. Under Term Code 0000000W, the Permittee shall provide a statement of their intention for continuation of the diversion and use of water under this project within 60 days after the expiration of this temporary permit. This includes plans and timelines for applying for a standard water right permit.

#### 4.4 No Injury to Other Users (Wat. Code, § 1425, subd. (b)(2))

The State Water Board finds that the water requested by the District may be diverted and used without injury to any lawful user of water.

The temporary permit will allow diversion on the Cosumnes River, tributary to the Delta. Senior diversions and instream needs on the Cosumnes River are addressed by inclusion of a minimum bypass (Term 0360400). Additional discussion of the minimum instream flow criteria is provided in Section 4.2.1.

Water diverted under this permit would otherwise enter the Delta. This permit includes Terms 80, 90, 91 and 0360898 to ensure protection of authorized diversions in the Delta, including rights held by Reclamation for the operation of the CVP.

To the degree that unexpected injury does occur, Term 0480600V provides that Deputy Director for Water Rights may require the Temporary Permittee to cease diversion upon a finding that the diversion threatens to injure downstream senior right holders; threatens fish, wildlife, or other instream beneficial uses; or creates a threat to human health and safety. In addition, Term 0000499C prohibits diversions when the Mokelumne River watershed has a status of curtailed pursuant to the State Water Board's Delta watershed emergency regulation or any other applicable requirement.

#### 4.5 No Injury to Fish, Wildlife, and Other Instream Beneficial Uses (Wat. Code, § 1425, subd. (b)(3))

The State Water Board finds that the water requested by the District may be diverted and used without unreasonable effect on fish, wildlife, and other instream beneficial uses. As described above, diversions proposed by the District would occur under wet or above normal water year conditions when the minimum instream flow needs of fish and other instream beneficial uses such as recreation would likely be satisfied, and the potential for adverse effects to fish, wildlife, and other instream resources resulting from flow impairment is low. In addition, the District proposed minimum bypass flow

requirements designed, in part, to maintain flows for fish (section 4.2.1). These flows are included as Term 0360400 of the temporary permit, the same as for T033152.

As the Cosumnes River is a fish bearing river at the points of diversion, T033152 and this temporary permit include Term 213 that requires installation of fish screens designed in accordance with CDFW and National Marine Fisheries Service guidelines to prevent removal, entrainment and impingement of fish that may be present in Cosumnes River flows.

As with T033152, in Term 0480600V, the State Water Board reserves jurisdiction to supervise diversion and use of water under this temporary permit, and to coordinate or modify terms and conditions, including for the protection of instream beneficial uses, as future conditions may warrant. Upon direction from the Deputy Director for Water Rights, the Temporary Permittee must cease diversions upon a finding that the diversion threatens fish, wildlife, or other instream beneficial uses.

Also as required in T033152, Term 0400500, the District shall comply with the mitigation measures set forth in the Mitigation and Monitoring Reporting Plan, as shown in the attachment. The species involving mitigation measures include the Valley Elderberry longhorn beetle (*Desmocerus californicus dimorphus*), Central Valley steelhead (*Oncorhynchus mykiss*), Central Valley Chinook Salmon (*Oncorhynchus tshawytsch*), Western Pond Turtle (*Actinemys marmorata*), Swainson's hawk (*Buteo swainsoni*), White-tailed kite (*Elanus leucurus*), Northern harrier (*Circus hudsonius*), Grasshopper Sparrow (*Ammodramus savannaru*), Loggerhead shrike (*Lanius ludovicianus*), Northern California Walnut (*Juglans hindsii*), and Oak trees (*Quercus spp.*).

In the District's "*Omoichumne-Hartnell Water District: Groundwater Recharge Project Final Initial Study/Mitigated Negative Declaration*," multiple special-status species were identified to be potentially impacted by the project and mitigation measures were provided. T033152 and this temporary permit include Term 0400500 which requires the permittee to implement relevant mitigation measures under the purview of the State Water Board.

#### 4.6 Public Interest (Wat. Code, § 1425, subd. (b)(4))

The State Water Board finds that the proposed diversion and use is in the public interest.

The California Water Resilience Portfolio (Governor's Executive Order N-10-19) directs state agencies to inventory and assess several key components of California's water system including water rights. This includes maintaining and diversifying water supplies and protecting and enhancing natural systems. Issuance of a temporary permit for the diversion and use of high flows from the Cosumnes River, in a manner consistent with water right priorities and protections for fish and wildlife, would allow the District to capture water that may otherwise go unused and reduce demand for percolating groundwater within the District.

The District is one of six GSAs that are responsible for overseeing the development and implementation of GSPs for the South American Subbasin, with the ultimate goal of achieving long term sustainable groundwater management. Omoichumne-Hartnell Water District is developing its GSP in accordance with the January 31, 2022 deadline to develop and adopt one or more GSPs for the South American Subbasin.

As contained in T033152, this temporary permit includes water quality terms (Terms 0400501, 0390501) developed in consultation with the Central Valley Regional Water Quality Control Board (Central Valley Regional Board) that will protect against adverse impacts to groundwater quality resulting from the District's on-farm recharge activities by requiring that agricultural lands used for on-farm recharge are in compliance with the Central Valley Regional Board's Irrigated Lands Regulatory Program, or employ best management practices for fertilizer control.

Omoichumne-Hartnell Water District **is hereby authorized to divert and use water as follows**, including that no water shall be diverted or used under this water right other than as described and in compliance with the listed terms and conditions:

1. Source of water is for waters of: **Cosumnes River** in **Sacramento County**  
tributary to: **Mokelumne River** thence **San Joaquin River**
2. The **POINTS OF DIVERSION** (POD) of such water located at:
  - (POD 1) By California Coordinate System of 1983, Zone 2, North 1,922,924 feet and East 6,780,184 feet, being within SE quarter of SW quarter of Section 20, Township 7 North, Range 7 East, Mount Diablo Base and Meridian.
  - (POD 2) By California Coordinate System of 1983, Zone 2, North 1,936,787 feet and East 6,791,358 feet, being within SE quarter of SW quarter of Section 10, Township 7 North, Range 7 East, Mount Diablo Base and Meridian.

The **PLACES OF UNDERGROUND STORAGE** of such water located at:

(South American and Cosumnes Groundwater Subbasins) No. 5-21.65 and 5-22.16, as defined in California Department of Water Resources Bulletin 118 Interim 2016 Update.

The **PLACES OF INFILTRATION TO UNDERGROUND STORAGE** of such water located at:

(Teichert Ranch) 792 acres, within Sections 17, 19, 20, 21, 29 and 30, Township 7 North, Range 7 East, Mount Diablo Base and Meridian.

(Rooney Ranch) 376 acres, within Sections 3, 4, 9, and 10, Township 7 North, Range 7 East, Mount Diablo Base and Meridian.

Places of infiltration are shown on maps filed with the State Water Board on September 11, 2020.

3. The **PLACE OF USE** of such water is located:

Irrigation use is on 30,000 of the 30,779.76 acres within the Omochumne-Hartnell Water District service area boundary. The place of use is shown on map filed with the State Water Board on November 24, 2021.

4. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed **2,444 acre-feet** by diversion to underground storage to be collected from the date of issuance of this temporary permit to February 15, 2022. The maximum rate of diversion from the source shall not exceed 15.60 cubic feet per second. The total amount of water to be taken from the source (collection to underground storage) shall not exceed **2,444 acre-feet**. The amount of water that may be withdrawn from storage under this temporary permit shall not exceed the volume of water diverted to underground storage less any evaporative loss that occurs after diversion but prior to infiltration. This temporary permit expires **180 days** from the date of issuance, but may be renewed by the State Water Board.

(Term Code: 0000005T)

5. The State Water Resources Control Board reserves jurisdiction over this temporary permit to change the season of diversion to conform to later findings of the State Water Board concerning availability of water and the protection of beneficial uses of water in the Sacramento-San Joaquin Delta and San Francisco Bay. Any action to change the authorized season of diversion will be taken only after notice to interested parties and opportunity for hearing.

(Term Code 0000080)

6. This temporary permit is subject to prior rights. Temporary Permittee is put on notice that, during some years, water will not be available for diversion during portions or all of the season authorized herein. The annual variations in demands and hydrologic conditions in the San Joaquin River Basins are such that, in any year of water scarcity, the season of diversion authorized herein may be reduced or completely eliminated by order of the State Water Board, made after notice to interested parties and opportunity for hearing.

(Term Code 0000090)

7. No diversion is authorized by this temporary permit when satisfaction of inbasin entitlements requires release of supplemental Project water by the Central Valley Project or the State Water Project.
  - a. In-basin entitlements are defined as all rights to divert water from streams tributary to the Sacramento-San Joaquin Delta or the Delta for use within the respective basins of origin or the Legal Delta, unavoidable natural requirements for riparian habitat and conveyance losses, and flows required by the State Water Board for maintenance of water quality and fish and wildlife. Export diversions and Project carriage water are specifically excluded from the definition of in-basin entitlements.
  - b. Supplemental Project water is defined as that water imported to the basin by the projects plus water released from Project storage which is in excess of export diversions, Project carriage water, and Project inbasin deliveries.

The State Water Board shall notify Temporary Permittee of curtailment of diversion under this term after it finds that supplemental project water has been released or will be released. The Board will advise Temporary Permittee of the probability of imminent curtailment of diversion as far in advance as practicable based on anticipated requirements for supplemental Project water provided by the Project operators.

(Term Code 0000091)

8. No water shall be diverted under this right unless the Temporary Permittee is operating the water diversion facilities for the Point of Diversion 1 and Point of Diversion 2 with fish screens satisfactory to the Deputy Director for Water Rights. The fish screens shall be designed and maintained in accordance with the screening criteria of the Department of Fish and Wildlife and National Marine Fisheries Service, as outlined in *Fish Screening Criteria for Anadromous Salmonids* (National Marine Fisheries Service, 1997). Temporary Permittee shall provide evidence that demonstrates that the fish screens are in good condition with the annual report and whenever requested by the Division of Water Rights.

(Term Code 0000213)

9. Permittee shall not divert water under this temporary permit when any post-1914 appropriative right holder in the Mokelumne River watershed has a status of curtailed, as authorized by the emergency regulation adopted by the State Water Board on August 3, 2021, and approved by the Office of Administrative Law on August 19, 2021. (Cal. Code Regs., tit. 23, §§ 876-879.2.) Permittee may access current curtailment status of right holders in the watershed by signing up for the delta drought email list service and/or visiting the State Water Board's website at: <https://www.waterboards.ca.gov/drought/delta/#tableau>.

(Term Code 0000499C)

10. The following information shall be submitted with the report required in term 0100500V or whenever requested by the Division of Water Rights.
  - a. Corresponding hourly and 24-hour rolling mean flow rates for the Michigan Bar Gage operated by the U.S. Geological Survey (Gage No. 1133500);
  - b. Corresponding hourly and 24-hour rolling mean flow rates for the McConnell Gaging Station operated by the Department of Water Resources;
  - c. Corresponding daily records of the amount of diverted water conveyed to recharge basins and on-farm recharge areas for infiltration to underground storage;
  - d. A map showing the location of all recharge basins and the acreage and type of agricultural land used for on-farm recharge, and the location of wells used to extract stored water for beneficial use;
  - e. Daily records of evapotranspiration losses from recharge basins and on-farm recharge areas, accompanied by supporting data and calculations; and
  - f. Records of the quantity of water applied to beneficial use via incidental direct diversion and withdrawal from underground storage, accompanied by supporting data calculations.

(Term Code 0100500)

11. No water shall be diverted under this temporary permit unless the following minimum instream flow requirements have been satisfied:
  - a) The instantaneous flow rate, or the mean flow rate for the previous 24-hour period, measured at the Michigan Bar Gaging Station (MBH) operated by the U.S Geological Survey (USGS) is at or above 230.0, 228.3, and 273.7 cfs during the months of December, January, and February, respectively;



b) The instantaneous flow rate, or the mean flow rate for the previous 24-hour period, measured at the McConnell Gaging Station operated by the California Department of Water Resources is at or above 185.5, 185.5, and 190.0 cfs during the months of December, January, and February, respectively.

In the event that flow data for these stream gages become unavailable, the Temporary Permittee shall immediately notify and consult with the Deputy Director for Water Rights regarding substitute gages and instream flow requirements.

(Term Code 0360400)

12. No water shall be diverted under this temporary permit unless the Delta is in excess conditions as described in State Water Board Decision 1641. Temporary changes to Delta outflow requirements shall not affect applicability of this term. Temporary Permittee shall monitor daily the Central Valley Project-State Water Project Coordinated Operation Agreement to determine whether the Delta is in balance conditions or excess conditions.

(Term Code 0360898)

13. No on-farm recharge shall occur in Dairy Land Application Areas unless Temporary Permittee has provided notification and received concurrence from staff of the Central Valley Regional Water Quality Control Board. Temporary Permittee shall, within 15 days of issuance of any concurrence, transmit copies to the Division of Water Rights.

(Term Code 0390501)

14. Temporary Permittee shall comply with the mitigation measures set forth in the Mitigation and Monitoring Reporting Plan, as shown in the attachment.

(Term Code 0400500)

15. No agricultural field shall be inundated for infiltration under this temporary permit unless:

- a. The field has been in compliance with the Irrigated Lands Regulatory Program for, at minimum, the two most recent growing seasons; or
- b. The following apply:
  - i. the field has been operated under management practices for fertilizer application for at least two growing seasons; and
  - ii. the field has not had fertilizer applied within the last three months. Temporary Permittee shall document compliance with this term in the report required by Term 0100500 and whenever requested by the Division of Water Rights.

(Term Code 0400501)

16. This temporary permit is issued based on a finding that the Permittee has an urgent need for the water proposed to be diverted and used, pursuant to Water Code section 1425. The Permittee is hereby notified that subsequent renewals of this permit or new temporary permit applications for the water proposed to be diverted and used in accordance with this permit will be subject to a review by the State Water Board regarding whether the applicant has exercised due diligence in either (1) making an application for a standard permit pursuant to Water Code section 1250 et seq. or (2) in pursuing that application to permit.

The Permittee shall provide a statement of their intention to seek future diversion and use of water pursuant to the same or similar project as that approved in this temporary permit within 60 days after the expiration of this temporary permit. The statement shall include the intended duration of the diversion and use of water and shall describe current and proposed efforts to apply for a standard permit, pursue a standard permit application that has already been filed, or obtain coverage under another valid basis of right.

(Term Code 0000000W)

**THIS TEMPORARY PERMIT IS ALSO SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:**

- A. This temporary permit is subject to Water Code, division 2, part 2, chapter 6.5, section 1425 et seq. Any temporary permit issued under this chapter shall not result in creation of a vested right, even of a temporary nature, but shall be subject at all times to modification or revocation at the discretion of the State Water Board. This temporary permit is considered a temporary authorization to divert and use water and it does not have a priority date or any priority over appropriative water rights. The Deputy Director for Water Rights has the discretion to determine the priority of diversions amongst this temporary permit and other active temporary permits.

(Term Code 0510850V)

- B. The State Water Board reserves jurisdiction to supervise diversion and use of water under this temporary permit, and to coordinate or modify terms and conditions, for the protection of lawful users of water, instream beneficial uses, and the public interest as future conditions may warrant. Permittee must cease diversions at the direction of the Deputy Director for Water Rights upon a finding that the diversion threatens to injure downstream senior right holders; threatens fish, wildlife, or other instream beneficial uses; or creates a threat to human health and safety.

(Term Code 0480600V)

- C. Issuance of this temporary permit shall not be construed as indicating State Water Board approval of water right permits requested under other applications.

(Term Code 0510999V)

- D. This temporary permit does not authorize any act which results in the taking of a candidate, threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and G. Code, § 2050 et seq.) or the federal Endangered Species Act (16 U.S.C. §1531 et seq.). If a "take" will result from any act authorized under this temporary permit, Temporary Permittee shall obtain any required authorization for an incidental take prior to construction or operation of the project. Permittee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this temporary permit.

(Term Code 0000014V)

- E. No water shall be diverted or used under this temporary permit unless Permittee has obtained and is in compliance with all necessary permits or other approvals required by other agencies.

(Term Code 0000203V)

- F. Water available for diversion under this right is subject to diversions solely for flood control purposes made by, or at the direction of, a local or state agency with authority over flood control or flood response.

(Term Code 0350800V)

- G. Prior to diversion of water under this temporary permit, Permittee shall submit to and receive approval from the Deputy Director for Water Rights a plan describing the measurement and accounting of water diverted to underground storage, incidental direct diversion, and water extracted from underground storage for beneficial use. If water diverted to underground storage will be extracted by entities other than the Permittee, the plan shall set forth how the Permittee will quantify extraction and use, and determine that the extractions are from water stored by the Permittee and not based on other claims of right. The plan shall be implemented as approved by the Deputy Director. If Permittee intends to store water diverted under this temporary permit for more than 180 days, Permittee must submit a plan to the Deputy Director for Water Rights prior to the expiration of this temporary permit detailing how Permittee will calculate the expected losses of the stored amount over time, including timelines for any field or modeling investigations that will be conducted.

(Term Code 0008999V)

H. Permittee shall promptly submit any reports, data, or other information that may reasonably be required by the State Water Board, including but not limited to documentation of water diversion and documentation of compliance with the terms and conditions of this temporary permit.

(Term Code 0000010V)

I. Permittee shall submit a report of temporary permit to the State Water Board within 60 days after the expiration of this temporary permit. The report shall describe the total quantity of water diverted under this temporary permit, and any other amounts diverted from the authorized points of diversion under other bases of right during the reporting period.

(Term Code 0100500V)

J. No water shall be diverted under this temporary permit unless the Permittee monitors and records the rate of diversion, the quantity of water diverted to underground storage, the quantity of incidental direct diversion, and the total amount of water placed to beneficial use under this temporary permit. Permittee shall use a measuring device or other method satisfactory to the Deputy Director for Water Rights. The device or method shall be capable of quantifying the hourly rate and volume of diversion and shall be properly maintained. Permittee shall maintain a daily record of the volume of water diverted and the maximum daily rate of water diverted. If Permittee is using any of the points of diversion under other rights, the record of diversion shall be separately quantified. Permittee shall also record the total quantity of water placed to beneficial use. A copy of the records shall be submitted with the report required in term 0100500V or whenever requested by the Division of Water Rights. The issuance of this permit does not affect the applicability of measuring and monitoring requirements of California Code of Regulations, title 23, division 3, chapters 2.7 and 2.8. If there is any conflict or inconsistency between conditions in this right for measurement, monitoring, and reporting of water use, and applicable regulations, the more stringent requirement or requirements shall control in each instance.

(Term Code 0109999V)

K. For the purposes of payment of fees associated with the amount of water actually diverted under this renewed temporary permit, Permittee shall submit additional fees pursuant to California Code of Regulations, title 23, section 1062, subdivision (a)(1)(E), within 30 days of the expiration of this permit. The fees shall be accompanied by a report of the amount actually diverted.

(Term Code 9999999V)

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY:

*Erik Ekdahl, Deputy Director  
Division of Water Rights*

Dated: JANUARY 31 2022

**Mitigation Monitoring and Reporting Plan**  
**Temporary Water Right Application 33258**  
**Omochumne-Hartnell Water District**

This Mitigation Monitoring and Reporting Plan (MMRP) has been prepared in conformance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21081.6). The MMRP has been developed based on the information and mitigation measures contained in the Initial Study/Mitigated Negative Declaration (IS/MND) for Temporary Water Right Application 33258, prepared September 2018 by the Omochumne-Hartnell Water District (District or Temporary Permittee) with assistance from Provost and Pritchard Consulting Group. The MMRP lists the mitigation measures recommended in the IS/MND for the proposed project and specifies implementation and monitoring responsibilities. Pursuant to Public Resources Code, section 21081.6, subdivision (b), each of the mitigation measures identified in the MMRP has been included as enforceable permit terms in the permit authorizing construction, diversion and use of water pursuant to Temporary Water Right Application 33258.

Generally, the State Water Resources Control Board, Division of Water Rights (Division) will monitor mitigation measures requiring pre-construction actions or submittals. Implementation of mitigation measures is the sole responsibility of the Temporary Permittee. Compliance with mitigation measures will be assessed through the Division's routine compliance monitoring activities. Non-compliance with mitigation measures may be addressed through the Division's ongoing enforcement program on an as-needed basis.

All documents and other information that constitute the public record for this project shall be maintained by the Division and shall be available for public review at the following address:

State Water Resources Control Board  
Division of Water Rights, 2nd Floor  
1001 I Street  
Sacramento, CA 95814

**PROJECT DESCRIPTION:**

Temporary Water Right Application 033258 requests a diversion to underground storage of 2,444 acre-feet per annum from Cosumnes River, tributary to the Mokelumne River thence San Joaquin River. The purpose of use is irrigation to 30,000 acres of agricultural lands. The season of diversion is December 1, 2021 to February 15, 2022. Diversion will occur at two points of diversion along the Lower Cosumnes River.

**Biological Resources****Mitigation Measure BIO-1: Valley Elderberry Longhorn Beetle (VELB)**

Mitigation 1a (Protocol Survey). Prior to the start of construction, a qualified biologist will survey for VELB habitat (i.e. elderberry shrubs) within and adjacent to proposed construction zones. All elderberry shrubs with stems one inch or greater in diameter at ground level encountered will be mapped using a GPS unit and flagged in the field for identification by construction crews.

Mitigation 1b (Avoidance). Temporary Permittee shall design the project to avoid existing elderberry shrubs with stems measuring one inch in diameter or greater at ground level and a 20-foot buffer around their dripline. Where possible, construction activities will take place outside of the VELB's flight season (March through June). If construction activities involve grading, trenching, or mowing, and are to occur during the flight season, the Temporary Permittee shall design the project to avoid existing elderberry shrubs and a 100-foot buffer around their dripline. This will require that the applicable buffer be indicated with orange construction fencing installed around each shrub and that signs be attached to the fencing identifying the shrubs as endangered species habitat. Should a 100-foot buffer not be feasible, the U.S. Fish and Wildlife Service (USFWS) will be consulted prior to proceeding with construction activities. Prior to initiating any construction activity where elderberry bushes and a buffer are to be protected from disturbance, a qualified biologist must make a brief on-site instructional presentation to construction crews about the VELB and the consequences of destroying its habitat without take authorization of the USFWS. If construction work is to occur during the beetle's flight season, the work area must be wetted each day to avoid the creation of dust that may adversely affect the beetle's feeding and flight.

Mitigation 1c (Compensation). If individual shrubs with stems one inch or greater in diameter at ground level and a 20-foot buffer around these shrubs cannot be avoided, they shall be transplanted to a conservation area following the methods described in the USFWS's Conservation Guidelines for the Valley Elderberry Longhorn Beetle (1999). Each elderberry shrub that is transplanted or destroyed will be replaced in a conservation area with elderberry seedlings or cuttings at a ratio ranging from 1:1 to 8:1, and native plants associated with the project site will be planted at ratios ranging from 1:1 to 2:1, as described in the USFWS's Conservation Guidelines for the Valley Elderberry Longhorn Beetle (1999).

**Mitigation Measure BIO-2: Central Valley Steelhead, Central Valley Chinook Salmon (Fall-run), and Pacific Lamprey**

Mitigation Measure 2a (Avoidance). The new diversion pipes shall be constructed when the river is at the lowest level (late summer). The new diversion intakes should be located above the low-water surface such that in-water work does not occur. During construction, measures will be taken to prevent soil, debris, or any other objects from passing into the Cosumnes River.

Mitigation Measure 2b (Minimization). If in-water work is required, an education training, preconstruction survey, and construction monitoring will be conducted. Prior to the start of construction, a qualified biologist will train all project staff

regarding the sensitive fish species, their protection, penalties for non-compliance, and the project boundaries. Preconstruction surveys will be completed by a qualified biologist prior to in-water work. An exclusion device (i.e. silt fence, some type of screen, or a cofferdam) shall then be placed just outside of the construction area to prevent these species from entering the construction area. A qualified biologist will monitor all construction, including the installation of the exclusion device, within the exclusion area. If these species are detected prior to or during construction activities, the qualified biologist will capture and translocate any individuals that are discovered back into the river, out of the construction zone, in the minimum amount of time necessary.

Mitigation Measure 2c (Fish Screens). For the purpose of the stated project operations fish screens of appropriate size and mesh width will be constructed and fitted to the existing and new diversion intakes by the District. The criteria for these fish screens will follow the National Marine Fisheries Service's (NMFS) Fish Screening Criteria for Anadromous Salmonids (1997), the Fish Screen and Bypass Facilities section of the NMFS's Anadromous Salmonid Passage Facility Design (2011) or be coordinated with NMFS.

**Mitigation Measure BIO-3: Western Pond Turtles**

Mitigation Measure 3a (Pre-construction Survey). A qualified biologist will conduct a pre-construction survey for the western pond turtle in the riparian and aquatic habitat of the project sites within 15 days of prior to the onset of construction in these areas. The information collected from this pre-construction survey will serve primarily to alert the biologist and construction crews of the general level of western pond turtle activity at the sites.

Mitigation Measure 3b (Monitoring and Avoidance). The qualified biologist will inspect the work area each day prior to the start of work. If any western pond turtles are observed, they will be avoided and allowed to passively leave the site prior to the initiation of construction.

Mitigation Measure 3c (Relocation). Should any western pond turtles be observed during the pre-construction surveys or monitoring, and they do not leave the site on their own, a qualified biologist may relocate the turtle(s) 500 feet up- or downstream from the project.

**Mitigation Measure BIO-4: Nesting Raptors and Migratory Birds (Including Swainson's Hawk, White-tailed Kite, Northern Harrier, Grasshopper Sparrow, and Loggerhead Shrike)**

Mitigation Measure 4a (Avoidance). In order to avoid impacts to nesting raptors and migratory birds, the project will be constructed, if feasible, outside the nesting season, or between September 1 and January 31.

Mitigation Measure 4b (Preconstruction Surveys). If construction activities must occur during the nesting season (February 1-August 31), a qualified biologist will conduct preconstruction surveys for active raptor and migratory bird nests within 15 days prior to the start of project activities. The survey will include the proposed work area(s) and surrounding lands within 500 feet, where accessible, for all nesting raptors and migratory birds, with the exception of Swainson's hawk; the Swainson's hawk survey will extend to ½ mile outside of work area boundaries. If no nesting pairs are found within the survey area, no further mitigation is required.



Mitigation Measure 4c (Establish Buffers). Should any active nests be discovered near proposed work areas, the biologist will determine appropriate construction setback distances based on applicable California Department of Fish and Wildlife guidelines and/or the biology of the affected species. Construction-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.

**Mitigation Measure BIO-5: Degradation of Water Quality in Seasonal Drainages, Stock Ponds, and Downstream Waters**

Mitigation Measure 5 (Erosion and Sediment Control). The following BMPs shall be implemented:

- 1) Protection of exposed graded slopes from sheet, rill and gully erosion. Such protection could be in the form of: erosion control fabric, hydromulch containing the seed of native soil-binding plants, straw mechanically imbedded in exposed soils, or some combination of the three.
- 2) Protection of natural drainage channels from sedimentation. Straw bale check dams, waddles, or other another method of protection shall be installed below graded areas so that any sediment carried by surface runoff is intercepted and retained before it can enter the Cosumnes River.
- 3) Use of BMPs to control soil erosion and non-point source pollution. BMPs may include measures in 1 and 2 above, and may include any number of additional measures appropriate for this particular site and this particular project, including, but not limited to, grease traps in staging areas, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc.

**Mitigation Measure BIO-6: Northern California Black Walnut Trees, Oak Trees, Native Trees, and Natural Communities of Special Concern**

Mitigation 6a (Avoidance). Wherever possible, project activities will avoid the removal of all walnut trees, riparian trees, and oak trees.

Mitigation 6b (Compensation). If the removal of walnut, oak, or other native trees within the project sites cannot be avoided, Temporary Permittee shall provide compensatory mitigation in the form of in-kind plantings at a ratio of one-to-one, diameter at breast height (DBH). These plantings shall be made inside an area suitable for each species. The plantings will be obtained from a local native plant nursery. Restoration shall be implemented according to a plan prepared by a qualified biologist or arborist. This plan will define the objectives of the restoration effort, specify the species to be planted, describe the planting techniques, identify the maintenance activities during the establishment period, and specify a monitoring program that ensures that the restoration effort has met the restoration goals. Monitoring will be for a period of 5 years. If the project is not capable of supporting all of the required replacement trees, a sum equivalent to the replacement cost of the number of trees that cannot be accommodated shall be paid to Sacramento County's Tree Preservation Fund or another appropriate tree preservation fund.