



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

DIVISION OF WATER RIGHTS

RIGHT TO DIVERT AND USE WATER

APPLICATION T032962

TEMPORARY PERMIT 21411

Permittee: Aliso Water District
13991 Avenue 7
Madera, CA 93637

The State Water Resources Control Board (State Water Board) authorizes the diversion and use of water by the Permittee in accordance with the limitations and conditions herein SUBJECT TO PRIOR RIGHTS. The priority of this temporary permit dates from **August 16, 2018**. This right 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. This temporary permit does not create a vested right, even of a temporary nature (Wat. Code, § 1430,) and is not precedential to future permitting actions for this or other similar projects.

The State Water Board finds that, subject to the terms and conditions included in this permit: (1) Permittee has an urgent need for the proposed diversion and use of water; (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 [189 Cal.Rptr. 346, 658 P.2d 709].)

1.0 Application to Appropriate Water by Temporary Permit

The Aliso Water District (District) filed Application T032962 on August 16, 2018, to appropriate water by temporary permit pursuant to Water Code section 1425 et seq. The amended application requests diversion of up to 10,000 acre-feet (af) of water from the Chowchilla Bypass (CBP) during high flow events occurring between January 18 and June 29, 2019. Water would be diverted at a maximum rate of 45 cubic feet per second (cfs) via eight temporary pump stations and one permanent culvert, and then conveyed to existing and proposed recharge basins and agricultural lands (i.e., on-farm recharge areas) within District boundaries for infiltration and storage in the underlying, critically overdrafted Delta Mendota Groundwater Subbasin. The water stored under this permit would be later withdrawn by private land owners in the District for irrigation use during the 2019 irrigation season. The 10,000 af of water requested represents approximately eleven percent of the District's annual water demand, which is typically satisfied with percolating groundwater extracted by private land owners. The amount requested includes up to 57 af of incidental direct diversion to provide regulatory coverage for the limited amount consumptive crop use that could occur during periods of on-farm recharge.

The CBP is a State Plan of Flood Control facility operated by the Lower San Joaquin River Levee District (LSJR Levee District) to provide flood relief along the San Joaquin River in Madera, Fresno, and Merced Counties. The CBP has a design capacity of 5,500 cfs, although a significant amount of capacity has been lost in recent years as a result of land subsidence resulting from aquifer overdraft. Water from the upper San Joaquin River enters the CBP at the Chowchilla Canal Bypass Control Structure (CBP Intake), located approximately five miles east of the town of Mendota. Water leaving the CBP flows into the Eastside Bypass (EBP) and discharges back to the San Joaquin River at two locations located approximately 27 miles and 17 miles upstream of the Merced River confluence.

Water entering the CBP through the CBP Intake consists largely of controlled releases and occasionally uncontrolled spills from Friant Dam, with the controlled releases helping to maintain flood storage capacity in Millerton Lake. Friant Dam and Millerton Lake are owned and operated by the U.S. Bureau of Reclamation (Reclamation). Daily inflow to the CBP is controlled by the LSJR Levee District in accordance with established operational criteria. Flow is typically routed to the CBP when river flow below the CBP Intake is expected to be between 1,300 and 2,500 cfs. During the last three years that the CBP contained appreciable flow (2006, 2011, and 2017), mean daily flow at the CBP Intake ranged from about 500 cfs to 7,400 cfs between the beginning of January and the end of June, which corresponds to the season of diversion requested by the District. Records indicate that the CBP only contains appreciable flow in wet and above normal water years as determined by the San Joaquin Valley Water Year Index.

1.1 Addition of Incidental Direct Diversion to Permit

On-farm recharge will be accomplished under this permit by distributing water to dormant and fallow agricultural lands within District boundaries. Consumptive use of applied water by dormant crops could occur if crop water demand is not fully satisfied by incident precipitation, stored soil moisture, and other sources of plant available water during periods of on-farm recharge. This consumptive use would be incidental to the conveyance of diverted water to underground storage, and constitutes a form of direct diversion, which was not requested in the District's original application.

State Water Board staff estimated incidental direct diversion of up to 57 af using a simplified, monthly mass balance approach and available information on crops grown within District boundaries. The applicant requested a diversion season through June 29, 2019, however staff found significant direct consumptive use in March through June. Thus, to preserve an incidental level of direct diversion, on-farm recharge is limited to fallow land, and land occupied by dormant tree and vine crops between January and February. In future applications (temporary or standard), the District may request both direct diversion (non-incidental) and underground storage as methods of diversion to allow on-farm recharge even during periods of non-incidental consumption by crops.

1.2 Beneficial Use Accounting

The District submitted a diversion and beneficial use accounting plan on January 4, 2019, describing the method that it will use to monitor and account for beneficial use of water diverted under this permit. The amount of water diverted to storage will be determined by deducting the amount of water lost to evapotranspiration during recharge from the total amount of water diverted. Evapotranspiration losses will be estimated using local reference evapotranspiration data and published crop and open-water coefficients, and will be used to quantify beneficial use resulting from incidental direct diversion. Beneficial use of water withdrawn from storage will be quantified by measuring groundwater extraction from agricultural production wells within the District. The District adopted a resolution on January 22, 2019, authorizing and informing landowners within the District that water stored under this permit will be accounted as withdrawn from storage prior to the exercise of overlying groundwater rights during the 2019 irrigation season.

2.0 Public Notice and Comment

Application T032197 was originally noticed on October 12, 2018. The application was subsequently re-noticed on November 8, 2018, to correct errors and omissions in the original notice and application. Comment letters were received from Reclamation; Mr. Richard Morat of Sacramento, California; and the California Department of Fish and Wildlife (CDFW), Central Region.

Reclamation objected to the District's application on the grounds of potential interference with prior water rights held by Reclamation for operation of the Central Valley Project (CVP), and requested inclusion of Standard Permit Terms 80, 90, 91, and 93 in any permit issued pursuant to the District's application. Reclamation also requested inclusion of a permit term clarifying that the availability of water for diversion by the District would be entirely

incidental to the presence of flood flows in the CBP. Terms 0000080, 0000090, 0000091, 0000093 and terms limiting diversions to periods when flood flows are present in the CBP (0360999, 0360800) have been included as conditions of this permit.

CDFW did not object to the District's application but identified potential effects associated with the construction and operation of the proposed diversion, conveyance, and recharge facilities on Swainson's hawk (*Buteo swainsoni*) and burrowing owl (*Athene cunicularia*). CDFW recommended that the District conduct pre-construction surveys of suitable habitat areas and establish no-disturbance buffers as appropriate to avoid or minimize impacts to these special status species. CDFW also recommended that any permit issued be conditioned to require that all diversion facilities be outfitted with fish screens meeting the criteria established by CDFW and the National Marine Fisheries Service (NMFS) to prevent removal, entrainment, or impingement of special status salmonids and other fish that may be present in CBP flows. CDFW further advised early consultation with NMFS under the Federal Endangered Species Act due to the potential for the proposed diversions to affect federally protected Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*) and Central Valley Steelhead (*Oncorhynchus mykiss irideus*). Terms have been included as conditions of this permit that address the potential impacts on burrowing owl and Swainson's hawk, and potential for fish entrainment and impingement, raised by CDFW (0000213, 0400505, 0400506).

Richard Morat raised, in his letter, the potential for crop uptake of diverted water during periods of on-farm recharge and the potential for the proposed diversions to further diminish instream flows necessary to support resident and anadromous fish populations in the San Joaquin River and the Sacramento-San Joaquin River Delta Estuary (Bay-Delta Estuary). Mr. Morat requested that any permit be conditioned to limit diversions to periods when: (i) water is surplus to the needs of aquatic resources and other beneficial uses in the San Joaquin River and Bay-Delta Estuary, and (ii) applicable Bay-Delta water quality standards are in full effect. Terms have been included as conditions of this permit that address the water quality and flow-related concerns raised by Mr. Morat (0000080, 0000091, 0000093, 0000014, 0510800, 0000204, 0360999, 0360800, 000005E).

The California Department of Water Resources (DWR) transmitted a letter of support for the project to the District, outside of the public comment process, stating that the project would support desired outcomes such as aquifer replenishment, flood risk reduction, water supply reliability, subsidence mitigation, and ecosystem enhancement. The Central Valley Regional Water Quality Control Board also sent correspondence in support of the District's project, provided that it is executed and monitored in a manner that is protective of water quality. Copies of both letters of support are on file with the State Water Board, Division of Water Rights (Division of Water Rights).

3.0 California Environmental Quality Act and Executive Order B-39-17

Ordinarily, the State Water Board must comply with any applicable requirements of the California Environmental Quality Act (CEQA) prior to issuance of a temporary permit pursuant to Water Code section 1425 et seq. However, on April 6, 2017, Governor Edmund G. Brown Jr. issued Executive Order B-39-17. Item 3 of the Executive Order suspends CEQA for purposes of carrying out the directives in the order, including the issuance of temporary permits to capture high runoff events for local storage or recharge. Item 14 of the Executive Order requires the State Water Board to prioritize temporary water right permits to accelerate approvals for projects that enhance the ability of a local or state agency to capture high runoff events for local storage or recharge, consistent with water rights priorities and protections for fish and wildlife. The CEQA suspension applies to any actions taken by state agencies in furtherance of the order's directives, and for any necessary permits or approvals required to complete these actions.

The State Water Board has reviewed the application and finds that the proposed project is consistent with the suspension of CEQA in Executive Order B-39-17. The State Water Board will file a Notice of Exemption for the proposed project with the State Clearing House within five days of temporary permit issuance.

4.0 Requirements of Water Code Sections 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.
4. The proposed diversion and use are in the public interest.

Prior to making these findings, the State Water Board must consult with CDFW and review available records, files, and decisions which relate to the availability of water from the proposed source and the rights of downstream users (Wat. Code, § 1427, subds. (b),(c).)

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

State Water Board consulted with staff from CDFW's Central Region Office on October 24, 2018. Central Region staff also submitted formal comments and recommendations on November 20, 2018, in response to the public notice issued by the State Water Board. These comments were addressed in Section 2.0, supra.

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. Historic precipitation and flow data indicate that the CBP typically receives appreciable flow from the Upper San Joaquin River at the CBP Intake only during wet and above normal water years, suggesting that water would be available for diversion under this permit only under similar water year conditions. Water year forecasts published by DWR on an annual basis starting in February (Bulletin 120) were not available during the timeframe in which State Water Board staff were processing the District's application. Instead, staff conducted a rough hydrologic analysis to determine potential project yield during the last three water years in which the CBP conveyed appreciable flow (2006, 2011, and 2017), all of which were classified as "wet" water years based on DWR's San Joaquin Valley Water Year Index. The analysis incorporated minimum instream flow criteria for the CBP, EBP, and the San Joaquin River that were estimated by State Water Board staff 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 are included in Term 0000204 of this permit.

Project yields for the three selected water years ranged from 4,463 af to 9,907 af, indicating that a significant proportion of the 10,000 af requested by the District would likely be available for diversion if 2019 is a wet or above normal water year. The estimated minimum instream flow criteria established for the CBP and EBP did not have an appreciable effect on the number of allowable diversion days, but the estimated minimum instream flow criteria established for the mainstem San Joaquin River significantly reduced the number of days available for diversion in two of the three water years evaluated. The District's relatively low proposed rate of diversion (45 cfs) significantly limited project yield in all three water years evaluated.

4.2.1 Minimum Instream Flow Criteria

Historically, the CBP canal only conveys appreciable flow in wet and above normal water years when the LSJR Levee District is routing releases and uncontrolled spills from Friant Dam into the CBP to control flooding along the San Joaquin River. It follows, therefore, that the diversions proposed by the District would only occur under wet or above normal water year conditions when there are flows necessary to maintain fish and other instream beneficial uses, and the potential for injury to other legal users of water is low. Wet water year flow statistics indicate that the incremental effect of the District's proposed diversions on the rate of flow in the CBP canal and

mainstem San Joaquin River immediately downstream of its confluence with the outlet of the CBP-EBP canal system during the January to June timeframe would be relatively small (1.45% and 0.55% of mean daily flow during the last three wet water years, respectively).

State Water Board staff estimated minimum instream flow criteria for the CBP, EBP, and mainstem San Joaquin River to further minimize the potential risk of impacts to fish and other instream beneficial uses. Staff was unable to locate any specific instream flow criteria for the CBP and EBP upon review of water right records and documentation, including that prepared in support of the San Joaquin River Restoration Project. In the absence of existing criteria, staff estimated specific minimum instream flow needs for the CBP and EBP by summing (i) the demand of senior diverters drawing water from these canal systems (206 cfs); (ii) the estimated seepage loss along the 52-mile CBP-EBP canal system (500 cfs); and (iii) the estimated flow needed to allow downstream migration (i.e., outmigration) of adult Chinook salmon (429 cfs), which is the largest fish that could be entrained by flow entering the CBP. This total was then increased by twenty percent to provide a margin of safety, resulting in a minimum flow criterion of 1,362 cfs at the CBP Gaging Station (CBP Gage) located at the CBP Intake. At the request of the District, an additional flow criterion of 75 cfs as measured at the ELN Gaging Station (ELN Gage) located on the lower EBP canal was added to provide explicit protection for two senior diversions located downstream of the gage. The seepage loss component of the CBP Gage criterion was calculated using seepage rates estimated by the District based on San Joaquin River Restoration Program documentation, infiltration studies, and the hydraulic properties of soils located along the CBP and EBP canal alignments. The outmigration flow component of the CBP Gage flow criteria was calculated using Manning's Equation for open channel flow and the minimum passage depth criterion for Chinook salmon (0.9 foot) published by CDFW (DFG-IFP-001, October 2012, updated February 2013).

Estimating the specific minimum instream flow needs for the San Joaquin River downstream of its confluence with the outlet of the CBP-EBP canal system is significantly more complex, requires consideration of a much wider range of variables, and was impracticable given the urgent nature of the District's application (See Section 4.3). Rather than estimate a specific flow criterion, the State Water Board determined that it is reasonable and appropriate to impose a general presumptive flow criterion requiring the District to limit diversions to periods when the flow at the San Joaquin River gaging station located downstream of the Merced River confluence near the city of Newman (Newman Gage) exceeds the daily ninetieth percentile flow value calculated and published by the U.S. Geological Survey. This requirement will ensure that the District's diversions occur only during periods of very high flow.

While adoption of specific and general presumptive flow criteria is reasonable and appropriate for this temporary permit, instream flow needs along the entire flow path of the CBP, EBP, San Joaquin River, and Sacramento-San Joaquin River Delta are highly complex and further investigation regarding these needs may be warranted if the District pursues either permanent or reoccurring temporary authorization of this project or based on information about the impacts of the District's diversions obtained during the term of this permit.

4.3 Urgent Need Findings (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 Delta Mendota Subbasin is designated as a high priority, critically overdrafted subbasin (DWR Bulletin 118), indicating that continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts. The District is one of twenty-four Groundwater Sustainability Agencies (GSAs) that are responsible for overseeing the development and implementation of Groundwater Sustainability Plans (GSPs) for the Delta Mendota Subbasin, with the ultimate goal of achieving long term, sustainable groundwater management. The GSAs have until January 31, 2020, to develop and adopt one or more GSPs for the Delta Mendota Subbasin.

Diversion and storage of floodwater from the CBP during periods of high flow would provide near-term benefits to aquifer conditions by reducing demand on percolating groundwater in the Delta Mendota Subbasin. If the District

is able to divert the full amount requested (10,000 af), the project would offset the demand on percolating groundwater within District boundaries by up to eleven percent during the 2019 irrigation season. Implementation of the proposed surface water storage project during the 2019 water year would also afford the District and other GSAs with jurisdiction over lands adjacent to the CBP a timely opportunity to evaluate whether similar surface water storage projects represent a viable strategy for long term, sustainable groundwater management in the Delta Mendota Subbasin. Furthermore, historic precipitation and CBP 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 waste of water be prevented and that the water resources of the state be put to beneficial use to the fullest extent possible

4.4 Injury Findings (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.

Historically, the CBP only conveys appreciable flow in wet and above normal water years when the LSJR Levee District is shunting controlled releases and uncontrolled spills from Friant Dam into the CBP to control flooding along the San Joaquin River. It follows, therefore, that the diversions proposed by the District would only occur under wet or above normal water year conditions when the demand of existing legal users of water would likely be satisfied, and the potential for injury would be low. Available wet water year flow data indicate that the incremental effect of the District's proposed diversions on the rate of flow in the CBP (CBP Gage) and mainstem San Joaquin River below the Merced River confluence near the city of Newman (Newman Gage) during the January to June timeframe would be relatively small (1.45% and 0.55% of mean daily flow during the last three wet water years, respectively), further suggesting that the potential for injury to other legal users is low.

To provide further protection against injury in the absence of previously established flow objectives, State Water Board staff estimated minimum instream flow criteria for the CBP (at CBP Gage) and the EBP (at ELN Gage) that take into account existing diversions and seepage losses on both canal systems, and for the mainstem San Joaquin River (at Newman Gage) that would limit diversion by the District to periods of high flow (See Section 4.2.1). These estimated minimum instream flow criteria are included in Term 0000204 of this permit, and must be satisfied before the District can divert water from the CBP. This permit also includes terms that limit diversions by the District to periods when Friant Dam is spilling or releasing flows for flood protection (0360999, 0360800), and terms that allow the Deputy Director for Water Rights to curtail diversions under this permit when they threaten injury to senior rights located downstream of the District's points of diversion or rights held by Reclamation and DWR for the operation of the CVP and State Water Project (SWP) (0000090, 0000091, 0000093, 0359999).

This permit includes term 0350800, which is based on program-level discussions with DWR flood control staff regarding possible interference of permitted projects on the activities of flood control entities, such as a possible competing claim for diversion of flows. Term 0350800 clarifies that 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.

4.5 Fish, Wildlife, and Other Instream Beneficial Use Findings (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.

4.5.1 Effects of Diversion on Instream Flows

Historically, the CBP only conveys appreciable flow in wet and above normal water years when the LSJR Levee District is shunting controlled releases and uncontrolled spills from Friant Dam into the CBP to control flooding along the San Joaquin River. It follows, therefore, that the diversions proposed by the District would only 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 would be low. Available wet year flow data indicate that the incremental effect of the District's proposed diversions on the rate of flow in the CBP and mainstem San Joaquin River above the Merced River near the City of Newman during the January to June timeframe would be relatively small (1.45% and 0.55% of mean daily flow during the last three wet water years, respectively), further suggesting that the potential for adverse effects resulting from flow impairment would be low.

Mr. Richard Morat of Sacramento, California, commented in response to notice of the application, that the incremental effect of the District's proposed diversions on existing cumulative flow impairment could adversely affect water quality, fish, and other instream resources in the San Joaquin River and Bay-Delta Estuary (See discussion in Section 4.4). CDFW recommended that the District consult with the National Marine Fisheries Service (NMFS) regarding potential impacts to federally protected Central Valley Steelhead and spring-run Chinook salmon, whether by flow impairment or entrainment and impingement at the District's proposed points of diversion. Representatives from NMFS declined to comment in response to the District's request for consultation.

In response to these comments, and to further minimize the potential for the District's diversions to impair flows needed for the maintenance of fish and other instream beneficial uses such as recreation, State Water Board staff estimated minimum instream flow criteria for the CBP (at CBP Gage) and the EBP (at ELN Gage) that take into account fish passage requirements and seepage losses in both canal systems, and a minimum instream flow criterion for the mainstem San Joaquin River near the City of Newman (Newman Gage) to limit diversion by the District to periods of high flow (See Section 4.2.1).

Board staff consulted with staff from CDFW's San Joaquin River Restoration Program during the interagency consultation process about the estimated minimum instream flow criteria, which are included as terms in this permit (0000204). This permit also includes terms that limit diversions by the District to periods when Friant Dam is spilling or releasing flows to maintain flood storage capacity in Millerton Lake (0360999, 0360800), and terms that allow the State Water Board to curtail diversions authorized by this permit when the CVP and SWP are releasing supplemental water for the protection of water quality and fish and wildlife in the San Joaquin River and Bay-Delta Estuary (0000090, 0000091, 0000093, 0359999). With these terms and conditions, the Board finds that the proposed diversion will not unreasonably impact instream beneficial uses.

4.5.2 Effects Resulting from the Construction and Operation of Diversion, Conveyance, and Recharge Facilities

During the public comment period, CDFW identified the potential for the installation and operation of the District's water diversion, conveyance, and recharge facilities to adversely affect Swainson's hawk and burrowing owl nesting sites, which are known to occur within and adjacent to District boundaries. CDFW recommended impact avoidance and minimization measures that require pre-project habitat assessments and nest surveys, and the establishment of no-disturbance buffers or further consultation with CDFW when nesting sites are identified in areas likely to be affected by water diversion, conveyance, and recharge activities. These avoidance and minimization measures are included as terms in this permit (0400505, 0400506) and must be implemented before the District can divert water from the CBP.

CDFW also recommended that any permit require that all diversion facilities be outfitted with fish screens meeting the criteria established by CDFW and NMFS to prevent removal, entrainment, or impingement of fish that may be present in CBP flows. A term requiring the installation of fish screens designed in accordance with CDFW and NMFS guidelines has been included in this permit (0000213) and must be satisfied before the District can divert water from the CBP.

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

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

The California Natural Resource Agency's California Water Action Plan, originally released in 2014 and updated in 2016, calls for increased regional self-reliance and integrated water management, including conjunctive use of

groundwater and surface water supplies. Issuance of a temporary permit for the diversion and use of floodwater from the CBP, in a manner consistent with water right priorities and protections for fish and wildlife, would allow the District to capture high flows that may otherwise go unused, and reduce demand for percolating groundwater within the District by up to eleven percent during the 2019 irrigation season. The proposed diversions would also provide a degree of near-term water supply reliability and drought-resiliency, and may also result in direct and indirect flood control benefits by freeing up capacity in the CBP and EBP and slowing land subsidence which has significantly reduced bypass capacity in recent years.

The District is one of twenty-four Groundwater Sustainability Agencies (GSAs) responsible for overseeing the development and implementation of Groundwater Sustainability Plans (GSPs) for the critically overdrafted Delta Mendota Subbasin, with the ultimate goal of achieving long term, sustainable groundwater management. The GSAs have until January 31, 2020, to develop and adopt one or more GSPs for the Delta Mendota Subbasin. The proposed diversions would afford the District and other GSAs with jurisdiction over lands adjacent to the CBP a timely opportunity to evaluate whether surface water storage projects represent a viable element of any long term, sustainable groundwater management plan.

DWR supports the District’s proposed diversions, stating that the diversions would support desired outcomes such as aquifer replenishment, flood risk reduction, water supply reliability, subsidence mitigation, and ecosystem enhancement. The Central Valley Regional Water Quality Control Board also supports the District’s project, provided that it is executed and monitored in a manner that is protective of water quality. This permit includes water quality terms (0400501, 0390501), developed in consultation with the 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 regional board’s Irrigated Lands Regulatory Program, or employ best management practices for fertilizer control.

Permittee is hereby authorized to divert and use water as follows. No water shall be diverted or used under this water right unless right holder is in compliance with the terms and conditions herein:

1. Source of water: **Chowchilla Bypass (aka Chowchilla Canal or Chowchilla Canal Bypass)**

tributary to: **San Joaquin River**

within the Counties of **Madera.**

2. Points of Diversion

By California Coordinate System of 1983 in Zone 4	40-acre subdivision of public land survey or projection thereof	Section	Township	Range	Base and Meridian
(1) Temporary Pump North 2,202,631 feet East 6,176,496 feet	NW ¼ of SE ¼	22	12S	15E	MD
(2) Temporary Pump North 2,195,626 feet East 6,177,152 feet	NW ¼ of NE ¼	34	12S	15E	MD
(3) Temporary Pump North 2,190,161 feet East 617,973.1 feet	NE ¼ of NW ¼	2	13S	15E	MD

(4) Temporary Pump North 2,185,079 feet East 6,181,037 feet	SW ¼ of SE ¼	2	13S	15E	MD
(4b) Temporary Pump North 2,182,382 feet East 6,179,441 feet	SE ¼ of NW ¼	11	13S	15E	MD
(5) Temporary Pump North 2,179,572 feet East 6,178,970 feet	NE ¼ of NW ¼	14	13S	15E	MD
(6) Temporary Pump North 2,174,364 feet East 6,180,311 feet	SW ¼ of SE ¼	14	13S	15E	MD
(7) Temporary Pump North 2,169,551 feet East 6,184,163 feet	SE ¼ of SW ¼	24	13S	15E	MD
(8) Permanent Culvert North 2,174,881 feet East 6,178,904 feet	SE ¼ of SW ¼	14	13S	15E	MD

2b. Place of Underground Storage	2c. Places of Infiltration to Underground Storage	
Delta Mendota Subbasin (No. 5-022.07) of the San Joaquin River Hydrologic Region, as defined in California Department of Water Resources Bulletin 118 Interim 2016 Update	Existing Recharge Basins	200 acres located within the NW ¼ and SW ¼ of Section 2 and the NE ¼, NW ¼ and SE ¼ of Section 3, Township 13S, Range 15E, Mount Diablo Base and Meridian; and the SW ¼ and SE ¼ of Section 30 and the NW ¼ and NE ¼ of Section 31, Township 12S, Range 15E, Mount Diablo Base and Meridian
	Proposed Recharge Basins	200 acres located within Section 36 of Township 12S Range 15E Mount Diablo Base and Meridian
	On-Farm Recharge Areas	23,138 acres of agricultural land located within Aliso Water District Boundaries, as supplemented by Permit Term 0350700

Places of infiltration are shown on maps filed with the State Water Board on November 7, 2018.

3. Purposes of use	4. Place of use
Irrigation	23,168 acres of agricultural land located within the Aliso Water District

The place of use is shown on maps filed with the State Water Board on November 7, 2018.

5. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed **10,000 acre-feet** by diversion to underground storage and **57 acre-feet** by incidental direct diversion to be collected from the date of issuance of this temporary permit to June 29, 2019. The maximum rate of diversion from the source shall not exceed **45 cubic feet per second**. The total amount of water to be taken from the source (collection to underground storage plus incidental direct diversion) shall not exceed **10,000 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.
(0000005E, 0000005J, 0510700)
6. 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 by Term 0100500 or whenever requested by the Division of Water Rights.

The issuance of this water right does not affect the applicability of measuring and monitoring requirements of California Code of Regulations, title 23, 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.
(0109999)
7. Prior to diversion of water under this temporary permit, Permittee shall submit for approval by the Deputy Director for Water Rights a plan for the measurement and accounting of water diverted to underground storage, incidental direct diversion, and water withdrawn 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.
(0089999)
8. 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. The report shall also include:
 - a) Hourly records of the rate and volume of water diverted under this temporary permit;
 - b) Daily records of the volume of water diverted and the maximum daily rate of water diverted;
 - c) Corresponding hourly and 24-hour rolling mean flow rates for the San Joaquin River Gaging Station near Newman (Newman Gage) operated by the U.S. Geological Survey (Gage No. 11274000);
 - d) Corresponding hourly and 24-hour rolling mean flow rates for the Chowchilla Bypass Gaging Station (CBP Gage) operated by the San Luis Delta-Mendota Water Authority;

- e) Corresponding hourly and 24-hour rolling mean flow rates for the Eastside Bypass Gaging Station near El Nido (ELN Gage) operated by the California Department of Water Resources;
- f) Corresponding daily records of spillway discharge and control regulating discharge for the Friant Dam (Millerton) Gaging Station (MIL Gage) operated by the U.S. Bureau of Reclamation;
- g) Corresponding daily 90th percentile flow values published by the U.S. Geological Survey for the Newman Gage;
- h) Corresponding daily records of the amount of diverted water conveyed to recharge basins and on-farm recharge areas for infiltration to underground storage;
- i) 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;
- j) Daily records of evapotranspiration losses from recharge basins and on-farm recharge areas, accompanied by supporting data and calculations; and
- k) Records of the quantity of water applied to beneficial use via incidental direct diversion and withdrawal from underground storage, accompanied by supporting data calculations.

(0100500)

9. 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 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.

(0490800)

10. Prior to the installation or operation of any water diversion, conveyance, or recharge facility, a qualified biologist shall conduct nesting surveys for Swainson's hawk (*Buteo swainsoni*) in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee, 2000). If nest sites are found, Permittee shall establish a half-mile buffer around each nest site within which no disturbance resulting from the installation or operation of water diversion, conveyance, and recharge facilities may occur until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest for survival. If implementation of a half-mile buffer is not feasible, Permittee shall consult with the California Department of Fish and Wildlife to determine if water diversion, conveyance, and recharge activities can be conducted in a manner that avoids take. If take cannot be avoided, then Permittee shall secure an incidental take permit pursuant to Fish and Game Code section 2081(b) prior to initiating said activities to comply with the California Endangered Species Act.

Permittee shall submit the results of all Swainson's hawk nesting surveys and impact assessments to the Deputy Director for Water Rights and the California Department of Fish and Wildlife within ten days of completion. In the event that nests are identified, Permittee shall document compliance with this term in the report required by Term 0100500 and whenever requested by the Division of Water Rights.

(0400505)

11. Prior to the installation or operation of any water diversion, conveyance, or recharge facility (including on-farm recharge areas), a qualified biologist shall survey all suitable burrowing owl (*Athene cunicularia*) habitat located within five hundred meters of areas that could be affected by resulting land grading, inundation, noise, ground vibration, or other ground-disturbing activity. If occupied burrowing owl nests are found, Permittee shall establish buffers around each nest within which no disturbance resulting from the installation or operation of water diversion, conveyance, and recharge facilities may occur unless a qualified biologist verifies through non-invasive methods that either the owls occupying the nests have not begun egg-laying and incubation, or that juveniles from the occupied burrows are foraging independently

and are capable of independent survival. Buffers ranging from fifty to five hundred meters in diameter shall be established around occupied nest sites in accordance with the provisions of the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation.

Only biologists meeting the following minimum qualifications should perform burrowing owl habitat assessments, surveys, and impact assessments unless otherwise approved by the CDFW:

- a) Familiarity with the burrowing owl and its local ecology;
- b) Experience conducting habitat assessments and non-breeding and breeding season surveys, or experience with these surveys conducted under the direction of an experienced surveyor;
- c) Familiarity with the appropriate state and federal statutes related to burrowing owls, scientific research, and conservation; and
- d) Experience with analyzing impacts of development on burrowing owls and their habitat.

Permittee shall submit the results of all burrowing owl habitat assessments, surveys, and impact assessments to the Deputy Director for Water Rights and the California Department of Fish and Wildlife within ten days of completion. In the event that occupied burrows are found, Permittee shall document compliance with this term in the report required by Term 0100500 and whenever requested by the Division of Water Rights.

(0400506)

12. No water shall be diverted under this right unless right holder is operating all water diversion facilities for all authorized points of diversion 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 California Department of Fish and Wildlife and National Marine Fisheries Service, as outlined in *Fish Screening Criteria for Anadromous Salmonids* (National Marine Fisheries Service, 1997). Permittee shall provide evidence that demonstrates that the fish screens are in good condition with the report required by Term 0100500 and whenever requested by the Division of Water Rights.

(0000213)

13. 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.

(0350800)

14. The availability of water for diversion by the Permittee is contingent upon the presence of floodwater in the Chowchilla Bypass, as determined by the coordinated flood control operations of the Lower San Joaquin River Levee District (LSJR Levee District) and the United States Bureau of Reclamation (Reclamation). Permittee has no right to require that the LSJR Levee District or Reclamation route flow to the Chowchilla Bypass to satisfy the diversion authorized by this temporary permit.

(0360999)

15. Water may be diverted under this temporary permit only during periods when Friant Dam is spilling uncontrolled excess flows, or when water is being released from Friant Dam for the purpose of flood control.

(0360800)

16. 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

Chowchilla Bypass Gaging Station at the Chowchilla Canal Bypass Control Structure (CBP Gage) operated by the San Luis Delta-Mendota Water Authority, is at or above 1,362 cubic feet per second;

- b) The instantaneous flow rate, or the mean flow rate for the previous 24-hour period, measured at the Eastside Bypass Gaging Station near El Nido (ELN Gage) operated by the California Department of Water Resources, is at or above 75 cubic feet per second; and
- a) The instantaneous flow rate, or the mean flow rate for the previous 24-hour period, measured at the San Joaquin River Gaging Station near Newman (Newman Gage) operated by the U.S. Geological Survey (Gage No. 11274000), is above the daily 90th percentile flow value published by the U.S. Geological Survey.

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

(0000204)

17. Permittee shall limit on-farm recharge to fallow agricultural land or land occupied by dormant tree and vine crops. No on-farm recharge on land occupied by dormant tree and vine crops is authorized after February 28, 2019.

(0350700)

18. 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.

Permittee shall document compliance with this term in the report required by Term 0100500 and whenever requested by the Division of Water Rights.

(0400501)

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

(0390501)

20. The Permittee must cease diversions at the direction of the Deputy Director for Water Rights. The Deputy Director will direct the Permittee to cease diversions upon a finding that the diversion threatens to injure downstream senior right holders, or the diversion creates a threat to human health and safety.

(0359999)

21. The State Water Board may supervise diversion and use of water under this temporary permit for the protection of lawful users of water and instream beneficial uses and for compliance with permit conditions. Permittee shall allow representatives of the State Water Board and other parties, as may be authorized

from time to time by the State Water Board, reasonable access to project works to determine compliance with the terms of this temporary permit.

(0480600)

22. This temporary permit is subject to California Water Code, Division 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.
- (0510800)
23. 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.
- (0000010)
24. 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.
- (0000203)
25. 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 & 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, 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.
- (0000014)
26. Board reserves jurisdiction over this 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.
- (0000080)
27. This permit is subject to prior rights. 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.
- (0000090)
28. No diversion is authorized by this permit when satisfaction of inbasin entitlements requires release of supplemental Project water by the Central Valley Project (CVP) or the State Water Project (SWP).
- a. Inbasin 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 inbasin 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 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 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.

(0000091)

29. No diversion is authorized by this permit under the following conditions: (1) when in order to maintain water quality in the San Joaquin River at Vernalis at a level of 500 parts per million (ppm) Total Dissolved Solids (TDS), the Bureau of Reclamation is releasing stored water from New Melones Reservoir or is curtailing the collection of water to storage, or (2) during any time of low flows when TDS levels at Vernalis exceed 500 ppm. These restrictions shall not apply when, in the judgment of the State Water Resources Control Board, curtailment of diversion under this permit will not be effective in lowering the TDS at Vernalis, or when in the absence of permittee's diversion, hydraulic continuity would not exist between permittee's point of diversion and Vernalis. The Board shall notify permittee at any time curtailment of diversion is required under this term.

(0000093)

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY:

Erik Ekdahl, Deputy Director
Division of Water Rights

Dated: JAN 29 2019