

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

DIVISION OF WATER RIGHTS

**IN THE MATTER OF LICENSE 1387 (APPLICATION 138)
PETITION FOR TEMPORARY CHANGE
INVOLVING THE TRANSFER OF UP TO 2,000 ACRE-FEET OF WATER
FROM CARMICHAEL WATER DISTRICT
TO STATE WATER CONTRACTOR AGENCIES**

SOURCE: American River

COUNTY: Sacramento

BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

1.0 SUBSTANCE OF PETITION

On May 1, 2020, Carmichael Water District (CWD or Petitioner) filed with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division) a petition for temporary change under Water Code section 1725, et seq. CWD requested to transfer up to 2,000 acre-feet (AF) of water under water right License 1387 (Application 138) from July 2020 through November 2020 to State Water Contractor (SWC) agencies participating in the State Water Project's (SWP) Dry Year Transfer Program. The SWC agencies that will use the water include Dudley Ridge Water District, Kern County Water Agency, Tulare Lake Basin Water Storage District, County of Kings, Palmdale Water District, and Alameda County Water Agency. Temporary changes approved pursuant to Water Code section 1725 may be effective until November 30, 2020.

1.1 Description of the Transfer

CWD proposes to transfer up to 2,000 AF of water under License 1387 (Application 138) to participating SWC agencies to provide additional water for domestic, municipal, industrial, and irrigation uses. This transfer is part of a multi-agency groundwater substitution transfer from the American River region. CWD is part of a multi-agency group of sellers (Sellers) that rely on the American River for their surface water supplies

that are concurrently petitioning the State Water Board in 2020.¹ To facilitate this transfer, CWD is requesting the following temporary changes to its License 1387: (1) the addition of the SWP's Harvey O. Banks Pumping Plant (Banks Pumping Plant) as a point of diversion; (2) the addition of San Luis Reservoir as a point of rediversion, (3) the addition of a portion of the service area of the SWP as an additional place of use, and (4) the addition of municipal and industrial uses. The groundwater substitution will involve the use of groundwater pumped by CWD and Fair Oaks Water District (FOWD) in exchange for reduced surface water diversions that will remain in the Lower American River for diversion at the proposed additional downstream point of diversion (Banks Pumping Plant). Absent the proposed temporary transfer, CWD would have diverted the entire quantity of surface water proposed for transfer from its points of diversion under License 1387.

1.2 Groundwater Substitution

Under a groundwater substitution transfer, surface water supply is made available for transfer as a result of the Petitioner reducing the amount of water it would have diverted under its surface water right and replacing those diversions with groundwater pumping. Depending on various factors including the distance of the groundwater well(s) from the surface stream, depth of the well(s), and local hydrogeologic conditions, the increase in groundwater pumped by the Petitioner to enable the transfer results in a reduction in the amount of water that would otherwise have accrued to the stream due to the interconnection of surface water and groundwater (streamflow depletion). Consequently, groundwater pumping for transfer operations will provide water at the expense of current and future streamflow.

Flow reduction in a river, stream, canal, or drain due to groundwater substitution transfers has the potential to injure other legal users of water if it occurs when the Delta is in balanced conditions² or there is limited streamflow in the channel from which the water is being transferred.

Proposals for transfers of water through Central Valley Project (CVP) and/or SWP facilities that involve groundwater substitution are developed to be consistent with the Draft Technical Information for Preparing Water Transfer Proposals (Draft Technical Information), dated December 2019 prepared by the Department of Water Resources

¹ The Sellers include CWD, the City of Sacramento, Fair Oaks Water District, Golden State Water Company, Sacramento County Water Agency, and Sacramento Suburban Water District. Collectively, the Sellers are proposing to transfer up to 18,500 AF, however only the City of Sacramento and CWD have filed petitions to transfer water pursuant to Water Code section 1725.

² The Delta is in balanced conditions when the SWP and CVP agree that releases from upstream reservoirs, plus unregulated flow, approximately equal water supply needed to meet Sacramento Valley in-basin uses and Project exports. During balanced conditions in the Delta when water must be withdrawn from storage to meet Sacramento Valley and Delta requirements, 75 percent of the responsibility to withdraw from storage is borne by the CVP and 25 percent by the SWP.

(DWR) and the U.S. Bureau of Reclamation (Reclamation). Depending on well location and associated impacts to surface water supply, DWR and Reclamation determine which wells are appropriate for groundwater substitution transfer use. The DWR and Reclamation well criteria used to evaluate groundwater substitution transfers is intended to minimize impacts to streamflow during balanced conditions in the Delta, and potential impacts to SWP and CVP operations.

CWD indicates that the proposed groundwater substitution transfer will be consistent with the Draft Technical Information. Previous technical analysis and review led by the Sacramento Groundwater Authority (SGA) showed an average streamflow depletion factor (SDF) of eight percent and DWR and Reclamation concurred that streamflow impacts resulting from groundwater pumping to replace transferred water would be eight percent for transfers in 2010, 2013, and 2018. Discussions subsequent to submittal of the petition for the 2020 transfer between DWR, State Water Board staff, and SGA have led to application of a 13 percent SDF to the 2020 transfer. To account for those impacts, CWD will only transfer 87 percent of the total quantity of groundwater pumped in exchange for the foregone surface water diversions.

The proposed transfer includes groundwater pumping by CWD and FOWD, which are both located within the North American Subbasin. The North American Subbasin is managed by the SGA. CWD indicates the proposed transfer is within historical pumping baselines and the safe yield as determined by SGA and consistent with the conjunctive management principles in SGA's Groundwater Management Plan (GMP).

Long-Term Impacts to Stream Flow from Groundwater Substitution Transfers

Depletion of surface stream flows due to groundwater pumping, including groundwater substitution transfers, has been a long-standing issue of concern in California. Part of the concern involves whether the streamflow depletion factors being used pursuant to groundwater substitution transfers are stringent enough to protect against long-term negative impacts to surface water flows.

Because real-time streamflow depletion due to groundwater pumping cannot be directly measured, DWR and Reclamation have estimated impacts on streamflow due to groundwater pumping by using analytical and numerical groundwater models.

DWR and Reclamation anticipate ongoing refinement of groundwater substitution transfer modeling will allow them to more accurately evaluate potential long and short-term surface water depletion impacts from individual transfers, and condition future transfers as necessary to protect against those impacts.

2.0 BACKGROUND

2.1 Substance of Carmichael Water District's License 1387

License 1387, issued on December 8, 1933, authorizes Carmichael Water District to divert 15 cubic feet per second (cfs) by direct diversion from the American River from January 1 to December 31 of each year. The authorized purposes of use under License 1387 are irrigation and domestic uses. The authorized points of diversion for License 1387 are in Sacramento County and are located in Zone 2 by CCS83 and described as a moveable point along the left and right banks of the American River between the limits as follows: Point A: North 1,992,287 feet and East 6,764,059 feet, being within SW $\frac{1}{4}$ of projected Section 14, T9N, R6E, MDB&M, and Point B: North 1,977,587 feet and East 6,753,859 feet, being within S $\frac{1}{2}$ of projected Section 33, T9N, R6E, MDB&M. The authorized place of use consists of 4,500 acres comprising the service area of Carmichael Irrigation District as shown on map filed with the State Water Board on December 21, 1964.

2.2 Proposed Temporary Changes

In order to facilitate the transfer, the following will be added to License 1387 (Application 138): 1) Banks Pumping Plant via the Clifton Court Forebay as a point of diversion, located within NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of projected Section 20, T1S, R4E, MDB&M; 2) San Luis Reservoir as a point of rediversion, located within SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of projected Section 15, T10S, R8E, MDB&M; 3) a portion of the SWP service area, as shown on Map 1878 – 1, 2, 3 and 4 filed with the Division under Application 5630, as an additional place of use; and 4) municipal and industrial purposes of use.

3.0 PUBLIC NOTICE AND COMMENT TO THE PROPOSED TEMPORARY CHANGE

On May 11, 2020, public notice of the petition for temporary change was provided by posting on the Division's website and via the State Water Board's electronic notification system (LYRIS). In addition, on May 7, 2020, the Petitioner noticed the project via publication in the Sacramento Bee newspaper. On May 6, 2020, the Petitioner mailed the notice via first class mail to a list of interested parties, provided by the State Water Board, which included downstream water diverters on the Lower American River between CWD and the confluence with the Sacramento River. The comment deadline was June 10, 2020. Comments were timely received from Reclamation, California Department of Fish and Wildlife (CDFW), DWR, and Central Delta Water Agency (CDWA).³

³ In its comments, CDWA stated that it was "unaware" of water right holders having been provided notice of the proposed transfer under the procedure set forth in Water Code section 1726, subdivision (d) and

3.1 Comments of Reclamation

By letter dated June 8, 2020, Reclamation commented on the proposed transfer. To protect Reclamation's water rights and operations for the American River, Reclamation requested information and that the transfer be conditioned as follows:

- An eight percent streamflow depletion factor was used to support a transfer of 600 AF by CWD in 2018. The proposed transfer of 2,000 AF is over three times the amount transferred by CWD in 2018; the combined total of 18,500 AF to be transferred is over 60 percent greater than the combined total for transfers from the Lower American River for 2018. Due to this significant increase in the amount of water to be transferred, Reclamation requests that CWD provide additional information (including recent modeling data) to support the continued use of an eight percent streamflow depletion factor.
- The proposed water transfer shall be carried out in compliance with all existing regulatory constraints in the Delta and shall cause no harm to other legal water users or impact on water quality.
- CWD's water transfer proposal shall not harm other groundwater pumpers in the North American Subbasin due to additional pumping for the transfer in that region.
- Transferable water may be credited only during balanced conditions in the Sacramento-San Joaquin River Delta.
- Before commencing the proposed transfer, the Petitioner shall submit groundwater monitoring and mitigation plans to DWR and Reclamation for evaluation and baseline pumping determinations.

Carmichael Water District Response:

CWD responded to Reclamation's comments in a letter dated June 16, 2020 and stated 1) the SAC IGSM regional groundwater model developed by SGA supports an eight percent SDF and 2) the proposed transfer will not will not cause harm to other legal water users or the environment and will comply with all regulatory criteria. CWD stated that the 2010 analysis using SAC IGSM modeled a 7.47 percent SDF with 16,000 AF of groundwater substitution transfer, which has been relied upon by DWR

requested that the timeline for processing the proposed transfer be adjusted to provide additional notice. However, CDWA did not name any water right holder(s) who will be affected by the transfer but did not receive notice. Given this lack of specific information provided by CDWA and the other forms of public notice, the State Water Board declines to adjust the timeline of the proposed transfer.

and Reclamation for prior transfers in the region. CWD also summarized a technical memorandum by stating that the model is still applicable to existing groundwater conditions.

State Water Board Response:

The eight percent SDF derived from SAC IGSM was based on analysis of three hypothetical transfer years, 1976, 1987, and 1994, with 16,000 AF of groundwater pumping occurring during the transfer year. For each of these scenarios, the effect of the groundwater pumping on stream losses was evaluated. The three years were chosen to represent the effects across different hydrologic year types. The cumulative stream losses that had occurred after a five-year period due to the groundwater pumping were calculated and compared against the 16,000 acre-feet of groundwater pumped to develop the percent of stream losses. The stream losses for each scenario were then averaged to arrive at a 7.47 percent SDF.

The Draft Technical Information relied upon by DWR and Reclamation to evaluate transfer proposals states that the minimum SDF applied to groundwater substitution transfers is 13 percent, unless new information indicates a substantial difference in local conditions that warrants a change in the SDF. The 13 percent is based on modeling using SACFEM2013 that was done to support Reclamation's Long-Term Water Transfers Environmental Impact Statement/Environmental Impact Report (Transfer EIS/EIR), published in October 2019. This modeling evaluated ten different transfer year scenarios and evaluated cumulative stream losses caused by the transfer for nine years after the transfer year. DWR and State Water Board staff asked SGA, who conducted the technical analysis for CWD related to SDF, to provide calculations of depletions accumulated over the same time period as Reclamation's using SAC IGSM output data. Following discussion between DWR, SGA, and State Water Board staff, SGA stated that 13 percent is an appropriate SDF for this transfer, given the challenges of using SAC IGSM to estimate SDF using the same methodology used for the Transfer EIS/EIR within the time available. Therefore, given the broader set of scenarios considered and consideration of ten years of accumulated depletions, the State Water Board finds that the Draft Technical Information relied upon by DWR and Reclamation more appropriately approximates SDF for the purposes of this transfer. The transfer is conditioned with a 13 percent SDF.

In order to avoid injury to Reclamation's and DWR's water rights, the transfer is also conditioned such that CWD's groundwater substitution proposal is subject to the evaluation and approval by Reclamation and DWR, consistent with the approval criteria of the Draft Technical Information.

3.2 Comments of CDFW

By letter dated June 1, 2020, CDFW commented on CWD's proposed temporary transfer. CDFW expressed concern over the potential direct and cumulative adverse impacts from changes in the quantity, timing, and duration of water transfers on the sensitive anadromous and/or resident fisheries within the Lower American River.

CDFW recommended close coordination with Reclamation and regulatory agencies in scheduling the release of transfer water from Folsom Reservoir to maximize cold water pool gains associated with a water transfer. CDFW also recommended optimizing releases to provide stable flows across summer and fall months at a targeted release rate that minimizes warming in Lake Natoma.

Additionally, CDFW shared concerns with proposed and future water transfers that have the potential to impact groundwater dependent ecosystems (GDEs). Water transfers made available by groundwater substitution have the potential to affect groundwater hydrology due to increased groundwater use. The Sustainable Groundwater Management Act (SGMA) requires Groundwater Sustainability Agencies (GSAs) to consider the interests of all beneficial uses and users of groundwater, including GDEs, during the development and implementation of Groundwater Sustainability Plans (GSPs).

Carmichael Water District Response:

CWD and the City of Sacramento (Sacramento) jointly responded to CDFW comments in a letter dated June 12, 2020. The response letter addressed two subject areas commented on by CDFW: matters concerning surface water resources and groundwater resources.

The petition states that the regional transfer, referring to the total amount of 18,500 proposed by the Sellers, will not affect storage levels or the cold-water pool in Folsom Reservoir because the transfer does not change the amount of water released from the reservoir. Absent the transfer, the same amount of water would have been delivered from the reservoir to Sacramento's and CWD's points of diversion downstream. The addition of 40 to 70 cfs to these flows would represent an increase over the five-year average flows of between 1.7 percent and 3.1 percent during the transfer period. Thus, the flow increases associated with the proposed transfer represent minimal increases compared to without-transfer conditions. CDW's response also stated that the groundwater deliveries and surface water supplies made available for transfer will be provided on a relatively regular pattern, rather than in block releases and that a steady-state release pattern is proposed for this transfer. In addition, Sacramento and CWD will coordinate with Reclamation on release rates from the reservoir in order to minimize any temperature- or flow-related impacts on the Lower American River.

In response to CDFW's concern regarding the eight percent SDF, Sacramento and CWD noted that the 13 percent factor stated in the DWR/Reclamation Draft Technical Information is based on large-scale Sacramento Valley-wide modeling that is not sufficiently site-specific to the American River and that the eight percent factor proposed for use in this transfer is based on site-specific modeling and analysis that SGA undertook in 2010.

CDW's response also stated that all wells will be operated within historical baseline pumping amounts as well as within the basin's respective safe yield amounts in accordance with the SGA's existing AB 3030 GMP, and anticipated requirements of the GSP under development. The wells used in the transfer will be certified and approved by DWR and Reclamation, and all pumping will be in accordance with the mitigation, monitoring, and reporting plans required pursuant to the water conveyance agreement with DWR. In addition, CDW noted that the water accounting framework (WAF) administered by SGA in the North American Subbasin accounts for the conjunctive use activities proposed by the transfer.

CWD has notified the SGA of the transfer as required, and SGA did not object to the proposed transfer. Thus, CWD has coordinated the proposed transfer with the SGA to ensure that any impacts on the basin are avoided. Consistent with the Sacramento County ordinance governing groundwater, the Sacramento County Water Agency has issued an export permit to CWD for the proposed transfer.

State Water Board Response:

The State Water Board agrees with CWD that the proposed groundwater substitution transfer would not affect storage levels or the cold-water pool in Folsom Reservoir, as the transfer would not change the amount of water released from the reservoir. Without the transfer, the same amount of water would have been delivered from the reservoir to CWD's points of direct diversion downstream of the reservoir. With the transfer, there would be a minimal flow increase along the Lower American River of between approximately 40 cfs and 70 cfs at the lowest diversion point used in the without-transfer scenario.

Additionally, the proposed groundwater deliveries and surface water supplies made available for transfer would be provided in a regular pattern, rather than via block releases. As CDFW noted in its comment letter, a stable, optimized flow from Folsom Reservoir, as proposed by this transfer, is preferable to block releases. Further, CWD must work with Reclamation to develop an agreement for release of water from the Folsom and Nimbus Dams into the Lower American River.

Groundwater substitution transfers are subject to compliance with the groundwater management requirements in the Draft Technical Information, applicable existing GMPs, and SGMA. SGMA requires GSAs to consider the interests of all beneficial uses and users of groundwater, including GDEs, during the development and implementation of GSPs pursuant to Water Code section 10723.2. The CWD transfer is coordinated with the SGA, which is the exclusive GSA covering the transfer area. The participating groundwater pumpers identified within this transfer petition are members of SGA and are party to a WAF for groundwater management by the organization. The State Water Board agrees that early coordination with GSAs will help determine whether water transfer activities in a basin have potential impacts on GDEs, and GSPs should consider these impacts in the development of sustainability goals, minimum thresholds, and measurable objectives for comprehensive sustainable management criteria. The State Water Board is monitoring the progress of development of GSPs and may further condition future groundwater sustainability transfers accordingly. Finally, the transfer is conditioned with a 13 percent SDF; additional discussion is available in section 3.1.

3.3 Comments of DWR

By letter dated June 9, 2020, DWR commented on CWD's proposed transfer. DWR noted a discrepancy in Table 1 – Groundwater Substitution and Surface Water Transfer Quantities by Seller, as written in the submitted petition for temporary transfer. DWR pointed out a 65 AF discrepancy in a calculation and asked CWD for an explanation regarding the amount of water pumped.

DWR also stated that it will be necessary for CWD to enter a conveyance agreement for the proposed temporary transfer. The conveyance agreement will include provisions related to groundwater substitution transfers that are consistent with the Draft Technical Information. DWR requested that the transfer be conditioned on CWD complying with all groundwater substitution transfer provisions contained in the conveyance agreement.

Lastly, DWR pointed out that CWD proposed using an eight percent streamflow depletion factor (SDF) for the proposed transfer, supported by a modeling analysis led by the SGA in 2010, but that some of the 2020 transfer wells were not part of the 2010 SGA analysis. To ensure that the 2010 analysis results are still applicable to the 2020 proposed transfer, DWR requested that CWD provide technical information to support its suggested SDF factor. DWR expressed its willingness to work with CWD to establish a suitable SDF for the 2020 transfer.

Carmichael Water District Response:

CWD responded to DWR's comments in a letter dated June 15, 2020. CWD stated that it will pump no more than 1,190 AF of groundwater in its service area. CWD also acknowledged the need to enter into and follow a conveyance agreement with DWR

and stated that it will comply with the requirements in the conveyance agreement. CWD also explained why it believes the regional groundwater model supports the eight percent stream depletion factor for the regional groundwater substitution transfer and CWD also provided information regarding the 2010 SAC IGSM modeling analysis conducted by SGA to evaluate SDF.

State Water Board Response:

Public notice for the proposed CWD transfer stated that an amount of up to 2,000 AF would be transferred. This amount was determined by Petitioner at the time of petition submittal and does not include the SDF. CWD's petition includes a table (Table 1 – Groundwater Substitution and Surface Water Transfer Quantities by Seller) showing a 1,190 AF of groundwater to be pumped by CWD and 810 AF pumped by FOWD to facilitate the transfer. CWD responded to DWR's comment stating it will pump 1,190 AF. The surface water portion of Table 1 shows that with the proposed eight percent SDF, CWD and FOWD will transfer a total of 1,840 AF (2,000 AF less the SDF).

The State Water Board response to Reclamation's comments regarding SDF is also applicable to DWR's comments. The transfer is conditioned to a 13 percent SDF. The conveyance agreement between DWR, Reclamation, and CWD will include provisions related to groundwater substitution transfers that are consistent with the Draft Technical Information. A condition will be included in the order to comply with the Draft Technical Information.

3.4 Comments of CDWA

By letter dated June 10, 2020, CDWA commented on CWD's proposed transfer. CDWA stated that it was not clear from the petition submitted by CWD how CWD would satisfy the requirements for groundwater substitution transfers set forth in Water Code section 1745.10.

CDWA asserted that CWD's petition was not in compliance with DWR and Reclamation requirements provided in the Draft Technical Information for multiple reasons. First, CWD's petition did not include monitoring or mitigation plans. Second, CWD failed to timely provide location and other information (including data on historic operations) for the proposed transfer wells, which precludes a determination of the amount of transferable water available. Third, CWD's petition utilized an eight percent SDF without providing an analysis supporting a deviation from the Draft Technical Information's minimum SDF of 13 percent.

CDWA stated that Water Code section 11460 (the Watershed Protection Act) and section 12204 (the Delta Protection Act of 1959) "expressly prohibit the export of water that is not surplus to the needs of the Delta or areas where the water originates."

CDWA further commented that CWD's petition did not demonstrate that the water proposed to be transferred was truly surplus and would not be needed to meet requirements in the Delta such as the State Water Board's Revised Water Right Decision 1641 (D-1641). CDWA also stated that Petitioner should demonstrate that the proposed transfer would not injure water right holders subject to Term 91.⁴ In addition, CDWA commented that an accurate analysis and quantification of losses is required to prevent injury to legal users of water. CDWA requested that this analysis include losses from the source of the transferred water to the export pumps, carriage losses, and losses from the export pumps to the ultimate places of use.

Finally, CDWA noted that a similar groundwater substitution transfer involving CWD occurred in 2018, and requested that the State Water Board explain how temporary transfers are distinguished from "long-term" transfers.

Carmichael Water District Response:

CWD and Sacramento jointly responded to CDWA's comments in a letter dated June 16, 2020.

First, CWD responded to CDWA's comments regarding compliance with Water Code section 1745.10, stating that its petition was consistent with the existing AB 3030 GMP. CWD then provided additional details regarding groundwater management.

CWD stated that all wells used for the proposed transfer would be operated within historical baseline pumping amounts and subbasin-specific safe yield amounts in accordance with the SGA's existing AB 3030 GMP. CWD stated that this pumping was also within safe yield amounts currently forecasted in the GSP being developed for the North American Subbasin. CWD informed the SGA, and the SGA did not object to the proposed transfer. In addition, CWD requested and received local approval for the proposed transfer from the Sacramento County Water Agency.

CWD also noted that the SGA administers a WAF for the North American Subbasin, agencies participating in the proposed transfer have banked over 200,000 AF of water through in-lieu banking, and Sacramento and CWD have transferrable balances in the WAF. CWD's response also indicated that over the past two decades, regional conjunctive use efforts have resulted in increasing groundwater levels in the North American Subbasin.

⁴ The State Water Board has included Term 91 in permits and licenses issued after August 16, 1978 that authorize the diversion of water within the Sacramento-San Joaquin River Delta watershed at a rate greater than one cubic foot per second or authorize the collection to storage within the Delta of more than 100 acre-feet of water per year. There are 115 active water right permits and licenses that include Term 91.

Second, CWD responded to CDWA's comments regarding monitoring and mitigation plans, historic well operations data, and SDF. As an initial matter, CWD noted that the Draft Technical Information requires a transfer proponent to submit significant technical information to DWR and Reclamation, which it has done. CWD stated that it has uploaded historic well data, baseline groundwater pumping data, and its monitoring and mitigation plans to DWR's transfer proposal database, known as WTIMS. CWD explained that all pumping will be done in accordance with these plans as well as reporting plans required by DWR as a condition of the conveyance agreement. CWD also stated that it began monitoring groundwater levels in March 2020 as suggested by the Draft Technical Information.

In response to CDWA's comments regarding SDF, CWD explained that a 2010 modeling analysis conducted by SGA with input from DWR and Reclamation showed an average stream depletion factor of 7.47 percent for a 16,000 AF groundwater substitution transfer. With DWR and Reclamation's agreement, an eight percent stream depletion factor was used in groundwater substitution transfers occurring in 2010, 2013, and 2018. CWD also stated that it has prepared a technical memorandum for DWR (which has been uploaded to WTIMS) demonstrating that an eight percent SDF is appropriate for the proposed transfer.

CWD concluded its response by stating that it would fully comply with all requirements of the Draft Technical Information.

State Water Board Response:

The proposed temporary transfer is for water that would have otherwise been diverted from the American River pursuant to CWD's license. By approving the transfer, additional water will flow down the American and Sacramento Rivers and the Delta. Absent the transfer, this water would not be available to meet temperature or other requirements such as those established by State Water Board Revised Water Right Decision 1641.

The State Water Board disagrees with CDWA's assertions that the Watershed Protection Act applies to the water that is the subject of the proposed transfer and that the proposed transfer would result in the export of non-surplus water from the Delta. Water Code section 11460 applies to DWR and Reclamation. (*State Water Resources Control Bd. Cases* (2006) 136 Cal.App.4th 674, 754.) Further, CDWA fails to explain how the proposed transfer would "deprive" the Delta of flows it would receive absent the transfer (Wat. Code, § 11460) or otherwise result in diminished flows to the Delta or to CVP or SWP operations compared to the without-transfer scenario. As discussed above, the proposed transfer would increase the flow of water to the Delta. In addition, the Delta Protection Act provides the State Water Board with discretion to "balance in-

Delta needs and export needs.” (*State Water Resources Control Bd. Cases, supra*, 136 Cal.App.4th at pp. 770-771, quotation marks and citation omitted.)

The State Water Board is supportive of transfers to provide water where it is needed. It is anticipated that the SWC agencies involved in this transfer will only receive 20 percent of their SWP allocation this year. The temporary change petition seeks to add municipal and industrial purposes of use.

CWD's diversion area is located on the Lower American River approximately 16 miles upstream from the confluence with the Sacramento River. The waterways from CWD's diversion area to the SWP project pumps are currently controlled by Term 91 which restricts diversions from streams tributary to the Sacramento-San Joaquin Delta and the Delta.

With the proposed temporary transfer, CWD would forego diversion of surface water and pump groundwater to meet its water needs. The amount of water available for transfer by CWD is determined by CWD's water rights and groundwater production with established beneficial use histories and system inerties that allow regional groundwater deliveries where necessary to facilitate the transfer.

The Draft Technical Information requires a conveyance agreement between CWD, DWR, and Reclamation, as the transferred water is non-project water being conveyed through SWP facilities. According to the Draft Technical Information, only that portion of the proposed transfer that is determined to represent new water to the system is transferable using SWP or CVP facilities.

DWR and Reclamation have a shared responsibility for meeting Delta water quality and environmental requirements. Appendix A of the Draft Technical Information addresses potential adverse effects of transfers on the SWP and CVP. If water transferred is not new water to the system, it will instead come out of the supply for SWP contractors. DWR's Draft Carriage Water Overview for Non-Project Water Transfers (Carriage Water Overview) dated October 2019 describes how DWR and Reclamation account for the losses of water as it is transferred from seller to buyer. The Carriage Water Overview provides a methodology for determining carriage losses through the Delta. The transfer proposed by CWD will be subject to this accounting as part of the conveyance agreement between CWD and DWR. Once the water has been conveyed through the Delta, the SWP is responsible for delivering the transferred quantities and making up any potential conveyance losses to the final place of use for the transfer.

The responses provided by the State Water Board to Reclamation's comments regarding the SDF are also applicable to CDWA's comments regarding SDF. The transfer is conditioned with a 13 percent SDF.

Water Code section 1728 defines temporary changes as those involving a change in point of diversion, place of use, or purpose of use for a period of one year or less. Water Code sections 1735 et seq. authorize the State Water Board to consider a petition for a long-term transfer of water or water rights involving a change of point of diversion, place of use, or purpose of use only for any period in excess of one year, and such transfers are subject to CEQA. Because the proposed 2020 water transfer is for a one-year duration or less, it does not meet the criteria for a long-term transfer pursuant to Water Code section 1735.

4.0 POTENTIAL CURTAILMENT

During any Notice of Water Unavailability (curtailment) period in 2020 that includes CWD's license, CWD will be required to cease all diversions under the license, including any diversions for temporary transfer, regardless of whether the actual diversion would be facilitated by DWR or other SWP facilities. A condition is therefore included in this Order that the transfer must cease should the State Water Board issue notification that water is unavailable for American River diversions that would apply to CWD's License 1387.

5.0 COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Water Code section 1729 exempts temporary changes involving a transfer of water from the requirements of CEQA. (Pub. Resources Code, § 21000, et seq.) The State Water Board will issue a Notice of Exemption for this project.

6.0 CRITERIA FOR APPROVING THE PROPOSED TEMPORARY CHANGES

Pursuant to Water Code section 1725, "a permittee or licensee may temporarily change the point of diversion, place of use, or purpose of use due to a transfer or exchange of water or water rights if the transfer would involve only the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of the proposed temporary change, would not injure any legal user of the water, and would not unreasonably affect fish, wildlife, or other instream beneficial uses." (Wat. Code, § 1725.)

The State Water Board shall approve a temporary change involving the transfer of water under Water Code section 1725 et seq., if it determines that a preponderance of the evidence shows both of the following:

- a. The proposed change would not injure any legal user of water, during any potential hydrologic condition that the State Water Board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of water, or reduction in return flows.
- b. The proposed change would not unreasonably affect fish, wildlife, or other instream beneficial uses.
(Wat. Code, § 1727, subd. (b).)

In addition, the proposed change must involve only the amount of water that would have been consumptively used or stored in the absence of the temporary change. (*Id.*, § 1726, subd.(e).)

Temporary changes pursuant to Water Code section 1725 may be effective for a period of up to one year from the date of approval. (Wat. Code, § 1728.) The one-year period does not include any time required for monitoring, reporting, or mitigation before or after the temporary change is carried out.” (*Ibid.*)

The State Water Board also has an independent obligation to consider the effect of the proposed project on public trust resources and to protect those resources where feasible. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419.) The State Water Board considers the evaluation of public trust resources as part of its evaluation of impacts to fish, wildlife, or other instream beneficial uses under Water Code section 1727, subdivision (b)(2).

7.0 REQUIRED FINDINGS OF FACT

7.1 Transfer Only Involves Water That Would Have Been Consumptively Used or Stored

Before approving a temporary change due to a transfer or exchange of water pursuant to Chapter 10.5 of Part 2 of Division 2 of the Water Code, the State Water Board must find that the transfer would only involve the amount of water that would have been consumptively used or stored by the right holders in the absence of the proposed temporary change or conserved pursuant to section 1011. (Wat. Code, §§ 1725, 1726.) Water Code section 1725 defines “consumptively used” to mean “the amount of water which has been consumed through use by evapotranspiration, has percolated underground, or has been otherwise removed from use in the downstream water supply as a result of direct diversion.” The water proposed for transfer consists of surface water made available through increased groundwater pumping.

To the extent that the additional groundwater pumped does not affect streamflow, this water represents water which would not be available for use in the downstream water supply. This Order limits the amount of water available for transfer to 87 percent of the groundwater pumped.

In light of the above, I find in accordance with Water Code section 1726, subdivision (e), that the water proposed for transfer pursuant to this Order would be consumptively used in the absence of the proposed temporary change.

7.2 No Injury to Other Legal Users of the Water

Before approving a temporary change due to a transfer or exchange of water, the State Water Board must find that the transfer would not injure any legal user of the water during any potential hydrologic condition that the State Water Board determines is likely to occur during the proposed change through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of the water, or reduction in return flows. (Wat. Code, § 1727, subd. (b)(1).) The water proposed for transfer consists of surface water made available through groundwater pumping. This transfer is conditioned with a 13 percent SDF. The transfer is also conditioned to require that CWD meet the requirements of the Draft Technical Information and enter a conveyance agreement with DWR and Reclamation to ensure the SWP and CVP will not be injured from the additional groundwater pumping associated with the transfer. The groundwater substitution conveyance agreement described in Section 1.2 of this Order includes mitigation and monitoring plans to address the impacts of additional groundwater pumping for this transfer. This Order requires compliance with these agreements and plans. In general, the transfer of water that would otherwise be consumptively used will not result in injury to other legal users of water.

Water Code section 1745.10 requires that groundwater substitution transfers be either “(a) Consistent with a groundwater management plan adopted pursuant to state law for the affected area” or “(b) Approved by the water supplier from whose service area the water is to be transferred and that water supplier, if a groundwater management plan has not been adopted, determines that the transfer will not create, or contribute to, conditions of long-term overdraft in the affected groundwater basin.” By letter dated April 29, 2020, CWD received a response from the SGA supporting the temporary transfer and stating that the transfer is consistent with its GMP.

In light of the above, I find in accordance with Water Code section 1727, subdivision (b)(1) that the proposed transfer will not injure any legal user of the water. I also find that the use of groundwater to replace surface water that is transferred pursuant to this Order meets the requirements of Water Code section 1745.10, subdivision (a).

7.3 No Unreasonable Effect on Fish, Wildlife, or Other Instream Beneficial Uses

Before approving a temporary change in order to facilitate a transfer of water, the State Water Board must find that the proposed change would not unreasonably affect fish, wildlife, or other instream beneficial uses. (Wat. Code, § 1727, subd. (b)(2).) The Petitioner provided CDFW and the Central Valley Regional Water Quality Control Board (Regional Board) with a copy of the petition in accordance with California Code of Regulations, title 23, section 794, subdivision (c). CDFW provided comments regarding proper basin management to avoid potential future impacts to GDEs resulting from groundwater substitution transfers, which is discussed in Section 3.2 of this order. The Regional Board did not provide any comments to the State Water Board regarding potential effects of the proposed changes on water quality, fish, wildlife, and other instream beneficial uses.

In general, North of Delta transfers result in an incremental increase in instream flows between the Petitioner's point of diversion and the location where the water is removed from the stream system. The increase in flows is not anticipated to be harmful to instream resources, provided that the transfer water does not cause instream temperatures to increase to harmful levels and also does not result in false fish attraction flows to streams not suited for fish rearing. No information is available that suggests the transfer flows will contribute to false fish attraction flows or significantly change stream temperatures or water quality. The transfer will be subject to Biological Opinions issued by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the federal Endangered Species Act and relevant court orders.

In light of the above, I find in accordance with Water Code section 1727, subdivision (b)(2) that the proposed transfer would not unreasonably affect fish, wildlife, or other instream beneficial uses.

8.0 STATE WATER BOARD'S DELEGATION OF AUTHORITY

On June 5, 2012, the State Water Board adopted Resolution 2012-0029, delegating to the Deputy Director for Water Rights the authority to act on petitions for temporary change if the State Water Board does not hold a hearing. This Order is adopted pursuant to the delegation of authority in Section 4.4.2 of Resolution 2012-0029.

9.0 CONCLUSIONS

The State Water Board has adequate information in its files to make the evaluation required by Water Code section 1727, and therefore I find as follows:

I conclude that, based on the available evidence:

1. The proposed transfer involves only an amount of water that would have been consumptively used or stored in the absence of the temporary change.
2. The proposed temporary change will not injure any legal user of the water.
3. The proposed temporary change will not have an unreasonable effect upon fish, wildlife, or other instream beneficial uses.
4. Any increase in groundwater pumping associated with this transfer (i.e., groundwater substitution) will be performed in compliance with Water Code section 1745.10.

ORDER

NOW, THEREFORE, IT IS ORDERED that the petition filed for temporary change for the transfer of up to 2,000 AF of water under License 1387 is approved.

All existing terms and conditions of License 1387 remain in effect, except as temporarily amended by the following provisions:

1. The transfer is limited to the period commencing on the date of this Order and continuing through November 30, 2020.
2. Municipal and industrial uses are temporarily added as purposes of use.
3. The transfer amount under License 1387 is limited to a total of up to 2,000 AF prior to subtracting streamflow depletion loss by groundwater substitution.
4. The Petitioner shall reduce its diversion rate at the original point of diversion authorized under License 1387 by an amount equal to the rate of additional groundwater pumped in order to make water available for transfer pursuant to this Order (both measured as a daily average). The amount of water transferred pursuant to this Order shall not exceed 87 percent of the rate of additional groundwater pumping. Accordingly, the maximum amount of water available for transfer given a 13 percent depletion rate is 1,740 AF.
5. Petitioner shall comply with all provisions contained in the groundwater substitution agreements pursuant to the Draft Technical Information, between DWR, Reclamation, and CWD as a condition of transferring water pursuant to this Order.

6. The authorized place of use under License 1387 is temporarily expanded to include the service areas of Dudley Ridge Water District, Kern County Water Agency, Tulare Lake Basin Water Storage District, County of Kings, Palmdale Water District, and Alameda County Water Agency, which are within a portion of the service area of the SWP (as shown on Map 1878 – 1, 2, 3, and 4 filed with the Division under Application 5630).

7. The following point of diversion is temporarily added to License 1387:

Harvey O. Banks Pumping Plant via the Clifton Court Forebay located as follows:

California Coordinate System, Zone 3, NAD 83,
North 2,126,440 feet and East 6,256,425 feet,
being within NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of projected Section 20, T1S, R4E, MDB&M.

8. The following point of rediversion is temporarily added to License 1387:

San Luis Reservoir located as follows:

California Coordinate System, Zone 3, NAD 83,
North 1,845,103 feet and East 6,393,569 feet,
being within SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of projected Section 15, T10S, R8E, MDB&M.

9. Diversion of water at Banks Pumping Plant is subject to compliance by the operators with the objectives currently required of DWR set forth in Tables 1, 2, and 3 on pages 181-187 of Revised Water Right Decision 1641 (D-1641), or any future State Water Board Order or decision implementing Bay-Delta water quality objectives at that point of diversion, including compliance with the various plans required under D-1641 as prerequisites for the use of the Banks Pumping Plant by DWR. Diversion of water is also subject to compliance by DWR with all applicable Biological Opinions and court Orders and any other conditions imposed by other regulatory agencies applicable to these operations.

Diversion of water at Banks Pumping Plant is also subject to compliance with any State Water Board Orders establishing temporary or interim operating conditions during the transfer period, except if the State Water Board has specifically exempted conveyance of transfer water from the Order.

10. During the period of transfer, Petitioner shall comply with applicable terms and conditions imposed by other regulatory agencies. This Order shall not be construed as authorizing the violation of any agreement entered into by the Petitioner.

11. The Petitioner shall comply with any applicable requirements of the groundwater sustainability plan adopted for the North American Subbasin, or related implementation actions of the plan, such as regulations, adopted by the Sacramento Groundwater Authority.
12. If at any time prior to, or during the period of the transfer, the State Water Board issues notification that water is unavailable for diversion pursuant to License 1387, the transfer shall immediately cease. No transfer credit shall accrue for groundwater substitution during a period of water unavailability.
13. Within 90 days of the completion of the transfer, CWD shall provide to the Deputy Director for Water Rights a report describing the transfer authorized by this Order. The report shall include the following information.
 - a. General locations where the transferred water was used;
 - b. The daily average rate of water made available for transfer pursuant to this Order;
 - c. The daily average diversion rate of water directly diverted pursuant to License 1387 during the transfer period;
 - d. The average daily streamflow measured at the nearest representative gaging station on the American River;
 - e. The daily average pumping rate of groundwater pumped by Licensee in excess of that which would have been pumped in the absence of this transfer; and
 - f. Groundwater elevations within the vicinity of the wells utilized for the transfer prior to the proposed transfer. Each monitoring well will be identified using the same numbering and naming convention as used in the Groundwater Sustainability Plan for the North American Subbasin. The methods and units used to measure groundwater elevations will be consistent with those utilized in the groundwater sustainability plan and related annual reports.
14. CWD shall develop and submit to the Deputy Director for Water Rights, by July 1 of each year following 2020, a map defining the groundwater elevations within the vicinity of CWD, until such time as these elevations correspond to pre-transfer levels. Each monitoring well will be identified using the same numbering and naming convention as used in the Groundwater Sustainability Plan for the North American Basin. The methods and units used to measure

groundwater elevations will be consistent with those utilized in the groundwater sustainability plan and related annual reports.

15. Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this temporary change Order, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the State Water Board also may be exercised by imposing specific requirements over and above those contained in this Order to minimize waste of water and to meet reasonable water requirements without unreasonable draft on the source.

16. This Order does not authorize any act which results in the taking of a 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 Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a "take" will result from any act authorized under this temporary transfer, the Petitioner shall obtain authorization for an incidental take permit prior to construction or operation. The Petitioner shall be responsible for meeting all requirements of the applicable Endangered Species Act for the temporary transfer authorized under this Order.

17. The State Water Board reserves jurisdiction to supervise the transfer, exchange, and use of water under this Order, and to coordinate or modify terms and conditions, for the protection of vested rights, fish, wildlife, instream beneficial uses, and the public interest as future conditions may warrant.

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY:

*Erik Ekdahl, Deputy Director
Division of Water Rights*

Dated: JUL 06 2020