

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

**DIVISION OF WATER RIGHTS**

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**IN THE MATTER OF LICENSE 1387 (APPLICATION 138)  
PETITION FOR TEMPORARY CHANGE  
INVOLVING THE TRANSFER OF UP TO 600 ACRE-FEET OF WATER FROM  
CARMICHAEL WATER DISTRICT  
TO STATE WATER CONTRACTOR AGENCIES**

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BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

**1.0 SUBSTANCE OF PETITION**

On May 11, 2018, the Carmichael Water District (Carmichael 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. Carmichael has requested to transfer up to 600 acre-feet (AF) of water to participating State Water Contractor (SWC) agencies, Dudley Ridge Water District, and Kern County Water Agency (hereinafter collectively referred to as SWC Agencies). Temporary changes approved pursuant to Water Code section 1725 may be effective for up to one year from the date of approval.

**1.1 Description of the Transfer**

Carmichael proposes to transfer up to 600 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. Carmichael is part of a six-agency group of sellers that rely on the American River for their surface water supplies, that are concurrently petitioning the State Water Board in 2018 (Sacramento Regional Transfer Petitioners). To facilitate this transfer, Carmichael is requesting the following temporary changes to its License 1387: (1) the addition of the State Water Project's (SWP) 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 Carmichael 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, Carmichael 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 conditions<sup>1</sup> 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 2015 prepared by the Department of Water Resources (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.

Carmichael indicates that the proposed groundwater substitution transfer will be consistent with the Draft Technical Information Analysis and review led by the Sacramento Groundwater Authority (SGA), which determined that a streamflow depletion factor of 8 percent may be used for the 2018 water transfer. DWR and Reclamation have concurred that streamflow impacts resulting from Carmichael's pumping to replace transferred water would be 8 percent. To account for those impacts, Carmichael proposes to only transfer 92 percent of the total quantity of groundwater pumped in exchange for the foregone surface water diversions.

Carmichael is located within the North American Groundwater Basin, which includes all of Sacramento County north of the American River. The North American Groundwater Basin is managed by the SGA, which is a joint powers authority created by Sacramento County and the cities of Citrus Heights, Folsom, and Sacramento, and is comprised of 14 local water purveyors, including Carmichael. Carmichael indicates the proposed transfer is 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 have based the overall impacts to streamflow on the agreed upon minimum 8 percent streamflow depletion factor for single year transfers requiring the use of SWP or CVP facilities.

DWR and Reclamation have indicated that to address continued concerns related to streamflow depletion, they have initiated development of a new modeling tool to more accurately estimate an appropriate streamflow depletion factor for individual transfer proposals. In addition, DWR and Reclamation have developed a Sacramento Valley Stream Flow Depletion Factor Management Group, composed of key stakeholders in the Sacramento Valley and the areas south and west of the Delta, to provide management and technical guidance to the groundwater modeling improvements being

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<sup>1</sup> The Delta is considered to be 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.

undertaken by DWR, Reclamation, and the State Water Contractors. 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's License**

License 1387, issued on December 18, 1933, authorizes Carmichael 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 use. The authorized points of diversion for License 1387 are in Sacramento County and are located in Zone 2 by CCS83; Point A: North 1,992,287 feet and East 6,764,059 feet, being within the 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 the 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 Maps 1878-2 and 1878-3 on file 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 21, 2018, public notice of the petition for temporary change was provided as follows: 1) via first class mail to interested parties; 2) by posting on the Division's website; 3) via the State Water Board's Lyris email notification program; and 4) by publication in the Sacramento Bee on May 21, 2018.

The State Water Board received timely comments regarding the proposed temporary change from the following: 1) California Department of Fish and Wildlife (CDFW); 2) Reclamation; and 3) Richard Morat. These comments and the State Water Board's responses are summarized below.

### **3.1 Comments of the Department of Fish and Wildlife (CDFW)**

On June 15, 2018, CDFW commented on Carmichael's proposed water 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 recommends close coordination with Reclamation and regulatory agencies in the scheduling the release timing of transfer water from Folsom to maximize cold-water pool gains associated with a water transfer. CDFW also recommends optimizing releases to provide stable flows across summer and fall months, at a targeted release rate that minimizes warming in Lake Natoma.

Additionally, the 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. SGMA requires GSA's to consider the interests of all beneficial uses and users of groundwater, including GDEs, during the development and implementation of Groundwater Sustainability Plans.

#### State Water Board Response:

San Juan Water District responded to CDFW's comments on behalf of the Sacramento water transfer petitioners in a letter dated June 20, 2018. In the response, the petitioners indicated that the proposed American River Basin regional groundwater substitution transfers would not affect storage levels or the cold water pool in Folsom Reservoir, since the transfers would not change the amount of water released from the reservoir. Absent the transfers, the same amount of water would have been delivered from the reservoir to points of direct diversion downstream of the reservoir. There would be a small flow increase along the Lower American River, compared to the without-transfer scenario; up to approximately 65 cfs at the confluence with the Sacramento River. During July, August and September in 2015, 2016 and 2017, flows in the Lower American River at Fair Oaks ranged from 750 cfs to 5,000 cfs. The addition of 65 cfs to this range of flows would have represented an increase of between 1.3 percent and 8.7 percent. The petitioners indicated that the flow increases associated with the proposed transfer represent minimal increases, compared to without-transfer conditions.

The petitioners also commented that the proposed groundwater deliveries and surface water supplies made available for transfer would be provided at a steady rate, rather than via pulse flows. As noted in the CDFW comment letter, a steady release rate from Folsom Reservoir is preferable to large fluctuations. The Sacramento Regional Transfer petitioners intend to work with Reclamation to develop an agreement.

Groundwater substitution transfers are subject to compliance with the groundwater management requirements in the Draft Technical Information, applicable existing Groundwater Management Plans, and the Sustainable Groundwater Management Act (SGMA), which is currently in the development and implementation phase. 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) pursuant to Water Code section 10723.2. Carmichael's transfer is coordinated with the Sacramento Groundwater Authority (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 Water Accounting Framework for sustainable groundwater management within the organization. The State Water Board agrees that early coordination with GSAs will help determine whether water transfer activities in a basin may 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. State Water Board is monitoring the progress of development of GSP's and may further condition future groundwater sustainability transfers accordingly.

### **3.2 Comments of Reclamation**

By letter dated June 19, 2018, Reclamation commented on Carmichael's proposed water transfer. To protect Reclamation's water rights and operations for the American River, Reclamation requested that the transfer be conditioned as follows:

- Carmichael Water District's water transfer proposal will not harm other groundwater pumpers in the North American Basin due to additional pumping for the transfer in that region.

- 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.
- Before commencing the proposed transfer, the Petitioner shall submit groundwater monitoring and mitigation plans to DWR and Reclamation for evaluation and baseline pumping determinations.
- Transferable water may be credited only during balanced conditions in the Sacramento-San Joaquin River Delta.

State Water Board Response:

In order to avoid injury to Reclamation's and DWR's water rights, the transfer is conditioned that Carmichael'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.

**3.3 Comments of Richard Morat**

On June 13, 2018, Richard Morat commented on Carmichael's proposed water transfer. Mr. Morat's comments were similar to those of CFDW, with the addition of concerns pertaining to cumulative and incremental adverse-to-fisheries impacts due to the number of through-Delta transfers that are occurring this year and are expected to occur in future years. Mr. Morat also recommended that conditions be ordered that contribute some amount of what would be exported and devoted to Delta outflow, and that future transfers should be prohibited until updates to the Bay-Delta Water Quality Control Plan are implemented. These conditions would be used to mitigate impacts associated with a south-of-Delta water transfer.

Carmichael Response:

In a letter dated June 20, 2018, the American River Petitioners responded that the water transfer petitions are consistent with California law that is supportive of voluntary transfers.

The Sacramento Regional Transfer Petitioners also indicated that the temporary water transfer will *add to*, not *reduce*, the amount of flow in the American and Sacramento Rivers and to the interior Delta. These additional flows also would occur within historical flow patterns for all portions of the system that would otherwise be present by virtue of releases by DWR, Reclamation, and other water right holders that will be made for environmental, consumptive, and other beneficial uses and legal requirements. The manner in which the proposed transfer will generate new, additional water that will flow through the system will be conditioned by the State Water Board, DWR, and Reclamation to avoid any impacts to fish or wildlife.

State Water Board Response:

The State Water Board is aware of challenges with regard to management of flows and maintaining habitat conditions suitable for protection of fish and wildlife in the Delta and its tributaries. Current outflow and water quality requirements are established by State Water Board Water Right Decision D-1641 and applicable Biological Opinions, which are the responsibility of DWR and Reclamation to fulfill during the entirety of this transfer. Additionally, the State Water Board is in the process of reviewing and revising the Bay-Delta Water Quality Control Plan (Bay-Delta Plan), including an effort that will include determination of flows protective of fish and wildlife in the Feather River and Sacramento-San Joaquin River Delta Estuary. The proposed changes to the Bay-Delta Plan include: new inflow requirements for the Sacramento River, its tributaries, and eastside tributaries to the Delta (the Mokelumne, Calaveras and Cosumnes Rivers); new and modified Delta outflow requirements; new requirements for cold water

habitat; new and modified interior Delta flow requirements; recommendations for complementary ecosystem protection actions that others should take; and adaptive management, monitoring, evaluation, special study, and reporting provisions.

The proposed temporary transfer by Carmichael is for water that would have otherwise been diverted pursuant to its license. By approving the transfer, additional water will flow down the American River and into the Delta. In light of the above explanation, it is not anticipated that this transfer will result in an unreasonable effect on fish and wildlife, or other instream beneficial uses.

#### **4.0 COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

Water Code section 1729 exempts temporary changes involving a transfer of water from the requirements of the California Environmental Quality Act. The State Water Board will issue a Notice of Exemption for this project.

#### **5.0 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).

## **6.0 REQUIRED FINDINGS OF FACT**

### **6.1 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. DWR and Reclamation have reviewed the proposed groundwater pumping and determined that 8 percent of the additional groundwater pumping will affect streamflow. This Order limits the amount of water available for transfer to 92 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.

### **6.2 No Injury to Other Legal Users of Water**

Before approving a temporary change due to a transfer or exchange of water pursuant to article 1 of Chapter 10.5 of Part 2 of Division 2 of the Water Code, 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 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).) DWR and Reclamation have reviewed the proposed transfer and determined that, with inclusion of the 8 percent streamflow depletion factor, as well as their oversight of the groundwater substitution operations described in Section 1.2 of the Order, 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 pumping for this transfer. This Order requires compliance with these plans.

In general, the transfer of water that would otherwise be stored or consumptively used will not result in injury to other legal users of water. In the absence of the transfer, Carmichael would not have pumped groundwater and would instead divert surface water to meet its irrigation demands.

Water Code section 1745.10 subdivision (a) requires that groundwater substitution transfers be (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.

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 transfer of surface water that is replaced with groundwater pursuant to this Order meets the requirement of Water Code section 1745.10 subdivision (a). That section requires groundwater use that is part of a groundwater substitution transfer to be consistent with a groundwater management plan adopted pursuant to state law for the affected area.

### **6.3 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 Groundwater Dependent Ecosystems 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 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. 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.

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.

### **7.0 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.

### **8.0 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 transfer of up to 600 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 July 1, 2018 through September 30, 2018.
2. The transfer under License 1387 is limited to a total of up to 552 AF (up to 600 AF prior to subtracting streamflow depletion loss) by groundwater substitution.
3. Carmichael shall reduce its direct diversion rate at the original points 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 92 percent of the rate of additional groundwater pumping.
4. The place of use under License 1387 is temporarily expanded to include a portion of the service area of the SWP as shown on Maps 1878-2 and 1878-3 on file with the Division under Application 5630. Water transferred pursuant to this order shall only be delivered to the following: 1) Dudley Ridge Water District; and 2) Kern County Water Agency.
5. The following point of diversion is temporarily added to License 1387:  
  
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 NW¼ of SE¼ of projected Section 20, T1S, R4E, MDB&M.
6. The following point of rediversion is temporarily added to License 1387:  
  
San Luis Reservoir located as follows: California Coordinate System, Zone 3, NAD83, North 1,845,103 feet and East 6,393,569 feet, being within SW¼ of SE¼ of projected Section 15, T10S, R8E, MDB&M.
7. Municipal and industrial uses are temporarily added as authorized purposes of use under License 1387.
8. Diversion of water at Banks Pumping Plant pursuant to this Order is subject to compliance by the SWP project operator with the objectives set forth in Tables 1, 2 and 3 on page 181 to 187 of State Water Board's Revised Decision 1641 (D-1641), or any future State Water Board order or decision implementing Bay-Delta water quality objectives at the 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 at the Banks Pumping Plant pursuant to this Order is subject to compliance by the pumping plant operator with all applicable biological opinions, court orders, and any other conditions imposed by other regulatory agencies applicable to these operations.

Diversion of water at the 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.

9. During the period of transfer, Petitioners 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 Petitioners.
10. 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.
11. Within 90 days of the completion of the transfer, Licensee 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 water is made available for transfer pursuant to this Order;
  - c. The daily average diversion rate for water 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 Carmichael prior to the proposed transfer.

Licensee shall also develop and submit to the Deputy Director for Water Rights, by July 1 of each year following 2018, a map defining the groundwater elevations within the vicinity of Carmichael, until such time as these elevations correspond to pre-transfer levels.

12. Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this transfer and 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.

13. 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 Petitioners shall obtain authorization for an incidental take permit prior to construction or operation. The Petitioners shall be responsible for meeting all requirements of the applicable Endangered Species Act for the temporary transfer authorized under this Order.

14. 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 09 2018