

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

DIVISION OF WATER RIGHTS

**In the Matter of Licenses 11395 and 11396
(Applications 16186 and 16187)**

Merced Irrigation District

**ORDER APPROVING TEMPORARY URGENCY CHANGES
INCLUDING TRANSFER OF WATER
AND INSTREAM FLOW DEDICATION
(WITH MODIFICATIONS DATED MAY 20, 2014)**

SOURCE: Merced River

COUNTY: Merced

BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

1.0 INTRODUCTION

On March 20, 2014 and April 8, 2014, Merced Irrigation District (MID) filed Temporary Urgency Change Petitions (TUCP) with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division) requesting approval of changes to MID's water right Licenses 11395 and 11396, pursuant to California Water Code sections 1435 and 1707. With the petitions, MID has requested the State Water Board approve temporary changes to water right Licenses 11395 and 11396 that will allow the transfer of up to 5,000 acre-feet (af) of water for instream flow dedication in the Merced River and eventual use of that water within the San Luis Water District (SLWD) and/or Santa Clara Valley Water District (SCVWD). The rediversion of water to SLWD and/or SCVWD will proceed consistent with the April 8, 2014 Central Valley Project (CVP) and State Water Project (SWP) Drought Operations Plan and the State Water Board's April 18, 2014 Order Modifying an Order that Approved a Temporary Urgency Change in License and Permit Terms and Conditions Requiring Compliance with Delta Water Quality Objectives in Response to Drought Conditions (SWP-CVP Order). MID has also requested temporary relaxation of both minimum bypass flow requirements in the Merced River and minimum pool requirements that will both facilitate the transfer as well as allow MID's customers to receive additional water during this critically dry water year in the San Joaquin Valley.

Pursuant to Water Code section 1440, temporary urgency changes can be effective for a maximum of 180 days from the date of the approved Order.

2.0 CALIFORNIA DROUGHT CONDITIONS IN 2014

2.1 Governor Brown's 2014 Drought Emergency Proclamation

In May 2013, due to near record-low precipitation, Governor Edmund G. Brown Jr. issued Executive Order B-21-13, which directed the State Water Board and the Department of Water Resources (DWR), to take immediate action to address dry conditions and water delivery limitations by expediting the review and processing of voluntary transfers of water. Calendar year 2013 was the driest in recorded history for many parts of California, and water year 2013/2014 rain totals are nearly as dry as the two driest water years (1923/1924 and 1976/1977) on record for the state. California is entering its third straight year of below-average rainfall including very low snowmelt runoff resulting in significantly low reservoir levels throughout the State at the beginning of this water year. The low initial storage and historically dry conditions experienced since January 2013 have resulted in significant reductions in water supplies in California and will likely lead to critical water shortages in 2014.

Therefore, on January 17, 2014, Governor Brown issued a Drought Emergency Proclamation based on California's record dry conditions. The Proclamation indicated that the State's water supplies dipped to alarming levels as evidenced by the snowpack measuring approximately 20 percent of the normal average for January. The SWP and CVP reservoirs had very low water levels for January. California's major river systems, including the Sacramento and San Joaquin rivers, had significantly reduced surface water flow. Also, groundwater levels throughout the State had dropped significantly. With the Proclamation, the Governor directed the State Water Board to in part expedite processing of water transfers as previously called for in Executive Order B-21-13.

The Executive Order directs the State Water Board and DWR to expedite processing of water transfers (in accordance with the Water Code) and to assist water transfer proponents and suppliers, as necessary, provided that the transfers will not harm other legal users of water and will not unreasonably affect fish, wildlife, or other instream beneficial uses. The State Water Board and DWR were also directed to make all efforts to coordinate with relevant federal agencies, water districts, and water agencies to expedite the review and approval of water transfers in California.

2.2 Current Hydrologic Conditions in the San Joaquin River Basin

DWR's Bulletin 120 publication for April 1, 2014, Water Supply Conditions in California, identifies that for the San Joaquin River Basin, Water Year 2014 is preliminarily classified as a critical year type according to the San Joaquin Valley Water Year Type Index (60-20-20). In addition, Bulletin 120 indicates that the forecasted unimpaired runoff into Lake McClure at a 90 percent exceedance is 130,000 af during April through July, as compared with an average runoff of 636,000 af from April through July; and for the entire 2014 Water Year, the forecast at a 90 percent exceedance is 185,000 af, as compared with an average water year runoff of 1,007,000 af. At a 50 percent exceedance, the unimpaired runoff forecast during April through July is 185,000 af, or 29 percent of the average runoff from April through July; and the 50 percent exceedance forecast for the 2014 Water Year is currently 240,000 af, or 24 percent of average at a 50 percent exceedance.

The dry forecasts identified above are consistent with precipitation levels at New Exchequer Dam which, as of April 14, 2014, was a total of 6.88 inches for the water year of October through March, which is 43 percent of the average total of 16.00 inches for October through March. In addition,

water storage levels are extremely low in MID's Lake McClure, where the reservoir is currently at 235,400 af or 23 percent of capacity as of March 31, 2014. Absent significant changes in hydrology, 2014 is on track to become one of the driest years in recorded history in California and in particular in the San Joaquin Valley.

3.0 BACKGROUND

3.1 Substance of License 11395

License 11395 was issued to MID on August 15, 1983, pursuant to Application 16186, which has a priority date of December 23, 1954, and the license was subsequently amended on June 20, 2003. License 11395 allows diversion to storage of up to 605,000 af of water per annum from the Merced River from October 1 of each year to July 1 of the succeeding year. The points of diversion under the license are New Exchequer Dam (Lake McClure) and McSwain Dam. McSwain Dam is also a point of rediversion. There are also three other downstream points of rediversion: 1) Merced Falls Diversion Dam for Northside Canal; 2) Crocker-Huffman Diversion Dam for Main Canal, Trout Farm and Salmon Spawning Channel; and 3) Duck Slough. The water may be used for the following purposes: irrigation, domestic, recreational, fish and wildlife protection and enhancement, and fish culture.

License 11395 allows the following: irrigation of 131,953 acres within a gross area of 154,394 acres within the boundaries of MID and a 55-acre golf course with the service area of Sierra Highlands Water Company; domestic use at home sites within the service area of Sierra Highlands Water Company and at home sites and recreational facilities adjacent to Lake McSwain and Lake McClure including McClure Point, McClure Boat Club and Barrett Cove; fish culture at MID's salmon spawning channel and at a privately operated trout farm; recreational use and fish and wildlife enhancement in and around lakes McClure and McSwain; domestic use in 2,010 acres of South Shore Club, an area within the Lake San Pedro Community Services District; and irrigation purposes on 9,418.6 acres within the boundaries of El Nido Irrigation District.

3.2 Substance of License 11396

License 11396 was issued to MID on August 15, 1983, pursuant to Application 16187, which has a priority date of December 23, 1954. License 11396 allows diversion of water from the Merced River as follows: direct diversion of up to 1,736 cubic feet per second (cfs) from January 1 to December 31 of each year; and diversion to storage of up to 605,000 af per annum from October 1 of each year to July 1 of the succeeding year. The points of diversion under the license are New Exchequer Dam (Lake McClure) and McSwain Dam. McSwain Dam is also a point of rediversion. The water can be used for hydropower generation at Exchequer Power Plant and McSwain Power Plant.

3.3 MID and California Department of Fish and Wildlife (CDFW) 1959 Agreement

Licenses 11395 and 11396 also both include the following term, which MID seeks to modify pursuant to the TUCPs:

This license is subject to the terms of provisions 1, 2, 3, and 4 of the stipulation and agreement between Merced Irrigation District and California Department of Fish and Game (now CDFW), dated October 8, 1959, as received into evidence as Fish and Game Exhibit 1 in the hearing of Applications 16186 and 16187.

Provisions 1-4 of the CDFW 1959 Agreement are as follows:

- I. ...for the protection, propagation and preservation of fish and wildlife and in partial compensation for the loss by inundation of valuable spawning beds and large natural trout, salmon, and warm water fisheries above the respective dam sites caused by the construction of said dams and the formation of reservoirs behind said dams, MID shall at all times bypass into the natural stream bed of the Merced River immediately below Bagby Dam a minimum flow of 20 cfs whenever more than ¼ mile of stream is exposed by lowering the water level of Exchequer Reservoir.
- II. ...for the protection, propagation, and preservation of fish and wildlife, MID shall bypass or release into the natural stream bed of the Merced River immediately below MID’s Exchequer Dam, except in emergencies or unless otherwise provided, a minimum flow of 50 cfs at all times during non-dry years and 25 cfs during dry years; provided that during the period October 16 through December 31 of each year, all releases from Exchequer Dam shall be made insofar as possible from a center line elevation of 485 feet or lower.

For the purposes of this agreement, a dry year is defined as any twelve-month period following a forecast in the April 1 bulletin of the California Department of Water Resources, and adjusted in accordance with the May 1 bulletin, in which the unimpaired runoff for the station at Exchequer is less than 450,000 af for the period April 1 through July 31.

An emergency is defined as an occurrence, usually of short duration, such as a flood condition, a mechanical or other operational failure beyond control of MID, which would prevent compliance with flow and operational terms matter of this agreement.

- III. ...for the protection, propagation and preservation of fish and wildlife, District shall bypass or release into the natural stream bed of the Merced River immediately below MID’s Snelling Dam during the periods hereinafter specified sufficient water to maintain the following minimum flows at Shaffer Bridge (Montpellier Road crossing about five miles upstream from Cressey):

(1)

Period	Non-Dry Year (cfs)	Dry Year (As Defined Herein) (cfs)
June 1 through October 15	25	15
October 16 through October 31	75	60
November 1 through December 31	100	75
January 1 through May 31	75	60

- (2) Flows below Snelling Dam shall not be increased by more than double or reduced by more than ½ in any one-hour period.

- IV. MID shall maintain the water surface elevation in its reservoirs as high as possible, consistent with operational demands throughout the period April through October each year, and shall maintain minimum pools of the following capacities for operation of the project and maintenance of fish and wildlife:

Bagby Reservoir	30,000 af
Exchequer Reservoir	115,000 af
Snelling Reservoir	20,000 af

3.4 Water Supply within MID for 2014

MID has indicated that its average annual diversions from the Merced River during the past five years, 2009 through 2013, were approximately 437,000 af. These diversions are delivered through the MID’s North Side Canal and Main Canal. The volume of surface water currently held in Lake McClure above the requested reduced minimum pool requirement is approximately 143,900 af, or 33% of MID’s average annual diversions. However, not all of this water is available for use by MID’s growers.

Based on the current forecasts and available storage in Lake McClure, MID staff estimate 0.6 feet of water per acre may be delivered to its customers during a significantly shortened irrigation season, which will result in a hardship for MID growers and the community. This initial allocation estimate accounts for the additional water supplies necessary to meet MID’s existing obligations and commitments, such as for instream flows, the Cowell Agreement Diversifiers, the Stevinson Water District, and the Merced National Wildlife Refuge. Since commitments for these purposes are primarily set at a flow rate with little or no adjustment for dry years, most of the available water currently held in storage within Lake McClure will be necessary to meet these purposes. MID has estimated that the remaining water available for its customers is approximately 62,000 af, which is not enough to sustain the large acreage of permanent crops within their service area. MID reports that in 2013, there were approximately 35,000 acres of almonds and 8,000 acres planted with 21 varieties of other nut and fruit trees, including vineyards, receiving surface water from MID.

3.5 Merced River Fishery Conditions

In drought years, there is a reach of the Merced River between New Exchequer and Crocker-Huffman Dams where warming of water released from Lake McClure occurs before it reaches downstream Crocker-Huffman Dam. CDFW anticipates that water temperatures in the Merced River below Crocker-Huffman Dam in 2014 will be excessively warm this spring and summer. These excessive temperatures are expected to cause high mortality rates for juvenile salmon and steelhead downstream of Crocker-Huffman Dam and have already been directly associated with recently experienced elevated mortality of juvenile salmon at CDFW’s Merced River Hatchery.

4.0 SUBSTANCE OF TEMPORARY URGENCY CHANGE PETITIONS

MID filed the TUCPs for water right Licenses 11395 and 11396 in order to optimize beneficial use of the limited amount of water available this year in their service area, as well as provide important flows necessary for fish survival in the Merced River during this critically water short year. In order

to accomplish these goals, MID has had to request modification to minimum bypass flows and minimum pool requirements pursuant to the CDFW 1959 Agreement that is incorporated into Licenses 11395 and 11396. MID anticipates that the proposed reductions in temporary minimum instream flow and minimum pool would provide multiple benefits including:

- MID will be able to provide a pulse flow of up to 5,000 af during April 2014 that would lower the temperature and provide the necessary flow in the Merced River to trigger Chinook salmon out-migration from the Merced River and downstream through the San Joaquin River to the Delta.
- Resident rainbow trout populations will benefit from increased flows in the Merced River due to an extension to MID's irrigation season.
- A supplemental water supply of 5,000 af will be provided to San Luis Water District and/or Santa Clara Valley Water District during this drought year.
- Assist in supporting releases for MID's existing obligations and commitments.
- Provide for continued diversions to meet the water needs of MID's customers.

The specific changes requested under the TUCPs are as follows:

A. Proposed changes to only License 11395:

- 1) A temporary release of up to 5,000 af of water from New Exchequer Dam for instream flow dedication to provide a pulse flow for Chinook salmon out-migration in the Merced River during April 2014;
- 2) Add DWR's SWP Harvey O. Banks Pumping Plant (Banks Pumping Plant) and San Luis Reservoir as additional points of rediversion for the purpose of rediverting the pulse flow; and
- 3) Add the service area of the U.S. Bureau of Reclamation's (Reclamation) CVP as an additional place of use.

B. Proposed changes to both Licenses 11395 and 11396:

- 1) Change MID's April and May compliance obligation at Shaffer Bridge to be 60 cfs daily average flow, rather than 60 cfs instantaneous flow (with an instantaneous flow of not less than 40 cfs at Shaffer Bridge during this two-month period); and
- 2) Reduction in the minimum pool requirement for Lake McClure from 115,000 af to 85,000 af.

MID indicates that the surface water proposed to be made available through releases from Lake McClure (New Exchequer Dam) by MID for the proposed temporary instream flow dedication, water transfer, and extended irrigation season would have been held in storage absent the proposed changes. Releases from Lake McClure would be increased during the change as compared with the condition absent the change.

5.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

On April 16, 2014, the MID Board approved a Notice of Exemption (NOE) for changes proposed under the TUCPs. MID indicated that for the Merced River watershed, the impacts associated with the drought of 2014 may surpass the impacts that were witnessed in 1977. Carryover storage in Lake McClure is already at near record low levels because of the dry conditions in 2012 and 2013, and Lake McClure is anticipated to reach minimum pool in mid to late July. This has only happened four times since the construction of New Exchequer Dam in 1967. MID indicated that such drastic water shortages will have significant impacts for the people of Merced County.

Previously, because of the concern about the limited water supplies, and in order to encourage water conservation and efficiency, on February 4, 2014, the MID Board adopted a resolution declaring a local emergency. MID has indicated that the current conditions pose an increasingly imminent threat to health and human safety in Merced and Mariposa Counties. In addition, if water storage is not conserved then water will not be available to provide to fish and other species or their habitats in the Merced River. MID indicated that catastrophic impacts to agriculture within MID and in Merced County are likely to be seen this year, which could be especially devastating for permanent crops and livestock. This threat will continue to grow as dry conditions continue or intensify through the following months.

The State Water Board has considered the environmental documentation and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment. The State Water Board has also considered its public trust responsibilities. The State Water Board will file a NOE within five days from the issuance of an order.

6.0 PROCEDURAL REQUIREMENTS CONCERNING THE TEMPORARY URGENCY CHANGE PETITIONS

The State Water Board may issue a temporary urgency change order in advance of public notice. (Wat. Code, § 1438, subd. (a).) Public notice must be provided as soon as practicable, unless the change will be in effect less than 10 days. (*Id.*, § 1438, subds. (a), (b) & (c).) Any interested person may file an objection to a temporary urgency change. (*Id.*, subd. (d).) The Board must promptly consider and may hold a hearing on any objection. (*Id.*, subd. (e).) State Water Board Resolution 2012-0029 delegates to the Board Members individually and to the Executive Director the authority to hold a hearing, if necessary, and act on a temporary urgency change petition. (Resolution 2012-0029, ¶¶ 2.2, 4.4.1.)⁴

The State Water Board will issue and deliver to MID as soon as practicable, a notice of the temporary urgency change petitions pursuant to Water Code section 1438, subdivision (a). Petitioners will be required to publish the notice in newspapers in accordance with Water Code section 1438, subdivision (b)(1). The State Water Board will post the notice of the temporary urgency changes and the TUCPs (and accompanying materials) on its website. The State Water Board also will distribute the notice through an electronic notification system.

7.0 REQUIRED FINDINGS OF FACT

Water Code section 1435 provides that a permittee or licensee who has an urgent need to change the point of diversion, place of use, or purpose of use from that specified in the permit or license may petition for a conditional temporary change order. The State Water Board's regulations set forth the filing and other procedural requirements applicable to TUCPs. (Cal. Code Regs., tit. 23, §§ 805, 806.) The State Water Board's regulations also clarify that requests for changes to permits or licenses other than changes in point of diversion, place of use, or purpose of use may be filed, subject to the same filing and procedural requirements that apply to changes in point of diversion, place of use, or purpose of use. (*Id.*, § 791, subd. (e).)

Before approving a temporary urgency change, the State Water Board must make the following findings:

1. the permittee or licensee has an urgent need to make the proposed change;
2. the proposed change may be made without injury to any other lawful user of water;
3. the proposed change may be made without unreasonable effect upon fish, wildlife, or other instream beneficial uses; and
4. the proposed change is in the public interest.

(Wat. Code, § 1435, subd. (b)(1-4).)

As part of its TUCP for License 11395, MID is proposing to dedicate up to 5,000 af of water for instream flow dedication water pursuant to Water Code section 1707. Before approving MID's petition, the State Water Board must also make the following findings under Water Code section 1707:

- a. The proposed change will not increase the amount of water MID is entitled to use.
- b. The proposed change will not unreasonably affect any legal user of water.
- c. The proposed change otherwise meets the requirements of division 2 (commencing with section 1000) of the Water Code.

The State Water Board exercises continuing supervision over temporary urgency change orders and may modify or revoke temporary urgency change orders at any time. (Wat. Code, §§ 1439, 1440.) Temporary urgency change orders expire automatically 180 days after issuance, unless they are revoked or an earlier expiration date is specified. (*Id.*, § 1440.) The State Water Board may renew temporary urgency change orders for a period not to exceed 180 days. (*Id.*, § 1441.)

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 1435, subdivision (b)(3).

7.1 Urgency of the Proposed Changes

Under Water Code section 1435, subdivision (c), an "urgent need" means "the existence of circumstances from which the board may in its judgment conclude that the proposed temporary change is necessary to further the constitutional policy that the water resources of the state be

put to beneficial use to the fullest extent of which they are capable and that waste of water be prevented”

Based on existing forecasts, Lake McClure will reach its minimum pool of 115,000 af unless inflows exceed 400,000 af total for this water year. Current water surveys by DWR show that Lake McClure’s 90 percent exceedance forecast is 140,000 af¹. Under these critically dry conditions, using the existing 90 percent exceedance, MID will be prohibited from obtaining water from reservoir storage for delivery to its customers as early as the first half of August due to the minimum pool requirement.

MID states that addressing the immediate needs of the Merced River fishery is an urgent condition. Given the current storage levels in Lake McClure, the water temperature of the Merced River at Shaffer Bridge will become unsuitable for rearing and out-migrating juvenile Chinook salmon in the end of March and may be potentially fatal in April. Therefore, it is important to provide a pulse flow to trigger out-migration of Chinook salmon to the cooler temperatures of the Delta. Without the temporary urgency changes to Licenses 11395 and 11396, the required approval would not be obtained in time to provide a pulse flow at the most advantageous timing for the fishery, which is to be released as soon as possible at the appropriate period determined by CDFW and NMFS. Further, by allowing McClure Reservoir to be drawn down the additional 30,000 af as requested with the petitions, MID indicates it will be able to extend its 2014 irrigation season by at least two weeks, allowing additional flow in the Merced River from the dam downstream to its diversion location on the Merced River, which will be beneficial to the fishery this summer.

The proposed changes are necessary to address and help mitigate severe drought conditions and impacts that will be experienced because of the lack of water supplies. An urgent need for the temporary changes exists in order to conserve critical storage in Lake McClure for use by MID customers this year to assist in meeting critical water supply needs, as well as to provide additional supplies for local wildlife refuges and in-stream flows in the Merced River for fish species and habitat. The temporary changes requested will help MID address and react to the extreme dry conditions in the region, and to mitigate the severe impacts that MID and its customers, as well as the species in the Merced River, will experience this year because of the water shortages caused by the drought. Further, once the pulse flow has served its instream purpose in the Merced River, its subsequent rediversion and sale will provide a critical supplemental supply for SLWD and/or SCVWD, both of which are in need of surface water supplies during the current drought conditions.

7.2 No Injury to Any Other Lawful User of Water

Instream flow dedication:

The surface water to be made available by MID for the proposed temporary instream dedication and water transfer through releases from Lake McClure would have been held in storage absent approval of the proposed change. Releases from Lake McClure would be increased during the proposed change as compared with the condition absent the change. The proposed instream dedication and transfer involves refill of the reservoir, which normally occurs during periods of high runoff. This Order requires MID to obtain refill criteria with the DWR and Reclamation to assure no adverse impact occurs to downstream water right holders, including the SWP and CVP. Further, SLVD and/or SCVWD will coordinate with DWR for rediversion of

¹ Based on the April 8, 2014 DWR forecast.

the pulse flow at Banks Pumping Plant, which will be carried out consistent with the April 8, 2014 CVP and SWP Drought Operations Plan and the State Water Board's April 18, 2014 SWP-CVP Order.

The proposed releases identified in the petition are in addition to MID's existing downstream requirements and commitments. Thus, there will be no adverse downstream effects and there will be no injury to other legal water users, water quality, or return flows. The increased flows resulting from the transfer will result in instream benefits downstream of MID's existing points of diversion during the period of the releases.

MID's petition does not request any changes in the diversion of water to storage. MID has only requested changes in the place of use upon release from storage.

Relaxation of minimum stream flow and minimum pool requirements:

The proposed change to MID's April and May compliance obligation at Shaffer Bridge to 60 cfs daily average flow, rather than 60 cfs instantaneous flow (with an instantaneous flow of not less than 40 cfs at Shaffer Bridge during this two-month period) will have minimal affect to any lawful user of water. The point of compliance at Shaffer Bridge is approximately 23 miles downstream from the original point of release at McSwain Dam (a 9,000 af afterbay to New Exchequer Dam). Diversions through this 23-mile reach can result in fluctuations of Merced River flows, and as a result, MID has to release excess flow to meet the compliance flows. The proposed change for MID to maintain 60 cfs daily average flow will allow MID to manage flows at the compliance point with greater flexibility. MID will commit to an instantaneous flow of not less than 40 cfs at the compliance point during this two-month period which will ensure there will be no injury to others.

The surface water proposed to be made available to MID by the temporary reduction in minimum pool requirement from 115,000 AF to 85,000 af would have been held in storage absent approval of the proposed change. Releases from Lake McClure would be increased during the proposed change as compared with the condition absent the change. Thus, there will be no adverse downstream effects and there will be no injury to other legal water users, water quality, or return flows. The extended irrigation season will allow for increased flows and result in instream benefits downstream. Accordingly, granting these TUCPs will not result in any injury to any other lawful users of water.

Conclusion:

In light of the above, I find in accordance with Water Code section 1435, subdivision (b)(2) that the proposed changes may be made without injury to any other lawful user of water, and I find that in accordance with Water Code section 1707 subdivision (b)(1) that the proposed instream flow dedication will not increase the amount of water that MID is entitled to use. Pursuant to Water Code section 1439, the State Water Board shall supervise diversion and use of water under this temporary change order for the protection of all other lawful users of water and instream beneficial uses.

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

The requested temporary urgency changes for reduced instream flow and minimum pool requirements under MID's Licenses 11395 and 11396 will benefit fish and wildlife in the Merced River. MID is currently coordinating with CDFW and DWR to assess possible effects of a lower minimum pool requirement on fish and wildlife in the Merced River. MID, together with input from CDFW and DWR, completed temperature and flow model simulated runs with the base case and with a lower minimum pool and proposed additional instream flow to assess any impact on both Chinook salmon and resident rainbow trout populations in the Merced River.

Chinook Salmon

The modeling showed that the water temperature of the Merced River at Shaffer Bridge under base flows starts to become unsuitable for rearing and out-migrating juvenile Chinook salmon in the end of March and is potentially fatal in early April. With the reduced minimum pool alone, water temperatures in the Merced River downstream of New Exchequer Dam would not improve. Thus, to benefit fish and wildlife in the Merced River, MID proposes the addition of a pulse flow for release under License 11395 at the timing and direction of CDFW and NMFS. The pulse flow would lower the water temperature in the Merced River and could trigger Chinook salmon out-migration.

Rainbow Trout

MID modeled this year's potential Merced River water temperature conditions in the area inhabited by rainbow trout populations, which mainly extends between Merced Falls and Snelling. Generally, water temperatures through the primary areas are governed by the duration of MID's irrigation season. Taking into account the requested modification to the minimum pool requirement and proposed pulse flow, MID may be able to extend its irrigation season. As requested by CDFW, MID completed a daily time step model to analyze these conditions. The results of this study show anticipated temperatures at Crocker-Huffman Diversion Dam (a key location where trout are expected to congregate this year). With the extended season, temperatures at Crocker-Huffman Diversion Dam are reduced by up to approximately 7°F when MID makes flow releases to be rediverted during the irrigation season. This temperature reduction during June and July would likely make an appreciable difference for trout habitat. Following the irrigation season, the depth of the pool of water in Lake McClure will govern the water temperature of the Merced River. The reduced minimum pool will result in warmer stream temperatures after MID ends its irrigation season, but for a lesser extent – between approximately 0.1°F and 0.8°F. This analysis shows that extending MID's irrigation season is vital to the health of this trout population during 2014.

The requested temporary urgency change for instream flow dedication and water transfer will benefit fish and wildlife in the Merced River. As noted previously, the rediversion of water at Banks Pumping Plant for delivery to SLWD and/or SCVWD will be conditioned to be consistent with the April 8, 2014 CVP and SWP Drought Operations Plan and the State Water Board's April 18, 2014 SWP-CVP Order. The Drought Operations Plan and SWP-CVP Order set certain standards protective of fisheries in the Delta.

MID is currently coordinating with CDFW and DWR to assess possible effects of a lower minimum pool requirement on fish and wildlife in the Merced River. MID, together with input from CDFW and DWR, completed temperature and flow model simulated runs with the base case and with a lower minimum pool and proposed additional instream flow to assess any impact on both Chinook salmon and resident rainbow trout populations in the Merced River.

CDFW has provided several memos offering their concurrence with MID's proposed pulse flow release and of extending the irrigation season thereby providing increased flows in the Merced River this summer. To facilitate the April pulse flow and extended irrigation season, CDFW has agreed, with conditions included in this order, to MID's proposal to reduce the minimum instream flow and minimum pool requirements pursuant to the CDFW 1959 Agreement.

National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) have also reviewed and commented on MID's changes as proposed with the TUCPs. NMFS indicated their concern that the request to relax minimum flow and minimum pool requirements could impact threatened Central Valley (CCV) steelhead designated population season (DPS) and their designated critical habitat downstream of Crocker-Huffman Diversion Dam and may adversely affect the essential fish habitat of Pacific salmon. NMFS also acknowledges that there are potential benefits to Merced River fisheries from the proposed spring pulse flow and extended irrigation season. In order to minimize potential negative impacts to anadromous fish and their habitat, NMFS and USFWS provided recommendations regarding operation and management of the proposed changes by MID. The CDFW, NMFS and USFWS recommendations are included in the order approving the TUCPs.

Update on NMFS and USFWS recommendations in Order approved April 22, 2014

The Order as originally issued on April 22, 2014, included a term requiring re-operation of the fish ladder or fish rescue operations at Crocker-Huffman Diversion Dam based on recommendations by NMFS and USFWS. Subsequent to issuance of the Order, on May 2, 2014, the Federal Energy Regulatory Commission (FERC) issued an order to MID granting extension of the temporary variance of minimum flow and minimum pool requirements under MID's FERC license. FERC indicated that re-operation of the fish ladder is being analyzed in the relicensing proceeding for this project, and requiring this measure at this time may preclude any ongoing analyses and negotiations among project stakeholders. FERC also indicated that there are logistical challenges associated with re-operating the ladder, including the permitting and agency approvals necessary for its re-operation. Therefore, FERC believes that re-operation of the fish ladder on a temporary basis related to the temporary variance request should not be required at this time, and that decision should be deferred to the current relicensing proceeding.

The State Water Board Order has been amended to reflect this information. The condition has been revised to ensure that access is provided to fishery agencies necessary for any 2014 drought fish rescue or similar activities. Re-operation of the fish ladder is no longer required.

In light of the above, and as conditioned in the Order, I find in accordance with Water Code section 1435, subdivision (b)(4) that the proposed changes will not unreasonably affect fish, wildlife, or other instream beneficial uses.

7.4 The Proposed Changes are in the Public Interest

The proposed temporary urgency changes under MID Licenses 11395 and 11396 have been developed in coordination with multiple agencies to maximize benefits of MID's water supply while providing protection to fish in the Merced River. The proposed reduced instream flow and minimum pool requirements will allow MID to release a pulse flow during April which will assist to lower the temperature in the Merced River to assist Chinook salmon out-migration from the Merced River, provide benefits to resident rainbow trout, assist in supporting releases for the MID's existing obligations and commitments, provide water supply benefits for MID customers, and assist in meeting water supply needs within SLWD and/or SCVWD during these drought conditions. Approval of these petitions will result in benefits for the endangered Chinook salmon and provide drought relief where it is desperately needed. Expedited processing of this matter is consistent with the Governor's Proclamation.

In light of the above, I find in accordance with Water Code section 1435, subdivision (b)(4) that the proposed changes are in the public interest, including findings to support change order conditions imposed to ensure that the changes are in the public interest. Pursuant to Water Code section 1439, the State Water Board shall supervise diversion and use of water under this temporary change order for the protection of all other lawful users of water and instream beneficial uses.

8.0 CONCLUSIONS

The State Water Board has adequate information in its files to make the evaluation required by Water Code section 1435 and 1707 et seq.

The State Water Board concludes that, based on the available evidence:

1. The Licensee has an urgent need to make the proposed changes;
2. The petitioned changes, with conditions set forth in the Order, will not operate to the injury of any other lawful user of water;
3. The petitioned changes, with conditions set forth in the Order, will not have an unreasonable effect upon fish, wildlife, or other instream beneficial uses; and,
4. The petitioned changes are in the public interest.
5. The proposed temporary changes will not increase the amount of water MID is entitled to use.
6. The proposed temporary changes will otherwise meet the requirements of Division 2 of the Water Code.

ORDER

NOW, THEREFORE, IT IS ORDERED that the petitions for temporary urgency change in license conditions, including instream flow dedication and transfer of 5,000 af, pursuant to Water Code sections 1435 and 1707 et seq, in Licenses 11395 and 11396 of MID are approved.

All existing terms and conditions of Licenses 11395 and 11396 remain in effect, except as temporarily amended by the following provisions:

1. The temporary changes and transfer are limited to the period commencing on the date of this Order and continuing for 180 days.
2. Only water that would have been stored within Lake McClure absent the temporary changes may be transferred to SLWD and/or SCVWD. Water shall not be provided to either SLWD and/or SCVWD by direct diversion.
3. Water released for instream flow dedication and subsequent use by SLWD and/or SCVWD shall be limited to a maximum of 5,000 af to be released from Lake McClure, less any applicable instream and/or conveyance losses as determined by DWR.
4. The place of use under License 11395 is temporarily expanded to include the service area of the CVP in order to facilitate the temporary changes for transfer of water to SLWD and/or SCVWD. The service area of the CVP is shown on Map 214-208-12581 on file with the Division under Application 5626.
5. The following points of rediversion shall be temporarily added to License 11395:
 - a. Banks Pumping Plant via the Clifton Court Forebay – being within the NW¼ of SE¼ of projected Section 20, T1S, R4E, MDB&M
 - b. San Luis Reservoir - being within the SW ¼ of SE ¼ of projected Section 15, T10S, R8E, MDB&M.
6. Water may not be transferred through the Banks Pumping Plant until Licensee has implemented a Refill Agreement between DWR, Reclamation and Licensee to address potential refill concerns in Lake McClure which shall also account for any transfer conducted by MID in 2014 as well as any refill obligations from prior year transfers. The executed Refill Agreement must be acceptable to DWR and Reclamation. Documentation that an acceptable Refill Agreement has been agreed to by Reclamation, DWR and Licensee shall be submitted to the Division within 15 days of the date of execution of the agreement.
7. Rediversion of water at Banks Pumping Plant is subject to compliance by the operators with the objectives currently required of DWR and Reclamation set forth in consistent with the April 8, 2014 CVP and SWP Drought Operations Plan and the State Water Board's April 18, 2014 SWP-CVP Order.
8. Rediversion of water at Banks Pumping Plant is subject to compliance by the operators with the objectives currently required of DWR and Reclamation set forth in Tables 1, 2, and 3 on pages 181-187 of State Water Board Revised Decision 1641 (D-1641), or any future State Water Board order or decision implementing Bay-Delta water quality objectives at those points of

diversion/rediversion, including compliance with the various plans required under D-1641 as prerequisites for the use of the Joint Points of Diversion by DWR and Reclamation, as amended by the documents cited in order item 7. Rediversion of water is also subject to compliance by DWR and Reclamation with all applicable biological opinions and court orders, and any other conditions imposed by other regulatory agencies applicable to these operations.

9. The place of use under License 11395 is temporarily expanded to include preservation and enhancement of fish and wildlife within the reach of the Merced River from Lake McClure at New Exchequer Dam to its confluence with the San Joaquin River within the following boundaries: Upstream Limit – New Exchequer Dam being within the NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Section 13, T4S, R15E, MDB&M; Downstream Limit – the confluence of the Merced River with the San Joaquin River within the SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 3, T7S, R9E, MDB&M.
10. Licenses 11395 and 11396 shall be modified such that Provision III of the October 8, 1959 Agreement between MID and CDFW shall be temporarily amended as follows:

During April and May 2014, MID shall maintain the following Merced River flows at Shaffer Bridge:

60 cfs (daily average flow)

40 cfs (instantaneous flow)

11. Licenses 11395 and 11396 shall be modified such that Provision IV of the October 8, 1959 Agreement between MID and CDFW shall be temporarily amended as follows:

For the period April 1, 2014 through October 31, 2014, MID shall maintain a minimum pool of 85,000 af in Lake McClure.

12. MID shall monitor flow of the Merced River at Shaffer Bridge gauge in hourly increments and submit the flow data on a monthly basis (i.e. at the end of both April and May 2014) to the State Water Board and CDFW.
13. MID shall extend their irrigation season to September 1, in an effort to provide summertime temperature protection for CCV steelhead and coldwater species existing in the lower Merced River downstream of Crocker-Huffman Diversion Dam.
14. In order to provide additional water temperature protection below Crocker-Huffman Dam during 2014, MID shall not hold any inflow in excess of the 100,000 af estimated inflow into New Exchequer Reservoir as of February 2014 in storage, but shall utilize the water to extend the irrigation season as specified herein. For every 25,000 af increase in New Exchequer Reservoir's inflow, over and above the 100,000 af February estimate, the MID's delivery season to its Main Canal shall be extended a minimum of an additional three days past September 1, 2014, or as otherwise agreed to by NMFS and CDFW, in an effort to provide temperature protection for CCV steelhead and coldwater species existing in the lower Merced River downstream of Crocker-Huffman Diversion Dam.

15. If MID releases a spring pulse flow of 5,000 af in the lower Merced River during April 2014, MID should coordinate with NMFS and CDFW and the other resource agencies to provide the best possible benefit for outmigrating salmonids, with magnitude, duration, and timing to occur in coordination with the other San Joaquin River eastside tributaries, to ensure best possible spring pulse outflow for outmigrating salmonids.
16. MID shall report to the State Water Board and CDFW the daily inflow and releases at Lake McClure and report the data at the end of each month through September 30, 2014. The release information must include the total quantity in af released from Lake McClure as well as the quantity in af of releases made to each MID's North and Main Canals, the Cowell Diverters, and minimum instream flows required by the Federal Energy Regulatory Commission.
17. **During the term of this Order, to the extent CDFW determines to move forward with fish monitoring, study or other such related activities downstream of Crocker Huffman Diversion Dam, MID shall provide access across District property adjacent to the Merced River below Crocker Huffman Diversion Dam at such locations as requested by CDFW to accommodate the effort.**
~~MID shall re-operate the existing fish ladder at Crocker Huffman Diversion Dam to provide safe and effective access, as determined by NMFS, to the colder water refugia habitat above Crocker Huffman Diversion Dam for CCV steelhead. Measures should be incorporated in conjunction with fish passage above Crocker Huffman Diversion Dam to minimize entrainment of anadromous fish at MID's Main Canal. Alternatively, if passage at the existing ladder becomes infeasible, as determined by NMFS and CDFW, a fish rescue should be conducted and fish should be translocated above Crocker Huffman Diversion Dam in coordination with NMFS and CDFW.~~
18. During the period of transfer, Licensee 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 Licensee.
19. Licensee shall maintain continuous records of water released from storage and separately record the quantities diverted at each temporary point of rediversion. If recorded data on rediversions is not available, the quantities rediverted shall be documented using an alternative methodology acceptable to the Deputy Director for Water Rights. Daily rediversions shall not exceed reservoir releases minus losses.
20. Within 90 days of the completion of the transfer, but no later than November 1, 2015, the Licensee shall provide the Deputy Director for Water Rights a report describing the transfer authorized by this Order. The report shall include the following information:
 - a. The quantity of water (in af) released for instream flow dedication and the amount of that flow eventually delivered to SLWD and/or SCVWD pursuant to Condition 2 of this Order;
 - b. The average daily release rates and corresponding volume of water released from Lake McClure as a result of this transfer (reported on a daily basis); and
 - c. The value of the Refill Reservation as defined in the Refill Agreement (reported on a daily basis).

Should the value of the Refill Reservation exceed zero at the time of this report, Licensee shall submit subsequent reports by July 1 of each year until the Refill Reservation equals zero. These reports shall include the daily values of the Refill Reservation.

21. Use of water under this temporary urgency change order is contingent on compliance with the following: (a) urban water suppliers must comply with the Urban Water Management Planning Act (Wat. Code, § 10610 et seq.), and (b) agricultural water users and suppliers must comply with the Agricultural Water Management Planning Act (Act) (Water Code, § 10800 et seq.), including all water conservation requirements therein.
22. 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 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 the Order to minimize waste of water and to meet reasonable water requirements without unreasonable draft on the source.
23. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that 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 licensee shall obtain authorization for any incidental take prior to commencing transfer of water. Licensee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the temporary transfer authorized under this Order.
24. The State Water Board reserves jurisdiction to supervise the temporary urgency change 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.
25. The temporary urgency changes authorized under this Order 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 in the discretion of the Board. The temporary urgency changes approved in this Order shall automatically expire 180 days after the date of its issuance or unless it has been revoked.
26. Use of water under this temporary urgency change order is contingent on compliance with the following: (a) urban water suppliers must comply with the Urban Water Management Planning Act (Wat. Code, § 10610 et seq.), and (b) agricultural water users and suppliers must comply with the Agricultural Water Management Planning Act (Act) (Water Code, § 10800 et seq.), including all water conservation requirements therein.

27. I reserve 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:

*Barbara Evoy, Deputy Director
Division of Water Rights*

Dated: MAY 22 2014