



April 7, 2014

Barbara Evoy, Deputy Director of Water Rights  
State Water Resources Control Board  
Division of Water Rights  
P.O. Box 2000  
Sacramento, CA 95812-2000

**RE: Petition for Temporary Urgency Change Under  
Merced Irrigation District's License 11396 (Application 16187)**

Dear Ms. Evoy:

Enclosed is a Petition for Temporary Urgency Change (License 11396 Petition) a reduction in Merced Irrigation District's (District) minimum instream flow for the Merced River and minimum pool requirement for Lake McClure under License 11396 (Application 16187). Accompanying this License 11396 Petition are the following:

- 1) Attachment I, *Description of Temporary Urgency Change Petition Request.*
- 2) Attachment II, *Supplement to March 2014 Temporary Urgency Change Petition Request.*
- 3) *Environmental Information Form to Accompany the Petition.*
- 4) Attachment III, *Attachment to Environmental Information Form.*
- 5) March 29, 2014 Memorandum from California Department of Fish and Wildlife (DFW) in support of the District's Water Management Actions.
- 6) Check in the amount of \$850 payable to the California Department of Fish and Wildlife (CDFW).
- 7) Check in the amount of \$6,062 payable to the State Water Resources Control Board (SWRCB).

Please accept this letter as a request to amend the License 11395 Petition to include a request for a reduced minimum instream flow for the Merced River and minimum pool requirement for Lake McClure. This letter and the enclosed Petition for License 11396 should be considered as an amendment and supporting documentation to the License 11395 Petition.

For all of the reasons provided in the Petitions and related attachments, the District requests that the Division consider and act as quickly as possible in approving the District's requested changes in order to realize the maximum beneficial use of critical storage in Lake McClure. District staff will be immediately available to Division staff in order to respond to questions or provide clarifications.

Very truly,



For John Sweigard  
General Manager

cc: T. Howard, State Water Resources Control Board  
G. Bardini, Department of Water Resources  
K. Mrowka, State Water Resources Control Board  
E. Lee, CVRWQCB (via certified mail)  
M. Scroggins, CWRWQCB (via certified mail)  
D. Marston, CA Department of Fish & Wildlife (via certified mail)  
J. Singles, CA Department of Fish & Wildlife  
M. Rea, National Marine Fisheries Service  
Board of Directors, Merced Irrigation District  
T. Berliner, Duane Morris LLP  
L Bergfeld, MBK Engineers

Please indicate County where your project is located here:

Merced/Mariposa

MAIL FORM AND ATTACHMENTS TO:
State Water Resources Control Board
DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812-2000
Tel: (916) 341-5300 Fax: (916) 341-5400
http://www.waterboards.ca.gov/waterrights

PETITION FOR CHANGE

Separate petitions are required for each water right. Mark all areas that apply to your proposed change(s). Incomplete forms may not be accepted. Location and area information must be provided on maps in accordance with established requirements. (Cal. Code Regs., tit. 23, § 715 et seq.) Provide attachments if necessary.

- Point of Diversion, Point of Rediversion, Place of Use, Purpose of Use, Distribution of Storage, Temporary Urgency, Instream Flow Dedication, Waste Water, Split, Terms or Conditions, Other. Application 16187, Permit 12826, License 11396, Statement.

I (we) hereby petition for change(s) noted above and described as follows:

Point of Diversion or Rediversion – Provide source name and identify points using both Public Land Survey System descriptions to 1/4-1/4 level and California Coordinate System (NAD 83).

Present: See Attachment I
Proposed: See Attachment I

Place of Use – Identify area using Public Land Survey System descriptions to 1/4-1/4 level; for irrigation, list number of acres irrigated.

Present: See Attachment I
Proposed: See Attachment I

Purpose of Use

Present: Power Use
Proposed: No Change Requested

Split

Provide the names, addresses, and phone numbers for all proposed water right holders.

[Empty box for split details]

In addition, provide a separate sheet with a table describing how the water right will be split between the water right holders: for each party list amount by direct diversion and/or storage, season of diversion, maximum annual amount, maximum diversion to offstream storage, point(s) of diversion, place(s) of use, and purpose(s) of use. Maps showing the point(s) of diversion and place of use for each party should be provided.

Distribution of Storage

Present:
Proposed:

**Temporary Urgency**

This temporary urgency change will be effective from  to .

Include an attachment that describes the urgent need that is the basis of the temporary urgency change and whether the change will result in injury to any lawful user of water or have unreasonable effects on fish, wildlife or instream uses.

**Instream Flow Dedication** – Provide source name and identify points using both Public Land Survey System descriptions to ¼-¼ level and California Coordinate System (NAD 83).

Upstream Location:

Downstream Location:

List the quantities dedicated to instream flow in either:  cubic feet per second or  gallons per day:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Will the dedicated flow be diverted for consumptive use at a downstream location?  Yes  No  
If yes, provide the source name, location coordinates, and the quantities of flow that will be diverted from the stream.

**Waste Water**

If applicable, provide the reduction in amount of treated waste water discharged in cubic feet per second.

Will this change involve water provided by a water service contract which prohibits your exclusive right to this treated waste water?  Yes  No

Will any legal user of the treated waste water discharged be affected?  Yes  No

**General Information** – For all Petitions, provide the following information, if applicable to your proposed change(s).

Will any current Point of Diversion, Point of Storage, or Place of Use be abandoned?  Yes  No

I (we) have access to the proposed point of diversion or control the proposed place of use by virtue of:  
 ownership  lease  verbal agreement  written agreement

If by lease or agreement, state name and address of person(s) from whom access has been obtained.

Give name and address of any person(s) taking water from the stream between the present point of diversion or redirection and the proposed point of diversion or redirection, as well as any other person(s) known to you who may be affected by the proposed change.

**All Right Holders Must Sign This Form:** I (we) declare under penalty of perjury that this change does not involve an increase in the amount of the appropriation or the season of diversion, and that the above is true and correct to the best of my (our) knowledge and belief. Dated  at .

*Hydromer El Tel*  
Right Holder or Authorized Agent Signature

\_\_\_\_\_  
Right Holder or Authorized Agent Signature

**NOTE: All petitions must be accompanied by:**  
(1) the form Environmental Information for Petitions, including required attachments, available at: [http://www.waterboards.ca.gov/waterrights/publications\\_forms/forms/docs/pet\\_info.pdf](http://www.waterboards.ca.gov/waterrights/publications_forms/forms/docs/pet_info.pdf)  
(2) Division of Water Rights fee, per the Water Rights Fee Schedule, available at: [http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/fees/](http://www.waterboards.ca.gov/waterrights/water_issues/programs/fees/)  
(3) Department of Fish and Wildlife fee of \$850 (Pub. Resources Code, § 10005)

## ATTACHMENT I

### DESCRIPTION OF TEMPORARY URGENCY CHANGE PETITION REQUEST

The Merced Irrigation District (District) is filing a Petition for Temporary Urgency Change (Petition) with the Division of Water Rights (Division) to request: 1) a change of the District's April and May compliance obligation at Shaffer Bridge to be a 60 cfs daily average flow, rather than a 60 cfs instantaneous flow (with an instantaneous flow of not less than 40 cfs at Shaffer Bridge during this two-month period), and 2) a reduction in the minimum pool requirement for Lake McClure from 115,000 AF to 85,000 AF, as referenced in the District's License 11396 (Application 16187). This Petition follows a similar Petition to its consumptive use water right, License 11395 (Application 16186), which includes the release of a pulse flow and subsequent transfer (further described in the District's Petition filed March 20, 2014). In addition, this Petition accompanies coordination with other regulatory agencies to change the instream flow requirement measured at Shaffer Bridge from a 60 cfs instantaneous flow to a 60 cfs daily average and to reduce the minimum pool requirement in Lake McClure (New Exchequer Dam) from 115,000 AF to 85,000 AF. This coordination includes requests for concurrence from: 1) the Department of Water Resources (DWR) to temporarily modify the 115,000 AF minimum pool requirement of the Davis-Grunsky Contract between the District and DWR, 2) the California Department of Fish and Wildlife (DFW) to reduce the minimum pool requirement under the Agreement between the District and California Department of Fish and Game, dated October 8, 1959, and 3) the Federal Energy Regulatory Commission (FERC) for temporary relief under the District's FERC license for its Merced River Hydroelectric Power Project instream flow and minimum pool requirements.

The District's water rights Licenses 11395 and 11396 were filed concurrently to expand Exchequer Dam for both consumptive (Application 16186) and power (Application 16187) uses. To satisfy protests by the California Department of Fish and Game, both Licenses include the following language:

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

These provisions of the 1959 Agreement are summarized as follows:

- I. Maintain a minimum flow of 20 cfs below Bagby Dam whenever more than 1/4 mile of Merced River is exposed within Exchequer Reservoir
- II. Maintain a minimum flow of 50 cfs below New Exchequer Dam at all times during a non-dry year and 25 cfs during a dry year, as defined in the Agreement
- III. Maintain the following minimum flows at Shaffer Bridge:

Period	Non-dry Year	Dry Year
June 1 through October 15	25 cfs	15 cfs
October 16 through October 31	75 cfs	60 cfs
November 1 through December 31	100 cfs	75 cfs
January 1 through May 31	75 cfs	60 cfs

- IV. Water surface elevation shall be maintained as high as possible, consistent with the operational demand during April through October, and shall maintain minimum pools for operation of the project and maintenance of fish and wildlife:

Bagby = 30,000 AF

Exchequer = 115,000 AF

Snelling = 20,000 AF

MID requests a relaxation of minimum flows at Shaffer Bridge under Provision II, Dry Year condition, to coincide with the relaxed flows requested from FERC. Under this relaxation, MID requests that during April and May 2014, its compliance obligation at Shaffer Bridge be a 60 cfs daily average flow, rather than a 60 cfs instantaneous flow. MID will commit to an instantaneous flow of not less than 40 cfs at Shaffer Bridge during this two-month period. Attached is the March 27, 2014 letter from the District to FERC regarding the request for emergency, temporary variance from minimum flow and storage requirements. Included with this request is a March 18, 2014 letter from the District to the California Natural Resources Agency and DWR regarding the petition for minimum flow and storage requirements under the District's Davis-Grunsky Contract. This letter to CNRA and DWR describes the actions being taken by the District to mitigate the impacts of the drought, including a description of the proposed temporary release of water from New Exchequer for the purposes of a pulse flow and temporary water transfer. FERC has provided an Order granting the temporary reduced minimum instream flows, which is attached.

In addition, the District requests that the minimum pool requirement under Provision IV be temporarily changed from 115,000 AF to 85,000 AF. The temporary reduction in the minimum pool requirement will help the District protect fish in the Merced River and assist the District's efforts to maximize the benefits of its limited water supply. The attached Memorandum from DFW, dated March 28, 2014, provides DFW's concurrence with the District's proposed minimum pool request and support of the proposed temporary transfer.

The temporary reduction in the minimum instream flow and minimum pool requirements would allow the District to release a pulse flow of up to 5,000 AF under License 11395 for the purpose of assisting to trigger the out-migration of juvenile Chinook salmon from the Merced River. These changes are requested in the Temporary Urgency Change Petition submitted by the District on March 20, 2014. The benefits of this pulse flow are further described in Attachment II to this Petition. In addition to the pulse flow benefits to the fishery in the Merced River, the District proposes the pulse flow be rediverted at the SWP's Banks Pumping Plant for use within the San Luis Water District (SLWD) and/or Santa Clara Valley Water District (SCVWD), which are in need of surface water supplies during the current drought conditions. SLWD and/or SCVWD will coordinate with DWR for rediversion of the pulse flow at the SWP's Banks Pumping Plant. The surface water proposed to be made available through releases from Lake McClure (New Exchequer Dam) by Merced for the proposed temporary instream dedication and water transfer would have been held in storage absent the change. Releases from Lake McClure would be increased during the change as compared with the condition absent the change.

## **POINT OF DIVERSION OR REDIVERSION**

### **POINTS OF DIVERSION**

#### ***Present:***

No changes in Merced's present points of diversion are proposed. The District's authorized points of diversion under License 11396 are listed below:

#### **New Exchequer Dam (Lake McClure)**

North 42°11'03" West 3,089.69 feet from SE corner of Section 13, T4S, R15E, MDB&M, being within NW ¼ of SE ¼ of said Section 13.

#### **McSwain Dam**

North 80°36'38" West 2,275.01 feet from SE corner of Section 3, T5S, R15E, MDB&M, being within SW ¼ of SE ¼ of said Section 3.

#### ***Proposed:***

No change in the present points of diversion is proposed.

### **POINTS OF REDIVERSION**

#### ***Present:***

No changes in Merced's present points of rediversion are proposed. Merced's authorized points of rediversion under License 11395 are listed below:

#### **McSwain Dam**

North 80°36'38" West 2,275.01 feet from SE corner of Section 3, T5S, R15E, MDB&M, being within SW ¼ of SE ¼ of said Section 3.

#### ***Proposed:***

No change in the present point of rediversion is proposed.

### **PLACE OF USE**

#### ***Present:***

At Exchequer Power Plant within NW ¼ of SE ¼ of Section 13, T4S, R15E, MDB&M and at McSwain Power Plant within SW ¼ of SE ¼ of Section 3, T5S, R15E, MDB&M.

***Proposed:***

No change in the present place of use is proposed.

**GENERAL INFORMATION**

As described in the License 11395 Petition, the proposed reduced instream flow and minimum pool requirements will allow the District to make releases under its consumptive use water right (License 11395) for a temporary instream flow dedication and temporary water transfer, which will increase the flow in the Merced River by up to 5,000 AF during the pulse flow period over what would have occurred absent the proposed change. The proposed quantity of water for instream dedication and transfer under License 11395 will be rediverted at the SWP's existing Banks Pumping Plant and conveyed through existing facilities to SLWD and/or SCVWD. SLWD and/or SCVWD will coordinate with DWR for rediversion of the pulse flow at the SWP's Banks Pumping Plant. The proposed changes under License 11395 will result in an increase in the flow between the District's present point of diversion at New Exchequer Dam and the proposed additional points of rediversion at which the proposed releases are rediverted. The 5,000 AF pulse flow will provide cooler water and assist the outmigration of juvenile salmon. In addition, the additional 25,000 AF available to the District, after accounting for the 5,000 AF pulse flow, will extend the District's irrigation season. The extension of the irrigation season will provide cooler water in the Merced River for a longer period of time, increasing the likelihood that rainbow trout will survive in the river. These benefits and actions are described in detail in Attachment II.

The Central Valley Regional Water Quality Control Board (CVRWQCB) was contacted in order to discuss the proposed temporary water transfer under License 11395; at which time no comments were received regarding the proposed plan. Copies of this petition have been provided to Dean Marston (559-243-4005) of DFW, Elizabeth Lee (916-464-4787) of the CVRWQCB Sacramento Office, and Matt Scroggins (559-445-6042) of the CVRWQCB Fresno Office.

## ATTACHMENT II

### SUPPLEMENT TO MARCH 2014 TEMPORARY URGENCY CHANGE PETITION

#### Background

The Merced Irrigation District (District) is an irrigation district existing under the California Irrigation District law with the goal of providing irrigation services to approximately 2,200 customers within its service area covering approximately 164,000 acres in eastern Merced County at the toe of westerly Sierra Nevada foothills. Approximately 100,000 of those acres are irrigated with surface water provided by the District. The District's primary water source is Lake McClure, formed by the New Exchequer Dam on the Merced River, which has a capacity of approximately 1,024,000 AF at a normal maximum water surface elevation of 867 feet above mean sea level. Immediately downstream of Lake McClure is the McSwain Dam and Reservoir, which has a capacity of approximately 9,700 AF.

The District operates its irrigation facilities, and makes minimum flow releases into the Merced River in accordance with water right licenses issued by the State Water Resources Control Board (SWRCB) as well as its license to operate its Merced River Hydroelectric Power Project issued by the Federal Energy Regulatory Commission (FERC). Because this Petition for Temporary Urgency Change (Petition) relates only to a request for a temporary release of up to 5,000 AF from the District's New Exchequer Dam (Lake McClure) during April 2014, the information contained herein will focus on that specific topic. Additional background regarding hydrologic conditions and coordination with regulatory agencies relative to requests for modifications to other requirements are also identified below.

#### Current Hydrologic Conditions

The State of California is in the midst of a record breaking drought. For the San Joaquin River Basin, DWR's Bulletin 120 publication for March 1, 2014, *Water Supply Conditions in California*, identifies that 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% exceedance is 110,000 AF during April through July, as compared with an average of 636,000 AF; and for the entire 2014 Water Year, the forecast at a 90% exceedance is 150,000 AF, as compared with an average of 1,007,000 AF. At a 50% exceedance, the unimpaired runoff forecast during April through July is 210,000 AF, or 33% of average; and the forecast for the 2014 Water Year is currently 270,000 AF, or 27% of average at a 50% exceedance. These values are a decrease from the February 1, 2014 Bulletin 120 forecasts due to the continued dry conditions in February. The District anticipates these forecasts for 2014 will not improve when DWR updates Bulletin 120 in April.

The dismal forecasts identified above are consistent with precipitation levels at New Exchequer Dam which, as of March 18, 2014, was a total of 5.61 inches for the water year, lower than the 1977 precipitation level of 5.87 inches, which is currently the driest water year in recorded history. In addition, water storage levels are extremely low in the District's Lake McClure, where the reservoir is currently at 228,594 AF or 22% of capacity as of March 11, 2014. The drastically low storage levels in Lake McClure are the direct result of the 3-year extended drought that is impacting the entire State of California and specifically the record breaking dry conditions over that time period in the Merced River watershed. Absent significant changes in

hydrology, 2014 is on track to become the driest year in recorded history, surpassing the conditions in 1977.

The District's 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 District'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, 33% of the District's average annual diversions. However, not all of this water is available for use by the District's growers.

Based on the current forecasts and available storage in Lake McClure, District staff estimate that 0.6 feet of water per acre may be delivered to its customers during a significantly shortened irrigation season, which will result in a significant hardship for District growers and the community. This initial allocation estimate accounts for the additional water supplies necessary to meet the District's existing obligations and commitments, such as for instream flows, the Cowell Agreement Diverters, 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. The remaining estimated water available for the District's customers is approximately 62,000 AF. Importantly, it is not enough to sustain the significant acreage of permanent crops within the District. 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 the District. The combination of meeting the District's existing obligations and commitments, together with the initial allocation estimate to the District's customers, it is estimated that Lake McClure will reach the proposed reduced minimum pool of 85,000 AF during the month of August.

### **Request for Temporary Urgency Change**

To optimize the beneficial use of water, the District requests the Division approve this Temporary Urgency Change Petition, which 1) reduces the District's April and May compliance obligation at Shaffer Bridge to be a 60 cfs daily average flow, rather than a 60 cfs instantaneous flow (with an instantaneous flow of not less than 40 cfs at Shaffer Bridge during this two-month period), and 2) reduces minimum pool requirement in Lake McClure from 115,000 AF to 85,000 AF. In addition to this Petition, the District submitted a Petition for Temporary Urgency Change under its License 11395 which proposes the release up to 5,000 AF under License 11395 for instream flow dedication from the District's current point of diversion at New Exchequer Dam to the proposed point of rediversion at the SWP's Banks Pumping Plant. At this proposed point of rediversion, the pulse flow is proposed to be rediverted for use within San Luis Water District and/or Santa Clara Valley Water District.

Concurrently with this Petition, the District is coordinating with the following agencies, under the respective applicable documents, to reduce the minimum instream flow requirement for the Merced River and the minimum pool requirement at Lake McClure: (a) DWR to temporarily modify the Davis-Grunsky Contract between the District and DWR, (b) Department of Fish and Wildlife (DFW) to modify Provision 4 of the October 8, 1956 Agreement between the District and the Department of Fish and Game, and (c) FERC for temporary relief under the District's FERC license for its Merced River Hydroelectric Power Project minimum pool requirement.

The District anticipates the proposed temporary minimum instream flow and minimum pool reduction would provide multiple benefits including:

- A pulse flow of up to 5,000 AF during April 2014 that would provide flow and importantly, lower the temperature in the Merced River to trigger Chinook salmon out-migration from the Merced River and downstream through the San Joaquin River to the Delta.
- Benefits to resident rainbow trout populations realized by an extension to the District's irrigation season.
- Provide a supplemental water supply for San Luis Water District and/or Santa Clara Valley Water District during these particularly dry conditions.
- Assist in supporting releases for the District's existing obligations and commitments.
- Provide for continued diversions to meet the water needs of the District's customers.

### **Criteria for Approving Temporary Urgency Change Requests**

Water Code §1435(b) requires that the SWRCB make the following findings before approving of the District's temporary urgency change requests:

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 in-stream beneficial uses.
4. The proposed change is in the public interest.

Each of these required findings are discussed briefly below.

#### *1. The permittee or licensee has an urgent need to make the proposed change.*

Water Code §1435(c) provides that an 'urgent need' exists when the SWRCB 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.

The urgency of this Petition lies in the needs of the Merced River fishery. Given the current reservoir 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 is potentially fatal in early April. Therefore, it is imperative 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 approvals 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 DFW. The modeling efforts completed to help determine the most beneficial timing are further described below in this Petition.

The attached Memorandum from DFW, dated March 28, 2014 (DFW Memorandum), provides DFW's concurrence with the District's proposed minimum pool request. The DFW Memorandum states, "In his state of emergency proclamation, Governor Brown issued several orders that apply to [the District's] operation of the Merced River and their request to reduce the Lake McClure minimum pool storage level....Given the Governor's emergency proclamation, there is a need to protect salmon and *O. mykiss* trout in the lower Merced River while also trying to maximize water supply for other beneficial use."

In addition, the Governor's Proclamation states, "The Department of Water Resources and the State Water Resources Control Board (Water Board) will expedite the processing of water transfers, as called for in Executive Order B-21-13. Voluntary water transfers from one water right holder to another enables water to flow where it is needed most." Although the urgency of this Petition is to provide a pulse flow for the Merced River, the water is proposed to be dedicated to instream flow under Water Code §1707 from New Exchequer Dam to the SWP's Banks Pumping Plant, the District proposes the pulse flow be rediverted at the SWP's Banks Pumping Plant for use within SLWD and/or SCVWD, which are experiencing water supply shortages due to the drought conditions.

2. The proposed change may be made without injury to any other lawful user of water.

The proposed change to the District's April and May compliance obligation at Shaffer Bridge to a 60 cfs daily average flow, rather than a 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, the District has to release excess flow to meet the compliance flows. The proposed change for the District to maintain a 60 cfs daily average flow will allow the District to manage flows at the compliance point with greater flexibility. The District 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 the District 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; in fact, the extended irrigation season will allow for increased flows and result in instream benefits downstream.

3. The proposed change may be made without unreasonable effect upon fish, wildlife, or other in-stream beneficial uses.

The requested temporary urgency change for reduced instream flow and minimum pool requirements under the District's License 11395 and 11396 will benefit fish and wildlife in the Merced River. The District is currently coordinating with DFW and DWR to assess possible effects of a lower minimum pool requirement on fish and wildlife in the Merced River. The District, together with input from DFW 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. Figure 1 below shows key Chinook salmon and rainbow trout habitat.

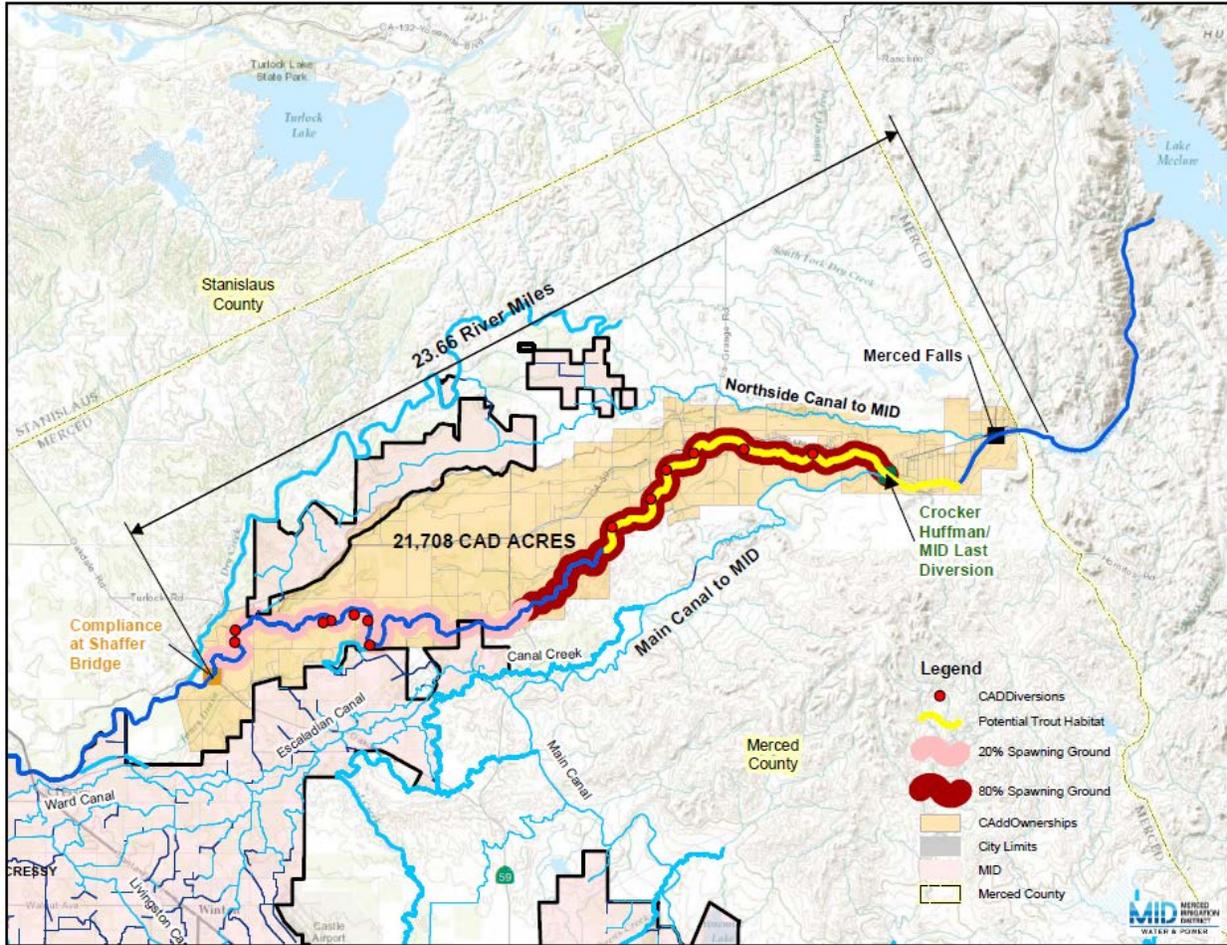


Figure 1. Chinook Salmon and Rainbow Trout Habitat in the Merced River

### Chinook Salmon

Figure 2 below shows 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, the District proposes the addition of a pulse flow for release under License 11395 at the timing and direction of DFW. An analysis of the potential benefits of a pulse flow in April is depicted in Figure 2. The pulse flow would lower the water temperature in the Merced River and could trigger Chinook salmon out-migration.

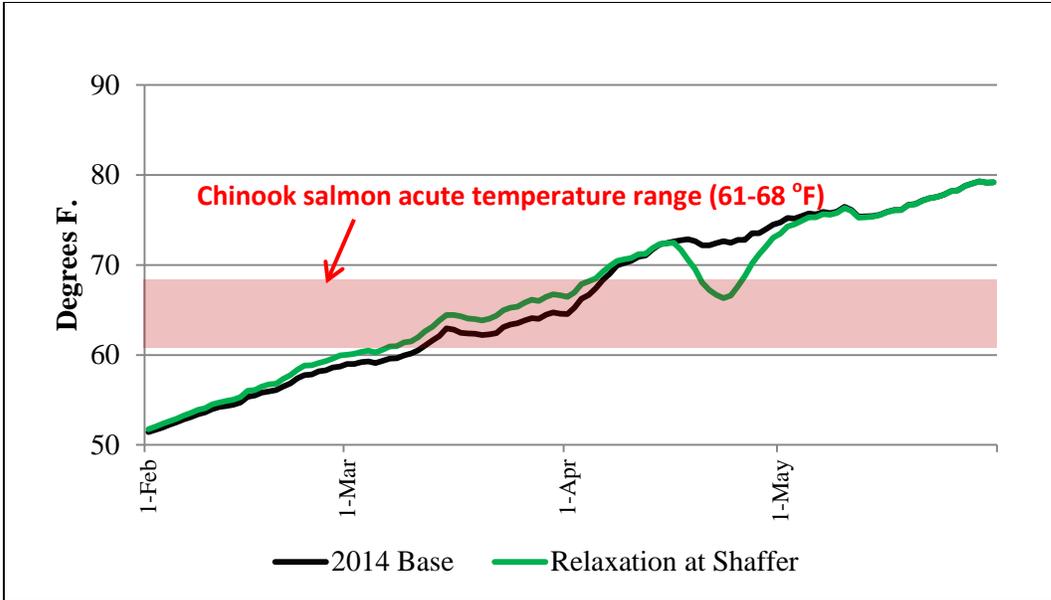


Figure 2. Merced River Water Temperature at Shaffer Bridge under Base Condition and Reduced Minimum Pool Requirement with Proposed Pulse Flow

Figure 3 shows that a similar pulse flow of 4,800 AF made by the District in April 2013 was sufficient to trigger substantial Chinook salmon out-migration.

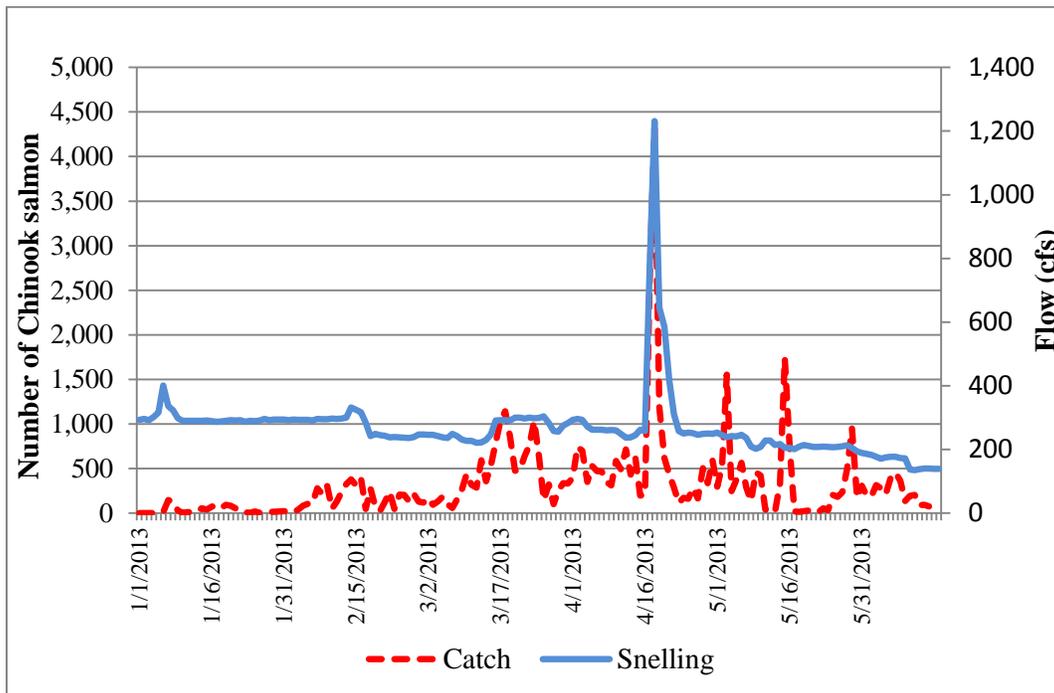
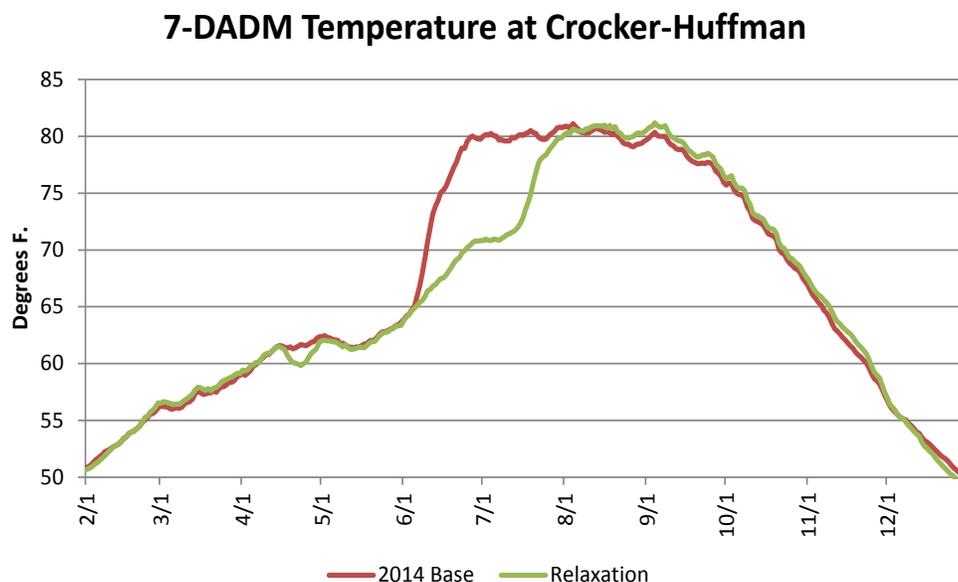


Figure 3. Juvenile Chinook Salmon Out-Migration Triggered by 4,800 AF Pulse in April 2013

## Rainbow Trout

The District 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 the District's irrigation season. Taking into account the requested modification to the minimum pool requirement and proposed pulse flow, the District may be able to extend its irrigation season by approximately an additional month. As requested by DFW, the District completed a daily time step model to analyze these conditions. The results of this study, depicted in Figure 5, show temperatures at Crocker-Huffman Diversion Dam (a key location where trout are expected to congregate this year). With the extended season, Figure 4 shows that temperatures at Crocker-Huffman Diversion Dam are reduced by up to approximately 7°F when the District 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 the District ends its irrigation season, but for a lesser extent – between approximately 0.1°F and 0.8°F. This analysis shows that extending the District's irrigation season is vital to the health of this trout population during 2014.



**Figure 4. Temperature in Vital Trout Habitat under Base Condition and Reduced Minimum Pool Requirement with Proposed Pulse Flow**

### 4. The proposed change is in the public interest.

The temporary urgency changes under the District Licenses 11395 and 11396 have been developed in coordination with multiple agencies to maximize benefits of the District's water supply while providing protection to fish in the Merced River. The proposed reduced instream flow and minimum pool requirements will allow the District 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 District's existing obligations and commitments, provide water supply benefits for District customers, and assist in meeting water supply needs within SLWD and/or SCVWD during these drought conditions. Approval of this Petition will result in benefits for the endangered Chinook salmon and provide drought relief where it is desperately needed; and both types of benefits are directed by the Governor's Proclamation.

## **Conclusion**

The District is submitting this Petition for Temporary Urgency Change to address and help mitigate record breaking drought conditions and severe impacts due to the lack of water supplies. The actions being taken by the District, in coordination with DFW, are being taken in an effort to protect fish in the Merced River while maximizing the benefits of the District's water supply. The District requests that the Division of Water Rights consider and act as quickly as possible in approving the District's requested changes in order to provide the greatest benefit to the Merced River fishery and to provide a much needed additional water supply to SLWD and/or SCVWD.

## Memorandum

Date: March 28, 2014

To: Mark W. Cowin  
Director  
California Department of Water Resources  
Post Office Box 942836, Room 1115-1  
Sacramento, California 94236

From: Jeffrey R. Single, Ph.D.  
Regional Manager  
Central Region  
1234 East Shaw Avenue  
Fresno, California 93710



Subject: **Merced Irrigation District (MeID) Proposal to Modify Minimum Instream Flow and Reservoir Storage Levels per Contract No. DGGR 17, DWR No. 160282 and Davis-Grunsky Agreement**

This memorandum revises our previous memorandum to you regarding MeID's request to modify applicable provisions describing minimum Lake McClure Reservoir storage levels in 2014 contained in the 1959 Contract between the MeID and the California Department of Water Resources (DWR) (Contract No. DGGR 17, DWR No. 160282) and the 1967 contract between DWR and MeID for Recreation and Fish Enhancements under the Davis-Grunsky Act (the Davis-Grunsky Agreement). This memorandum also provides an updated response to the letter dated January 17, 2014 that MeID submitted to John Laird and Mark Cowin with the California Natural Resources Agency (CNRA) and DWR, respectively.

The context for the Department's concurrence is that California is presently experiencing a severe drought that resulted in Governor Brown issuing a state of emergency. In his state of emergency proclamation, Governor Brown issued several orders that apply to MeID's operation of the Merced River and their request to reduce the Lake McClure minimum pool storage level.

The intent of Governor Brown's emergency declaration, and ensuing orders, is to balance water supply needs for various beneficial uses which include protection of fish such as salmon and rainbow trout, both of which occur in the lower Merced River downstream of Lake McClure. Given the Governor's emergency proclamation, there is a need to protect salmon and *O. mykiss* trout in the lower Merced River while also trying to maximize water supply for other beneficial use.

To this end, the Department is trying to protect both fish in the Merced River, in coordination with MeID's efforts to maximize benefits to water supply.

Presently there are juvenile salmon and rainbow trout in the lower Merced River downstream of Crocker-Huffman Dam. In drought years like 2014, there is a reach of the river between the New Exchequer and Crocker-Huffman Dams where warming of water released from Lake McClure occurs before it reaches downstream of Crocker-Huffman Dam. These water temperatures may result in higher mortality rates for juvenile salmon and rainbow trout downstream of Crocker-Huffman Dam.

Since MeID's Main Canal intake structure is located just upstream of Crocker-Huffman Dam, and since higher releases result in cooler water temperatures at Crocker-Huffman and below during the summer months, extension of MeID's irrigation season assists in providing cooler water in the river, including for fish downstream of Crocker-Huffman Dam. Thus, extending MeID's irrigation season for as long as possible in 2014 is paramount. Using some of the Lake McClure minimum pool storage to substantially extend MeID's irrigation season presents a "win-win" scenario for MeID and the Department this year, in that it provides additional water supply for MeID and reduces the magnitude and duration of warm water temperatures in the lower Merced River. This increases the likelihood that juvenile salmon and rainbow trout will survive in the reach downstream of Crocker-Huffman Dam.

In response to the current drought conditions, MeID has requested temporary relief from both minimum lower Merced River instream flow, and Lake McClure minimum reservoir storage levels contained in the 1959 Contract and the Davis-Grunsky Agreement.

In our memorandum dated February 13, 2014, the California Department of Fish and Wildlife (CDFW) approved MeID's instream flow reduction request and deferred a decision regarding the minimum reservoir storage. CDFW now provides concurrence with MeID's minimum storage request concurrent with the following assumptions and/or stipulations:

1. April through July Lake McClure reservoir inflow projections provided to CDFW as of March 6, 2014 by MeID assumed an inflow level of approximately 100 TAF
2. MeID's delivery pattern has now been estimated and the start of diversions to MeID is scheduled to begin on April 18, and end on or about August 10. Lowering the Lake McClure minimum pool by no more than 30,000 acre-feet, and in conjunction with other flow reductions being considered separately, will allow the MeID irrigation season to extend beyond August 10, 2014, with a desired target of September 1. The Department understands that the

end of the irrigation season may be earlier if the forecasted inflow does not materialize.

3. CDFW supports relaxation of Lake McClure minimum storage requirements from 115 TAF down to 85 TAF
4. For every 25 TAF increase in Lake McClure inflow, over and above the 100 TAF estimated inflow to Lake McClure as of February 2014, MeID's delivery season to their Main Canal will extend a minimum of an additional three (3) days past August 10, 2014, or as otherwise agreed to by CDFW, in an effort to provide temperature protection for cold water species existing in the lower Merced River downstream of Crocker-Huffman Dam
5. MeID is not responsible to provide pulse flows to help juvenile anadromous fish that emigrate from the Merced River during the spring time period. Without spring pulse flows, mortality of these emigrating fish is expected to be high in 2014. Creating a spring pulse flow by taking some of the Lake McClure minimum pool would decrease this expected mortality. Therefore, of the 30 TAF minimum pool reduction, up to 5 TAF may be used to provide a spring pulse flow in the lower Merced River during April 2014, with magnitude, duration, and timing thereof to occur in consultation with CDFW so as to ensure spring pulse flow continuity with other San Joaquin River tributary spring pulse flows.
6. CDFW will support an MeID petition for an order from the SWRCB authorizing the transfer and sale of the 5,000 acre feet pulse flow after it has served its in-stream purpose in the Merced River
7. This minimum storage reduction applies only to 2014 water year

For additional information regarding this issue please contact Dean Marston, Environmental Program Manager, Central Region, at 559-243-4005, extension 122, or at [dean.marston@wildlife.ca.gov](mailto:dean.marston@wildlife.ca.gov) or me at (559) 243-4005, extension 154, or at [jeff.single@wildlife.ca.gov](mailto:jeff.single@wildlife.ca.gov).

cc: See Page Four and Five

Mark W. Cowin, Director  
California Department of Water Resources  
March 28, 2014  
Page 4

cc: John Sweigard  
General Manager  
Merced Irrigation District  
744 West 20th Street  
Merced, California 95340

John Laird  
Secretary  
California Natural Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, California 95814

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Assistant Regional Administrator  
National Marine Fisheries Service  
650 Capitol Mall, Suite 5-100  
Sacramento, California 95814-4706

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Delta Policy and Restoration Branch  
National Marine Fisheries Service  
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Ren Lohofener  
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United States Fish and Wildlife Service  
2800 Cottage Way, W-2606  
Sacramento, California 95825

Dan Castleberry  
Field Supervisor  
United States Fish and Wildlife Service  
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Felicia Marcus  
Chairperson  
State Water Resources Control Board  
Post Office Box 100  
Sacramento, California 95812-0100

Mark W. Cowin, Director  
California Department of Water Resources  
March 28, 2014  
Page 5

Gary Bardini  
Deputy Director  
Integrated Water Management  
Department of Water Resources  
Post Office Box 942836, Room 1115-1  
Sacramento, California 94236

1 STANLEY MOSK, Attorney General  
of the State of California  
2 JAMES M. SANDERSON, Deputy Attorney General  
Library and Courts Building  
3 Sacramento 14, California  
4 Attorneys for Protestant, CALIFORNIA  
DEPARTMENT OF FISH AND GAME  
5  
6  
7

8 STATE OF CALIFORNIA - STATE WATER RIGHTS BOARD  
1401 - 21st Street  
9 P. O. Box 1592  
10 Sacramento 7, California

11 In the matter of	}	<u>STIPULATION AND AGREEMENT</u>
12 Applications 16186 and 16187		
13 MERCED IRRIGATION DISTRICT,		
14 Applicant		
15 CALIFORNIA DEPARTMENT OF		SOURCE: Merced River
16 FISH AND GAME,		COUNTY: Merced/Mariposa
17 Protestant		

18 In order to protect and preserve the fish and wildlife resources  
19 existing in and around the Merced River and in conjunction with applications  
20 16186 and 16187 now pending before the State Water Rights Board wherein the  
21 applicant proposes construction of:

22 (1) Snelling Dam, a cobble fill structure, 110 feet high, and  
23 3,500 feet long in the crest to be located about nine miles below Exchequer  
24 Dam in Merced County; said dam at maximum water elevation of 400 feet to have  
25 a capacity of approximately 190,000 acre feet covering 4,000 surface acres;  
26 and said dam to be principally for the purpose of holding water for irrigation  
27 releases but also to have a power installation with approximately 25,000 K.W.  
28 capacity.

29 (2) An enlargement of the existing dam at Exchequer an additional  
30 157 feet in height to an elevation of 373 feet; said enlargement increasing  
31 the storage capacity from 281,000 acre feet to approximately one million acre  
32 feet; and the surface area of said enlarged Exchequer Reservoir to be approxi-

1 mately 6,800 acres, at elevation 865 feet; and said enlarged dam to have a  
2 power installation at the toe of the dam of 91,000 K.W.;

3 (3) Bagby Dam, a rock fill structure with a concrete face, 403  
4 feet high with a crest length of 1,600 feet, to be located approximately 1/2  
5 mile below the town of Bagby, County of Mariposa; said dam to impound approxi-  
6 mately 415,000 acre feet at elevation 1,160 feet with a surface area of 3,200  
7 acres; and said dam to have a power installation at the downstream toe of  
8 approximately 50,000 K.W.;

9 IT IS HEREBY STIPULATED AND AGREED by and between the applicant,  
10 MERCED IRRIGATION DISTRICT (hereinafter called District), its successors  
11 and assigns, and the protestant, STATE OF CALIFORNIA, acting by and through  
12 its DEPARTMENT OF FISH AND GAME (hereinafter called Department), as follows:

13 I

14 That for the protection, propagation and preservation of fish and  
15 wildlife and in partial compensation for the loss by inundation of valuable  
16 spawning beds and large natural trout, salmon, and warmwater fisheries above  
17 the respective dam sites caused by the construction of said dams and the  
18 formation of reservoirs behind said dams, the District shall at all times  
19 bypass into the natural stream bed of the Merced River immediately below  
20 Bagby Dam a minimum flow of 20 cfs whenever more than 1/4 mile of stream is  
21 exposed by lowering the water level of Exchequer Reservoir.

22 II

23 That for the protection, propagation and preservation of fish and  
24 wildlife, the District shall bypass or release into the natural stream bed  
25 of the Merced River immediately below District's Exchequer Dam, except in  
26 emergencies or unless otherwise provided, a minimum flow of 50 cfs at all  
27 times during non-dry years and 25 cfs during dry years; provided that during  
28 the period October 16 through December 31 of each year, all releases from  
29 Exchequer Dam shall be made insofar as possible from a center line elevation  
30 of 485 feet or lower.

31 For the purposes of this agreement, a dry year is defined as any  
32 twelve-month period following a forecast in the April 1 bulletin of the

1 California Department of Water Resources, and adjusted in accordance with the  
2 May 1 bulletin, in which the unimpaired runoff for the station at Exchequer  
3 is less than 450,000 acre feet for the period April 1 through July 31.

4 An emergency is defined as an occurrence, usually of short duration,  
5 such as a flood condition, a mechanical or other operational failure beyond  
6 control of the District, which would prevent compliance with flow and opera-  
7 tional terms matter of this agreement.

8 III

9 That for the protection, propagation and preservation of fish and  
10 wildlife, District shall bypass or release into the natural stream bed of the  
11 Merced River immediately below District's Snelling Dam during the periods  
12 hereinafter specified sufficient water to maintain the following minimum flows  
13 at Shaffer Bridge (Montpellier Road crossing about 5 miles upstream from  
14 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

21 Provided, however, during the period November 1 through December 31,  
22 of each year, flows measured at said Shaffer Bridge shall be maintained insofar  
23 as possible within the range of 100 to 200 cfs during non-dry years, and 75  
24 to 150 cfs during dry years as herein before defined; provided that if said  
25 November 1 through December 31 flows in any year (dry or non-dry) average  
26 greater than 150 cfs exclusive of flood control and other emergency releases,  
27 then the flow during January 1 through March 31, as measured at Shaffer Bridge,  
28 shall be maintained at 100 cfs or more.

29 (2) Flows below Snelling Dam shall not be increased by more than  
30 double or reduced by more than 1/2 in any one-hour period.

31 IV

32 The District shall maintain the water surface elevation in its

1 reservoirs as high as possible, consistent with operational demands throughout  
2 the period April through October each year, and shall maintain minimum pools  
3 of the following capacities for operation of the project and maintenance of  
4 fish and wildlife:

5	Bagby Reservoir	30,000	Acre Feet
6	Exchequer Reservoir	115,000	Acre Feet
7	Snelling Reservoir	20,000	Acre Feet

8 V

9 The District shall control the operation of its reservoirs insofar  
10 as possible to provide water temperatures satisfactory for salmon reproduction  
11 in the Merced River below Snelling Dam during the period October 16 through  
12 December 31 of each year.

13 VI

14 The District shall conduct the normal operation of its reservoirs  
15 as to avoid the sudden release of large flows into channels other than those  
16 used as forebays and afterbays and in the event of emergencies shall, insofar  
17 as possible, avoid changes in stream stages which would endanger human life,  
18 health and property, and be detrimental to fish life in the stream.

19 VII

20 For the protection, propagation and preservation of fish and wild-  
21 life, the District shall take every precaution during project construction to  
22 safeguard the water quality of the Merced River downstream.

23 VIII

24 The District and Department further stipulate and agree that the  
25 provisions of this agreement may be included by way of reference or otherwise  
26 in any permit and/or license issued to District's application 16186 and 16187;  
27 and if said permit and/or license is conditioned upon the terms of provisions  
28 I, II, III, and IV, of this agreement, the protest of the Department to  
29 District's said applications may be considered withdrawn and may be disregarded.

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32 State Dept of Fish & Game Exhibit No. 1

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Dated this 8th day of October, 1959

Approved as to form: MERCED IRRIGATION DISTRICT

W.E. Brennan  
Attorney for Applicant

By George J. Marks  
Chairman of the Board

Carl T. Christianson  
Secretary

Kenneth M. Swan  
Chief Engineer and Manager

Approved as to form: STATE OF CALIFORNIA, acting by and through the CALIFORNIA DEPARTMENT OF FISH AND GAME

STANLEY MOSK  
ATTORNEY GENERAL  
  
J. M. SANDERSON  
DEPUTY ATTORNEY GENERAL

By J. M. Sanderson  
Attorneys for Protestant

By W. E. Swan  
Director

State Dep't of Fish & Game Exhibit No. 1

RESOLUTION, BOARD OF DIRECTORS  
MERCED IRRIGATION DISTRICT

WHEREAS the Merced Irrigation District has made Applications for Permit No. 16186 and No. 16187 to the California State Water Rights Board in connection with development of additional water storage on the Merced River,

AND WHEREAS the State of California, acting by and through its Department of Fish and Game, is desirous of protecting and preserving the fish and wild life resources existing in and around the Merced River in conjunction with the aforesaid pending applications,

AND WHEREAS both the District and the Department wish to consummate a stipulation and agreement to fulfill the requirements of the Department with regard to future releases and other phases of operation of District's proposed reservoirs, to the end that the Department would withdraw its pending protests to District's Applications No. 16186 and No. 16187,

NOW THEREFORE BE IT RESOLVED that President George T. Mack, Secretary Carl T. Christianson, Chief Engineer Kenneth R. McSwain, and the District's attorney, W. E. Craven, be authorized and directed, in the name of and on behalf of the District, to sign "Stipulation and Agreement" dated October 6, 1959, between the Merced Irrigation District and the California Department of Fish and Game, in connection with Applications No. 16186 and No. 16187.

\*\*\*\*\*

I, CARL T. CHRISTIANSON, Secretary of the Board of Directors of Merced Irrigation District, do hereby certify that the foregoing is a true and correct copy of a resolution of said Board of Directors adopted at a regular meeting of said Board held on Tuesday, October 6, 1959.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said District, this 6th day of October, 1959.

*Carl T. Christianson*  
Secretary

MERCED IRRIGATION DISTRICT

Application No. <i>16186 &amp; 16187</i>	EXHIBIT NO. <i>1</i>
<i>Fish and Game</i>	
JAN 5 1960 P.M.	FOR IDENTIFICATION ON
JAN 20 1960 P.M.	STATE WATER RIGHTS BOARD

FILE	<i>16186</i>
DATE	<i>10/6/59</i>
FOLDER #	<i>416</i>

State Dept of Fish & Game Exhibit No. *1*

*Page 1 of 6 pages*



March 27, 2014

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Routing Code: PJ-12  
Washington DC 20426

**Re: Request for Emergency, Temporary Variance from Minimum Flow and Storage Requirements  
Due to Extreme Drought Conditions**

**Merced Irrigation District FERC Project No. 2179 – Merced River Hydroelectric Project  
(California)**

Dear Secretary Bose:

This letter serves as Merced Irrigation District's (MID or District) request for an emergency, temporary relaxation of minimum flow and storage requirements under Articles 40 and 44 of the above captioned license for the Merced River Hydroelectric Project (Project) in California (No. P-2179). MID is making this emergency request in light of the dire water supply picture facing the state of California and MID in particular, in hopes of mitigating impacts to the Merced area and MID growers, and all of the population centers that will be impacted by lower diversions from the Merced River because of ongoing, extreme drought conditions. The circumstances are exemplified by California Governor Jerry Brown's proclamation on January 17, 2014 of a State of Emergency due to the record breaking drought conditions, and this request is consistent with the Governor's proclamation. The temporary relaxation is only being requested for 2014.

This request follows substantial communications with California Department of Fish and Wildlife (CDFW), the California Department of Water Resources (DWR) and the California Natural Resources Agency (CNRA). The Districts letter to DWR and the CNRA seeking a temporary modification of flows required under MID's "Davis-Grunsky" Agreement for the months of January through March of 2014, and relaxation of the MID's minimum pool requirement in Lake McClure is attached, and this request is consistent with those communications.

MID received agreement from the DWR on February 14, 2014 for temporary relaxation of minimum flow requirements in the Merced River during the months of February and March. This letter addresses temporary relaxation of flows during the months of April and May 2014, as well as minimum storage in New Exchequer Reservoir. The attached letter to DWR and CNRA details MID's approach to the issue of

temporary relaxation of minimum flow and pool conditions, which is in keeping with the spirit of Article 42 (minimizing rapid fluctuation of river flows) of the MID's Project license from FERC.

**Minimum Compliance Flows at Shaffer Bridge**

Article 40 of the MID's Project license states that the District shall provide minimum streamflows in the Merced River downstream from the Project reservoirs in accordance with the following schedule:

- (a) Downstream from New Exchequer Dam, a minimum flow of 25 cubic feet per second at all times.
- (b) At Shaffer Bridge downstream from McSwain Dam, a minimum streamflow shall be maintained as follows:

<u>Period</u>	<u>Normal Year (c.f.s)</u>	<u>Dry Year (c.f.s)</u>
Jun. 1 through Oct. 15	25	15
Oct. 16 through Oct. 31	75	60
Nov. 1 through Dec. 31	100	75
Jan. 1 through May 31	75	60

During the 1990-1992 period, MID worked extensively with Commission staff and water rights holders on the lower Merced River to develop operating policies and procedures to ensure compliance with the minimum flows at the Shaffer Bridge USGS gauging station. The Shaffer Bridge gauging station is located at river mile 32.8, approximately 23 miles below the MID's point of water release at McSwain Dam. Between McSwain Dam and Shaffer Bridge, there are seven riparian diversion ditches and at least two additional pumping diversions in the Merced River.

The procedures adopted at that time were designed to better coordinate Project releases with the combined demands of MID's instream flow requirements and the water rights of the riparian diverters downstream of the Project, but upstream of the compliance point despite a variety of attempts at improving coordination with the riparian diverters, MID still must release water from the Project in quantities that frequently exceed actual downstream requirements in order to provide a safe margin of error to ensure compliance with Article 40 on an instantaneous flow basis at Shaffer Bridge.

**Requested Relaxation of Article 40 Compliance Flows at Shaffer Bridge:**

MID requests that during April and May, 2014, its compliance obligation at Shaffer Bridge be a 60 c.f.s. daily average flow, rather than a 60 c.f.s. instantaneous flow. To ensure minimum flows in the river, MID will commit to an instantaneous flow of not less than 40 c.f.s. at Shaffer Bridge during this two-month period. As explained in the attached letter to DWR and CNRA, using a daily average flow measurement in lieu of an instantaneous flow measurement will have no adverse impact on salmon spawning habitat below the Project, which is concentrated primarily in the first ten miles below MID's non-jurisdictional Crocker-Huffman Diversion Dam.

**Requested Relaxation of Article 44 Minimum Storage Requirement in New Exchequer Reservoir**

Article 44 of MID's Project license states:

“The Licensee shall make every reasonable effort to maintain the water surface elevation of Exchequer Reservoir [Lake McClure] as high as possible from April through October consistent with the primary purposes of the reservoir and shall maintain a minimum pool of not less than 115,000 acre-feet [AF] in Exchequer Reservoir [Lake McClure] except for a drawdown as necessary to maintain minimum streamflow as required by Article 40.”

In addition to the temporary flow relaxation discussed above, MID requests that its minimum storage requirement in Lake McClure be reduced from 115,000 AF to no less than 85,000 AF for 2014.

Based on existing forecasts, Lake McClure will reach its minimum pool of 115,000 AF unless inflows exceed 400,000 AF. Current water surveys by DWR show that Lake McClure is likely to receive a maximum of 100,000 AF of snowmelt runoff this year absent significant amounts of precipitation in the immediate future. This forecast also includes drastically reduced allocations to MID growers this year. For example, it takes between 3 to 4 AF per acre to grow a crop within the District, on average. This year, due to historically low reservoir levels combined with historically low projected inflows, MID surface water allocations to growers have been established by our Board at 0.5 acre-feet/acre, a major reduction that will result in significant hardship to MID growers and the community. Further, the MID irrigation season will not start until April 18, 2014 when it normally starts in March, and will only last until approximately the middle of August rather than a normal season that lasts until the end of October.

Despite such severely reduced allocations and MID's aggressive response to mitigate impacts, using the existing 90% Exceedance by the California Nevada River Forecast Center, MID will be prohibited from diverting any water for supply because of the minimum pool requirement as early as the first half of August.

If MID receives the requested relaxation of its minimum river flow and storage requirements, MID estimates it may be able to extend its irrigation season at least two weeks.

Based on an analysis using MID's reservoir and temperature models, the Merced River's Chinook salmon smolts are at risk due to the ongoing drought. MID has worked collaboratively with CDFW and DWR regarding temperature impacts on the Merced River under the existing flow regime and have developed an operating scenario that supports CDFW's goals on the Merced River regarding Chinook salmon outmigration during this challenging spring. This flow request include as well as a pulse flow to assist and encourage Chinook salmon outmigration.

More critically, due to the shortened MID season, higher temperatures could potentially be lethal to the resident trout population upstream and downstream from Crocker Huffman Diversion Dam. Through the same collaborative efforts, temperature models exhibited that a longer MID irrigation season is beneficial to trout due to the lower temperatures afforded during the higher releases and diversion made during the irrigation season. CDFW supports a longer irrigation season with or without a pulse flow.

Secretary Kimberly Bose, FERC

March 27, 2014 - Revised

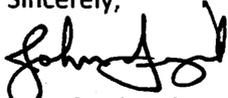
Page 4

MID believes that reductions in minimum flows and minimum pool will both help extend the irrigation season which will benefit overall fishery conditions in this dry year.

MID has shared the result of its work with CDFW with United States Fish and Wildlife Services and National Marine Fishery. MID has also answered questions to staff in both agencies clarifying the requests in petition.

Time is absolutely critical to this request, as the objective will not bear their sought outcome if decisions are not made immediately. The Merced Irrigation District and the community of Merced appreciate the Commission's prompt and favorable response to this urgent request. If you have any questions or would like to discuss this request further, please do not hesitate to call me directly at 209-722-5761 or by email at [jsweigard@mercedid.org](mailto:jsweigard@mercedid.org).

Sincerely,



John Sweigard  
General Manager

**Attachments:**

- 1) Attachment I: *Description of Temporary Urgency Petition Request*
- 2) Copy of letter to DWR: *Amendment to Petition for Min Flow and Storage Requirements per Contract No. D-GGr 17, DWR No. 160282, dated March 18, 2014*

Cc: K. Lee, State Water Resources Control Board  
J. Singles, CA Department of Fish & Wildlife  
A. Manji, CA Department of Fish and Wildlife  
D. Butler, W. Hearn, National Marine Fisheries Service  
B. Croyle, Department of Water Resources  
M. McCarty, Brickfield, Burchette, Ritts & Stone, P.C.  
M. Gutierrez, NOAA Federal  
D. Giglio, US Fish and Wildlife Service  
K. Turner, US Fish and Wildlife Service  
R. Guinee, US Fish and Wildlife Service  
Board of Directors, Merced Irrigation District  
MBK Engineers

## ATTACHMENT I

### Description of Temporary Urgency Petition Request

#### Background

The Merced Irrigation District (District) is an irrigation district existing under the California Irrigation District law with the goal of providing irrigation services to approximately 2,200 customers within its service area covering approximately 164,000 acres in eastern Merced County at the toe of westerly Sierra Nevada foothills. Approximately 100,000 of those acres are irrigated with surface water provided by the District. The District's primary water source is Lake McClure, formed by the New Exchequer Dam on the Merced River, which has a capacity of approximately 1,024,000 AF at a normal maximum water surface elevation of 867 feet above mean sea level. Immediately downstream of Lake McClure is the McSwain Dam and Reservoir, which has a capacity of approximately 9,700 AF.

The District operates its irrigation facilities, and makes minimum flow releases into the Merced River in accordance with water right licenses issued by the State Water Resources Control Board (SWRCB) as well as its license to operate its Merced River Hydroelectric Power Project issued by the Federal Energy Regulatory Commission (FERC). Because this Petition for Temporary Urgency Change (Petition) relates only to a request for a temporary release of up to 5,000 AF from the District's New Exchequer Dam (Lake McClure) during late March and/or April 2014, the information contained herein will focus on that specific topic. Additional background regarding hydrologic conditions and coordination with regulatory agencies relative to requests for modifications to other requirements are also identified below.

#### Current Hydrologic Conditions

The State of California is in the midst of a record breaking drought. For the San Joaquin River Basin, DWR's Bulletin 120 publication for March 1, 2014, *Water Supply Conditions in California*, identifies that 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% exceedance is 110,000 AF during April through July, as compared with an average of 636,000 AF; and for the entire 2014 Water Year, the forecast at a 90% exceedance is 150,000 AF, as compared with an average of 1,007,000 AF. At a 50% exceedance, the unimpaired runoff forecast during April through July of 2014 is 210,000 AF, or 33% of average; and the forecast for the 2014 Water Year is currently 270,000 AF, or 27% of average at a 50% exceedance. These values are a decrease from the February 1, 2014 Bulletin 120 forecasts due to the continued dry conditions in February. The District anticipates these forecasts for 2014 will not improve when DWR updates Bulletin 120 in April, in fact the updates are already showing a 5% decrease.

The dismal forecasts identified above are consistent with precipitation levels at New Exchequer Dam which, as of March 11, 2014, was a total of 5.61 inches for the water year, lower than the 1977 precipitation level of 5.87 inches, which is currently the driest water year in recorded history. In

addition, water storage levels are extremely low in the District's Lake McClure, where the reservoir is currently at 225,159 AF or 22% of capacity as of March 11, 2014. The drastically low storage levels in Lake McClure are the direct result of the 3-year extended drought that is impacting the entire State of California and specifically the record breaking dry conditions over that time period in the Merced River watershed. Absent significant changes in hydrology, 2014 is on track to become the driest year in recorded history, surpassing the conditions in 1977.

The District's 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 District'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 140,160 AF, 32% of the District's average annual diversions. However, not all of this water is available for use by the District's growers.

Based on the current forecasts and available storage in Lake McClure, the MID Board of Directors set the water allotment at 0.5 acre-foot of water per acre for the 2014 irrigation season may be delivered to its customers during a significantly shortened irrigation season, which will result in a significant hardship for District growers and the community. This initial allocation estimate accounts for the additional water supplies necessary to meet the District's existing obligations and commitments, such as for instream flows, the Cowell Agreement Diverters, 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. The remaining estimated water available for the District's customers is approximately 62,000 AF. Importantly, it is not enough to sustain the significant acreage of permanent crops within the District. 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 the District. The combination of meeting the District's existing obligations and commitments, together with the initial allocation estimate to the District's customers, it is estimated that Lake McClure will reach the proposed reduced minimum pool of 85,000 AF during the month of August.

### **Request for Temporary Urgency Change**

Concurrently with this Petition, the District is coordinating with the following agencies, under the respective applicable documents, to reduce the minimum pool requirement at Lake McClure from 115,000 AF to 85,000 AF: (a) DWR to temporarily modify the Davis-Grunsky Contract between the District and DWR, (b) Department of Fish and Wildlife (DFW) to modify Provision 4 of the October 8, 1956 Agreement between the District and the Department of Fish and Game, and (c) The State Water Resources Control Board (SWRCB) to facilitate said potential spring pulse flow and transfer to optimize the beneficial use of water. In addition, the District is coordinating with other regulatory agencies to obtain concurrence regarding changes to minimum instream flow requirements in the Merced River downstream of Lake McClure.

The District anticipates the proposed temporary instream flow dedication and transfer would provide multiple benefits including:

- A pulse flow of up to 5,000 AF during late March and/or April 2014 that would provide flow and importantly, lower the temperature in the Merced River to trigger Chinook salmon out-migration from the Merced River and downstream through the San Joaquin River to the Delta.
- Benefits to resident rainbow trout populations realized by an extension to the District's irrigation season.
- Provide a supplemental water supply for San Luis Water District and/or Santa Clara Valley Water District during these particularly drier conditions.
- Assist in supporting releases for the District's existing obligations and commitments.
- Provide for continued diversions to meet the water needs of the District's customers.

### **Criteria for Approving Temporary Urgency Change Requests**

Water Code §1435(b) requires that the SWRCB make the following findings before approving of the District's temporary urgency change requests:

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 in-stream beneficial uses.
4. The proposed change is in the public interest.

Each of these required findings are discussed briefly below.

#### **1. The permittee or licensee has an urgent need to make the proposed change.**

Water Code §1435(c) provides that an 'urgent need' exists when the SWRCB 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.

The urgency of this Petition lies in the needs of the Merced River fishery. Given the current reservoir 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 is potentially fatal in early April. Therefore, it is imperative to provide a pulse flow to trigger out-migration of Chinook salmon to the cooler temperatures of the Delta. Without a temporary urgency change, the required approvals 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 DFW. The modeling efforts completed to help determine the most beneficial timing are further described below in this Petition.

In addition, on January 17, 2014 Governor Brown released a Proclamation of State of Emergency due to the drought conditions. Directive 4 of the Proclamation states, "The Department of Water Resources and the State Water Resources Control Board (Water Board) will expedite the processing of water transfers, as called for in Executive Order B-21-13. Voluntary water transfers from one water right holder to another enables water to flow where it is needed most." Although the urgency of this Petition is to provide a pulse flow for the Merced River, the water is proposed to be dedicated to instream flow under Water Code §1707 from New Exchequer Dam to the SWP's Banks Pumping Plant, the District proposes the pulse flow be rediverted at the SWP's Banks Pumping Plant for use within SLWD and/or SCVWD, which are experiencing water supply shortages due to the drought conditions.

2. The proposed change may be made without injury to any other lawful user of water.

The surface water proposed to be made available by Merced for the proposed temporary instream dedication and water transfer through releases from Lake McClure (New Exchequer Dam) 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; and the District is willing to accept refill criteria to assure no adverse impact occurs to downstream water right holders. The proposed releases identified in this Petition are in addition to the District'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; in fact, the increased flows will result in instream benefits downstream of the District's existing points of rediversion during the period of the releases.

3. The proposed change may be made without unreasonable effect upon fish, wildlife, or other in-stream beneficial uses.

The requested temporary urgency change for instream flow dedication and water transfer will benefit fish and wildlife in the Merced River. The District is currently coordinating with DFW and DWR to assess possible effects of a lower minimum pool requirement on fish and wildlife in the Merced River. The District, together with input from DFW 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. Figure 1 below shows key Chinook salmon and rainbow trout habitat.

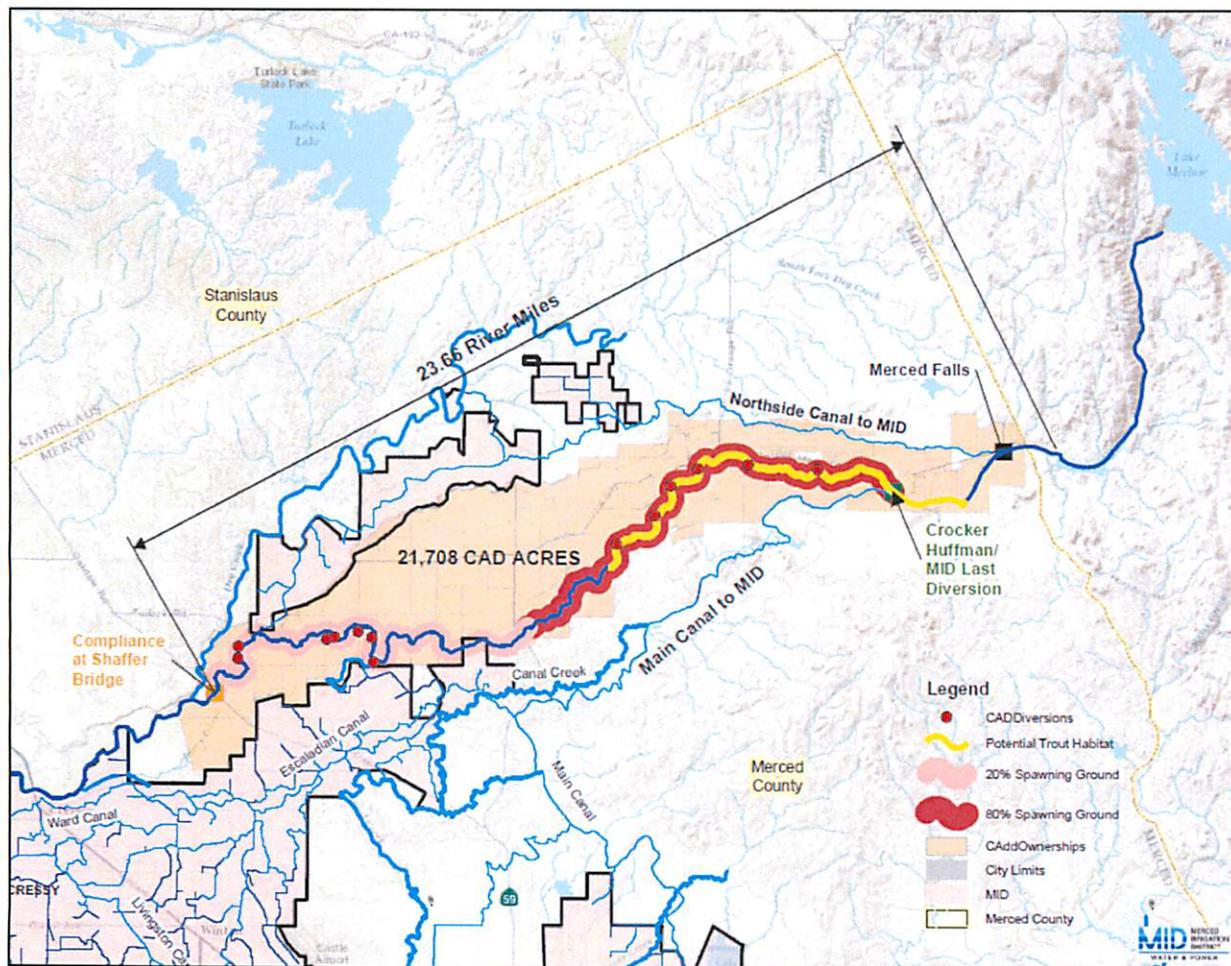


Figure 1. Chinook Salmon and Rainbow Trout Habitat in the Merced River

### Chinook Salmon

Figure 2 below shows that the water temperature of the Merced River at Shafter 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, the District proposes the addition of a pulse flow for release at the timing and direction of DFW. An analysis of the potential benefits of a pulse flow in April is depicted in Figure 2. The pulse flow would lower the water temperature in the Merced River and could trigger Chinook salmon out-migration.

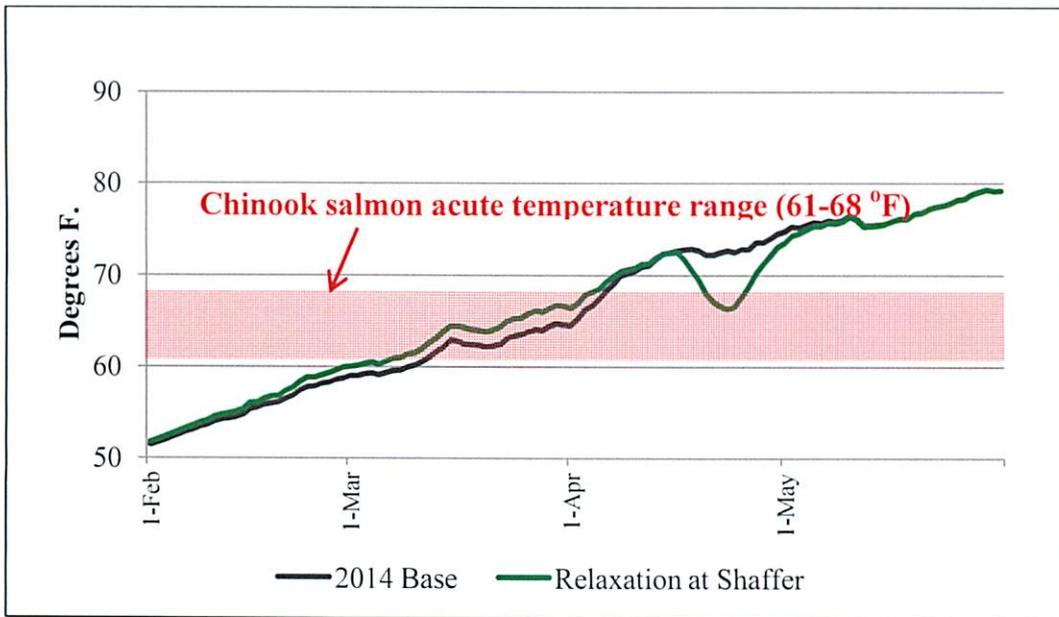


Figure 2. Merced River Water Temperature at Shaffer Bridge under Base Condition and Reduced Minimum Pool Requirement with Proposed Pulse Flow

Figure 3 shows that a similar pulse flow of 4,800 AF made by the District in April 2013 was sufficient to trigger substantial Chinook salmon out-migration.

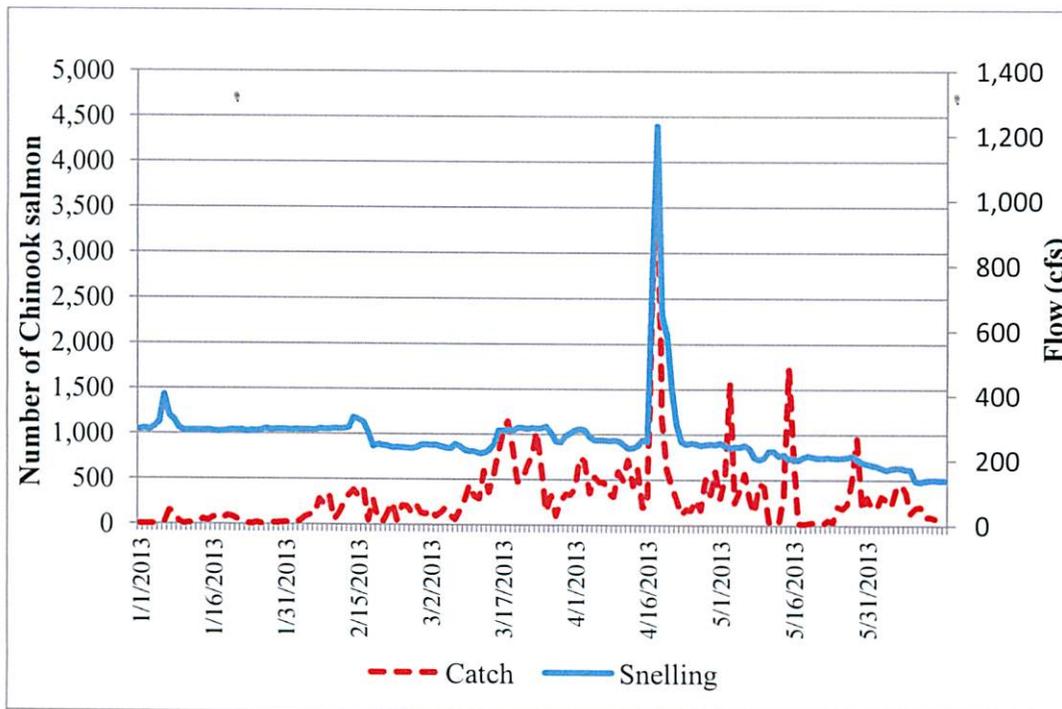


Figure 3. Juvenile Chinook Salmon Out-Migration Triggered by 4,800 AF Pulse in April 2013

As shown by Figure 4, studies during January 2014 have shown that Chinook salmon are out-migrating from the Merced River significantly earlier this year than in 2013. The pulse flow could be moved earlier to the end of March or early-April to better capitalize on the ambient temperature and accommodate the apparent early salmon out-migration occurring this year.

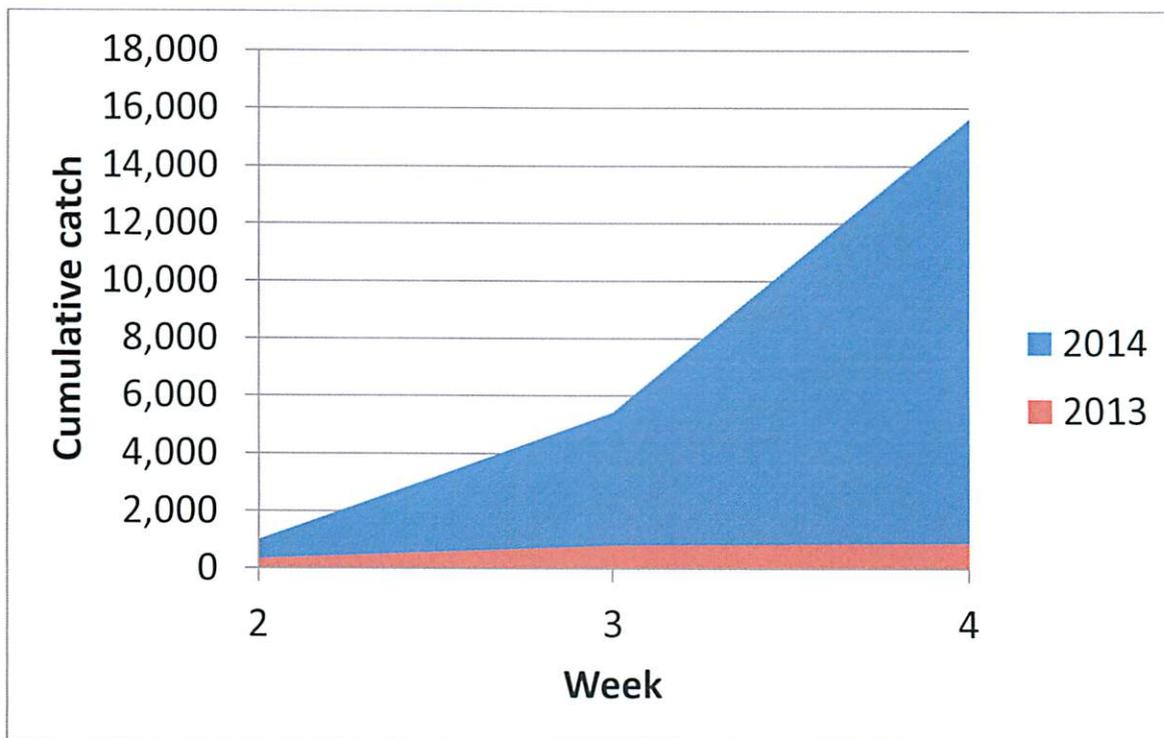


Figure 4. Comparison of Out-Migrating Juvenile Salmon in January 2013 and January 2014

### Rainbow Trout

The District 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 the District's irrigation season. Taking into account the requested modification to the minimum pool requirement and proposed pulse flow, the District may be able to extend its irrigation season by approximately an additional month. As requested by DFW, the District completed a daily time step to analyze these conditions. The results of this study, depicted in Figure 5, show temperatures at Crocker-Huffman Diversion Dam (a key location where trout are expected to congregate this year). With the extended season, Figure 5 shows that temperatures at Crocker-Huffman Diversion Dam are reduced by up to approximately 7°F when the District 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 the District ends its irrigation season, but for a lesser extent – between approximately 0.1°F and 0.8°F. This analysis shows that extending the District's irrigation season is vital

to the health of this trout population during 2014. Since the completion of these model runs, MID Board of directors authorized the end of the irrigation season around August 10, 2014 which will make the temperatures per the graph below even more favorable.

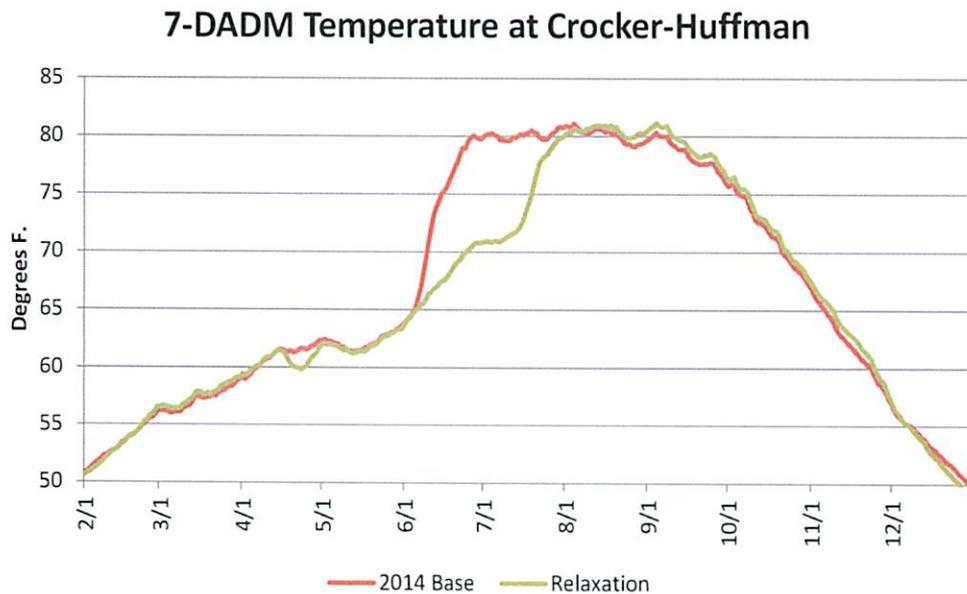


Figure 5. Temperature in Vital Trout Habitat under Base Condition and Reduced Minimum Pool Requirement with Proposed Pulse Flow

4. The proposed change is in the public interest.

The proposed temporary urgency change, together with the proposed reduced Lake McClure minimum pool requirements, 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 District's existing obligations and commitments, provide water supply benefits for District customers, and assist in meeting water supply needs within SLWD and/or SCVWD during these drought conditions. Approval of this Petition will result in benefits for the endangered Chinook salmon and provide drought relief where it is desperately needed; and both types of benefits are directed by the Governor's Proclamation.

**Conclusion**

The District is submitting this Petition for Temporary Urgency Change to address and help mitigate record breaking drought conditions and severe impacts due to the lack of water supplies. The District requests that FERC consider and act as quickly as possible in approving the District's requested change in order to provide the greatest benefit to MID growers and the Merced River fishery.



March 18, 2014

Mr. John Laird, Secretary for Natural Resources  
California Natural Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Mr. Mark Cowin, Director  
Director of California Department of Water Resources  
California Department of Water Resources  
PO Box 942836, Room 1115-1  
Sacramento, CA 94236

Re: Amendment to Petition for Min Flow and Storage Requirements per Contract No. D-GGR 17,  
DWR No. 160282

Dear Secretary Laird and Director Cowin,

As a reflection of the discussions between our respective agency staffs over the last few weeks, this letter serves as an amendment to the MID's recent request for temporary emergency relaxation of flow and storage requirements for New Exchequer Reservoir per the above captioned agreement between the Merced Irrigation District (MID or the District) and the California Department of Water Resources (DWR). We forward this amendment in light of the discussions and collaboration with the agencies including the California Department of Fish and Wildlife (CDFW) since January regarding relaxation of minimum pool requirements.

As you know, MID entered into a 50-year contract with DWR in October, 1967 titled "Contract between State of California Department of Water Resources and Merced Irrigation District for Recreation and Fish Enhancement Grants under the Davis-Grunsky Act" (Contract). The Contract provides that MID (referred to as "Agency" in the Contract) will implement a number of items for the protection of fish and their habitat in the Merced River in exchange for certain items of consideration. Those items included purchase of water in order to establish minimum flows in the Merced River downstream of the Districts hydroelectric power project, as well as a minimum pool requirement in New Exchequer Reservoir.

Given the severe drought conditions over the last three years and the dire water picture for this irrigation season, MID has requested that DWR consider temporary, emergency relaxation of the minimum flow and storage requirements contained in the following excerpts of the Contract:

**Minimum Flows**

**"(a) Maintenance of Optimum Flows in Merced River Spawning Area**

The Agency (i.e., MID) shall maintain a continuous flow of between 180 and 220 cfs per second in the Merced River Spawning area each year during the period November 1 to April 1...."

**Minimum pool**

**"(d) Minimum Storage New Exchequer Reservoir**

The Agency shall maintain the water surface elevation in New Exchequer Reservoir as high as is possible, consistent with other project operational demands, throughout the period April through October of each year, and shall maintain at all times minimum pool of 115,000 acre feet in such reservoir for maintenance of fish life."

On January 17, 2014 MID requested, and DWR granted on February 14, 2014, emergency relaxation of minimum flows under the Contract. This letter amends MID's request concerning minimum pool in Lake McClure. At the request of CDFW, MID completed a number of model run analyses concerning the status of the storage, flows, and downstream temperature with and without the requested relief. After reviewing the model run information, CDFW is concerned with impact of the extremely dry conditions on Chinook salmon in the Merced River as well as the trout population upstream and downstream from Crocker Huffman Diversion Dam.

For the benefit of these fish, CDFW is agreeable to reducing the minimum pool from 115,000 acre feet to 85,000 acre feet under the following conditions:

Of the 30,000 acre-feet total relief that would be granted, CDFW has requested a pulse flow of 5,000 AF during the month of April 2014. In order to maximize the beneficial use of this water, CDFW has agreed to support the transfer and sale of this water after it has served its purpose in the Merced River. To this end, MID has had discussions with, and tentatively arranged for the delivery of this water to the Santa Clara Valley Water District and/or San Luis Water District through the Delta pumps at Banks.

We are fully aware of the conveyance challenges associated with delivering transfer water through the Delta, and if the parties are not successful in completing the transfer, it has been agreed that MID would instead divert that 5,000 acre feet into its system for in-District agricultural deliveries. We have discussed with CDFW that the model runs illustrated that a longer MID irrigation season provides a thermal benefit to resident trout in the Merced River, especially upstream or at Crocker Huffman Diversion Dam. Therefore, the trout population is expected to benefit from extended releases after the reservoir reaches the base case minimum pool of 115,000 acre feet.

Based on all current forecasts available from DWR and the California Nevada Forecast Center, a 90% Exceedance still yields only approximately 100,000 acre feet of runoff into Lake McClure, and the 50% yields approximately 200,000 acre-feet. Given these projections, it is inevitable that Lake McClure will reach minimum pool before the middle of August. Today, the District's Board made available 0.5 (6 inch) acre-foot/acre of surface water for its growers for the 2014 irrigation season.

Secretary Kimberly Bose, FERC

March 26, 2014

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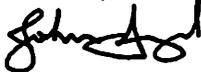
The irrigation season is expected to start on April 18, 2014 and terminate before the second week of August. Our hope is that the relaxation in minimum pool requested herein may help extend the irrigation season into September, which in turn will have a thermal benefit for resident trout in the Merced River during this summer.

Importantly, our request for relief is contingent upon inflow into Lake McClure remaining less than 400,000 acre-feet for this water year.

We ask that you exercise your discretion and authority under applicable emergency provisions in California law, consistent with the Governor's drought proclamation for the benefit of not only the thousands of small family farmers that are facing critically reduced water supplies this year, but also for the benefit of salmon and trout in the Merced River.

On behalf of all of our customers, we appreciate your help and the diligence of your staffs in working through the details of our requests for relief over the last few months. This year has been challenging in many ways and has shown to be a testament to what can be accomplished in a short amount of time given hard work and cooperation. Please call me to discuss at your earliest convenience, we are available to assist in any way that might be helpful.

Sincerely,



John Sweigard  
General Manager

147 FERC ¶ 62,010  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Merced Irrigation District

Project No. 2179-045

ORDER GRANTING TEMPORARY VARIANCE OF MINIMUM FLOW AND  
MINIMUM POOL REQUIREMENTS UNDER ARTICLES 40 AND 44

(Issued April 2, 2014)

1. On March 27, and revised March 31, 2014, Merced Irrigation District (licensee) filed a request with the Federal Energy Regulatory Commission (Commission) for a temporary variance of the minimum flow and minimum pool requirements of license articles 40 and 44 of the license for the Merced River Project No. 2179. The project is located on the Merced River in Merced and Mariposa Counties, California.

BACKGROUND AND LICENSE REQUIREMENTS

2. Among the requirements of License Article 40<sup>1</sup>, the licensee is required to maintain a minimum flow of 60 cubic feet per second (cfs) in Dry water years, as measured at Shaffer Bridge, downstream from Exchequer Afterbay Dam. License Article 44<sup>2</sup> also requires that the licensee maintain a minimum reservoir pool of not less than 115,000 acre-feet in Exchequer Reservoir (Lake McClure), except for a drawdown as necessary to maintain minimum streamflow under Article 40.

LICENSEE'S REQUEST

3. The licensee requests Commission approval for a temporary variance of the minimum flow and minimum pool requirements of license articles 40 and 44 due to current drought conditions at the project. The licensee proposes to maintain a daily average flow of 60 cfs at Shaffer Bridge, rather than an instantaneous flow of 60 cfs. Under this scenario, the licensee proposes to maintain an instantaneous flow of no less than 40 cfs. The licensee requests the temporary flow variance through May 2014.<sup>3</sup> The

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<sup>1</sup> See 31 F.P.C. 897. Order Issuing License (Major) (issued April 8, 1964).

<sup>2</sup> See 31 F.P.C. 1394. Order Modifying Order on Rehearing (issued June 4, 1964).

<sup>3</sup> In its initial filing, the licensee requested a termination date of both April and May 2014. However, in its March 31, 2014 filing, the licensee clarified that it desired the flow variance solely through May 2014.

licensee also requests that the minimum storage requirement in Lake McClure be reduced from 115,000 acre-feet, to 85,000 acre-feet for the duration of 2014.

4. The licensee explains that based on existing forecasts and current storage levels, it anticipates that storage levels will drop below the minimum storage requirement in 2014. The licensee also states that it has significantly reduced allocations to water users this year, and that its proposed variance may be able to recover two weeks of its normal commitment to downstream water users. In conclusion, the licensee states that it has collaborated with the resource agencies to minimize adverse effects to aquatic resources and has developed a pulse flow release, which would be discharged to encourage outmigration of Chinook salmon smolts during the temporary variance.

#### AGENCY CONSULTATION

5. The licensee developed its request in consultation with the California Department of Fish and Wildlife, California Department of Water Resources, California Natural Resources Agency, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service. By memorandum dated March 21, 2014, the CDWR formally concurred with the licensee's request.

#### DISCUSSION AND CONCLUSIONS

6. The licensee is requesting a temporary variance of the minimum flow and reservoir storage requirements of its project license. The temporary variance would allow the licensee to conserve water during the current drought conditions. Given the current conditions and the need to conserve water, an immediate temporary variance of the minimum flow requirement should be approved. However, the public should be allowed to review and comment on the licensee's proposal. Therefore, on March 28, 2014, we issued a public notice to solicit any comments or intervention requests for an extended flow and minimum pool variance.

7. Due to the fact that it is not feasible to immediately restore a minimum pool requirement at the expiration of a temporary variance (especially during a drought), we are postponing action on the licensee's request for a minimum pool variance until the public notice expires and we have had adequate time to review all comments on the licensee's proposal. Our review of the current storage levels in Lake McClure also indicates that licensee should be able to meet the minimum pool requirements during the interim public notice period.<sup>4</sup>

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<sup>4</sup> Review of data on the licensee's website indicates that storage levels are currently 227,965 acre-feet (<http://www.mercedid.org/index.cfm/water/drought-watch->  
(continued)

8. The licensee's proposed temporary flow variance, however, should be granted through May 2, 2014. This will provide sufficient time for any additional agency or public comments concerning an extended variance, and allow adequate time for Commission analysis without an interruption in the temporary operating requirements. Based on comments received and the available data at that time, we will take action, as warranted, on an extension of the licensee's proposal beyond May 2, 2014. We also should reserve our authority to modify the current, or any future temporary variance based on information received, or as updated conditions may warrant.

9. The licensee is also reminded that it should continue to be vigilant of any adverse effects to aquatic resources during the temporary variance and to alert the resource agencies and the Commission of any adverse impacts observed or reported to the licensee.

The Director orders:

(A) Merced Irrigation District's (licensee) request, filed March 28 and revised March 31, 2014, for a temporary variance of the minimum flow requirements of Article 40, due to severe drought conditions at the Merced River Project No. 2179, as modified in paragraphs (B) and (C), is approved through May 2, 2014.

(B) The licensee's request for a temporary variance of the minimum pool requirements of Article 44 is not approved at this time. The Commission will take action on this request following the close of the public notice period on April 12, 2014.

(C) The Federal Energy Regulatory Commission (Commission) reserves its authority to modify this order based on any new information received and as conditions may warrant.

(D) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 8251 (2012), and the Commission's regulations at 18 C.F.R. § 385.713 (2013). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this

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2014/; accessed April 2, 2014). This is also corroborated with the March 2014 storage levels of 235,384 acre-feet, noted on the California Department of Water Resources' Data Exchange Center ([cdec.water.ca.gov/cgi-progs/staMeta?station\\_id=MCR](http://cdec.water.ca.gov/cgi-progs/staMeta?station_id=MCR); accessed April 2, 2014)

order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Thomas J. LoVullo  
Chief, Aquatic Resources Branch  
Division of Hydropower Administration  
and Compliance

## ENVIRONMENTAL INFORMATION FOR PETITIONS

This form is required for all petitions.

Before the State Water Resources Control Board (State Water Board) can approve a petition, the State Water Board must consider the information contained in an environmental document prepared in compliance with the California Environmental Quality Act (CEQA). This form is not a CEQA document. If a CEQA document has not yet been prepared, a determination must be made of who is responsible for its preparation. As the petitioner, you are responsible for all costs associated with the environmental evaluation and preparation of the required CEQA documents. Please answer the following questions to the best of your ability and submit any studies that have been conducted regarding the environmental evaluation of your project. If you need more space to completely answer the questions, please number and attach additional sheets.

### DESCRIPTION OF PROPOSED CHANGES OR WORK REMAINING TO BE COMPLETED

For a petition for change, provide a description of the proposed changes to your project including, but not limited to, type of construction activity, structures existing or to be built, area to be graded or excavated, increase in water diversion and use (up to the amount authorized by the permit), changes in land use, and project operational changes, including changes in how the water will be used. For a petition for extension of time, provide a description of what work has been completed and what remains to be done. Include in your description any of the above elements that will occur during the requested extension period.

See Attachment III

Insert the attachment number here, if applicable:

III

**Coordination with Regional Water Quality Control Board**

For change petitions only, you must request consultation with the Regional Water Quality Control Board regarding the potential effects of your proposed change on water quality and other instream beneficial uses. (Cal. Code Regs., tit. 23, § 794.) In order to determine the appropriate office for consultation, see: [http://www.waterboards.ca.gov/waterboards\\_map.shtml](http://www.waterboards.ca.gov/waterboards_map.shtml). Provide the date you submitted your request for consultation here, then provide the following information.

Date of Request

April \_\_, 2014

Will your project, during construction or operation, (1) generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or (2) cause erosion, turbidity or sedimentation?

Yes  No

Will a waste discharge permit be required for the project?

Yes  No

If necessary, provide additional information below:

[Empty text box for additional information]

Insert the attachment number here, if applicable:

**Local Permits**

For temporary transfers only, you must contact the board of supervisors for the county(ies) both for where you currently store or use water and where you propose to transfer the water. (Wat. Code § 1726.) Provide the date you submitted your request for consultation here.

Date of Contact

Not Applicable

For change petitions only, you should contact your local planning or public works department and provide the information below.

Person Contacted:  Date of Contact:

Department:  Phone Number:

County Zoning Designation:

Are any county permits required for your project? If yes, indicate type below.  Yes  No

- Grading Permit       Use Permit       Watercourse       Obstruction Permit
- Change of Zoning       General Plan Change       Other (explain below)

If applicable, have you obtained any of the permits listed above? If yes, provide copies.  Yes  No

If necessary, provide additional information below:

[Empty text box for additional information]

Insert the attachment number here, if applicable:

**Federal and State Permits**

Check any additional agencies that may require permits or other approvals for your project:

- Regional Water Quality Control Board     Department of Fish and Game
- Dept of Water Resources, Division of Safety of Dams     California Coastal Commission
- State Reclamation Board     U.S. Army Corps of Engineers     U.S. Forest Service
- Bureau of Land Management     Federal Energy Regulatory Commission
- Natural Resources Conservation Service

Have you obtained any of the permits listed above? If yes, provide copies.     Yes     No

For each agency from which a permit is required, provide the following information:

Agency	Permit Type	Person(s) Contacted	Contact Date	Phone Number
Not Applicable				

If necessary, provide additional information below:

Not Applicable

Insert the attachment number here, if applicable:

**Construction or Grading Activity**

Does the project involve any construction or grading-related activity that has significantly altered or would significantly alter the bed, bank or riparian habitat of any stream or lake?     Yes     No

If necessary, provide additional information below:

Not Applicable

Insert the attachment number here, if applicable:

**Archeology**

Has an archeological report been prepared for this project? If yes, provide a copy.  Yes  No

Will another public agency be preparing an archeological report?  Yes  No

Do you know of any archeological or historic sites in the area? If yes, explain below.  Yes  No

If necessary, provide additional information below:

Not Applicable

Insert the attachment number here, if applicable:

**Photographs** See Attachment III.

For all petitions other than time extensions, attach complete sets of color photographs, clearly dated and labeled, showing the vegetation that exists at the following three locations:

- Along the stream channel immediately downstream from each point of diversion
- Along the stream channel immediately upstream from each point of diversion
- At the place where water subject to this water right will be used

**Maps**

For all petitions other than time extensions, attach maps labeled in accordance with the regulations showing all applicable features, both present and proposed, including but not limited to: point of diversion, point of rediversion, distribution of storage reservoirs, point of discharge of treated wastewater, place of use, and location of instream flow dedication reach. (Cal. Code Regs., tit. 23, §§ 715 et seq., 794.)

Pursuant to California Code of Regulations, title 23, section 794, petitions for change submitted without maps may not be accepted.

**All Water Right Holders Must Sign This Form:**

I (we) hereby certify that the statements I (we) have furnished above and in the attachments are complete to the best of my (our) ability and that the facts, statements, and information presented are true and correct to the best of my (our) knowledge. Dated APRIL 8, 2014 at MERCED, CA.

Richard E. Zell  
Water Right Holder or Authorized Agent Signature

\_\_\_\_\_  
Water Right Holder or Authorized Agent Signature

**NOTE:**

- Petitions for Change may not be accepted unless you include proof that a copy of the petition was served on the Department of Fish and Game. (Cal. Code Regs., tit. 23, § 794.)
- Petitions for Temporary Transfer may not be accepted unless you include proof that a copy of the petition was served on the Department of Fish and Game and the board of supervisors for the county(ies) where you currently store or use water and the county(ies) where you propose to transfer the water. (Wat. Code § 1726.)

## **ATTACHMENT III**

### **ATTACHMENT TO ENVIRONMENTAL INFORMATION FOR MERCED IRRIGATION DISTRICT'S PETITION FOR TEMPORARY URGENCY CHANGE**

#### **Description of Proposed Changes**

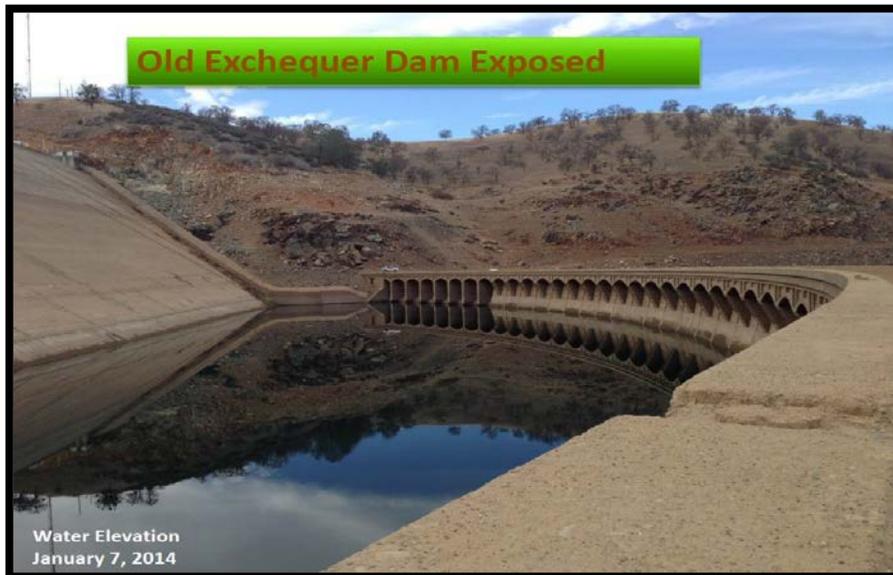
The Merced Irrigation District (District) is filing a Petition for Temporary Urgency Change (Petition) with the Division of Water Rights (Division) to request: 1) a change of the District's April and May compliance obligation at Shaffer Bridge to be a 60 cfs daily average flow, rather than a 60 cfs instantaneous flow (with an instantaneous flow of not less than 40 cfs at Shaffer Bridge during this two-month period), and 2) a reduction in the minimum pool requirement for Lake McClure from 115,000 AF to 85,000 AF, as referenced in the District's License 11396 (Application 16187). This Petition follows a similar Petition to its consumptive use water right License 11395 (Application 16186), which also includes the release of a pulse flow and subsequent transfer (further described in the District's Petition filed March 20, 2014). In addition, this Petition accompanies coordination with other regulatory agencies to change the instream flow requirement measured at Shaffer Bridge from a 60 cfs instantaneous flow to a 60 cfs daily average and to reduce the minimum pool requirement in Lake McClure (New Exchequer Dam) from 115,000 AF to 85,000 AF. This coordination includes requests for concurrence from: 1) the Department of Water Resources (DWR) to temporarily modify the 115,000 AF minimum pool requirement of the Davis-Grunsky Contract between the District and DWR, 2) the California Department of Fish and Wildlife (DFW) to reduce the minimum pool requirement under the Agreement between the District and California Department of Fish and Game, dated October 8, 1959, and 3) the Federal Energy Regulatory Commission (FERC) for temporary relief under the District's FERC license for its Merced River Hydroelectric Power Project instream flow and minimum pool requirements.

#### **Photographs**

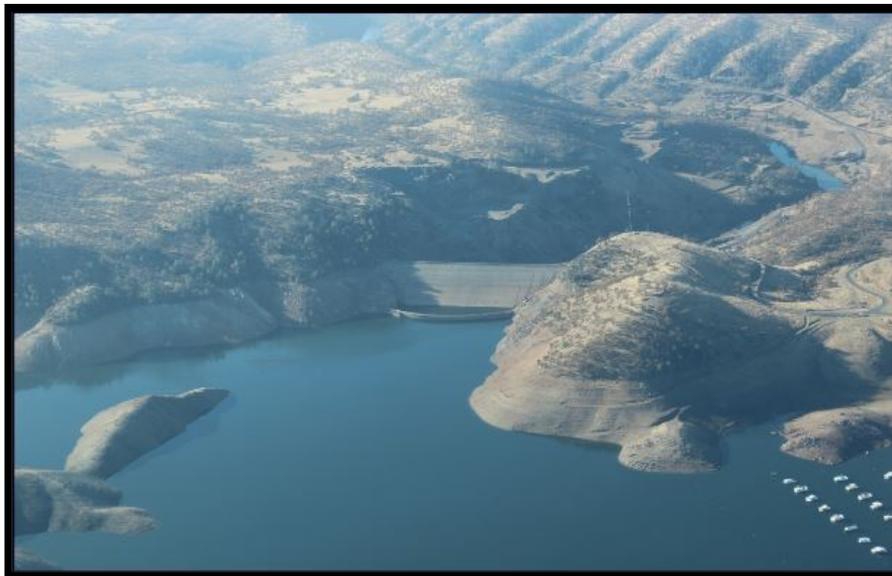
Attached are photographs depicting the current reservoir conditions at Lake McClure. The existing facilities are well known and documented with the Division. Therefore, photographs of these points of diversion and places of use are not included.

#### **Maps**

The present points of diversion, points of rediversion, and places of use are shown on maps filed with the Division for License 11396.



Water surface elevation at Lake McClure below the Old Exchequer Dam



Storage in Lake McClure far below capacity

**Merced ID – Environmental Information for Temporary Urgency  
Change Petition**



Boats and spillway during historic low water levels at Lake McClure



Lake McClure water surface elevation far below spillway

**Merced ID – Environmental Information for Temporary Urgency  
Change Petition**



Merced River at Highway 49 bridge upstream of Lake McClure

Photo Credit: Sierra Sun Times January 21, 2014



Lowered boat dock at Lake McClure

Photo Credit: Merced Sun-Star February 16, 2014

**Merced ID – Environmental Information for Temporary Urgency  
Change Petition**



Paved boat ramp above water at Lake McClure  
Photo Credit: Merced Sun-Star February 16, 2014

**Merced ID – Environmental Information for Temporary Urgency  
Change Petition**

