

**In the Matter of Specified License and Permits<sup>1</sup> of the  
Department of Water Resources and U.S. Bureau of Reclamation  
for the State Water Project and Central Valley Project**

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**MARCH 18, 2014 ORDER MODIFYING AN ORDER THAT APPROVED A  
TEMPORARY URGENCY CHANGE  
IN LICENSE AND PERMIT TERMS AND CONDITIONS  
REQUIRING COMPLIANCE WITH DELTA WATER QUALITY OBJECTIVES  
IN RESPONSE TO DROUGHT CONDITIONS  
(WITH MODIFICATIONS DATED APRIL 9, 2014)**

**BY THE EXECUTIVE DIRECTOR**

**1.0 INTRODUCTION**

On January 29, 2014, the Department of Water Resources (DWR) and the United States Bureau of Reclamation (Reclamation) (hereinafter Petitioners) jointly filed a Temporary Urgency Change Petition (TUCP) pursuant to Water Code section 1435 et seq., to temporarily modify requirements in their water right permits and license for the State Water Project (SWP) and Central Valley Project (CVP) (hereinafter Projects) for the next 180 days in response to drought conditions. An order approving the TUCP was issued on January 31, 2014. That Order was modified on February 7, 2014, in response to a precipitation event; and on February 28, 2014, to extend a modification to Sacramento-San Joaquin Delta Estuary (Delta) Outflow requirements through March 2014. This Order further modifies the Order.

**2.0 BACKGROUND**

The January 29, 2014 TUCP requested temporary modification of requirements included in State Water Resources Control Board (State Water Board) Revised Decision 1641 (D-1641) to meet water quality objectives in the Water Quality Control Plan (Plan) for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta). Specifically, the TUCP requested

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<sup>1</sup> The petition was filed for Permits 16478, 16479, 16481, 16482 and 16483 (Applications 5630, 14443, 14445A, 17512 and 17514A, respectively) of the Department of Water Resources for the State Water Project and License 1986 and Permits 11315, 11316, 11885, 11886, 11887, 11967, 11968, 11969, 11970, 11971, 11972, 11973, 12364, 12721, 12722, 12723, 12725, 12726, 12727, 12860, 15735, 16597, 20245, and 16600 (Applications 23, 234, 1465, 5638, 13370, 13371, 5628, 15374, 15375, 15376, 16767, 16768, 17374, 17376, 5626, 9363, 9364, 9366, 9367, 9368, 15764, 22316, 14858A, 14858B, and 19304, respectively) of the United States Bureau of Reclamation for the Central Valley Project.

modifications to the requirement to meet the Delta Outflow objective during February and the Delta Cross Channel (DCC) Gate closure objective from February through May 20. The TUCP also proposed limits on exports at the SWP and CVP pumping facilities in the south Delta and a process to determine other changes that will best balance protection of all beneficial uses. The Petitioners requested these temporary modifications in order to respond to unprecedented critically dry hydrological conditions as California enters its third straight year of below average rainfall and snowmelt runoff. Additional information concerning the drought and the January 29, 2014 TUCP can be found on the State Water Board's website at: [http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/drought/tucp.shtml](http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/tucp.shtml)

## **2.1 January 31 Order**

The January 31, 2014 TUCP Order allowed DWR and the Bureau to meet a lower Delta Outflow level of 3,000 cubic feet per-second (cfs) in February and allowed the DCC Gates to be operated flexibly from February 1 through May 20.<sup>2</sup> The Order restricted exports in the Delta at the SWP and CVP pumping facilities to health and safety needs of no more than 1,500 cfs, with the exception of transfers. The Order also required that DWR and the Bureau consult with the State Water Board, Department of Fish and Wildlife, National Marine Fisheries Service and U.S. Fish and Wildlife Service (fisheries agencies) through a Real-Time Drought Operations Management Team (RTDOMT) to discuss real time operational issues. The Order further required DWR and Reclamation to calculate and maintain a record of the amount of water conserved by the changes and keep that water in storage for use later in the year for purposes of maintaining water supplies, improving water quality, or protecting flows for fisheries. The Order required DWR and Reclamation to develop a water balance and to conduct necessary modeling and monitoring to inform real time operational decisions. The Order stated that it may be modified based on additional public input or changed circumstances.

## **2.2 February 7 Modification**

The February 7, 2014 modification to the TUCP Order clarified requirements that would apply when the requirements of D-1641 are met. The February 7 Revised Order adjusted the temporary export limitations when precipitation events occur that enable DWR and Reclamation to comply with the Delta Outflow and DCC Gate Closure requirements contained in Table 3 of D-1641. In these circumstances, exports greater than 1,500 cfs would be allowed up to the export limits contained in D-1641, except that any SWP and CVP exports greater than 1,500 cfs shall be limited to natural or abandoned flows, or transfers. The Order did not require DWR and Reclamation to meet the D-1641 Delta Outflow requirements unless exports were greater than 1,500 cfs. All other provisions of the January 31, 2014 Order were continued.

## **2.3 February 28 Modification**

The February 28, 2014 modification to the TUCP Order continued for the month of March the modified Delta Outflow levels of 3,000 cfs originally approved on January 31, 2014. This modification to the Order continued to allow DWR and Reclamation to conserve stored water needed to maintain water supplies, improve water quality, and protect fishery resources later in the year. All other provisions of the February 7, 2014 Order continued to be in effect.

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<sup>2</sup> The required Delta Outflow pursuant to D-1641 without the temporary change in February was 7,100 cfs. In addition, without the temporary change, D-1641 requires that the Delta Cross Channel Gate be closed from February through May 20 of each year.

## 2.4 Additional Context Related to the Public Interest

The latest National Weather Service data continue to show nearly the entire state in severe drought and nearly two-thirds in extreme drought. According to this same data, more of the state is in exceptional or extreme drought than when the Governor issued his drought proclamation. In this extraordinarily dry year, all water users, including agricultural, municipal, and fish and wildlife uses, will suffer hardship.

One primary concern is to ensure that enough water can be directed to communities for human health and safety purposes, which includes drinking water and water for sanitation. While some communities have adequate water supplies saved locally for such purposes, other communities need continued exports from the Delta for these essential purposes. As described below, DWR and Reclamation have proposed a process to identify and account for these needs. DWR and Reclamation intend to ensure enough water is supplied to communities for these essential purposes, but not to deliver exports for all normal usage (such as exterior landscape irrigation).

Another primary concern is to prevent saltwater intrusion into the interior Delta where a large portion of the state's freshwater supplies are conveyed for human and agricultural use. A certain amount of outflow from the Delta must be provided throughout dry months to repel saltwater from entering the interior Delta. If there is not enough water to maintain this outflow throughout the year, the SWP and CVP will lose control over salinity in the Delta and fresh water sources travelling through the interior Delta will be contaminated. Such a condition would severely compromise the SWP and CVP's ability to deliver water for basic public health and safety or irrigation uses, increasing the chances for a major catastrophe. This is a very real concern this year.

## 2.5 March 18, 2014 Request to Modify TUCP Order

On March 18, 2014, DWR submitted a further request to modify the TUCP Order for the remainder of March to provide for additional flexibility for diversions while Delta inflows remain elevated following earlier precipitation events. The request ~~proposes~~proposed to add an alternate set of compliance requirements for the remainder of March that would be in effect while higher Delta inflows persist. Specifically, while higher inflows persist, DWR and Reclamation ~~propose~~proposed to comply with footnote 10 to Table 3 of D-1641 but not Table 4, to maintain the DCC Gates in the closed position and to conform with export limits in D-1641 and applicable Endangered Species Act requirements. Footnote 10 requires a Delta Outflow of 7,100 cfs calculated as a 3-day running average. This requirement is also met if either the daily average or 14-day running average electrical conductivity (EC - a measure of salinity) at the confluence of the Sacramento and San Joaquin rivers is less than or equal to 2.64 millimhos per centimeter (~~mm~~mmhos/cm). Pursuant to Table 4 of D-1641, DWR and Reclamation are required to meet 29 days of flows at 11,400 cfs on a 3-day average or alternate compliance through meeting a daily or 14-day running average EC level of 2.64 mmhos/cm at Chipps Island (station D10) in March. The proposed change would eliminate the additional Table 4 requirements for the remainder of the month and allow DWR and Reclamation to export water pursuant to the requirements included in D-1641 while the DCC Gates are closed, provided that the requirements of footnote 10 are met.

The March 18 request also ~~proposes~~proposed a process whereby DWR and Reclamation will estimate human health and safety needs from the SWP and CVP. Those estimates will take

account of local and alternate supplies available to communities served by the SWP and CVP. After those estimated health and safety needs are accounted for, DWR and Reclamation propose to export water for any lawful project water uses.

## **2.6 April 9, 2014 Request to Modify TUCP Order**

**On April 9, 2014, DWR and Reclamation submitted another request for modifications to the TUCP Order in conformance with their April 8, 2014 Drought Operations Plan (DOP). The DOP was developed in coordination with the RTDOMT and lays out DWR's and Reclamation's proposed range of coordinated operations from April through mid-November. The DOP also identifies proposed changes to the TUCP Order and various Endangered Species Act (ESA) requirements. The DOP includes information about past and proposed future operations as well information regarding the effects of the operations on biological resources. Along with the request and DOP, DWR and Reclamation submitted concurrence letters from the fisheries agencies. NOAA Fisheries and DFW confirmed that the proposed actions conform with ESA requirements. USFWS also confirmed that the proposed actions in April and May conform with ESA requirements but stated that it could not make this finding for the proposed actions in June through mid-November at this time and requested additional information.**

**Some of the measures included in the DOP and the April 9 request are needed within the next week and others are needed later in the year. Specifically, an extension of the Delta Outflow and export requirements for the Month of April is needed as early as next week. This modification to the TUCP Order only addresses those changes through the end of April. The other changes described in the DOP and the April 9 request will be addressed in a comprehensive update to this Order that will be issued in the near future. The comprehensive update will address objections received to date and other issues associated with the DOP.**

**The DOP includes monthly operational forecasts at the 90 and 50 percent hydrologies<sup>3</sup> as well as associated end of September storage targets that propose to balance the different uses of water in the current year and the need to reserve water in storage in the event of a dry year in 2015. These critical needs include sufficient water to meet human health and safety needs and other purposes, including maintaining Delta salinity control. The end of September storage targets appear reasonable but it is uncertain whether these targets can be achieved given modeling uncertainties and uncertainties about how much water will be consumptively used. The State Water Board will monitor how well the end of month storage estimates in the operational forecasts are tracking with actual conditions to determine whether end of September storage requirements should be included in the TUCP Order. In the event that actual end of month storages fall below the projected end of month storage estimates in the forecasts, the State Water Board will evaluate the need for end of September storage levels to assure that the goals of the DOP are achieved.**

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<sup>3</sup>**The forecasts in the DOP are based on the March 1, 2014 90 percent and 50 percent exceedance runoff forecasts. The 90 percent exceedance hydrology assumes inflows from rainfall and snowmelt at levels that are likely to be exceeded with a 90 percent probability, or in other words, there is a ten percent or less chance of actual conditions turning out to be this dry or drier. The 50 percent probability is the 50/50 assumption-- it is just as likely to be drier or wetter. Forecasts are updated monthly and account for recent storm events. These updates are generally provided by the 3rd week of the month.**

**In addition to the above, the State Water Board anticipates receiving a request from Reclamation to further modify the TUCP Order this week to modify the San Joaquin River flow requirements included in D-1641 starting as early as next week. It is likely that the TUCP Order will be modified to address these changes prior to the release of the comprehensive changes to the TUCP Order referenced above.**

### **3.0 MODIFIED TUCP ORDER**

This Order modifies the February 28, 2014 TUCP Order based on the March 18, 2014 **and April 9, 2014** requests from DWR and Reclamation. This Order does not specifically address the comments, objections and petitions for reconsideration received to date, but may touch on issues raised in those documents. As necessary, actions will be taken to address the objections and petitions for reconsideration at a later date. This modified order does the following:

1. Provides additional flexibility to export water while Delta inflows remain elevated following precipitation events by adding an alternate set of compliance requirements for the remainder of March **and the month of April** that would be in effect while higher Delta inflows persist. Specifically, when precipitation and runoff events occur that allow the DCC Gates to be closed and compliance with the flow or salinity requirements included in footnote 10 of D-1641, but the additional Delta Outflow requirements contained in Table 4 of D-1641 are not being met, the Order permits exports of natural and abandoned flows up to the Export Limits contained in Table 3 of D-1641.
2. Clarifies the use of exported water when D-1641 Delta Outflow or DCC Gate requirements are not being met.

### **4.0 APPLICABILITY OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND WATER CODE SECTION 13247**

As discussed in section 4.0 of the January 31 TUCP Order, pursuant to the Governor's Drought Proclamation, CEQA and Water Code section 13247 are suspended as applied to action on the TUCP.

### **5.0 PROCEDURAL REQUIREMENTS CONCERNING THE TEMPORARY URGENCY CHANGE PETITION**

The procedural requirements for a TUCP are described in section 5 of the January 31 TUCP Order.

### **6.0 REQUIRED FINDINGS OF FACT**

The required findings of fact for a TUCP order are described in section 6.0 of the January 31 TUCP Order. As necessary, additional findings of fact as they apply to this Order are described below.

## **6.1 Urgency of the Proposed Change**

The urgency of the changes included in the TUCP Orders of January 31, February 7, and February 28 TUCP Orders is described in section 6.1 of those orders. The “urgent need” described in the previous orders continues to exist. During February, ~~and March~~, **and early April** the State received several precipitation events. Those precipitation events have, and continue to, improve hydrologic conditions in the Delta and upstream for an interim period. However, it is expected that the additional inflows to the Delta resulting from the earlier storm events will recede very quickly. In addition, while the precipitation events have improved water supply conditions to some extent, San Luis Reservoir and DWR’s and Reclamation’s reservoirs north of the Delta remain critically low. As a result, the proposed change remains urgent. This Order adds additional measures to help address critically low storage levels in San Luis Reservoir and DWR’s and Reclamation’s reservoirs north of the Delta and associated water supply needs of those reservoirs. **The operations forecasts in the DOP includes additional information concerning projected flows and storage levels.**

## **6.2 No Injury to Any Other Lawful User of Water**

In the TUCP, the Petitioners stated that, under the proposed changes to Delta Outflow requirements, the Projects would continue to augment natural flows with storage releases, unless the hydrology within the Delta watershed were to improve significantly. As explained in the January 31 TUCP Order, other water right holders could not be injured by a decrease in the amount of stored water released to meet Delta outflow requirements because they are not entitled to divert water previously stored or imported by the Projects that is released for use downstream.

During any period when the Projects are operated consistent with the alternate set of compliance requirements approved by this Order, the Projects would not be augmenting natural flows with storage releases. Nonetheless, other lawful users will not be injured by the proposed change because the Projects will continue to meet modified Delta Outflow requirements and adequate flows are expected to remain in the system to meet the demands of other lawful users of water. Moreover, approval of the proposed modification does not affect the Petitioners’ obligation to curtail their diversions of natural and abandoned flows to the extent necessary to protect senior water right holders. A condition will be added to the TUCP Order to ensure that the Petitioners’ bypass adequate natural and abandoned flows to prevent injury to senior water right holders.

## **6.3 No Unreasonable Effect upon Fish, Wildlife, or Other Instream Beneficial Uses**

As discussed in the January 31 TUCP Order, the changes as conditioned will not cause unreasonable effects on fish, wildlife, or other instream beneficial uses of water. The effects of the proposed changes under this Order are discussed below in the context of the previous findings. In addition to the option of complying with Delta outflow levels of 3,000 cfs, with the DCC Gates open and exports of 1,500 cfs or less discussed in the previous orders, this Order allows for alternate set of compliance requirements including: compliance with the Delta Outflow or salinity levels specified in footnote 10 of D-1641 (7,100 cfs as a 3-day average or an EC of 2.64 mmhos/cm on a daily or 14-day running average at station C2) along with Delta Exports and DCC Gate operations (closed) in compliance with D-1641 requirements. The additional Delta Outflows above 3,000 cfs are expected to improve conditions for numerous estuarine and anadromous species in the Delta. In addition, closure of the DCC Gates is expected to improve

conditions for fish by reducing entrainment of migrating salmonids into the interior Delta. The effects of higher exports are expected to be offset to some extent by the additional Delta outflows and closure of the DCC Gates. Further, the export of additional water is limited to natural and abandoned flows ensuring that stored water is maintained in upstream reservoirs for use later in the season for fish and wildlife and other purposes. The March 18 and April 9, 2014 requests from DWR include concurrence letters from the fisheries agencies that the modifications included in this order will comply with federal and state endangered species act requirements.

#### **6.4 The Proposed Change is in the Public Interest**

The reasons why the TUCP Order is in the public interest were described in section 6.4 of the January 31 TUCP Order.

#### **7.0 CONCLUSIONS**

The State Water Board has adequate information in its files to make the evaluation required by Water Code section 1435 concerning the additional modifications of the TUCP Order discussed above. Changes to the TUCP Order from the February 28, 2014 modified version are provided in underline and strikeout below.

I conclude that, based on the available evidence:

1. The Petitioners have an urgent need to make the proposed changes;
2. The petitioned changes, as conditioned by this Order, will not operate to the injury of any other lawful user of water;
3. The petitioned changes, as conditioned by this Order, will not have an unreasonable effect upon fish, wildlife, or other instream beneficial uses; and,
4. The petitioned changes, as conditioned by this Order, are in the public interest.

## ORDER

**NOW, THEREFORE, IT IS ORDERED** that the petition for temporary urgency change in permit and license conditions under Permits 16478, 16479, 16481, 16482 and 16483 (Applications 5630, 14443, 14445A, 17512 and 17514A, respectively) of the Department of Water Resources (DWR) for the State Water Project (SWP) and License 1986 and Permits 11315, 11316, 11885, 11886, 11887, 11967, 11968, 11969, 11970, 11971, 11972, 11973, 12364, 12721, 12722, 12723, 12725, 12726, 12727, 12860, 15735, 16597, 20245, and 16600 (Applications 23, 234, 1465, 5638, 13370, 13371, 5628, 15374, 15375, 15376, 16767, 16768, 17374, 17376, 5626, 9363, 9364, 9366, 9367, 9368, 15764, 22316, 14858A, 14858B, and 19304, respectively) of the United States Bureau of Reclamation (Reclamation) for the Central Valley Project (CVP); is approved subject to the following terms and conditions. All other terms and conditions of the subject license and permits, including those added by the State Water Resources Control Board (State Water Board) in Revised Decision 1641 (D-1641) shall remain in effect. This Order shall be effective until July 30, 2014.

1. Except as otherwise provided in condition 2, below, for a period not to exceed 180 days or until such time as this Order is amended or rescinded based on changed circumstances, the requirements of D-1641 for DWR and Reclamation to meet specified water quality objectives are amended as follows:
  - a. The minimum Delta Outflow levels specified in Table 3 are modified as follows: the minimum Net Delta Outflow Index (NDOI) described in Figure 3 of D-1641 during the months of February, **and March, and April** shall be no less than 3,000 cubic-feet per second (cfs). In addition to base Delta Outflows, pursuant to this Order, a higher pulse flow may also be required through the Real-Time Drought Operations Management Process described below.
  - b. The maximum Export Limits included in Table 3 are modified as follows: during March **and April** when footnote 10 of D-1641 is not being met, or the Delta Cross Channel (DCC) Gates are open, the combined maximum SWP and CVP export rate for SWP and CVP contractors at the Harvey O. Banks and C.W. "Bill" Jones pumping plants shall be no greater than 1,500 cfs on a 3-day running average. When precipitation and runoff events occur that allow the DCC to be closed and footnote 10 of D-1641 to be met (Delta Outflow of 7,100 cfs or electrical conductivity of 2.64 millimhos per centimeter on a daily or 14-day running average at the confluence of the Sacramento and the San Joaquin rivers (Collinsville station C2)), but the additional Delta Outflow requirements contained in Table 4 of D-1641 are not being met, then exports of natural and abandoned flows are permitted up to D-1641 Export Limits contained in Table 3. The use of the water exported pursuant this ordering provision 1.b, including previous versions of this ordering provision, is conditioned on DWR and Reclamation following the process described in their March 18, 2014 letter. These limitations do not apply to water transfers under non-SWP or CVP water rights or between SWP and CVP contractors. DWR and Reclamation shall refine estimates of export amounts and deliveries required to maintain health and safety and shall provide these estimates to the State Water Board by March 21. Based on additional information or changed circumstances, the export limits imposed

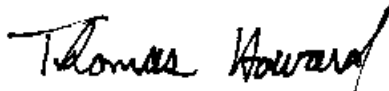


pursuant to this Order may be modified through the Real-Time Drought Operations Management Process described below.

- c. The Delta Cross Channel (DCC) Gate Closure requirements included in Table 3 are modified as follows: the DCC gates may be opened from February 1 through May 20 as necessary to preserve limited storage in upstream reservoirs and reduce infiltration of high salinity water into the Delta while reducing impacts on migrating Chinook salmon. Requirements for closure of the DCC gates during March through May 20 shall be determined through the Real-Time Drought Operations Management Process described below.
2. During the effective period of this Order, if precipitation events occur that enable DWR and Reclamation to **fully** comply with the Delta Outflow and DCC Gate Closure requirements contained in ~~Table 3 of~~ D-1641, then D-1641 requirements shall be operative, except that any SWP and CVP exports greater than 1500 cfs shall be limited to natural or abandoned flow, or transfers as specified in condition 1b.
3. DWR and Reclamation shall convene a Real-Time Drought Operations Management Team with designated representatives from DWR, Reclamation, the State Water Board, Department of Fish and Wildlife, National Marine Fisheries Service and U.S. Fish and Wildlife Service (fisheries agencies). The Real-Time Drought Operations Management Team shall be convened to discuss potential changes to SWP and CVP operations to meet health and safety requirements and to reasonably protect all beneficial uses of water. The team shall meet on a regular basis, and no less than weekly, to discuss current conditions and may be combined with the existing Water Operations Management Team as appropriate. The State Water Board representative shall be designated by the Executive Director of the State Water Board and shall be authorized to make real-time operational decisions to modify requirements to meet pulse flows associated with the modification to the Delta Outflow objective described above, Export Limits, DCC gate closures, and the associated requirements of this Order. If the State Water Board approves any additional temporary urgency changes pursuant to the temporary urgency change petition that is the subject of this Order, or otherwise modifies this Order, the State Water Board will provide notice and an opportunity for interested persons to comment or object. Based on public comments or objections, further changes may be made to this Order. Information concerning changes to this Order will be posted on the State Water Board's website within 24 hours.
4. DWR and Reclamation shall calculate and maintain a record of the amount of water conserved through the changes authorized by this Order. The water conserved shall be maintained in storage to protect flows for fisheries, used to maintain water supplies, or used to improve water quality. The use of such water shall be determined through the Real-Time Drought Operations Management Team Process described above.
5. DWR and Reclamation shall develop monthly water balance estimates indicating actual and proposed operations through the end of the water year. Specifically, actual and projected inflows, north of Delta contract deliveries, other channel depletions, exports, and Delta outflows shall be identified. The water balance shall be posted on DWR's website and updated as necessary based on changed conditions.

6. DWR and Reclamation shall conduct necessary modeling and monitoring to inform real time operational decisions. Required modeling and monitoring shall be determined through the Real-Time Drought Operations Management Team Process or as may be required pursuant to any modification to this Order.
7. DWR and Reclamation shall bypass natural and abandoned flows to the extent necessary to prevent injury to senior water right holders.
8. This Order may be further modified by the Executive Director based on additional public input or changed circumstances. Specifically, the State Water Board ~~will hold~~ held a workshop on February 18 and 19, 2014, to receive public comment on what if any modifications should be made to this Order to ensure that the changes approved by this Order will not injure any lawful user of water, will not unreasonably affect fish and wildlife, and will be in the public interest.
9. This Order does not authorize any act that results in the taking of a candidate, threatened or endangered species, or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a "take" will result from any act authorized under this Order, the Petitioners shall obtain authorization for an incidental take permit prior to construction or operation of the project. Petitioners shall be responsible for meeting all requirements of the applicable Endangered Species Act for the temporary urgency change authorized under this Order.
10. Petitioners shall immediately notify the Executive Director of the State Water Board if any significant change in conditions occurs that warrants reconsideration of this Order.

STATE WATER RESOURCES CONTROL BOARD



*Thomas Howard*  
*Executive Director*  
Dated: April 9, 2014