

Re: STATE WATER RESOURCES CONTROL BOARD In the Matter of Specified License and Permits¹ of the Department of Water Resources and U.S. Bureau of Reclamation for the State Water Project and Central Valley Project APRIL18, 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 BY THE EXECUTIVE DIRECTOR

Attn: Diane Riddle, Division of Water Rights

Subject: Request for Clarification and Detailed Information Pertinent to the Terms and Conditions Contained in the Executive Officer's Approval of the Temporary Urgency Change Petition (TUCP 18 April 2014 – Seventh Revision.

The indented text in this communication are verbatim quotations-excerpts from the latest version of the executive officer's modification and approval of the California's Department of Water Resources (DWR) and the U.S. Bureau of Reclamation's Temporary Urgency Exchange Petition (TUCP), dated 18 April 2014 (seventh rendition). To wit, Porgans & Associates (P/A) **REQUEST** clarification and detailed quantifiable information-data pertinent to the assurance that the terms and conditions (**bold and underlined text**) contained in the Order are met, which are as follows:

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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) 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, February 28, 2014, March 18, 2014, April 9, 2014, and April 11, 2014. This Order further modifies the TUCP Order.

2.0 BACKGROUND

In the January 29, 2014 TUCP the Petitioners 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) (attached). Specifically, the TUCP requested 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.

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The TUCP also proposed modification of 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 unprecedented² critically dry hydrological conditions as California enters its third straight year of below average rainfall and snowmelt runoff. [Emphasis added] Additional information concerning the drought and the TUCP can be found on the State Water Board's website at: http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/tucp.shtml

¹ 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.]

○ ² Unprecedented | Define Unprecedented at [Dictionary.com](#) without previous instance; never before known or experienced; unexampled or unparalleled: an unprecedented event. Origin: 1615–25;

A). REQUEST for clarification and the data to verify Petitioners' assertion that California is experiencing unprecedented critically dry conditions; as records obtained from the DWR's files do not support that assertion. P/A recently released its finding in an article entitled "[Epic 500 year drought exacerbated](#) and [exaggerated by water officials](#), a copy of which was sent to the Clerk of the Board.

2.1 January 31 Order

The January 31, 2014 Order allowed DWR and Reclamation 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 20.³ 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. [Emphasis added]

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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 ... 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 (or Petitioners) 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, 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: **With the exception of the San Joaquin River pulse flow period**, 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. **During the April through May San Joaquin River pulse flow period, when the Delta Outflow requirement in footnote 10 of Table 3 in D-1641 is not being met as described above, exports are permitted up to 100 percent of the 3-day running average of San Joaquin River flows at Vernalis or 1,500 cfs, whichever is greater. 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**

³ 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.

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.

B). REQUEST for clarification regarding ...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. Does that imply more than 1,500 cfs is allowed to be exported?

C). REQUEST for clarification and quantification as to the total amount of transfer water referenced in this statement? **These limitations do not apply to water transfers under non-SWP or CVP water rights or between SWP and CVP contractors.**

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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.

D). REQUEST for refined estimates of export amounts and deliveries required to maintain health and safety required by the State Water Board by March 21.

3. DWR and Reclamation shall convene a Real-Time Drought Operations Management Team with designated representatives from DWR, Reclamation, the State Water Board, and the 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.

E). REQUEST for the basis, in fact, for DWR and Reclamation's initial determination upon which they prefaced their 1,500 cfs export to provide for health and safety requirements.

F). REQUEST for clarification as to whether the SWRCB has its own independent capability of "real-time" monitoring of the operations of the SWP/CVP operations or is it dependent on DWR and Reclamation's data?

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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 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.**

G). REQUEST for the amounts of natural and abandoned flow exported to date. Also, the amount of transfer water to date, and any additional amount of transfer water proposed or scheduled for transfer, while the TUCP is in effect; including carriage water requirements, if any.

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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.

H). REQUEST both DWR and Reclamation would have realized an additional amount of water to storage as a result of the executive officer's approval for granting the SWP and CVP relaxation of D-1641 requirements, this additional saving of water results from not having to release "carriage water" otherwise required to meet D-1641 standards; what is the total amount of carriage water accrued?

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.

I). REQUEST for the monthly “water balance” estimates and supporting data, including the and/or the website that post that information.

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.

J). REQUEST for information regarding the SWRCB’s dependence on DWR and Reclamation’s modeling results; does the SWRCB have its own model and monitoring capability or is it dependent on the SWP/CVP operators?

7. DWR and Reclamation shall bypass natural and abandoned flows to the extent necessary to prevent injury to senior water right holders.

K). REQUEST for information as how such a determination is established, and by whom, DWR, Reclamation, SWRCB or the injured party?

8. This Order may be further modified by the Executive Director based on additional public input or changed circumstances. Specifically, the State Water Board 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.

L). REQUEST for any and/or all changes in the terms and conditions of the TUCP related to public input.

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.

M). REQUEST for clarification that this Order does not authorize any act that results in the taking of a threatened or endangered species, or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544); “Take” has and continues as a result of the permits and licenses issued by the SWRCB to petitioners.

Answers to the aforementioned questions are of paramount interest to the public, and it is the responsibility and duty of the SWRCB to provide this information, which, as P/A had suggested previously, should be the subject of a hearing.

Thank you for your time and interest.

P.S. Examples of “carriage water” required by the Petitioners to meet Delta standards are contained in Attachment A.

ATTACHMENT A

[Dated material, for illustration purposes only]

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December 27, 1984

Jerry Cox

Francis Chung/Sina Darabzand
Hydrology and Water Operations
Section

North Delta Water Agency (NDWA) Contract Outflow

Per your request, two nine-year operation studies were conducted and are summarized in the attached tables. Aside from the assumptions common in our 1990 level operation studies such as 1990-USCE-18, the following three features are specially designed for the NDWA contract outflow computation.

1. In October, November and December, use previous water year's Four Basin Index for the table look-up (upper-left graph in Attachment A, NDWA Contract).
2. Raise D-1485 minimum fish flow requirements from 2,500 cfs to 3,000 cfs.
3. Activate the outflow relaxation during December and January if Oroville storage in the beginning of each month becomes less than 2.0 MAF. In our previous runs, imposition of deficiencies activated the outflow relaxation.

As in our previous runs, 3.0 MAF of SWP normal annual delivery is used as the base. For documentation purpose, the two studies are named as follows:

<u>Study I. D.</u>	<u>Description</u>
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27A	With NDWA Contract Outflow
27B	Without NDWA Contract Outflow

Table B shows the water year deliveries for the nine-year period. This delivery pattern is used for both studies causing the differences in the October 1935 storages presented in Table C. Due to the additional outflow requirements shown in Table F, ending storages (Table C) in Study 27A are lower. Reduction in surplus Delta outflow (Table G) in Study 27A compensates somewhat for the additional outflow requirements. This is not our normal mode of operation studies. Nonetheless, it was necessary because of the high normal SWP demand of 3.0 MAF.

Attachments

cc: Carl Winkler, with attachment
Jerry Vayder, without attachment
Sushil Arora " " " "
Ed Winkler " " " "

FChung/SDarabzand:br
(TXFWS-SINABR)

SURNAMe

TABLE A

PROJECT TARGET DELIVERIES WITH PERMANENT SUISUN MARSH
 D-1485 STANDARDS
 (TAF/Yr.)

<u>Study</u>	<u>SWP Base Delivery</u>	<u>CVP Base Delivery</u>
27A	3000.3	3167.0
27B	3000.3	3167.0

TABLE B

ANNUAL DELIVERIES
 (TAF)

<u>WATER YEAR</u>	<u>SWP Deliveries</u> ^{1/}	<u>Shortages Below 3.0 MAF</u>	<u>CVP Deliveries</u> ^{2/}
1927	3,000	0	3,167
1928	2,782	218	3,167
1929	2,733	267	2,561
1930	2,593	407	3,057
1931	1,993	1,007	2,561
1932	1,590	1,410	3,057
1933	1,529	1,471	2,561
1934	1,529	1,471	2,451
1935	2,563	437	3,057

1/ SWP Deliveries = N. Bay + S. Bay + SWP Dos Amigos Deliveries.

2/ CVP Deliveries = C.C.C. + D.M.C. + San Felipe + CVP San Luis Deliveries.

TABLE C

RESERVOIR STORAGE AT END OF OCTOBER WATER YEAR 1935 WITH
PERMANENT SUISUN MARSH D-1485 STANDARDS
(TAF)

Study	SWP ^{1/}	CVP ^{2/}	Total
27A	1,162	1,237	2,399
27B	1,978	1,192	3,170

1/ SWP Storage = Oroville + SWP San Luis.

2/ CVP Storage = Shasta + Clair Engle + Whiskeytown + Folsom
+ CVP San Luis.

TABLE D

CARRIAGE WATER REQUIREMENTS WITH
PERMANENT SUISUN MARSH D-1485 STANDARDS
(TAF)

Water Study	1928 (May-Sep)	1929	1930	1931	1932	1933	1934	1935 (Oct.-Only)	Total
27A	348.9	72.7	229.7	112.7	165.2	0.0	76.3	0.0	1,005.5
27B	348.9	62.7	230.7	112.3	163.0	0.0	42.3	0.0	959.9

TABLE E

MINIMUM D-1485 REQUIRED OUTFLOW WITH PERMANENT SUISUN MARSH D-1485 STANDARDS
(TAF)

Study	1928 (May- Sep)	1929	1930	1931	1932	1933	1934	1935 (Oct.- Only)	Total
27A	1831.7	3629.7	4975.3	2857.4	4924.3	2880.2	2882.5	184.5	24,165.5
27B	1831.7	3643.3	4989.9	2861.7	4972.4	2908.4	2909.7	184.5	24,301.6

TABLE F

ADDITIONAL OUTFLOW REQUIRED TO MEET NDWA CONTRACT
(TAF)

Study	1928 (May- Sep)	1929	1930	1931	1932	1933	1934	1935 (Oct.- Only)	Total
27A	0	298.3	87.3	145.4	105.8	199.0	182.4	50.6	1,068.8
27B	0	0	0	0	0	0	0	0	0

TABLE G

SURPLUS DELTA OUTFLOW
(TAF)

Study	1928 (May- Sep)	1929	1930	1931	1932	1933	1934	1935 (Oct.- Only)	Total
27A	4	1	1099	0	1280	0	185	0	2569
27B	4	0	1161	0	1297	0	277	0	2739