

MEMBER UNITS EXHIBIT NUMBER 105

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Permits 11308 and
11310, Issued on Applications
11331 and 11332, U. S. BUREAU OF
RECLAMATION
Permittee

ORDER NO. WR 73-37

Source: Santa Ynez River

County: Santa Barbara

ORDER AMENDING PERMITS

BY BOARD VICE CHAIRMAN ROBIE:

On February 28, 1958 the former State Water Rights Board adopted Decision 886 approving Application 11331 and 11332 of the U. S. Bureau of Reclamation covering the Cachuma Project. The principal features of the project are Bradbury Dam and Lake Cachuma on Santa Ynez River, Tecolote Tunnel to convey water through the Santa Ynez Mountains to the coastal area of Santa Barbara County, and the South Coast Conduit to distribute water to several county water districts and the City of Santa Barbara in the coastal area. The Board found that while there was sufficient unappropriated water to justify issuance of permits, it was necessary to retain jurisdiction to the extent and for such period of time as may be reasonably necessary for the determination

of streamflow of the Santa Ynez River required for protection of vested rights without resulting in waste into the ocean. Accordingly, Condition 13 of Decision 886 reserved jurisdiction for 15 years or for such further time prior to issuance of license as the Board may determine upon notice and hearing to be necessary for said purpose. By order of February 15, 1973, the reserved jurisdiction was continued until further order, to be made not later than October 1, 1973.

Hearing having been held on January 26, 1973 in accordance with the continuing jurisdiction and the permittee, with concurrence of representatives of downstream and project water users, having submitted a proposed new plan for operation of Bradbury Dam and Lake Cachuma, the Board finds as follows:

1. By maintaining groundwater storage space in the aquifers downstream from Bradbury Dam, the proposed plan of operation will result in increased percolation and conservation of inflow to Santa Ynez River downstream from the dam.

2. The effects of the proposed plan on wildlife due to changes in riparian vegetation and on water supplies of downstream users can be determined only through actual operation. Therefore, continuing jurisdiction should be reserved during a trial period of actual operation during which the Board upon the request of any party, or on its own motion, may hear, review and make further order as may be required.

3. During the trial period modification may be required of the procedures and criteria for determining releases from Bradbury Dam necessary to

achieve the objectives of the operating plan. The order should provide for such modifications if proposed by the permittee, and agreed to by Santa Ynez River Water Conservation District and the State Water Resources Control Board.

NOW, THEREFORE, IT IS ORDERED that Condition No. 5, Condition No. 6 (as amended by orders of July 30, 1959, and September 28, 1961), and Condition No. 7 of Permits 11308 and 11310 (Applications 11331 and 11332) be amended to read as follows:

5. Water of the Santa Ynez River shall be stored in and released from Lake Cachuma in such amounts and at such times and rates as (a) will be sufficient, together with inflow from downstream tributary sources, to supply downstream diversions of the surface flow under vested prior rights to the extent water would have been available for such diversions from unregulated flow, (b) will be sufficient, together with inflow from downstream tributary sources, to maintain percolation of water from the stream channel as such percolation would occur from unregulated flow, in order that operation of the project shall not reduce natural recharge of groundwater from the Santa Ynez River, and (c) will enhance percolation of tributary runoff below Bradbury Dam to promote water conservation, more specifically as hereinafter set forth. Because studies and historical operation have shown that percolation rates are different above and below the Lompoc Narrows, the following provisions, to be complied with by permittee, are divided into two categories: (1) above the Narrows; and (2) below the Narrows.

(1) Above the Narrows

An "above Narrows" account shall be established and amounts of water shall be credited to and released from said account as provided below in this section (1).

- (1.1) The volume of dewatered storage in the groundwater basins above the Narrows shall be determined at the end of each calendar month. USBR Exhibit 20, dated March 1, 1973, in the hearing on this matter on January 26, 1973 contains, in Attachment A thereto, a list of indicator wells in 23 storage units comprising these basins which shall be used for this determination and, in Attachment B thereto, a compilation of curves dated March 1, 1973 that relate dewatered storage to water level elevations in the indicator wells.
- (1.2) The operating dewatered storage (ODS) for the combined 23 storage units shall be 10,000 acre-feet of dewatered storage.
- (1.3) All inflow to Lake Cachuma shall be computed on a daily basis and, except as otherwise specifically provided herein, shall be stored in the lake. Such computed Lake Cachuma inflow shall be deemed to be no less than 25 acre-feet per month.
- (1.4) Each month, the inflow to Lake Cachuma stored that month during periods when a live stream did not actually exist in the Santa Ynez River shall be computed. All such stored inflow shall be credited monthly and accumulated in an "above Narrows" account. At the end of each month, the account shall be reduced if necessary, so that it does not exceed the actual amount of dewatered storage in the 23 storage units at that time. (A "live stream", as that term is used herein, shall be deemed to exist in

the Santa Ynez River whenever there is a visible stream of water flowing on the surface of the River bed at the San Lucas Bridge, at the Mission Bridge near Solvang, at U. S. Highway 101 Bridge near Buellton, at the Santa Rosa Damsite (river mile 25.3), at Robinson Bridge near Lompoc, and at the "H" Street Bridge north of Lompoc, and also there is a surface flow in the River of not less than one (1) cubic foot of water per second at the 13th Street Bridge north of Lompoc.)

(1.5) If, at any time, the total dewatered storage in the basins above the Narrows exceeds the ODS, releases of water in the "above Narrows" account shall be made at such times, amounts and rates of flow as are requested by the Santa Ynez River Water Conservation District (Santa Ynez), but the amount of such releases shall not exceed (i) the quantity required to raise the water levels to the ODS, or(ii) the quantity accumulated in the "above Narrows" account, whichever is smaller. The amounts so released shall be deducted from the "above Narrows" account.

(1.6) Notwithstanding paragraph (1.5) above, for the benefit of water users upstream from San Lucas Bridge, permittee may release water in any month up to the total computed inflow for the two previous months less previous releases of such two months inflow. Of the total amount so released for such users, only an amount not in excess of the two previous months' increase in the "above Narrows" account shall be deducted from that account.

(1.7) The "above Narrows" account shall not be reduced by Lake Cachuma evaporation.

(1.8) In the event of a spill from Lake Cachuma, water in the "above Narrows" account shall be deemed to be the first water spilled to the extent dewatered storage is reduced during the month spill occurs.

(1.9) The point of delivery of water in the "above Narrows" account shall be at Bradbury Dam.

(2) Below the Narrows

A "below Narrows" account shall be established and amounts of water shall be credited and released from said account as provided below in this section (2).

(2.1) As stated in paragraph (1.3) of section (1) above, all inflow to Lake Cachuma shall be stored in the Lake, except as otherwise specifically provided herein. An approximation of the flow at the Narrows that would have occurred in the absence of the Cachuma Project (hereinafter called "constructive flow") shall be computed monthly as follows (hereinafter, the month for which the computation is made is called the "computation month"):

(2.1.A) For each computation month in which no releases were made from the "below Narrows" account, the Cachuma inflow shall be either (i) increased by the amount by which the "above Narrows" account at the end of the previous computation month exceeded the dewatered storage at the end of the computation month, or (ii) decreased by the amount by which such dewatered storage exceeded the

previous computation month's "above Narrows" account. From the result shall be subtracted the computation month's releases and spills, if any. The result shall be the increment to be added to the measured flow at the Narrows to determine the constructive flow at the Narrows for the computation month. If that increment is negative, it shall be treated as zero.

(2.1.B) For each computation month in which releases were made from the "below Narrows" account, the computation month releases and spills and the measured flow at the Narrows used in the computation as set forth in subparagraph (2.1.A) of this paragraph (2.1) above shall be decreased by the amount of the "below Narrows" account releases which reached the Narrows during the computation month. Such amount shall be determined as described in subparagraph (2.1.C) of this paragraph (2.1), immediately following.

(2.1.C) The amount of the "below Narrows" account releases which reached the Narrows during a computation month shall be determined as follows: The Salsipuedes Creek contribution to flow at the Narrows during the computation month shall be subtracted from the measured flow at the Narrows for that month. If such measured flow at the Narrows minus such Salsipuedes Creek contribution equals or

exceeds the quantity released from the "below Narrows" account that month, it shall be deemed that all of the "below Narrows" release reached the Narrows. If such measured flow at the Narrows minus such Salsipuedes Creek contribution is less than the "below Narrows" release, it shall be deemed that only the difference between such measured flow at the Narrows and such Salsipuedes Creek contribution reached the Narrows.

(2.1.D) Water may be released from Lake Cachuma and be in transit above the Narrows at the end of a month and, as a result, computations made as of that date may not accurately reflect pertinent facts. To compensate for such occurrences, appropriate adjustments shall be made to the calculations required by this order.

(2.2) A monthly computation shall be made of the amount of impairment of percolation to the Lompoc Basin due to the Cachuma Project. The amount of such percolation during the computation month shall be determined by means of the "percolation/flows at Narrows" correlation shown in USER Exhibit 20, Attachment C, dated March 1, 1973, assuming (i) the measured flow at the Narrows and (ii) the constructive flow at the Narrows. The monthly impairment shall be equal to the difference between the two amounts thus determined. For months in which there is a release

from the "below Narrows" account, measured flow at the Narrows as used pursuant to this paragraph (2.2) shall be decreased in accordance with subparagraph (2.1.B) of paragraph (2.1) of this section (2) above.

- (2.3) The amount of percolation impairment shall be credited to the "below Narrows" account. The volume of dewatered storage in the groundwater basin below the Narrows shall be determined at the end of each month. Each month the account shall be reduced, if necessary, so that it does not exceed the actual amount of dewatered storage in the Lompoc Basin at that time. A list of indicator wells in eight storage units in the Lompoc Basin is contained in USBR Exhibit 20, Attachment D, revised March 1, 1973. USBR Exhibit 20, Attachment E, is a compilation of curves dated March 1, 1973 that relate dewatered storage to water level elevations in the indicator wells. Because of uncertainty as to whether the "full" elevations initially shown for the indicator wells in Attachments D and E are correct, such initially shown "full" elevations are tentative only and shall not be used for purposes of reducing the "below Narrows" account unless they are reviewed and are affirmed in accordance with the procedure prescribed in section (a) or section (b) of Condition No. 7 or, if not affirmed, are modified in accordance with said procedure, and in such case they shall then be used as modified.
- (2.4) The "below Narrows" account shall not be reduced by Lake Cachuma evaporation.

(2.5) Releases of water in the "below Narrows" account shall be requested by Santa Ynez as soon after the credit is computed as is reasonably consistent with the goal of optimizing the percolation of a substantial amount of such water into the Lompoc Basin, and in such requests Santa Ynez shall specify the desired amounts and rates of flow of such releases, subject to the limitation described below. Permittee shall make the requested releases. The "below Narrows" account shall be reduced by the amount of water so released which reaches the Narrows, as determined pursuant to subparagraph (2.1.C) of paragraph (2.1) of this section (2) above. The amount of water so released which does not reach the Narrows shall be deducted from the "above Narrows" account. The "above Narrows" account may have a negative balance as a result of releases of water from the "below Narrows" account. In the event of a spill from Lake Cachuma, any such negative balance shall be adjusted to zero. To the extent a negative balance exists in the "above Narrows" account, all inflow to Lake Cachuma shall be credited to that account. For any month the requests for releases of water in the "below Narrows" account shall not exceed the lesser of (i) the "below Narrows" account at the end of the previous month, or (ii) the algebraic sum of the "below Narrows" account at the end of the previous month plus the "above Narrows" account at the end of the previous month plus 2,000 acre-feet.

(2.6) The point of delivery of waters stored in the "below Narrows" account shall be at Bradbury Dam.

(2.7) As provided in paragraph (1.8) of section (1) above, in the event of a spill from Lake Cachuma, water in the "above Narrows" account shall be deemed to be the first water spilled to the extent dewatered storage is reduced during the month spill occurs. Additional spill shall be deemed to be water in the "below Narrows" account to the extent dewatered storage below the Narrows is reduced during the month spill occurs.

6. Until further order of the Board, permittee shall make or cause to be made suitable field investigations, measurements, and studies, and shall install necessary measuring facilities, to determine the amount, timing, and rate of releases of water into the natural channel of the Santa Ynez River below Bradbury Dam that are required of permittee in order to fully comply with the provision of Condition No. 5 in this permit, and to determine the effects on riparian vegetation of releases in accordance therewith. Permittee shall provide the necessary measuring devices and shall submit to the Board with the annual progress reports, or at such other times as the Board may require, a report of such investigations, measurements, and studies and the results thereof, including but not limited to the following:

- (a) A continuous record of Lake Cachuma water surface elevations.
- (b) A continuous record of precipitation near Bradbury Dam.
- (c) Daily evaporation, wind movement, precipitation, and temperature near Bradbury Dam.
- (d) Daily inflow to Lake Cachuma, including underground flows, by

proper computations of tunnel diversions, reservoir releases, spills, and change in storage.

- (e) (Eliminated by Order of September 28, 1961.)
- (f) (Eliminated by Order of September 28, 1961.)
- (g) Continuous records of outflow from Lake Cachuma, including flows through river outlets at Bradbury Dam, inflows and outflows through Tecolote Tunnel, and overflows at Bradbury Dam spillway. Instruments suitable for accurate measurement of small outflows shall be installed.
- (h) Continuing groundwater studies below Bradbury Dam in the Santa Ynez Basin, with monthly observation of representative wells influenced by Santa Ynez River flows at locations as shown on USBR Drawing No. 368-208-499 dated January 9, 1973, (revised February 2, 1973), USBR Exhibit 20, Attachment F.
- (i) (Eliminated)
- (j) Semiannual water quality analyses of surface and groundwater downstream from Bradbury Dam at locations as shown on USBR Drawing No. 368-208-499 (revised February 2, 1973).
- (k) (Eliminated)
- (l) (Not used)
- (m) Periodic aerial color photographs of the Santa Ynez River channel from Bradbury Dam to its mouth, such photographs to be taken annually or at less frequent intervals with concurrence of California Department of Fish and Game and notification to the Board.
- (n) Periodic groundlevel color photographs of representative areas of riparian vegetation along the river, such photographs to be

taken monthly or at less frequent intervals with concurrence of California Department of Fish and Game and notification to the Board.

- (o) A record of monthly quantities of dewatered groundwater storage downstream from Bradbury Dam and of monthly quantities shown in the "above Narrows" and the "below Narrows" accounts, as described in Condition No. 5 of this permit.

Permittee shall make its records of such investigations and measurements available for inspection by the Board and shall allow authorized representatives of the Board, Santa Barbara County Water Agency and member units, City of Lompoc, and United States military installation at Vandenberg Air Force Base, reasonable access to its project works and properties for the purpose of gathering information and data.

7. The Board, either upon the request of any party or on its own motion, may, and shall, prior to the expiration of a 15-year trial period after the date of this Order, hear, review, and make such further and different orders as may be required concerning proper releases of water for downstream use, riparian vegetation, and recharge of groundwater, and concerning the investigations, measurements, and studies to be conducted by permittee, until a final determination and order can be made concerning the amounts, timing and rates of releases of water past Bradbury Dam in satisfaction of downstream rights, and the Board retains continuing jurisdiction for such purposes during said 15-year trial period, or for such further time prior to issuance of license as the Board may determine upon notice and hearing to be reasonably necessary for the aforesaid purposes. During such period, the provisions of Conditions Nos. 5 and 6 above are subject to modification by any of the following procedures:

- (a) The provisions shall be modified as provided by a written proposal of permittee concurred with in writing by Santa Ynez. The modifications provided by such proposal shall go into effect 30 days after a copy of such proposal has been filed with the Board, unless the Board orders to the contrary prior to the expiration of such 30-day period. Should the Board so order, the Board shall, as soon as practicable, schedule, notice, and hold a hearing, and thereafter issue a decision and order, as to whether the modifications proposed by such proposal, or any other modifications, shall go into effect.
- (b) Upon written request by permittee or by Santa Ynez, or on its own motion, the Board shall, as soon as practicable, schedule, notice, and hold a hearing, and thereafter issue a decision and order, as to whether modifications as proposed in such request or by the Board, or any other modifications, should be approved by the Board and go into effect.
- (c) If any user of groundwater supplied by the Santa Ynez River downstream from Bradbury Dam or Santa Ynez files a verified written claim for damages with permittee (and mails a copy thereof by registered mail to the Board, and, in the case of a user other than Santa Ynez, to Santa Ynez) that, by reason of the storage of water in Lake Cachuma pursuant to this order, said user or Santa Ynez has been damaged, and permittee denies or fails to act on said claim within 60 days after receipt thereof, Santa Ynez may give written notice to the Board (with copies thereof by registered mail to permittee and any claimant) as follows: said written notice shall state that Santa Ynez

has investigated the claim and believes it to be meritorious, and that because of permittee's failure to approve and pay such claim Santa Ynez elects to modify section (1) of Condition No. 5 of this permit as follows:

- (1) In paragraph (1.2) of said section (1) "zero" would be substituted for "10,000".
- (2) In the first line of paragraph (1.5) of said section (1), the words "between May 1 and November 1" would be substituted for the words "at any time".
- (3) In the third line of said paragraph, the words "between May 1 and November 1 and in such" would be inserted after the words "shall be made at such times".

Said modifications shall become effective immediately. Thereupon, the Board shall, as soon as practicable, schedule, notice, and hold a hearing and thereafter issue a decision and order as to whether the modifications to section (1) of Condition No. 5 described above, or any other modifications, shall remain or go into effect. Notwithstanding the above, the election by Santa Ynez to so modify shall not be construed to adversely affect any rights or remedies which either Santa Ynez or any downstream water user may have against the permittee or any other person or entity by reason of any loss or expense which may occur as a direct result of the release program provided for herein.

IT IS FURTHER ORDERED that Condition No. 8 of said permits be
deleted.

Dated: July 5, 1973

Ronald B. Robie
Ronald B. Robie, Vice Chairman

We Concur:

W. W. Adams
W. W. Adams, Chairman

Roy E. Dodson
Roy E. Dodson, Member

Mrs. Carl H. Auer
Mrs. Carl H. (Jean) Auer, Member

W. Don Maughan
W. Don Maughan, Member