

MEMBER UNITS EXHIBIT NUMBER 107

COPY

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

ENGINEERING STAFF ANALYSIS OF RECORD
APPLICATIONS 24578 AND 24579
SANTA YNEZ RIVER UNDERFLOW
IN SANTA BARBARA COUNTY

Introduction

Applications 24578 and 24579 were filed by the Santa Ynez River Water Conservation District, Improvement District No. 1 (ID) on March 22, 1974, seeking a permit to appropriate 4.0 and 6.0 cubic feet per second (cfs), respectively, or a maximum of 10 cfs to be used for municipal and irrigation purposes. The seasons of use are year round for municipal and March 1 to November 15 for irrigation. Maximum combined use will not exceed 5,620 acre-feet per annum (afa). The applications were protested by four parties: Cachuma Conservation Release Board (CCRB), California Department of Fish and Game (DFG), United States Bureau of Reclamation (USBR), and Bryant & Patricia Myers. The Myers only protested Application 24578 (Staff Exhibit 1).

Protestant DFG unconditionally withdrew its protest on September 29, 1975. Protestants Myers withdrew their protest on October 25, 1976 upon condition that any permit issued on Application 24578 would include an agreement between the Myers and the applicant known as "Bryant Myers Agreement" (Staff Exhibit 1, ID Exhibit 12).

The remaining protestants, CCRB and USBR, made presentations at the hearing held May 9 and 10, 1978.

Protests and Answers

CCRB protested on the basis of alleged injury to vested rights and that the proposed appropriations would not best conserve the public interest. By letter of March 1, 1977 the staff rejected the vested rights portion of the protest. CCRB contends that the project will require increased releases from USBR's Cachuma Reservoir and thus decrease the supply to existing water users on the south coast of Santa Barbara County; deprivation of existing water users would not best conserve the public interest (Staff Exhibit 1).

The applicant answered both the vested rights and public interest portions of the protests. The ID felt CCRB had no vested rights standing because, among other reasons, the water rights are in the name of the United States, not CCRB. CCRB is a joint powers entity that represents the agencies that contract with the USBR for water (sometimes referred to as South Coast Contractors). The applicant pointed out in reply to the protests that this appropriation "is in part required to offset the loss of present water supplies to serve existing users". The supply referred to is under a contract with USBR for a diminishing quantity. By 1990 the contract quantity will be reduced by about 2,000 afa (Staff Exhibit 1).

Similarly, the USBR protested claiming injury to vested rights of the Cachuma Project under Permits 11308 and 11310 (Applications 11331 and 11332). The injury arises from possible increased releases from Cachuma Reservoir due to

the subject appropriations which would therefore decrease the supply available to the South Coast Contractors. By letter of March 1, 1977, the staff notified USBR that Board Decision 1338 precluded accepting a vested rights protest. In reply USBR requested to still be allowed to make a presentation of its protest at the hearing. USBR was advised it could appear as an interested party (Staff Exhibit 1).

The ID answered USBR's protest citing Decision 1338 that denies vested rights objections and states that, in any event, there is ample surplus water available to approve the applications. There would be no substantial effects on the surface flow of the Santa Ynez River or on Cachuma Reservoir storage (Staff Exhibit 1).

Both protests contained terms for dismissal. They were unspecified limits on the amounts and times water could be diverted or unspecified changes in Board Order WR 73-37 so that no additional releases from Cachuma Reservoir would be required (Staff Exhibit 1).

Applicant's Project

The applicant proposes to construct eight shallow wells, three under Application 24578 and five under Application 24579. The three wells under Application 24578 are ultimately expected to produce 4 cfs from river alluvium node 22 south of Santa Ynez while the five wells under Application 24579 are ultimately expected to produce 6 cfs from nodes 19 and 20 located south of Solvang (ID Exhibit 3, Staff Exhibit 1). Details describing the points of diversion and service area can be reviewed in the Staff Summary attached to the hearing notice dated April 18, 1978 located in each of the application folders. The ID plans to develop the construction and use of water in four stages as follows (RT 52, 53, 54; ID Exhibit 11):

<u>Stage</u>	<u>Application No.</u>	<u>afa</u>	<u>No. of Wells</u>	<u>Year</u>
1	24579	2100	3	1980
2	24579	1300	2	85
3	24578	800	1	90
4	24578	1420	2	95

Some 80 percent of the water is expected to be used for irrigation of up to 3,200 acres with an average duty of two acre-feet per acre. The rest of the demand will be met from other sources. The remaining 20 percent of the water will be used for municipal purposes serving a year 2000 population estimated at 6,300, utilizing an average of 180 gallons per day per capita. Again, the remaining demand above the 5,620 acre-foot maximum of these applications will be from other sources which include the Cachuma Project and the Uplands Groundwater Basin (RT 41-44; ID Exhibit 3, 5, 14; Staff Exhibit 1).

The water will be used within a gross area of 21,000 acres generally to the north of the river and completely encompassing the ID's 10,500 acres. The difference between the actual area of the ID and the area covered by the applications represents an area which can be conveniently served by the existing facilities of the ID and which may be served through annexation or agreement.

The area includes the communities of Santa Ynez, Solvang, and Los Olivos. In both cases the wells will tie into existing distribution systems within one mile of their locations (RT 39; ID Exhibit 3, 5, 14; Staff Exhibit 1).

The applications were filed for three purposes: to offset the reduction in the supply of water under the Cachuma contract; to provide for modest growth over the next 20 years (two percent annual compounded population growth); and to reduce the overdraft on the Uplands Groundwater Basin (RT 43; ID Brief 2; ID Exhibit 14).

Previous Board Decisions

Two prior decisions are of importance to this hearing.

Decision 886 approved the Cachuma Project applications but conditioned them to require releases to supply downstream diversions of the surface flow under prior vested rights and to maintain percolation and recharge of groundwater as would occur if the project were not in existence (Staff Exhibit 1).

Decision 1338 approved three applications (22423, 22454, and 22516) that are junior to the USBR filings, two of which draw from the Santa Ynez River underflow. Considerable testimony at the hearing and considerable attention in Decision 1338 was given to the intent of Condition 11 of Decision 886, a watershed-of-origin protection. Basically, D 1338 confirmed the watershed-of-origin protection. The concluding section of paragraph 7 of D 1338 reads as follows:

"Considering Decision D 886, including the order as a whole, it is concluded that the Board intended to grant permits for the Cachuma Project subject to prior vested rights to divert from the surface flow and also subject to all diversions supplied by percolation from the unregulated flow of the Santa Ynez River for use in the watershed without regard to the basis of right for such diversions. It follows that the Bureau's permits do not entitle it to object to the appropriations proposed by Solvang and Buellton." (Staff Exhibit 1)

It should be noted that the USBR did not petition for reconsideration, therefore presumably accepting the conclusion.

Discussion

Santa Barbara County as a whole needs supplemental water, and the current controversy revolves around which portion of the County will get first assurance of a firm supply of less expensive water. Since the prior decisions removed the vested rights protests, the remaining issue is that of best conserving the public interest.

CCRB maintains that a shortage of water to the south coast will result if these applications are approved without conditions restricting the time and amounts of water to be diverted or without modifying the USBR permits so releases are not required from Cachuma Reservoir. The applicant, however, prepared a study which indicates that annually ... "the resulting flow at 13th Street, which is virtually the point where water would then waste to the ocean, was 77,925 acre-feet ..." (RT 37; ID Exhibit 4). The ID 70-year study

goes on to show that in the absence of the Cachuma Project, 94.4 percent of the total demand would have been available from the unregulated flow and the remaining 5.6 percent of the total demand (eight separate periods) would be supplied from the Uplands Groundwater Basin (RT 52). Two agreements, one with Solvang and one with Bryant & Patricia Myers, would effectively decrease or stop the ID pumping under these applications during critical dry periods (RT 58, 59; ID Exhibits 12, 13). (The Solvang Municipal Improvement District did not protest ID Application 24579, having entered into agreement which was presented as ID Exhibit 13.)

USBR's operational studies, covering 58 years of flow records, with the subject applications included, show for the critical dry period of seven years (the period on which Cachuma Project yield was predicated) that the South Coast Contractors would actually receive an average of 1,085 afa surplus over the 22,000 afa safe export yield of the reservoir (RT 142; USBR Exhibits 6, 7, 8). Further, the studies show that if the USBR delivered only the safe export yield of 22,000 af during the critical dry period, there would be no shortage in the amount available from Cachuma in any year (RT 169, 170). CCRB's study indicates the same result and projects deficiencies in the total supply available to the south coast communities which would result from growth in those communities; the City of Santa Barbara would still have a surplus in the year 2000 (RT 236, 244, 245, 271; CCRB Exhibits 2, 3, 5, 6, 7). Also, the changes in the live stream agreement between Santa Ynez River Water Conservation District (SYRWCD) and the USBR confirmed in Board Order 73-37 has made an estimated (by CCRB) additional supply of 1,500 - 3,000 afa (later refined to 2,000 to 2,480 afa) available for export (RT 265, 273-275; CCRB Exhibit 6). It appears that the only shortages in the supply available from Cachuma would be of surpluses.

The applicant testified that the Uplands Groundwater Basin has an accumulated overdraft of 75,000 acre-feet which will increase to nearly 120,000 acre-feet by the year 2000, while the groundwater basins on the south coast are not overdrafted, have surpluses or are overflowing to the ocean (RT 45, 46, 56, 196, 226, 245; ID Exhibit 10). The applicant's project, on the other hand, could recover 30,000 acre-feet of the Uplands overdraft, which would reduce pumping levels from 200 to 60 feet and save energy (RT 91; ID Exhibit 10). The applicant has a conjunctive use plan for the Uplands Groundwater Basin and the Santa Ynez River while, of the South Coast Contractors, only Goleta testified they are initiating such a plan (RT 191, 241, 242; CCRB Exhibit 6). A conjunctive use program would allow the south coast to utilize more of the Cachuma Reservoir surplus, decreasing year to year carry-over storage credits that are lost when the reservoir spills.

Alternate sources are available to supply future needs of the south coast. The Santa Barbara County Water Flood Control and Water Conservation District has a contract with the State of California for supply from the State Water Project amounting to 57,700 afa (SYRWCD Exhibit 2). The Agency estimated that State Water Project water, if approved in the November 1978 election, could be delivered as early as 1986 (Staff Exhibit 1). The south coast communities could also reclaim wastewater that is presently disposed of in the ocean (RT 84, 85). CCRB Exhibit 10 lists eight supplemental sources and their costs. Those costs are substantially higher than Cachuma Project water, but the applicant also faces some of these same alternates at probably the same costs.

The applicant's project is in stages so that full use is not reached until 1995 (see table in "Applicant's Project" above) (ID Exhibit 11; Staff Exhibit 1).

The average duty for irrigation, which is 80 percent of the ID use, is 1 cfs for 150 acres, which is considered reasonable for ordinary crops in areas of less abundant supply (RT 42, 44; Section 657, Title 23, Calif. Admin. Code; Staff Exhibit 1). The applicant stated "They have sprinkler systems, they have sprinkler systems with adapted heads to meet the economics. They have tensiometer control" (RT 83). Domestic consumption in the ID is 180 gpd. Per capita use in Goleta, which had the most comprehensive water conservation ordinance in the county, was 160 gpd in 1972 and 130 gpd average in the last five years, including the drought (RT 43, 80, 191). While it is true the south coast communities are practicing severe conservation measures, they are not, at present, overdrafting their groundwater basins; and their share of the Cachuma yield, plus Tecolote Tunnel contributions, will increase from the present 23,650 afa to 24,940 afa (RT 196, 226, 245; CCRB Exhibits 5, 6; USBR Exhibit 4).

Conclusion and Recommendation

It is concluded that there is water available to supply the applicant as proposed in Applications 24578 and 24579, that the uses are reasonable and beneficial, that it was not shown that the existing water users and their present economies would be seriously affected, and that the public interest could best be served by approval of these applications which conserve surplus waters that flow to the ocean.

Therefore, it is recommended that Applications 24578 and 24579 be approved for the quantities and seasons requested. It is further recommended that any permits issued pursuant to these applications contain the following conditions:

Standard Permit Terms 5b*, 6, 7, 8, 9, 10, 11, 12, 13, and 101.

Application 24578

- *5b. *The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed*
- (a) *3.2 cubic feet per second by direct diversion from March 1 to November 15 for irrigation purposes, and*
 - (b) *0.8 cubic foot per second by direct diversion from January 1 to December 31 for municipal purposes.*

The maximum amount diverted under this permit and the permit issued pursuant to Application 24579 shall not exceed 5,620 acre-feet per year.

Application 24579

- *5b. *The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed*
- (a) *4.5 cubic feet per second by direct diversion from March 1 to November 15 for irrigation purposes, and*
 - (b) *1.5 cubic feet per second by direct diversion from January 1 to December 31 for municipal purposes.*

The maximum amount diverted under this permit and the permit issued pursuant to Application 24578 shall not exceed 5,620 acre-feet per year.

It is also recommended that the permit issued pursuant to Application 24578 contain the following special condition:

At such time as the water level in observation well 6N/30W-29E1 (windmill well) is at or below elevation 445.5 feet, Improvement District No. 1 of the Santa Ynez River Water Conservation District shall at its option either: (a) refrain from pumping from the underflow of the Santa Ynez River pursuant to this permit, or (b) supply water to Bryant Myers, and his successors in interest, for use upon his riparian land in amounts necessary to irrigate such land, provided that Myers and such successors pay to permittee what its costs would have been to pump such amounts of water from its own wells.

In the event that credits in the "above Narrows" account are available for release from Lake Cachuma pursuant to Order No. WR 73-37, or any amendment thereof, and 150 acre-feet of credits are reserved for release after September 1 of any year, the elevation in well 6N/30W-29E1 at which permittee must either refrain from pumping or supply water shall be 444.5 feet.

Jurisdiction is retained to modify this condition, if necessary, to protect fully the exercise of all riparian rights, and to allow full development of this permit and to prevent any unnecessary restrictions upon pumping thereunder.

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Sacramento, California