

STATE OF CALIFORNIA  
STATE WATER RIGHTS BOARD

In the Matter of Application 21424 )  
of City of Blue Lake )  
to Appropriate from North Fork Mad )  
River in Humboldt County )

Decision D 1259

ADOPTED AUG 31 1966

DECISION APPROVING APPLICATION

Application 21424 of City of Blue Lake having been filed; a protest having been received; a public hearing having been held before the State Water Rights Board on July 14 and 15, 1965, conducted by Board Chairman Kent Silverthorne and Board Member W. A. Alexander; applicant and protestant having appeared and presented evidence; the evidence received at the hearing having been duly considered; the Board finds as follows:

1. Application 21424 is for a permit to appropriate 1.55 cubic feet per second (cfs) by direct diversion, year-round, for municipal use from North Fork Mad River in Humboldt County. The point of diversion is to be located within the SW $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Section 30, T6N, R2E, HB&M.

2. Although the application names North Fork Mad River as the source of the proposed appropriation, because of a shift of the river channel the diversion works will be located on the main stem of the river and the application will be corrected accordingly.

3. The City of Blue Lake presently obtains some water from an unnamed creek. However, this supply is not sufficient to satisfy the demand, particularly during the summer months, and therefore the City has drilled two wells from which it obtains most of its water. These wells are approximately 1,000 and 1,500 feet, respectively, from the river. The well water is unsuitable for domestic use because of its high iron content together with some manganese. The iron has tested from 3 to 16 parts per million (ppm) and manganese between 0.62 and 0.77 ppm. The maximum iron and manganese content of drinking water recommended by the United States Public Health Service is 0.3 ppm.

4. Application 21424 was protested by Humboldt Bay Municipal Water District on the ground that the proposed appropriation would interfere with the prior rights of the District to water of the Mad River based upon Permits 11714 and 11715. These permits authorize the District to store 120,000 acre-feet per annum (afa) in Ruth Reservoir and to divert an additional 200 cfs from the river at Essex.

5. Ruth Reservoir is situated on the Mad River about 68 miles above the City of Blue Lake. Water stored in this reservoir is released to flow down the river channel to the District's diversion works near Essex, about two miles below Blue Lake. The District serves water to the Cities of Eureka and Arcata and to certain pulp mills.

6. The Mad River drains an area of 497 square miles in the Coast Range north of the Eel River. It is approximately 100 miles in length and flows in a general northwesterly course into the Pacific Ocean. Precipitation in the watershed is distinctly seasonal, very little occurring during the months of June through October. The regimen of runoff follows this precipitation pattern. The average annual discharge from the river for the 17 years that records are available (1910-13 and 1950-64) is 1,098,000 acre-feet.

7. Applicant and protestant agree that while unappropriated water is available from about November 1 through the following May, there is no unappropriated water in the river during the other five months, June through October, in most years.

8. The City proposes to discharge water from its wells into the river during the summer months equal in quantity to the water it will divert from the river and thus effect an exchange with the District. The District objects to this plan on two grounds: 1) the quality of its water will be impaired because of the high iron content of the well water, and 2) the ground water that the City pumps is tributary to the river during the low flow season and therefore the water that the City offers as replacement would percolate to the river in any event.

The City countered the first ground of objection by presenting evidence that because of oxidation that would occur

as the water flows in surface channels between the point of discharge and the District's diversion works, which would substantially lower the iron content, and because of dilution of the relatively small discharge from the wells by the much larger flow of water in the river, the mineral content of water at Essex would not be materially increased.

In answer to the second ground of objection, the City points to evidence that the ground water basin has a capacity of 14,000 acre-feet and recharges fully every year whereas the City would only be pumping a maximum of 500 afa, that the City's wells, which are 1,000 feet or more from the river, affect only a small area equal in width to the cone of depression created by the wells, and that subsurface water could not reach the river from the vicinity of the wells within a five-month period, unless it were traveling at a much greater velocity than water ordinarily travels through this medium.

9. The District is entitled to protection from any use by the City which would corrupt the District's water supply so as to essentially impair its usefulness for municipal purposes (See Wright v. Best, 19 Cal. 2d 368). Some increase in the mineral content of water by reason of new appropriations is permissible so long as water of suitable quality continues to be available to those with prior rights (Meridian, Ltd. v. City and County of San Francisco, 13 Cal. 2d 424).

The extent, if any, to which the iron and manganese content of water at Essex would be increased by the proposed

exchange of water was not proved at the hearing and it was generally conceded that it could be demonstrated only by a period of actual operation. Certainly, the District as against the City is entitled to water as free of minerals as recommended by the Public Health Service for drinking water and the permit to be issued to the City will contain an appropriate term placing the burden on the City to protect the District's right in this respect.

There was testimony that certain processes used by one of the pulp mills supplied with water by the District requires water containing not more than 0.1 ppm of iron. However, the District is not obligated to supply water to the mill of higher quality than recommended by the Public Health Service for human consumption.

10. Extraction of a maximum of 500 acre-feet between June 1 and November 1 from the Blue Lake ground water basin will not significantly decrease the surface flow of the Mad River near Essex, at least so long as the wells are not closer to the river than the City's present wells. The basin will be fully recharged each year.

11. The District contends that the Board only has jurisdiction to issue permits for the appropriation of unappropriated water and, since applicant concedes that there is no unappropriated water presently existing during the five-month period between June 1 and November 1 in most years, the application must be denied for that period without regard to

whether the proposed exchange of water would adequately protect the District's rights. We reject this contention because it would frustrate the policy of the State, which is to encourage development and beneficial use of water to the fullest extent possible consistent with protection of vested rights. "Physical solutions" which enable beneficial use of water by subsequent appropriators without material injury to owners of prior rights have been commended by our courts on numerous occasions. Such solutions generally take the form of a substitute supply of water furnished to the prior user in place of the existing supply (See City of Lodi v. East Bay Municipal Utility District, 7 Cal. 2d 316, and Hillside Water Company v. City of Los Angeles, 10 Cal. 2d 677). Although there is no unappropriated water in the Mad River during the summer months now, a permit can properly be issued for unappropriated water to be made available by the furnishing of water to the District from another source, provided the substitute water meets the standards that have been set by court decisions.

12. The City contends that it has acquired a right, prior to the District's right, to appropriate as much water from the ground as it will need in the future and that therefore it can substitute the ground water for river water to satisfy the District's right to river water without regard to whether pumping the ground water will decrease the flow of the river. This claim is based on use of ground water by the City before the District filed its applications and on the premise

that by so doing a right was acquired not only to continue pumping the quantity of water that was being used by the City when the District initiated its right to appropriate river water by filing its applications, but also to increase its pumping in the future under its original priority as its municipal needs expand.

The right of a city to appropriate ground water, based on actual pumping and use, and to increase that use to meet expanding municipal requirements after a right has been acquired by an appropriator from a surface stream having hydraulic connection with the ground water, has never been adjudicated in California so far as our research discloses. Neither the applicant nor protestant has cited any court decision in their briefs which discusses this question.

Cases cited by protestant involving the relative rights of surface diverters who complied with the permissive Civil Code procedures before enactment of the Water Commission Act and diverters who failed to comply with those procedures are not in point because there are no statutory procedures for the appropriation of percolating ground water in California with which an appropriator could comply. Rights to appropriate such water are gained simply by taking the water and beneficially using it, subject, of course, to all existing rights including those of the owners of overlying lands. On the other hand, we are not persuaded that the doctrine of relation that was applied by the

courts to pre-Water Commission Act appropriations of surface waters should be equally applicable to appropriations of ground water as against surface diverters who have applied for and been issued permits. In any event, this is a judicial question which can only be answered by a court.

City of San Bernardino v. City of Riverside, 186 Cal. 7, was a contest between municipal appropriators of ground water. The Supreme Court stated:

"The measure of a water right acquired by taking and using the water extends only to the quantity actually theretofore applied to beneficial uses and includes no right to take additional water in the future." (186 Cal. at p. 31)

In view of this statement and the absence of any authority more closely in point, we will assume that ground water can be supplied to the District by the City in exchange for river water only to the extent river flow during the critical months is not materially decreased by pumping the ground water.

13. Applicant has agreed to a permit term requiring it not to interfere by its diversions with the releases which the District is required to make below Essex diversion dam for maintenance of fish in the river and such term should be made a part of the permit.

From the foregoing findings, the Board concludes that Application 21424 should be approved and that a permit should be issued to the applicant subject to the limitations and conditions set forth in the following Order.



ORDER

IT IS HEREBY ORDERED that Application 21424 be, and it is, approved, and that a permit be issued to the applicant subject to vested rights and to the following limitations and conditions:

1. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed 1.55 cubic feet per second by direct diversion from January 1 to December 31 of each year.
2. The maximum quantity herein stated may be reduced in the license if investigation warrants.
3. Actual construction work shall begin on or before December 1, 1967, and shall thereafter be prosecuted with reasonable diligence, and if not so commenced and prosecuted, this permit may be revoked.
4. Construction work shall be completed on or before December 1, 1969.
5. Complete application of the water to the proposed use shall be made on or before December 1, 1975.
6. Progress reports shall be filed promptly by permittee on forms which will be provided annually by the State Water Rights Board until license is issued.
7. All rights and privileges under this permit, including method of diversion, method of use, and quantity of

water diverted are subject to the continuing authority of the State Water Rights Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

8. During times of the year when there is no water at permittee's diversion point in excess of the quantities to which others having prior rights are entitled (from about June 1 to about November 1) permittee may divert only to the extent that an equal quantity of water from a non-tributary source is discharged into the river below permittee's point of diversion. A non-tributary source includes the existing wells of the City of Blue Lake and future wells of the City which will not reduce the surface flow of the Mad River between June 1 and November 1.

9. The quantities of water diverted from Mad River between June 1 and November 1 and the quantities of water discharged into the river on an exchange basis during the same period shall be measured at or near the points of diversion from, or discharge into, the river.

10. When permittee is operating its system on an exchange basis, it shall maintain a record of the combined iron and manganese content of Mad River near Essex. When that content exceeds 0.3 parts per million (milligrams per liter), or the content recommended by the United States Public Health

Service for human drinking water if less than 0.3 ppm, permittee shall cease pumping from Mad River or decrease pumping and equivalent return flow until the combined concentration of iron and manganese is reduced to the aforesaid maximum limit. Water analyses shall be made by permittee as frequently as agreed upon by permittee and Humboldt Bay Municipal Water District; in case they fail to agree, such water analyses shall be made at intervals prescribed by the Board.

11. The State Water Rights Board retains jurisdiction over this permit in order to ascertain the need, if any, for revision of water quality criteria, and for additional points of water quality measurement. After further hearing, the Board may revoke this permit if it finds that the operations of the City of Blue Lake are causing injury to Humboldt Bay Municipal Water District.

12. For the protection, propagation and preservation of fishlife, permittee shall not divert water in any manner that will interfere with or diminish that schedule of flows to be maintained below Humboldt Municipal Water District diversion facilities near Essex on the Mad River for maintenance of fishlife as provided in Decision D 923 of the State Water Rights Board in the matter of Applications 16454 and 17291 of the Humboldt Bay Municipal Water District.

13. Permittee shall allow representatives of the State Water Rights Board and other parties, as may be authorized from time to time by said Board, reasonable access to project works to determine compliance with the terms of this permit.

Adopted as the decision and order of the State Water Rights Board at a meeting duly called and held at Sacramento, California.

Dated: AUG 31 1966

/s/ Kent Silverthorne  
Kent Silverthorne, Chairman

/s/ Ralph J. McGill  
Ralph J. McGill, Member

/s/ W. A. Alexander  
W. A. Alexander, Member