

STATE OF CALIFORNIA
STATE WATER RIGHTS BOARD

In the matter of Application 17818)
by Martin and Catherine E. McDermott) Source: Smith Creek
County: Santa Cruz

916

Decision No. D 916

Decided: December 4, 1958

In attendance at investigation conducted by the staff
of the State Water Rights Board on April 1, 1958:

Martin McDermott	Applicant
L. J. Harvey	Applicant's Stepson
Jerry Stanley Attorney at Law	Representing Applicant
Weston L. Webber Water Department Director City of Santa Cruz	Representing Protestant City of Santa Cruz
John T. Blair Associate Hydrographer	Representing the State Water Rights Board
Arthur N. Webb Assistant Hydraulic Engineer	

DECISION

Substance of the Application

Application 17818, filed September 10, 1957, is for a permit to appropriate 8,000 gallons per day from Smith Creek, year-round, for domestic purposes. Smith Creek is tributary to

Love Creek thence San Lorenzo River. The point of diversion is to be located within the SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 33, T9S, R2W, MDB&M. The diversion is to be effected by pumping from the unobstructed channel, and the water is conveyed to the place of use through 1,740 feet of 1-inch plastic pipe and 210 feet of 1 $\frac{1}{4}$ -inch galvanized pipe. The water is to be used for general household needs for two families, lawns, flowers, fruit trees, ornamental shrubs, domestic pets and four head of livestock, all within the NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of said Section 33.

Protest

The City of Santa Cruz protests Application 17818 on the basis of License 1553 (Application 4017) and Permit 2738 (Application 5215), alleging that the proposed appropriation will reduce the amount available to the protestant. Protestant states that during dry years there is insufficient water in San Lorenzo River to satisfy the protestant's rights, that at present a maximum of 7,770,000 gallons per day is being diverted to supply domestic, commercial, industrial, and irrigation water to the inhabitants of Santa Cruz and the surrounding area, and that its point of diversion is located within the SW $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 12, T11S, R2W, MDB&M.

Answer to Protest

In reply to the protest the applicants claim that their point of diversion is so remotely situated with respect to the City's point of diversion that the proposed appropriation would have no adverse effect, even in the driest years. They further

claim that Smith Creek is not designated as a proposed source in the master plan for water development in Santa Cruz County, and that it is their understanding that the City intends to participate in water conservation projects on Newell and Zayante Creeks. This development, they claim, will make the effect of their proposed appropriation even more insignificant.

Field Investigation

The applicants and the protestant, with the approval of the State Water Rights Board, stipulated to proceedings in lieu of hearing as provided for under Section 737 of the Board's rules, and a field investigation was conducted on April 1, 1958, by Arthur N. Webb and John T. Blair, engineers of the Board. The applicants and the protestant were present or represented during the investigation.

Records Relied Upon

The records relied upon in support of this decision are Applications 4017 and 5215 of the City of Santa Cruz, Application 15488 of Ernest Lewis, et al., Application 17818 and all data and information on file therewith, United States Geological Survey, Felton, and Santa Cruz Quadrangles, 7.5 minute series, and Water Supply Papers, Part 11, "Pacific Slope Basins in California".

Information Secured by Field Investigation

According to the report covering the field investigation of April 1, 1958, Smith Creek rises in the western slopes of the Santa Cruz Mountains within Section 33, T9S, R2W, MDB&M, at

about elevation 900 feet and flows in a general southeasterly direction about one mile to its confluence with Love Creek. Love Creek continues in a southerly direction about 4,500 feet to its confluence with San Lorenzo River. The watershed area above the applicants' point of diversion, as shown on the USGS Felton Quadrangle, consists of about 40 acres of moderately to steeply sloping hillside, most of which is heavily wooded.

As stated in the investigation report, the representatives of the applicants indicated that Smith Creek originates in a spring about 100 yards above the proposed point of diversion and that there are two more springs about 700 yards below. It was further stated that at times in the summer water from the upper spring does not reach the lower springs. It was estimated at the time of the investigation that about 4 cubic feet per second were passing the point of diversion, and both Mr. Martin McDermott and Mr. L. J. Harvey indicated that this was the most flow they have ever seen in Smith Creek.

The applicants' diversion works consists of a 4'x4' redwood box intake. From the box, water flows by gravity through 210 feet of 1½-inch galvanized pipe and 1,740 feet of one-inch plastic pipe to a 500-gallon tank and a 150-gallon tank. The capacity of the McDermott pipeline is reportedly about 7½ gallons per minute. From the two tanks the water will be pumped about 400 feet to the top of the hill to a 5,000-gallon tank and from this tank the water will flow by gravity to the place of use. The lower tanks are to be replaced by a single larger tank equipped with a float valve so the diversion will not be made on a continuous basis.

Information from Other Sources

The City of Santa Cruz has the only active filings before the State Water Rights Board to appropriate water from the stream system below the applicants' point of diversion. These filings allow diversion as follows:

License 1553 (Application 4017) confirms the right to appropriate 6.2 cubic feet per second, year-round, from San Lorenzo River at a point within the SE $\frac{1}{4}$ of NW $\frac{1}{4}$ and the NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of projected Section 12, T11S, R2W, MDB&M, for municipal and domestic purposes, within Santa Cruz and its environs.

Permit 2738 (Application 5215) allows an additional diversion of 25 cubic feet per second, year-round, at the same points and for the same purposes as set forth in License 1553.

The flow of San Lorenzo River has been gaged by the United States Geological Survey since 1937 "at Big Trees" which point scales approximately 5 miles upstream from the intake of the City of Santa Cruz and approximately 6 miles downstream from the confluence of Love Creek and San Lorenzo River. Flow during the period of record as reported in the USGS Water Supply Papers has ranged from a maximum of 24,000 cubic feet per second to a minimum of 7.5 cubic feet per second and has averaged 141+ cubic feet per second for the 16 water years of published record (1937-38 to 1953-54). Flow during the 16 water years of published record averaged less than 10 cubic feet per second on 46 days, which is less than one per cent of the time; it averaged less than 15 cubic feet per second on 443 days, which is 7.57 per cent of the time (See Table No. 1).

The maximum total monthly diversion from San Lorenzo River by the City of Santa Cruz during the period 1950 to 1956,

TABLE NO. 1
 San Lorenzo River at Big Trees U.S.G.S. Gaging Station
 Mean Monthly Flow and Minimum Flow in Cubic Feet Per Second

Year :	Jan. :	Feb. :	March :	April :	May :	June :	July :	Aug. :	Sept. :	Oct. :	Nov. :	Dec.
1937				106	65.5	39.3	24.3	17.2	16.2	17.8	28.8	262
				95	41	27	20	14	14	15	13	23
1938	235	1,232	848	246	111	60.9	36.8	25.1	21.3	24.3	25.2	28.0
	45	309	424	147	84	48	29	23	19	21	23	24
1939	43.8	79.9	83.3	32.1	22.9	14.2	10.5	9.6	10.5	11.6	12.8	15.3
	24	37	36	23	13	9.5	7.5	8	8	10	10	12
1940	474	1,202	656	310	92.2	54.2	33.1	22.2	21.7	21.1	23.8	281
	71	173	139	134	68	41	28	18	18	17	21	19
1941	745	1,333	715	942	186	93.7	57.2	41.8	34.4	31.4	37.1	241
	139	295	202	268	124	72	47	38	32	27	32	35
1942	695	637	266	367	159	90.0	54.7	38.6	33.4	31.2	67.4	84.2
	91	191	155	166	116	69	43	34	29	28	29	40
1943	613	282	488	165	88.5	58.7	39.4	27.8	23.4	26.2	28.5	33.5
	47	146	258	118	69	48	30	24	20	22	25	23
1944	57.7	215	232	69.6	51.5	34.8	24.2	18.9	17.5	21.1	59.5	74.6
	34	62	74	52	41	27	21	18	16	15	30	34
1945	57.8	721	247	133	71.6	44.6	27.9	20.5	18.1	28.0	39.4	365
	40	106	84	82	59	36	21	18	16	16	26	37
1946	171	102	93.7	107	53.1	34.3	23.1	17.3	16.0	16.1	66.7	42.1
	79	78	65	62	40	28	19	15	15	15	16	32
1947	31.8	86.0	97.4	59.1	29.0	22.6	15.3	11.7	10.3	28.4	22.6	33.5
	28	30	51	37	24	17	13	11	9.3	11	19	20
1948	28.2	31.8	65.8	153	80.4	34.7	21.1	15.2	12.6	14.7	15.2	55.6
	23	23	25	52	41	26	17	13	11	13	14	15
1949	44.0	104	553	96.7	48.1	27.8	19.4	16.4	14.7	15.0	23.4	32.2
	25	36	110	60	34	23	17	15	14	14	14	17
1950	205	416	80.2	65.5	41.2	28.0	18.2	14.4	14.1	21.8	461	674
	22	90	57	43	31	20	17	12	13	14	9.8	111
1951	281	196	256	95.7	81.8	43.3	29.6	22.4	19.0	23.0	32.9	489
	131	142	118	84	50	36	24	19	18	19	21	65
1952	1,242	404	757	196	91.1	60.5	45.2	30.9	25.5	23.8	35.6	329
	267	252	231	126	68	54	37	26	23	22	23	50
1953	502	115	153	116	87.0	51.2	32.2	25.0	20.9	21.0	37.5	27.0
	180	85	74	69	60	41	27	21	19	18	21	25
1954	99.9	192	225	158	64.7	37.8	23.8	18.0	16.8			
	25	38	68	76	43	30	19	16	16			

10

inclusive, according to Reports of Licensee under License 1553, and Progress Reports under Permit 2738, was 194,246,000 gallons pumped during August, 1955. That pumpage is equivalent to an average rate during that month of about 9.7 cubic feet per second.

Discussion

Diversion by the City of Santa Cruz during the month of maximum use is reported to have averaged about 9.7 cubic feet per second. Water Director Webber stated in 1954 (Application 15488, D-810) that the City's peak demand has equaled 9,000,000 gallons per day, that within his local experience which dates from 1946, water has always passed the City's intake except in late August of 1947, that with the exception of that time of shortage, flow past the City's intake has never been less than about 2 cubic feet per second, that the City normally pumps two 8-hour shifts per day at a maximum rate of 4,500 gallons per minute and that no diversion is made during the other eight hours. In the protest against Application 17818, the protestant states that the City's peak demand has equaled 7,700,000 gallons per day so it was assumed that the same operational procedure was used in pumping.

The 8,000 gallons per day sought by the applicants is a very small amount in comparison with 9.7 cubic feet per second, the average rate during the month when use by the City of Santa Cruz was greatest. The flow of San Lorenzo River "at Big Trees", as recorded by the USGS, has averaged 141 cubic feet per second, was more than 10 cubic feet per second on about 99.2 per cent

and 15 cubic feet per second on about 92.5 per cent of the days recorded of the 16 years of stream flow record. Plainly, under present conditions, the applicants can divert as they propose almost constantly without injury to the City of Santa Cruz; and they can so divert some 92.5 per cent of the time when demand by the City has increased 55 per cent.

Conclusions

The information indicates, and the Board finds, that unappropriated water exists in the source from which the applicants seek to appropriate, and that such water may be taken and used in the manner proposed by the applicants without injury to downstream users under prior rights. It is therefore the conclusion of the Board that Application 17818 should be approved and that a permit should be issued to the applicants subject to the usual terms and conditions.

ORDER

Application 17818 for a permit to appropriate unappropriated water having been filed, a protest having been submitted, an investigation having been held by the Board, and said Board now being fully informed in the premises:

IT IS HEREBY ORDERED that Application 17818 be, and the same is, hereby approved, and it is ordered that a permit be issued to the applicants subject to vested rights and to the following terms and conditions, to wit:

1. The amount of water appropriated shall be limited to the amount which can be beneficially used and shall not exceed

8,000 gallons per day to be diverted from January 1 to December 31 of each year.

2. The maximum amount herein stated may be reduced in the license if investigation so warrants.

3. Construction work shall be completed on or before December 1, 1960.

4. Complete application of the water to the proposed use shall be made on or before December 1, 1961.

5. Progress reports shall be filed promptly by permittee on forms which will be provided annually for that purpose by the State Water Right Board.

6. 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.

Adopted as the decision and order of the State Water Rights Board at a meeting duly called and held at Fresno, California, on this 4th day of December, 1958.

/s/ Henry Holsinger

Henry Holsinger, Chairman

/s/ W. P. Rowe

W. P. Rowe, Member

/s/ Ralph J. McGill

Ralph J. McGill, Member