

BRANCH THE DIVISION OF WATER RESOURCES  
DEPARTMENT OF PUBLIC WORKS  
STATE OF CALIFORNIA

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In the matter of Applications 4048 and 5083 of the City of Monrovia to appropriate from Sawpit Canyon, tributary to San Gabriel River in Los Angeles County for Domestic Purposes and Application 4882 of Harrison R. Ward to appropriate from Sawpit Canyon for Domestic and Irrigation Purposes.

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DECISION A 4048, 5083, 4882 - D 262

Decided June 25, 1930

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APPEARANCES AT HEARING HELD at Los Angeles, December 5, 1929.

For Applicants and Protestants

City of Monrovia	No appearance
Harrison R. Ward	No appearance

EXAMINER: Harold Conkling, Deputy in Charge of Water Rights, Division of Water Resources, Department of Public Works, State of California.

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O P I N I O N

GENERAL FEATURES OF THE APPLICATIONS

Application 4048

Application 4048 was filed by the City of Monrovia on June 25, 1924. The source of the proposed appropriation is the East Main Fork of Sawpit Canyon, either natural or regulated flow resulting from the operation of a flood control reservoir of the Los Angeles County Flood Control District, with an impounding dam located in the SE $\frac{1}{4}$  NW $\frac{1}{4}$  Section 18, T 1 N, R 11 W, S.E.B. & M. The amount of water which the applicant proposes to appropriate under the application is as follows:

- (a) For diversion to be directly applied to beneficial use without storage ..... 5 c.f.s.
- (b) For diversion to be stored temporarily underground and later applied to beneficial use .... 1,000 ac. ft. per annum

The gross diversion under the application will not exceed 1,000 acre feet per annum. Diversion from natural flow will be made from October 1, to June 1, of each season and diversion from regulated flow collected in the Los Angeles County Flood Control District Reservoir between October 1st and June 1st of each season, will be made as same may become available.

The points of diversion to underground storage in the channel of Sawpit Canyon will extend from approximately the east and west center line of Section 13, T 1 N, R 11 W, to approximately the location of the pumps of Norumbega Heights Water Company within the SW $\frac{1}{4}$  NE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 24, T 1 N, R 11 W, S.B.B. & M.

The 5 cubic feet per second to be applied directly to use will be diverted at the diversion dam within the SE $\frac{1}{4}$  NW $\frac{1}{4}$  Section 13, T 1 N, R 11 W, S.B.B. & M.

Points of rediversion of stored waters by pumping will be located within NW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 24, T 1 N, R 11 W and within NE $\frac{1}{4}$  NW $\frac{1}{4}$  Section 24, T 1 N, R 11 W, S.B.B. & M.

The water is to be used for domestic purposes within the City of Monrovia.

The application was protested by Harrison R. Ward and the Los Angeles First National Trust and Savings Bank.

Application 4882.

Application 4882 was filed by Harrison R. Ward on January 8, 1926. It proposes appropriations from the East Main Fork of Sawpit Canyon at points as follows:

- (a) 0.25 cubic foot per second direct diversion from January 1st to December 31st of each season and 3 acre feet per annum of diversion to storage to be collected from about October 1st to about July 1st of each season. The point of diversion is located above the Los Angeles County Flood Control District reservoir at a point within the NE $\frac{1}{4}$  NE $\frac{1}{4}$  Section 13, T 1 N, R 11 W, S.B.B. & M.

- (b) 0.25 cubic foot per second direct diversion from October 1st to July 1st of each season to be pumped from the Los Angeles County Flood Control District reservoir at a point within the SW $\frac{1}{4}$  NE $\frac{1}{4}$  Section 13, T 1 N, R 11 W, S.B.E. & M.

The applicant states that the reservoir will flood about eight acres of his land and that negotiations are pending between applicant and the District for flowage rights and use of the reservoir. The total amount of water to be pumped from the reservoir will not exceed 70 acre feet per annum. The water is to be used for irrigation and domestic purposes upon 60 acres of land. The application was protested by the City of Monrovia.

Application 5083.

Application 5083 was filed by the City of Monrovia on July 2, 1926. It proposes the direct diversion of 10 cubic feet per second from Sawpit Canyon at a point below the junction of the east and west forks within the SE $\frac{1}{4}$  NW $\frac{1}{4}$  Section 13, T 1 N, R 11 W, S.B.E. & M. The season of diversion is from January 1st to December 31st of each year. The water is to be used for domestic purposes within the City of Monrovia. The application was protested by Harrison R. Ward and the Los Angeles First National Trust and Savings Bank.

PROTESTS

Harrison R. Ward alleges in effect as follows:

- (1) That the total amount of water applied for by the City of Monrovia under Applications 4048 and 5083 is excessive in view of the present and future use and needs of said City.
- (2) That applicant has no control over the operation of the flood control reservoir of the Los Angeles County Flood Control District and is not in a position to make beneficial use of the water stored therein.

(3) That applicant cannot conserve or put to beneficial use the amount of water stated in its applications in view of the fact that it has not the necessary underground storage capacity.

The City of Monrovia claims prior vested rights and alleges in effect that the proposed project of Mr. Ward is not feasible inasmuch as there would be unappropriated water available only during seasons of heavy runoff and then but for a short time only, whereas the City could beneficially use this water under Application 5083 to augment its present supply and the supply to be acquired under its Application 4048.

The Los Angeles First National Trust and Savings Bank withdrew its protest subsequent to the hearing and therefore need not be considered.

HEARING SET IN ACCORDANCE WITH SECTION 1a  
OF THE WATER COMMISSION ACT

Applications 4048, 4882 and 5083 were completed in accordance with the Water Commission Act and the Rules and Regulations of the Division of Water Resources and being protested were set for a public hearing on December 5, 1929 at 3:00 o'clock P.M. in Room 1026 Associated Realty Building, Los Angeles, California. Of this hearing applicants and protestants were duly notified, but no appearances were made thereat it being previously understood that the entire matter would be submitted by briefs.

BRIEFS

Subsequently to the hearing the following briefs were submitted:

<u>NAME</u>	<u>BRIEF</u>	<u>DATE FILED</u>
City of Monrovia	Opening	July 27, 1929
Harrison R. Ward	"	July 29, 1929
Los Angeles First Nat'l. Trust & Savings Bank	Reply	August 12, 1929
Harrison R. Ward	"	"
City of Monrovia	"	August 14, 1929
Harrison R. Ward	Final	August 21, 1929
City of Monrovia	"	August 23, 1929

## HYDROGRAPHY AND PHYSIOGRAPHY

Sawpit Creek, the source of the proposed appropriations rises in the San Gabriel Mountains in the vicinity of Monrovia Hill about four miles northerly of the City of Monrovia and flows in a general southerly direction to the San Gabriel River Valley. There are two main branches which unite about one and one-half miles above the City of Monrovia; the easterly branch is commonly designated as Sawpit Canyon and the westerly branch as Monrovia Canyon. Just below the junction of the two streams, the Water Resources Branch of the United States Geological Survey has established a gaging station and records have been kept since 1917 of the flow in Sawpit Creek and the diversions made by the City of Monrovia therefrom.

The drainage area of Sawpit Creek above the gaging station is 5.3 square miles of which the drainage area of the East Fork or Sawpit Canyon is about 3.3 square miles and the drainage area of the west branch or Monrovia Canyon is about 2.0 square miles.

The flow of the stream is very flashy and at times large quantities of water flow into San Gabriel Valley during short periods of time. In order to control these occasional flashy flows the Los Angeles County Flood Control District has constructed a dam on the easterly fork of Sawpit Creek just above its junction with Monrovia Canyon which has a capacity of 550 acre feet. The estimated long time average discharge of Sawpit Creek as given in Bulletin 7 of the Division of Water Rights, Department of Public Works, State of California, is 2840 acre feet per annum. The maximum amount of water diverted by the City from Sawpit Creek as shown by the United States Geological Survey records was 1721.5 acre feet during the season of 1921-22 which was a year of excessive runoff.

GENERAL DISCUSSION

Mr. Ward alleges in effect that the total amount of water which the City of Monrovia has applied for under its Applications 4048 and 5083 is excessive in view of the City's present and future needs.

The City of Monrovia at the present time obtains its water supply from three different sources, namely, from Sawpit Canyon through the existing Monrovia pipe line, from the Chapman wells in the so called Raymond Dike Easin and from wells in the San Gabriel Easin. The City is limited in its supply from the Raymond Dike Basin and there has been a constant lowering of the water in the main basin of the San Gabriel Valley during recent years.

Under date of August 23, 1927, the City of Monrovia submitted a report to this office in which it set forth the present and future needs of the City. The report was filed in support of its Application 4049 under which it was proposed to seek an appropriation of 6,000 acre feet per annum from the San Gabriel River at the "Forks" dam of the Los Angeles County Flood Control District. The application was included among others for a public hearing on November 14, 1927, but action thereon was withheld by this office as there was no assurance that the Flood Control dam at the "Forks" would be constructed in the near future.

According to the report the population of the City of Monrovia in 1926 was approximately 12,000 and the consumption for domestic purposes 2,070 acre feet. It was estimated that in 1935 the population would increase to 23,250 and the demand to 4,360 acre feet requiring about 11 second feet delivery during the month of maximum demand. It was further estimated that in the year 1941 the population will be about 59,000 requiring a continuous flow delivery of 18.7 second feet during the month of maximum demand or an additional continuous flow delivery of 8.3 second feet over and above its present supply.

The report also indicates that the pumping from the Raymond Dike and San Gabriel Basins has been an expensive operation and any water which may be obtained by gravity would greatly reduce the pumping costs.

Under Application 4048 the City of Monrovia proposes to divert a maximum of 5 cubic feet per second from the East Fork of Sawpit Creek by direct diversion and to divert to underground storage from both the East and West Forks a maximum of 1,000 acre feet per annum the combined diversions from direct flow and to storage not to exceed 1,000 acre feet per annum.

In its brief the City of Monrovia submitted a table showing the amount of water originating in Sawpit Canyon during the seasons 1917-18 to 1927-28 inclusive, the amount of water taken by the City through the "Monrovia" pipe line and the source and disposition of the remaining flow over the period, assuming that Applications 4048, 4882 and 5083 were in force and effect. In this table it was assumed that the City of Monrovia's direct diversion from the East Fork (not including diversion to underground storage) would not exceed 60 acre feet per month or an equivalent uniform flow of 1 cubic foot per second. Mr. Ward directs attention to this assumption and considers it an admission on the part of the City that it does not expect to secure more than that amount but that if the water could be diverted at a greater rate the City's purpose would be served by incorporating a "rotation" clause in any permit which might be issued on Application 4048 and that the large flows would thereby be taken care of without the necessity of Application 5083.

The fact that the City has assumed that its average rate of direct diversion from the East Fork would not exceed one cubic foot per second is not an admission on its part that no more than 60 acre feet could be di-

verted during any thirty day period. The records of flow indicate that in order to obtain a quantity of 60 acre feet or more per month from the intermittent flow of Sawpit Creek the City will be obliged to divert at times at a much larger rate in order to secure a substantial amount of water in any one month and to satisfy its peak demands.

As the City's total diversion under Application 4048 is limited to 1,000 acre feet per annum irrespective of the rate of diversion named therein we cannot see the necessity for the reduction in the rate of flow and the incorporation of a "rotation" clause, nor is it apparent that a "rotation" clause incorporated in any permit which may be issued on Application 4048 would render Application 5083 needless inasmuch as under Application 5083 the City proposes to divert directly from Sawpit Creek below the junction of the East and West Forks whereas under Application 4048 the City proposes to divert directly from the East Fork only, except such water as may be diverted to underground storage.

Application 5033 of the City of Monrovia proposes the direct diversion from Sawpit Creek below the junction of the two main forks, of 10 cubic feet per second throughout the entire year. If the water were available the total amount of water which could be diverted during any one year would be approximately 7200 acre feet. The City however estimates that the diversion under Application 5083 will not exceed 120 acre feet during any one month or an equivalent uniform diversion of 2 cubic feet per second, but in order to obtain this equivalent continuous flow due to the great fluctuation which occurs it will be necessary to divert at times at the rate of 10 cubic feet per second, which is possible as the City's conduit has ample capacity to so divert in addition to the amount of water taken under its existing rights.



From the above it appears that the City of Monrovia is in need of the water applied for and the amount which may be diverted under Applications 4048 and 5083 is not in excess of its future requirements even should it divert the entire flow of Sawpit Canyon during a year of normal runoff.

Mr. Ward further alleges in effect that the City of Monrovia does not control the operation of the flood control reservoir of the Los Angeles County Flood Control District and therefore is not in a position to make beneficial use of the water stored therein. Control of the storage works of the Flood Control District is not necessary and the City of Monrovia makes no claim of such right to control but seeks only the right to divert the natural flow of the stream and such waters as may be made available by release of the flood waters stored by the District. This ground of protest may therefore be dismissed without further comment.

Mr. Ward further urges that the City cannot conserve or put to beneficial use the amount of water applied for in view of the fact that the City has not obtained adequate underground storage capacity.

The City of Monrovia has pumps of large capacity located on its proposed spreading grounds and the basin will be constantly drawn from to provide space for more water. It is the City's contention that the spreading grounds and storage basin now owned by the City will suffice for the present. If and when the City of Monrovia needs additional spreading grounds and underground storage basins the City has the power of eminent domain and can condemn if necessary the lands required for this purpose.

Application 4048 of the City of Monrovia by virtue of the date of its filing has a priority over Mr. Ward to the waters of Sawpit Creek. That there is water available for appropriation under Application 4048 is beyond question.

Section 20 of the Water Commission Act states that the application for a permit by municipalities for the use of water for said municipalities or the inhabitants thereof for domestic purposes shall be considered first in right, irrespective of whether it is first in time. Application 5083 of the City of Monrovia therefore has a preferred priority over Application 4882 of Harrison E. Ward even though filed later.

Under Application 4048, if approved, the City would have the privilege of diverting 1,000 acre feet. Mr. Ward's engineer in his opening brief estimates that an excess of 1,000 acre feet would have passed the United States Geological Survey gaging station in 24 years out of the 51 year period considered. While this supply could not be depended upon as an only source it is the opinion of this office that it may be used advantageously by the City to supplement its present supply and the supply which may be available under its Application 4048.

The main question before this office is whether or not there is sufficient unappropriated water in the East Fork of Sawpit Creek to justify the approval of Application 4882 of Harrison E. Ward after the existing rights of the City of Monrovia and the proposed appropriations under Applications 4048 and 5083 have been satisfied.

Applicant Ward seeks to appropriate 0.25 cubic foot per second throughout the entire year and 3 acre feet per annum of storage from about October 1st to July 1st of each season from the East Fork of Sawpit Creek at diversion point (1) which is located about one-half mile above the Flood Control dam. In addition to this he seeks to divert an amount not to exceed 70 acre feet per annum by pumping from the Flood Control Reservoir at a rate of 0.25 cubic foot per second from about October 1st to about July 1st of each season.

In the table above described showing the amounts of water which would have been available for Harrison E. Ward under Application 4882 assuming the flow of the stream to be unregulated, the City failed to take into consideration the preferred priority of Application 5083 and the fact that the amount which could be diverted under Application 4882 during any thirty day period would be limited to 50 acre feet of direct diversion to which may be added the 3 acre feet of diversion to storage provided that it was diverted during that one and the same thirty day period. The fact was also apparently overlooked that the monthly flow is not uniformly distributed throughout the month but a large proportion thereof occurs during a few days only.

Taking into consideration these facts and assuming the flow in the East Fork of Sawpit Canyon to be unregulated the following table has been prepared based upon daily flows which sets forth the probable number of days during which diversions could have been made by Mr. Ward and the amount of water which could have been diverted.

DIVERSIONS POSSIBLE UNDER WARD'S APPLICATION 4882										
Season	Index	No. of Days	Direct Diversion at Point 1	Storage at Point 1	Direct Diversion at Point 2	TOTAL				
:1917-18:	80	7	3.5 A.F.	3 A.F.	3.5 A.F.	10 A.F.				
:1918-19:	60	0	0	0	0	0				
:1919-20:	92	0	0	0	0	0				
:1920-21:	97	0	0	0	0	0				
:1921-22:	160	64	32	3	32	67				
:1922-23:	71	0	0	0	0	0				
:1923-24:	49	0	0	0	0	0				
:1924-25:	66	0	0	0	0	0				
:1925-26:	112	4	2	3	2	7				
:1926-27:	109	4	2	3	2	7				
:1927-28:	60	0	0	0	0	0				

Even assuming Application 4882 to have a priority over Application 5083 the results would not materially change as based upon this assumption

Mr. Ward would have been able to divert as follows:

27 A.F.	during	24	days	during	the	season	1917-18
96 A.F.	"	93	"	"	"	"	1921-22
10 A.F.	"	7	"	"	"	"	1924-25
22 A.F.	"	19	"	"	"	"	1925-26
14 A.F.	"	11	"	"	"	"	1926-27

From the above it appears that provided Application 4882 of Mr. Ward has a priority over Application 5083, Mr. Ward would be able to divert for about two weeks only during years of normal runoff and conceding the priority of Application 5083 he would be able to divert for a period of less than one week during years of normal runoff and that during the eleven years of record diversions could have been made during four years only.

Mr. Ward claims a riparian right to divert from the East Fork of Sawpit. If he has such a right and it is sufficient during periods of low flow it would appear reasonable to assume that it would be sufficient likewise during the period of maximum runoff. If he has no riparian right the project is apparently infeasible as the diversion of so small a quantity of water during such short periods of time could serve no beneficial purpose, unless it were as an alternative to some other supply which has <sup>not</sup> been shown to be the case here. It is therefore the opinion of this office that there is an insufficient amount of unappropriated water in the East Fork of Sawpit Canyon to justify the approval of Application 4882.

On the other hand the projects of the City of Monrovia under its Applications 4048 and 5083 appear to be feasible as the City may divert under these applications to supplement its present supply. The water is to be used for a highly beneficial purpose and it is the opinion of this office that these applications should be approved.

In the event that the City of Monrovia does not proceed with the project under permits issued in approval of Applications 4043 and 5083, Harrison R. Ward should have the privilege of proceeding with his project and for this reason it is believed advisable to withhold action upon Application 4882 awaiting developments under Applications 4043 and 5083.

O R D E R

Applications 4043, 4882 and 5083 for permits to appropriate water having been filed with the Division of Water Resources as above stated, protests having been filed, a public hearing having been held, briefs having been submitted and the Division of Water Resources now being fully informed in the premises:

IT IS HEREBY ORDERED that said Applications 4043 and 5083 be approved and that permits be granted to the applicant subject to such of the usual terms and conditions as may be appropriate, and

IT IS HEREBY FURTHER ORDERED that action upon Application 4882 be withheld until further order is entered.

WITNESS my hand and the seal of the Department of Public Works of the State of California this 25th day of June , 1930.

EDWARD HYATT, State Engineer

BY Harold Conkling  
Deputy

WES:MP