

EXHIBIT

TMWA 3-2

**Report of Inspection, Application 9247,
Permit 5392,
October 15, 1954**

REPORT ON INSPECTION OF
APPLICATION 9247, PERMIT 5392
ON OCTOBER 15, 1954

1/6/55
RJA

INTRODUCTION

Application 9247, filed on February 24, 1938, by the Sierra Pacific Power Company to appropriate water from Independence Lake in Sierra and Nevada Counties for municipal use was approved August 18, 1939, and Permit 5392 was issued allowing a diversion of 17,500 acre-feet per annum to be collected from about December 1 to about July 1 of each season.

The project, which is located about five miles southeast of the Truckee-Sierraville road on the headwaters of Independence Creek was reported complete by permittee in a letter to this office dated July 15, 1954, and signed by George G. Devore, Water Resources Engineer. The project was listed for inspection in 1954. Inspection was made on October 15, 1954, by Ray J. Nesbit. He was aided in the inspection by Mr. George Devore. The inspection consisted mainly of an examination of the Sierra Pacific Power Company records of releases, diversions and municipal consumptive uses.

WATER SUPPLY

Independence Lake, the source of supply under this filing is located on the upper reaches of Independence Creek, tributary to the Little Truckee River. The contributory watershed has an area of approximately seven square miles and is sparsely timbered, steep and rocky land with elevation up to 8,900 feet. The average annual rainfall is not known but can be assumed to be in excess of twenty-five inches as recorded at Sierraville and Truckee .

DIVERSION SYSTEM

At the point of diversion the storage dam is three feet in height from bottom of outlet to overflow level, is 625 feet in length with a three feet freeboard and has a concrete draw off structure with two slide gates containing 3.5 feet openings. Independence Lake has a surface acreage of 725 acres and a capacity of 16,826 acre feet according to a 1954 Power Company Survey. At the Southeast end of the lake there is located a spillway five feet deep, sixty-five feet wide, 1,400 feet long with a freeboard control structure 4.83 feet by 73.3 feet.

The outlet canal from Independence has a top width of 27.4 feet, a bottom width of eight feet, a depth of 9.7 feet, and a length of 2,800 feet with a 0.7 foot per 1,000 grade. The outlet capacity is approximately 880 cfs.

Water released flows down Independence Creek into the Little Truckee River, through the Boca Reservoir into the Truckee River and is rediverted from the Truckee River at three locations where it is conveyed by both open and closed systems to the cities of Reno and Sparks, Nevada, a distance of approximately forty miles.

Three points of rediversion currently used are: (1) the Highland ditch which is a gravity diversion, (2) the Reno Plant (Idlewild) Diversion which is a pumping plant and diversion and is used to supplement supplies during peak usage periods, and (3) the Steamboat Slough Diversion, which is a gravity diversion used permissively but will eventually be discontinued when further development at the Highland diversion takes place.

PLACE OF USE

The place of use are the cities of Reno and Sparks, Nevada. Population according to the 1950 census was, Reno 32,497 and Sparks, 8,203 persons.

USE OF WATER

The year of maximum use was determined to be the period of July 1, 1953, to June 30, 1954. The following table, summarized from records of the Sierra Pacific Power Company indicate the total domestic water released from Independence Lake during the above period.

USE OF INDEPENDENCE LAKE STORAGE WATER
FOR DOMESTIC PURPOSES
1953 - 1954

All Units in Acre-feet

Month	Water Released from Independence ;	Domestic Consumption From River ;	Independence Water Stored in Boca ;	Independence Water Drawn from Boca
July 25-31 1953	613.8	705.9	30.3	
Aug, 1953	3,788.8	2,987.6	801.2	
Sep, 1953	3,654.0	2,633.7	1,020.3	
Oct, 1953	5,686.6	1,809.6	3,877.0	
Nov, 1953	951.3	1,269.8	57.6	381.1
Dec, 1953	155.0	1,221.9	- - -	1,066.9
Jan, 1954	155.0	1,237.2	- - -	1,082.2
Feb, 1954	140.0	1,141.3	- - -	1,001.3
Mar, 1954	---	<u>1,419.9</u>	- - -	<u>1,419.9</u>
Total	15,144.5	14,426.0	5,786.4	4,951.4

* Does not include transportation losses between Independence Lake

and point of rediversion from Truckee River, and does not include operating regulatory losses.

A figure of 15,145 acre-feet is the total released from Independence Lake for municipal purposes. Using the figure of three acre-feet per acre evaporation on the average surface area of the reservoir plus 2,500 acre-feet annual seepage loss, we established the amount of water used to be 17,500 acre-feet per annum, the same as under terms of the permit. To establish the evaporation loss, Bulletin No. 54 A, "Evaporation from Water Surfaces in California, Basic Data, 1948" was used.

CHANGES IN PROJECT

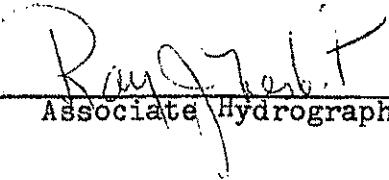
There has been no change in ownership or in the location of the point of diversion or of the place of use. Two additional points of rediversion have been added which were not included in the amended application. Their location is described on a petition submitted December 21, 1954.

CONCLUSIONS

The project was found complete and license is recommended as follows:

- (1) Amount: 17,500 acre-feet per annum.
- (2) Season: December 1 to July 1.
- (3) Purpose: Municipal.
- (4) Point of Diversion: NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 35, T 19 N, R 15 E, MDB&M.

- (5) Place of Use: Cities of Reno and Sparks, Nevada.
- (6) Remarks: Two additional points of redirection are being used.


Associate Hydrographer

Dated: January 6, 1955

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