

M E M O R A N D U M

re.

Application 5169 (Washoe County Water Conservation District)  
" 5170 ( " " " " " )  
" 6131 (Truckee-Carson Irrigation District)  
" 6534 (Washoe County Water Conservation District)  
" 6935 (Central Pacific Railway Company)

By: Walter E. Stoddard,  
Assoc. Hyd. Engineer

October 7, 1931.

The above numbered applications to appropriate from Truckee River and tributaries are pending before this office at the present time for permit action.

Under Application 5169 the Washoe County Water Conservation District seeks to appropriate 40,850 acre feet per annum of the waters of Little Truckee River to be collected to storage from about October 1st to about July 1st of each season for irrigation and domestic purposes on 12,215 acres of land located in T. 19, 20 and 21 N., R. 19, 20 and 21 E., M.D.B. & M. The point of diversion to storage is located within the NE $\frac{1}{4}$  of SE $\frac{1}{4}$  of Section 4, T. 18 N., R. 17 E., M. D. B. & M.

Under Application 5170 the Washoe County Water Conservation District seeks to appropriate 500 cubic feet per second from Truckee River and Little Truckee River, the 500 cubic feet per second to be diverted from Truckee River throughout the entire year when available and the deficiency to be made up from Little Truckee River for power and incidental domestic use at a power plant within the N $\frac{1}{2}$  of Lot 10, Section 31, T. 18 N., R. 18 E., M.D.B. & M. The point of diversion on Truckee River is located within NE $\frac{1}{4}$  of NE $\frac{1}{2}$  of Section 32, T. 18 N., R. 17 E., M.D.B. & M. and the point of diversion on Little Truckee River is located within the NW $\frac{1}{4}$  of SE $\frac{1}{4}$  of Section 16, T. 18 N., R. 17 E., M.D.B. & M. The water is to be returned to the Truckee River within Lot 9, Section 31, T. 18 N. R. 18 E., M.D.B. & M.

OCT 24 1931 H.C.

EXHIBIT

tabbler

TC 10-16

Under Application 6131, the Truckee Carson Irrigation District proposes to appropriate 15,000 acre feet per annum throughout the entire year from Donner Creek and Cold Creek for irrigation and domestic purposes on 87,000 acres of land within the District. The rate of diversion to storage in Donner Lake from Cold Creek is not to exceed 500 cubic feet per second. The point of diversion on Donner Creek is located within the SE $\frac{1}{4}$  of NE $\frac{1}{4}$  of Section 18, T. 17 N., R. 16 E., M.D.B. & M. The point of diversion on Cold Creek is located within SE $\frac{1}{4}$  of SW $\frac{1}{4}$  of Section 17, T. 17 N., R. 16 E., M.D.B. & M.

Under Application 6534 the Washoe County Water Conservation District proposes to appropriate 50,000 acre feet per annum from Little Truckee River to be collected to storage in Washoe District Reservoir No. 1 (capacity 48,550 acre feet) throughout the entire year. The point of diversion to storage is located within the NE $\frac{1}{4}$  of SE $\frac{1}{4}$  of Section 4, T. 18 N., R. 17 E., M.D.B. & M. The water is to be used for irrigation and domestic purposes within the boundaries of the Washoe County Water Conservation District.

*Refer*  
Under Application 6935 the Central Pacific Railway Company seeks to appropriate 1.5 cubic feet per second by direct diversion and 140 acre feet by diversion to storage from Donner Creek, diversion to be made throughout the entire year at a point within the SW $\frac{1}{4}$  of NW $\frac{1}{4}$  of Section 16, T. 17 N., R. 16 E., M. D. B. & M. below the proposed points of diversion described in Application 6131. The water is to be used for industrial and domestic purposes at the Railroad yards at Truckee.

#### Unappropriated Water in Truckee River

Mr. A. N. Burch in a report entitled "Storage Investigation Upper Truckee River" dated December 1927 estimates that there would have been a shortage of water on Reno Valley lands of 36% in 1924 and 28% in 1926; on Truckee Canal lands the shortage would have been 3.4% in 1912, 36% in 1924 and 15% in 1926; on Carson lands the shortage would have been 14.3% in 1924 and 26% in 1926.

He concludes that these were apparently the only shortages that would have occurred in 40 years.

Mr. Burch in table 5 of his report shows that during the period from 1909 to 1927 inclusive there was an average annual surplus over and above vested rights of 182,097 acre feet per annum and Exhibit 1 of the report indicates that surplus water is available only during the months of April, May and June.

#### Availability of Water Under Applications to Appropriate

The total consumptive use proposed under the above numbered applications is approximately 107,000 acre feet per annum which is less than the 182,100 acre feet of surplus water which is present in the Truckee River during a year of normal runoff and it would therefore appear that the approval of these applications would not interfere with prior rights below provided that the season of diversion is limited to the period from about April 1 to June 30 of each year. As Application 5170 is for non-consumptive purposes and the water is to be returned to the Truckee River after use for power purposes there would appear to be no reason why the season of diversion named therein should be limited.

#### Donner Creek

The records of the United States Geological Survey indicate that during the seasons 1902-03 to 1912-13, inclusive, the mean annual runoff of Donner Creek (drainage area 30 Sq. miles) was about 64,500 acre feet per annum of which amount about 41,000 acre feet occurs during the period from April 1 to June 30.

This amount is sufficient to satisfy the requirements under Application 6131 of Truckee Carson Irrigation District and Application 6935 of the Central Pacific Railway Company. However, as the season of diversion should be limited to the period from about April 1 to about June 30 of each year direct diversion as well as diversion to storage could only be made during this three months period and the Central Pacific Railway Company would be denied the greater part of the direct diversion for which it applied.

In the event that it is possible for the Central Pacific Railway to store a larger amount of water, Application 6935 could be withdrawn and another application filed for the larger amount of storage as there probably would be no intervening priorities.

WES:GC

Walter E. Stoddard  
Associate Hydraulic Engineer