(Testimony of E. W. Kronquist.)

feet; for the period from June 5 to June 30 at the Eastside Drain, 696.60 acre feet; for the total period at the Parker Gauge Station, 1867 acre feet; total at the Indian Diversion Dam (diversions) for the month of June, 1929, 1470 acre feet.

Sheet No. 2 shows the daily flows at the same stations as shown on sheet No. 1 but are for the entire month of July 1929 at each gauge station. The total flow for July at the Yerington Weir is shown as being 856.4 acre feet; at Wabuska Slough station, 1314 acre feet; at Eastside Drain, 630.40 acre feet; at Parker Gauge Station, 1944.20 acre feet; the Indian Diversion Dam, 1266.60 acre feet.

Sheet No. 3 of the Exhibit is a similar compilation as sheets No. 1 and 2 showing daily flows for the month of August, 1929.

The total flow for that month at the Yerington Weir is shown as being 88.30 acre feet; at Wabuska Slough Station [913] 176.70 acre feet; at Eastside Drain, 461.10 acre feet; at Parker Gauge Station 637.80 acre feet; at Indian Diversion Dam, 198.60 acre feet (canal diversions).

Sheet No. 4 of the Exhibit shows similar studies as sheets No. 1, 2, and 3 but are for the month of September, 1921. The flow for that month at the Yerington Weir is shown as being 7.74 acre feet; at Wabuska Slough Station, 51.90 acre feet; Eastside Drain, 343.80 acre feet; Parker Gauge Station, 395.70 acre feet; Indian Dam (canal diversions) 179.20 acre feet.

(Testimony of E. W. Kronquist.)

Witness continuing: The object of this study was to arrive at the losses in the lower section of the river, and also the amount, if possible, of return flow in Mason Valley. There is no irrigation below the Parker Gauging Station and the diversion dam on the Indian reservation. The difference between the amount passing the Parker gauge and the amount at the Indian diversion shows a loss in the river from the Parker Station to the Indian diversion dam.

"Mr. Harwood. (Q.) Now, I call your attention to another sheet—this covers the whole year, doesn't it?

"A. One place it does. The other just covers some months that are missing on the other table.

"Q. What is that?

"A. This is a tabulation of the discharge at the U. S. R. S. diversion dam at Schurz. This is the daily discharge for the months of April, May, June, July, August and September for the year 1929.

"Q. And what is this?

"A. This is a tabulation for the Parker gauging station, showing gauge heights and discharge for the months of March, April, May and also June. This supplies the data that is missing on the other exhibit.

"Q. On Exhibit——

"A. 28. That is just for the Parker gauging station and the diversion dam. [914]

(Testimony of E. W. Kronquist.)

"Mr. Harwood. Then I will offer this first, the last one just mentioned first, which covers the discharge at the Parker gauging station for the months of March, April, May and June, which were not supplied in the preceding exhibit. That is, it would cover the whole season. Mr. Kronquist suggests that we can put the two together. That is the two together. That is the first sheet. The second sheet covers diversions at the U. S. Indian Irrigation Service dam during the months of April, May, June, July, August and September, 1929.

"Q. That covers the irrigation seasons, Mr. Kronquist?

"A. Yes.

"Mr. Harwood. We might fasten them together and make them one exhibit. That is admitted, then, and marked——

"Mr. Kearney. The same objection.

"The Master. That will be admitted subject to the objection and marked Plaintiff's Exhibit No. 29."

Plaintiff's Exhibit No. 29 consists of two sheets. Sheet No. 1 is entitled "Water Supply Studies, Walker River, Nevada," it shows a discharge of the Parker Gauge Station for the months of March, April, May and June, 1929. The total discharge at this gauge for the month of March is shown as 1412.0 acre feet; for April, 1404 acre feet; for May, 1847 acre feet; and for June, 1869 acre feet.

(Testimony of E. W. Kronquist.)

Sheet No. 2 of the Exhibit shows the diversions at the Indian Dam, Schurz, stating it as being the total flow of the river at that point for the months of April, May, June, July, August and September, 1929. The daily flows are shown. The total flow for the month of April is shown as being 1307 acre feet; for May, 1619 acre feet; for June 1490 acre feet; for July 1266.6 acre feet; for August, 198.6 acre feet; for September 179.2 acre feet.

"Mr. Harwood. (Q.) You have shown me another tabulation, Mr. Kronquist. What is it?

"A. That is entitled 'Water supply records, Walker River, Nevada, lower Walker River, 1927 to 1929, inclusive.' This is a summary of the three years '27, '28, and '29. The first two, 1927 and 1928 are between the Wabuska U. S. G. S., gauge and our diversion dam gauge. 1929, of course, includes the Parker gauging station and our diversions at Schurz. This shows the total monthly flow in acre feet, and the loss in acre feet, an average loss per day in acre feet, and average loss per mile in acre feet. [915]

"Q. Also the percentage of loss?

"A. Also the percentage of loss, the average daily flow in acre feet, second feet on the upper stations.

"Q. These tabulations were made by myself. Calling attention to 1927, this is a correction of a former exhibit I think we entitled 13-A. On the former exhibit we used the preliminary fig-

(Testimony of E. W. Kronquist.)

ures for the Wabuska station, and in this tabulation we have received the corrected figures and have made up a new summary, using this figure, or corrected figures.

"Q. Tell us what differences it makes, generally, if you can?

"A. Why, the corrected figures show more water at Wabuska than our other figures showed for the months of July particularly, and I am not sure, I think show slightly less in August. I am just recalling from memory.

"Q. How does it affect the results?

"A. Not a great deal. Not a great deal.

"Q. And with reference to this tabulation and all the other that you have been testifying about, they were correctly made from the data and notes that were furnished you?

"A. Yes, sir.

"Mr. Harwood. Offer it in evidence.

"Mr. Kearney. The same objection.

"The Master. It may be admitted subject to the objection and marked plaintiff's Exhibit No. 30."

Plaintiff's Exhibit No. 30 is a typewritten tabulation entitled, "Water Supply Studies, Walker River, Nevada (lower Main Walker River) and shows the following: [916]

PLAINTIFF'S EXHIBIT 30

Table No. 11

WATER SUPPLY STUDIES, WALKER RIVER, NEVADA. (LOWER MAIN WALKER RIVER.)

Mileage between Wabuska and Diversion Dam Gage, 20.46.

Date 1927	Total flow at Wabuska Gage (USGS)	Flow at Div. Dam Gage	Loss in Ac. feet	Av. loss per day Acre-feet	Av. loss per mile per day AF	Av. daily flow at Wabuska AF	Av. daily flow Sec. feet	Per cent loss
April	3,070	2,590	480	16.00	0.78	102	51	15
May	6,950	5,750	1,200	38.80	1.89	224	112	17
June	41,300	38,638	2,662	88.70	4.34	1366	683	6
July	20,500	17,795	2,705	87.25	4.25	661	330	13
Aug.	3,910	3,534	375	12.12	0.58	126	63	10
Sept.	6,310	5,270	1,040	33.55	1.63	210	105	16
	82,040	73,577	8,463	46.06	2.24	448	224	10
1928								
April	3,780	3,438	342	11.40	0.58	122	61	9
May	6,270	4,270	2,000	64.52	3.14	209	104	32
June	3,910	4,020	-110	-3.66	-0.18	130	65	-0.27
July	1,840	1,428	412	13.29	0.65	59	29	22
Aug.	2,280	1,800	480	15.48	0.75	73	37	21
Sept.	595	161	435	14.46	0.70	20	10	73
	18,075	15,117	3,558	19.25	0.98	102	52	19

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(Testimony of E. W. Kronquist.)

PLAINTIFF'S EXHIBIT 30 (Continued)

Table No. 11

WATER SUPPLY STUDIES, WALKER RIVER, NEVADA. (LOWER MAIN WALKER RIVER.)

1929

Parker Gaging Station to Diversion Dam (Diversions) Mileage 19.50

April	1,404	1,307	97	3.23	0.16	47	23	7	see also exhibit 29
May	1,847	1,619	228	7.32	0.37	60	30	12	
June	1,869	1,470	399	13.30	0.68	62	31	21	
July	1,944	1,267	677	21.83	1.11	63	31	35	
Aug.	637	200	437	14.10	0.72	22	11	69	
Sept.	395	179	216	7.20	0.36	13	6	54	
	8,096	6,042	2,054	11.22	0.57	44	22	25	

Not a carbon but an exact copy
E. W. K.

[917]

(Testimony of E. W. Kronquist.)

Witness Kronquist continuing: We made a metering on Green Creek with Mr. Welch and Mr. Odell. Mr. Welch used his meter and Mr. Odell used his. There was a flow of about 82 second feet and, if I remember correctly, there was less than two second feet difference in the meterings.

Cross Examination

By Mr. Sanford:

In estimating the evaporation we took what is understood to be the evaporation during July as 4½ inches for the entire month; applied that for the estimate of evaporation to the Bridgeport Reservoir. Made no allowance for deep percolation and seepage for the Bridgeport Reservoir. The river loss between the Elbow and Morgan gauges was 4.2% of the inflow. That percentage was for a 6-day period, but I decided that it is nearly a normal loss; at least nothing unusual. The geological formation of Morgan Canon is very peculiar; volcanic rocks, sedimentary rocks, and considerable gypsum deposits, all of which are favorable for high losses. Mr. Beemer's records show losses and also return flow, which may indicate that, instead of being losses, they were bank storage. Further up the stream the losses would be considerably less. Plaintiff's Exhibit 23 shows a loss of 4.2% and plaintiff's Exhibit 25 shows a gain of 10%. I think it is true the figures indicate that the return flow

(Testimony of E. W. Kronquist.)

increases later in the season by reason of the irrigation above. The year 1929 was a very dry spring. There was sufficient water for the land irrigated on the Indian Reservation during June, 1929, when the peak flow was reached. The last is due to bank storage in the latter part of the season on a falling river. Unquestionably some of the water in the river measured came out of reservoir storage, but cannot say whether it was stored during the irrigation or non-irrigation season. [918]

Under present conditions the Indians use more than one second foot for fifty acres in the months of June and July. They have, roughly, between fifteen and eighteen hundred acres. This year their supply was very low. In order to supply their demands under the present conditions we would have to have an excess of 30 second feet of water throughout the year. However, if they have their lands perfectly level and ditches in perfect shape and a little more skill at irrigating, they would undoubtedly get along with less under present conditions. But, as it is, they require at least 1 acre foot for fifty acres throughout the season and if not, then they will make quite a few complaints that they are not getting enough water. It takes two second feet to the hundred acres at the diversion dam. I am familiar with the fact that under the law of Nevada only one second foot to the hundred acres is allowed. I am not familiar with the individual diversions of the white farmers above except through

(Testimony of E. W. Kronquist.)

Mr. Beemer's testimony. I know that the duty of water in Decree 731 is higher than two second feet to the hundred acres. Tabulations 20 and 21 given as the inflow in Bridgeport cannot be taken as a criterion of the amount of water that flows out of Bridgeport under any conditions of flow at the head of the valley. All the water flowing into the Bridgeport Reservoir was return flow and seepage from Bridgeport Valley.

Plaintiff's two exhibits, Nos. 21 and 22, do not show that the supply at the head of the valley had any particular relation to the return flow. The return flow is due to prior irrigation. The purpose of plaintiff's Exhibit 23, showing the conditions from Bridgeport Gauge to Morgan's Ranch and the losses between Elbow and Morgan's Ranch and from Bridgeport Station to Elbow is to check up [919] some previous statements that there were some excess losses in Elbow and Canon. The only way you could get a return flow in that canon would be from a sudden drop in the river. Such return flow would be more properly called bank storage. The irrigation in this East Fork Valley, in my opinion, has very little effect upon the flow of the river. Under conditions of low flow as shown on plaintiff's Exhibit 23, a measurement for five or six days would not give an idea of the losses in the East Walker River. I would not use such measurements for that purpose. However, we have, in Plaintiff's Exhibits 24 and 25 a prolongation of the period of measure-

(Testimony of E. W. Kronquist.)

ments. In five days there was 4.2% loss in the 15 miles of the river on a flow of 252 second feet. Exhibit 24 showed 2.4% losses for the entire month of August. This computation was carried a longer period than the one showing 4.2%.

The note on the last page plaintiff's Exhibit 22: "Consumption of Bridgeport Valley 598 acre feet or 19% of inflow," covers the month of September and represents merely the difference between the inflow and outflow. It is true that part of this outflow cannot be tied up directly to the inflow for the same period and is not derived entirely from the inflow. The amount of consumptive use would be apparently smaller, due to the presence of inflow from the previous irrigation. The reservoir dam at the lower end of Bridgeport Valley shuts off any possible seepage from the Valley.

The measurements shown on Plaintiff's Exhibit 28, taken below the Yerington weir, were taken at a point where the river bed was very sandy. We did not try to measure the underflow at that point. Our gauge was 500 feet down stream from the weir at that point and throughout the entire [920] stretch of the stream the sands were highly impregnated with water passing down stream. We did not try to make any calculation for underflow.

Most of the water shown on plaintiff's Exhibit 28, below our Yerington measuring station came from the Wabuska Slough, and were return waters from Wabuska basin from irrigation in that terri-

(Testimony of E. W. Kronquist.)

tory. This water is the irrigation from ditches that head at the Yerington weir. Do not know whether it was reservoir water or natural flow. The column for the East Side Drain, which is down stream from Wabuska Slough, is computed as being a difference between the flow at Wabuska Slough Gauge and the Parker Gauge. There is no other source of supply save the return flow. The East Side Drain collects the waters from the Miller and Lux irrigated fields or else they are collected by the Wabuska Slough before they reach the Wabuska gauge. The East Side Drain is about one mile down stream from the Wabuska Slough gauge. The East Side Drain furnishes a large percentage of the water that is measured at the Parker Gauging Station. Exhibit 30 was to determine only the loss between the Reservation diversion dam and the upper end of the Reservation and, therefore, made no note of the water flow at the Schurz station below the Diversion Dam. The loss per mile in the river is very irregular. It would take about 24 hours for water to flow from Parker's to the Reservation Dam. But that varies—the more water the less time. The Exhibit showing the flow from Yerington weir to the Parker gauging station was for the purpose of getting the amount of the return flow between the two stations. The Wabuska Gauging station is right on the reservation line at the Parker Bridge. There was no loss from the Yerington weir to the Parker Gauge. The river may have losses,

(Testimony of E. W. Kronquist.)

but the tabulations show that the return flow is in [921] excess of the losses.

The channel between Yerington weir and the Parker Gauging station is different from the channel on the lower part of the river. It is not nearly so wide as the lower part and has a steeper grade; considerably higher banks. It is very sandy with quite a few clay ribs coming up through the channel. One of them is pretty nearly down to the Parker Ranch. No water flowed directly into the lake this year, unless some may have reached it through percolation below the diversion dam of the Indian ditches.

Plaintiff's Exhibit 30 shows a flow at our diversion dam during April, 1927, of 2,590 acre feet, showing a loss of 15%. In April, 1929, at the same place there was a diversion of 1,507 acre feet, but there was only a 7% loss. I can account for the difference only by the fact that April of that year was much colder than in 1927. You would expect a larger percentage of loss for the smaller flow, but the results are just contrary for that particular month.

In the month of June there was a flow of 41,300 acre feet of water at the Wabuska Station. This water would be available for storage in a reservoir if constructed at the Rio Vista reservoir site.

"Q. In other words, that table (Exh. 30) shows there was sufficient water in the month of June, 1927 to take care of the full 10,000 acres of land if stored at that tme?

(Testimony of E. W. Kronquist.)

"Mr. Harwood: Well. I object to that as irrelevant and immaterial.

"The Master: I do not see, Mr. Kearney, how that is material. That is an argument that would probably be very well to be addressed to Congress or the Legislature, but I do not see how it is material in this matter.

"Mr. Kearney: If I may be permitted to be heard on that, your Honor, I will explain my reason.

"The Master: We will save the time and let the question be answered at the present time.

"A. This 41,000 acre feet would fill the Rio Vista Reservoir."

J. C. STEVENS,

called by plaintiff, testified: [922]

Direct Examination

By Mr. Harwood:

I reside in Portland, Oregon. I am a consulting engineer of the firm of Stevens and Kuhn, specializing in hydraulic construction work and the utilization of water supplies; graduated in a civil engineering course at the University of Nebraska, and later received a post-graduate degree from that institution. I was Assistant State Engineer of Nebraska. The western part is largely an irrigated section. Have kept an accurate record of water supply

(Testimony of J. C. Stevens.)

and distribution through the irrigated section and conducted some minor hearings in regard to the utilization of water and the determination of water rights. I was in the Reclamation Bureau for about 8 years. I was hydrographer in charge of water supply investigations in Nebraska; was transferred to the Denver office and had charge of the same work throughout Colorado and South Dakota. Most of my work for the Government, however, has been a study and analysis of water supply data for their construction works and a determination of seepage losses and outlining systems or keeping account of the entire water supply in the operation of their irrigation projects. After working in Denver I was transferred to the Reclamation office in Washington, D. C. I worked there in connection with the irrigation and observation of water and water supply; was then transferred to Portland, Oregon, and placed in charge of that Northwest territory as District Engineer, in the United Sates Geological Survey. That was in 1906. I had charge of all the stream measurement work in Washington and Oregon, and portions of California and Idaho; in addition did considerable work for the Reclamation Service in the operation of their irrigation systems. I had charge of a system of measurements for the Sunnyside Irrigation Project in the Yakima Valley which at that time consisted of about 60,000 acres and which since has been increased to something over 100,000 acres. I left the Government service

(Testimony of J. C. Stevens.)

in 1910 [923] and entered private practice in Portland. I worked on water studies for the Anaconda Copper Mining Co.; on an irrigation project for the Pacific Power & Light Co., and then went to Spain in the early Spring of 1912 for the Pearson Engineering corporation of New York; installed stream measuring stations and made measurements of the water supply for the stream we were figuring on utilizing in and around Barcelona. Later I made a general study of the entire Urgel irrigation system in Spain; later was placed in charge of the designing and construction of the Seros Hydraulic development in Spain. That was a development of 80,000 horse power and cost some $6,000,000. That work involved a study of stream flow. I then resumed private practice in Portland. In 1915, I was employed by the Government to make an investigation for the possible development of a reclamation project on the Walker River, Nevada. I spent about two months on the ground and in preparation of a report; about three or four weeks on the ground and the balance of the time in studying the data available and preparing my report. The report I made at that time was a preliminary report as a guide to the Reclamation Service. They had made some surveys in earlier years and I was asked to examine the Project and analyze all the data that could be compiled at that time and make a preliminary report on the possibilities of irrigation in that Valley. I was employed recently by the Department of Jus-

(Testimony of J. C. Stevens.)

tice to re-examine the Walker River Basin. I came to the Walker River on October 19, of this year and again made an examination of the Walker River system. I went over the ground with Mr. Kronquist. We first examined all of the gauging stations on the West Walker River that had been established by him; then we examined the stations on the East Walker River, the ones at Bridgeport Reservoir, Elbow and Morgan's; then we examined the gauging stations at Yerington [924] weir, Wabuska Slough, the East Side Drain, Wabuska station of the U. S. Geological Survey, the Parker control and the gauging station at the Indian diversion dam. We then went over the lands of the Indian Reservation. Then I returned to Reno and spent some time in studies.

I was furnished with all of the data that had been introduced in evidence in the present suit. While in Schurz, I checked over some of the data that had been compiled and the methods that Kronquist had used and some of his computations. When I returned to Portland, I took with me all of the testimony that had heretofore been taken in this case and copies of all exhibits. There I continued my studies on these data and also on the data I previously had. I had also data from Government Bureau of Reclamation reports and other sources upon the duty of water and character of soils on the different irrigation projects covering a period of about fifteen years.

(Testimony of J. C. Stevens.)

I am familiar with a number of these projects both as to soil conditions and water uses. During the two years that I have examined the Walker River territory I have been over a majority of the lands of the Walker River Indian Project.

I have read the testimony of Mr. Kronquist and Mr. Beemer in this suit.

"Q. Mr. Stevens, you have testified that you have read the testimony of Mr. Kronquist and Mr. Beemer taken in this case?

"A. Yes, sir.

"Q. And particularly the testimony regarding the water requirement upon the Walker River Indian Reservation, is that true?

"A. Yes, sir.

"Q. Have you also examined and taken into consideration the exhibits in this case?

"A. Yes, sir.

"Q. Have you heard the testimony of Mr. Kronquist given in this hearing?

"A. Yes, sir.

"Q. Now, assuming, or, rather, on that basis and [925] taking those facts into consideration, directing your attention particularly to the water requirement upon the Walker River Indian Reservation for ten thousand acres of land, what duty of water do you assume in your computations and opinion as to the water requirement for the whole project?

"Mr. Kearney: We object to that upon the ground that the form of the question is im-

(Testimony of J. C. Stevens.)

proper, and that it assumes that the testimony of Mr. Beemer and Mr. Kronquist is uniform in all respects, and facts testified to by them are uniform and without conflict in the details which go to make up the basis for such opinion.

"The Master: You have not asked him, have you, Mr. Harwood, as to what in his opinion is the water requirement on that land?

"Mr. Harwood: I will ask him.

"Q. What in your opinion is the water requirement upon that land?

"Mr. Sanford: May I add the further objection, as stated by Mr. Kearney, that the facts upon which the answer is to be predicated are not set forth in the question, and it further assumes that everything that Mr. Kronquist and Mr. Beemer have testified to are facts.

"The Master: The witness may answer subject to the objection.

"A. Well, in my opinion those lands require at least four and a half acre feet per acre in the season at the diversion point of the main canals. That is an average for the entire——

"Q. I would like to ask you, that answer is based upon the assumption that the testimony of Mr. Beemer and Mr. Kronquist is true, is that it, and based wholly upon that testimony?

"A. No, it is based also upon my knowledge of the land; taking all those into consideration.

(Testimony of J. C. Stevens.)

"The Master: Well, of course, Judge Harwood, that confuses the matter again.

"Mr. Harwood: Q. Well, that is your own opinion also, Mr. Stevens?

"A. Yes, that is my own opinion.

"Q. From investigations that you have made?

"A. Yes, sir.

"Q. And from your reading of the testimony of Mr. Kronquist and Mr. Beemer, you find that that is their conclusion also, do you?

"A. I concur with that conclusion, yes.

"The Master: It seems to me, Judge Harwood, that the evidentiary value of this testimony is not strengthened by the reading of other testimony because he is basing it upon his own observation.

"Mr. Harwood: Well, we are putting it both ways, your Honor. It is his conclusion, and he finds it was theirs too.

"The Master: Well, I do not think that it strengthens the opinion at all that somebody agrees with him. It is simply a matter of cumulation. Well, the answer may stand."

Witness continuing: A diversion of seasonal use would in my opinion be 10% in April, which includes March; 18% in May, 22% in June; 22% in July; 20% in August and 8% [926] in September, including whatever little amount might be required in October.

This means an average diversion in second feet

(Testimony of J. C. Stevens.)

for application to the 10,000 acres; for April, including March, 75 second feet; May, 130 second feet; June 165 second feet; July 160 second feet; August 145 second feet September 60 second feet. Expressing the same in acre feet, the amounts will be, for March and April, 4500 acre feet; for May 8,100 acre feet; for June 9,900 acre feet; for July 9,900 acre feet; for August 9,000 acre feet and for September 3,600 acre feet, making a total of 45,000 acre feet.

I made a study of the total water supply of the Walker River Basin and have compiled the records and made a table of it. The record begins in 1902 and ends September 30, 1929. It is made to correspond to the cyclic year of the U. S. Geological Surveys which begins October 1, and ends September 30, of the next year. The average yearly run-off of the Walker River for that period, 1902-1929, is 363,000 acre feet per annum. I have also made some computations and a graph of the cyclic stream flow covering five-year periods. This is merely to eliminate small variations. (Later marked Exhibit 31). I find from my studies that the last ten years are below normal. Only one or two years are at all above normal. All the rest are below. The cyclic figures for the year ending September 30, 1929, are 259,000 acre feet; for the period of 1928, 248,000 1927, 268,000; 1926, 278,000; 1925, 303,000; 1924, 301,000; 1923, 341,000; 1922, 344,000; 1921, 335,000; 1920, 343,000, and 1919 379,000. The

(Testimony of J. C. Stevens.)

five years last given covers a period that is a little above normal. The year 1922 was 18% above normal and all the years since then excepting 1927 have been below normal. 1927 was 3% above normal. For the cyclic period ending 1918, the figures are 432,000 acre feet; [927] for 1917, 412,000 acre feet.

The graph (Exhibit 31) is prepared from official records. The Coleville records are fairly complete. On the East Walker a few months are missing, but those have been supplied by comparison. Some records were made at Hilbun, Ross' Ranch and Strosnider's. All the records have been adjusted to a point above the diversions in Mason Valley.

"The Master. Any objection to this?

"Mr. Kearney. Well, probably to the weight of it. The part that is based upon the government published data I guess is all right, but the other he was not able to get accurate data.

"The Witness. There isn't any.

"The Master. Well, it may be admitted in evidence subject to your objection and marked Plaintiff's Exhibit 31."

Plaintiff's Exhibit No. 31 is a blue print graph entitled, "Cyclic Variation in Stream Flow and Precipitation of Walker River" upon which appeared the following note:

"Each point on curves is average of preceding 5 years." Appearing upon the graph are two curves.

(Testimony of J. C. Stevens.)

The upper one shows precipitation at Reno indicated in inches, below which is a curve showing the flow of the East and West Walker, indicated in thousands of acre feet for the same period as the precipitation periods.

Each dot or point on the curve showing the flow of the river represents an average flow for the preceding five years. The graph discloses a flow of 500,000 acre feet in 1910 based on an average of the preceding five years with a general downward tendency with the extreme low point of the cycle at the end of the graph in 1929.

The record of flow for the cyclic year, 1906-7 was [928] the biggest—762,000 acre feet, being a departure of 110% from the average. That of 1929 was 50% below; that of 1924 was 69% below; 1926 was 44% below; 1928 37% below; 1927 was 3% above.

I have made a study of the water consumed on the Walker River for the period of 1922, 1923 and 1924. (Later marked Ex. 32). It is based upon the U. S. Geological Survey records. These are the only three years in which the records are complete for all of the stations involved. This shows that on the East Walker in 1922 for the period of April to September, inclusive, at the gauging station at the outlet of Bridgeport dam, there were 128,690 acre feet, and at Strosnider's 121,370 acre feet, showing a consumptive use above Mason Valley of 7,320 acre feet.

(Testimony of J. C. Stevens.)

On the West Walker River at Coleville there were 247,390 acre feet during the same season of 1922. At Wilson Canon there were 192,760 acre feet with a consumption of 54,630 acre feet.

On the main Walker River, combining the East and West fork above Antelope and Mason Valleys, the combined flow was 332,130 acre feet; at the Wabuska, or Parker gauging station they are close together, there were 218,970 acre feet, showing the consumption of 113,000 acre feet. At the Parker gauging station there were 218,970 acre feet and at Schurz, 200,250 acre feet, showing a consumption of 18,790 acre feet.

I do not know the number of acres actually irrigated, but I have divided the consumption by the acres under the ditches as near as I could get at it. On the East Walker the consumption per acre was 2.2 acre feet; on the West Walker, 2.4 and on the main Walker 2.3. In 1923 the consumption during the irrigation season on East Walker was 3,400 acre feet or 3.1 per acre; on the West Walker in Antelope and Smith Valleys was 23,000 acre feet or 2.4 per acre. [929] On the main Walker the consumption was 121,790 or an average of 2.4 per acre. On the lower valley, reservation valley the consumption was 22,850 acre feet.

In 1924, during the irrigation season the consumption on East Walker was 4,110 acre feet, averaging 1.2 acre feet per acre. On the West Walker it was 23,000 acre feet, averaging 0.56 per acre; in Mason Valley, 42,220 acre feet, averaging 0.86 per

(Testimony of J. C. Stevens.)

acre, and on the reservation 870 acre feet consumption.

"Mr. Harwood. I offer in evidence the tabulation.

"Mr. Kearney. I would like to cross examine before you offer that in evidence. I do not think it is of much value.

Cross Examination

By Mr. Kearney:

"Q. Mr. Stevens, in preparing this table, what figures did you use?

"A. I would like to correct a statement I made a moment ago that these were all Geological Survey records. They are combined with the records taken by Mr. Beemer, that is, they include the records taken by him and also those of the United States Geological Survey. * * *

"Q. On the East Walker you got from April to September 128,600 acre feet. Where was that measurement taken?

"A. That was taken at the Bridgeport Dam.

"Q. And whose record was that, the U. S. G. S.?

"A. I think that was Mr.—I will have to verify that. That must have been Mr. Beemer's data. I do not find it in the Geological Survey records, it must have been his information. I can verify that a little later for you.

"Q. All right. The next figure is 121,370 acre feet at the Strosnider gauge. Whose figure was that?

(Testimony of J. C. Stevens.)

"A. I know now, those are from Exhibit B in this case, I think; a large tabulation presented by Mr. Beemer, both of those figures?

"Q. Well now, did the Strosnider gauge figure include the waters from Sweetwater Creek, and Bodie Creek that came in below the Bridgeport Dam?

"A. It included what was left—what was measured at the Strosnider gauge during that period. * * *

"Q. Why do you say the consumption was 320,000 acre feet when you do not show how much water came into the East Walker River from the tributaries below the measuring point at the dam and above the Strosnider measuring point on stream?

"A. Well, this study is merely—it is merely a study to show the difference, or the total amount of water consumed in those places. In this, consumption means waste and use and would include any unmeasured increments between those points, or loss. [930]

"Q. What value would it be if you did not know how much water came in from Sweetwater Creek——

"A. This is not a return water study, we have got all that information when we come to return water. * * *

"Q. Then the figure of consumption per acre is not a correct figure?

(Testimony of J. C. Stevens.)

"A. I stated on the direct examination that I merely divided that into the total loss or the total consumption, divided the total consumption between those points by the number of acres under ditch. I don't know that there was even an acre irrigated in that valley that year. I simply divide it by the number of acres under ditch in the valley there, just in order to arrive at a measure of what the 7320 acre feet amounts to, that is all. Just to get a mental picture of it, nothing else.

"Q. And you do not offer that as any duty of water——

"A. Not by any means, no sir.

"Q. Duty of water upon the area between those two points?

"A. No sir.

"Q. And you do not offer it as a correct record of the actual flow of water in the East Walker River available for use in that territory?

"A. No. We have that a little later. This is just a comparative study of the differences in flows at the head and bottom of these various valleys, that is all.

"Q. Just one further question and I think I can make the objection I am going to make. On the West Walker you show the Coleville station during the irrigation season, April to September, 247,390 acre feet?

"A. Yes.

(Testimony of J. C. Stevens.)

"Q. And at that Wilson Canyon gauge 192,-760 acre feet?

"A. Yes.

"Q. Where did you get those figures?

"A. The Coleville is the United States Geological Survey records, and I think the Wilson gauge is Mr. Beemer's data.

"Q. Then you charge the consumption there of 54630 acre feet during those months, is that correct?

"A. Yes.

"Q. Now then, this record of flow at Coleville, which is the head of the stream, will not show how much of that water was diverted and stored in Topaz Lake, will it?

"A. No, it includes the storage; includes whatever water was held over or whatever water was in storage.

"Q. How do you know that does?

"A. Well, if there was any water stored then this shows it. This examination includes whatever manipulation, storage or release, there may have been in that reservoir. It is not segregated.

"Q. Now then, if a part of that 247,390 feet were diverted into Topaz Lake and held there, and the 192,760 represents that passed the Wilson gauge, the 54,000 representing the difference would not be a consumption upon the irrigated lands——

"A. No, it is not put up to that figure.

(Testimony of J. C. Stevens.)

"Q. And 2.4 feet per acre would not——

"A. It is not put up for that figure at all. It [931] is not put up for that purpose. I have stated that the 2.4 acre feet per acre does not represent the irrigation consumption on those acres. It is merely the total difference between the flow at Coleville and Wilson Canyon, divided by the number of acres under ditch in the valley, and it is just for whatever it may be worth in that connection.

"Mr. Kearney. Well, if the Court please, I think we will object to it upon the ground it is immaterial for any purpose in this case. I cannot see that it has any probative value of any fact that it is necessary for the Court to determine. In other words, there might be 25,000 acre feet stored in the reservoir. They are just merely abstract figures that cannot help anybody.

"The Master. Well, it may be admitted in evidence subject to your objection. Plaintiff's Exhibit No. 32."

Plaintiff's Exhibit No. 32 is a typewritten tabulation entitled, "Water Consumption in Walker River Valley in Acre-feet," and shows the following: [932]

(Testimony of J. C. Stevens.)

PLAINTIFF'S EXHIBIT 32. 1 sheet—Page 1300, Discussed previously.

TABLE 5.

WATER CONSUMPTION IN WALKER RIVER VALLEYS IN ACRE-FEET.

Section	1921-22 Oct.-March	1921-22 April-Sept.	1921-22 Year	1922-23 Oct.-March	1922-23 April-Sept.	1922-23 Year	1923-24 Oct.-March	1923-24 April-Sept.	1923-24 Year
East Walker Dam	.....	128690	.....	40600	73380	119980	29560	13410	42970
Strosnider	.....	121370	.....	43430	62640	105870	34800	9300	44100
Consumption	.....	7320	.....	2830	10940	8110	5240	4110	1130
Consumption " in % of supply	.....	5.7	.....	6.9	14.8	6.8	17.8	30.5	2.6
Acres	.....	3400	.....	3400	3400	.....		3400	
Consp. per acre		2.2			3.1			1.2	
West Walker									
Coleville	19060	247390	266450	27300	193940	221240	19770	48130	67900
Wilson	12230	192760	204990	26840	137900	164740	19330	35310	54640
Consumption	6830	54630	61460	460	56040	56500	440	12820	13260
Consumption " in % of supply	35.8	22.0	22.9	1.7	28.9	25.5	2.2	26.6	19.6
Acres		23000			23000			23000	
Consp. per acre		2.4			2.5			0.56	

(Testimony of J. C. Stevens.)

PLAINTIFF'S EXHIBIT 32. 1 sheet—Page 1300, Discussed previously.

TABLE 5.

WATER CONSUMPTION IN WALKER RIVER VALLEYS IN ACRE-FEET.

Section	1921-22 Oct.-March	1921-22 April-Sept.	1921-22 Year	1922-23 Oct.-March	1922-23 April-Sept.	1922-23 Year	1923-24 Oct.-March	1923-24 April-Sept.	1923-24 Year
Main Walker Strosnider) & Wilson)	38090	332130	370220	70270	200340	270610	54130	44610	98740
Parker	28940	218970	247910	52290	78550	130840	51210	1390	52600
Consumption	9150	113160	122310	17980	121790	139770	2910	43220	46140
" in % of supply	24.0	34.0	33.0	25.6	60.7	51.8	5.2	97.5	47.0
Acres		50000			50000			50000	
Consp. per acre		2.3			2.4			0.86	
Parker	28940	218970	247910	52290	78550	130840	51210	1390	52600
Schurz	19460	200250	219710	49560	55700	105260	48750	520	49270
Consumption	9480	18790	28200	2730	22850	25580	2460	870	3330
" in % of supply	32.7	8.6	11.4	5.2	29.0	19.7	4.8	62.4	6.4

[933]

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(Testimony of J. C. Stevens.)

Witness continues on

Direct Examination

By Mr. Harwood:

In my opinion there is sufficient water in the Walker River system for the irrigation of 10,000 acres of Indian Reservation lands, the water requirement for those lands being 45,000 acre feet. There might be a few months in certain years when there would be a little shortage. That shortage would apply also to all the rest of the lands in the valley. When I say there is sufficient water for the irrigation of the reservation lands, I mean that from the practical standpoint of irrigation there is an abundant supply of water for the irrigation of the reservation lands. I do not mean by that to say that every single month in every year throughout eternity there would be the exact amount required because anyone understanding practical irrigation will concede that there may be a shortage in some few years. It is a practical thing to spend large sums of money and develop irrigation projects when you know that there may be an occasional year in which the full supply will not be available.

I have made an estimate of the amount of water that would be required at the head waters to supply the needs of the reservation for each month, both in acre feet and second feet. I have also made an estimate of transportation losses based on losses between the diversion dam on the Indian Reservation up to Hoy Canon on the West Walker and to

(Testimony of J. C. Stevens.)

Bridgeport Dam on the East Walker. At those same points the flows available were tabulated in order to show the months in which there might be a little shortage at these points.

This tabulation I have here shows the total combined release required from the points indicated, Hoy Canon and Bridgeport Dam, of 53,910 acre feet. [934]

"Mr. Kearney. I want to object to any examination on what the paper shows as evidence till it is admitted. When the data is offered we want to make an objection and save the record on that.

"Mr. Harwood. I am going to use the table, I guess that is the proper method. I offer it in evidence.

"Mr. Kearney. We object to it upon the ground that it is hearsay, it is incompetent, that it is irrelevant and immaterial to determine any issue in this case.

"The Master. (Q.) As I understand you, Mr. Stevens, this is based upon Mr. Beemer's report?

"A. No. The requirements are based on my own opinion as heretofore expressed. The seepage and evaporation losses are computed losses for the widths of the river channel, known records of evaporation at adjoining localities, and compare with the actual records of losses determined during the past year from Parker control to the diversion dam, as those losses were

(Testimony of J. C. Stevens.)

determined and are in evidence in the case. And these are computed losses of evaporation and certain allowances for seepage for the quantities of water shown, which I have set up as the probable losses, they are approximate of course, —probable losses that would occur in transporting those quantities of water down the river from the points I have named, and thereby obtaining the amount required to be released at the head waters for the irrigation of those lands.

"Mr. Harwood. (Q.) Well, Mr. Stevens, it is all based upon the records in this case and upon the records of the Geological Survey at the points indicated, is it?

"A. It is. The latter part of the table, that shows the months in which deficits would occur based on the records of the geological survey at those points.

"The Master. Well, the paper will be admitted subject to the objection and marked, Plaintiff's Exhibit 33." [935]

(Testimony of J. C. Stevens.)

This tabulation marked

PLAINTIFF'S EXHIBIT 33

is as follows:

"WATER REQUIRED TO BE RELEASED AT HEAD WATERS FOR 10,000 ACRES IN RESERVATION, ASSUMING NO OTHER IRRIGATION AND NO RETURN WATERS.

	Required at Diversion Dam	Evaporation & Seepage Losses	Release Required at Head Waters	
			Ac. Ft.	Sec. Ft.
April	4500 Acre ft.	1070 Acre ft.	5570	93
May	8100 " "	1420 " "	9520	154
June	9900 " "	1790 " "	11690	194
July	9900 " "	1930 " "	11830	192
Aug.	9000 " "	1650 " "	10650	173
Sept.	3600 " "	1050 " "	4650	78
	45000 " "	8910 " "	63910	

MONTHS SHOWING DEFICITS.
Figures show actual Flows available.

	1908	1924	1926	1928	1929
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June	.....	8700	.....	.....	.....
July	.....	3000	.....	.....	.....
Aug.	9300	2000	10800(a)	20400(a)	9200
Sept.	.....	2300	6900(a)	8600(a)	.....

(a) This is in excess of the requirements but includes release of stored water from Bridgeport Dam, the amount of which is not known."

Witness Continues: My tabulation is made on the basis of no return flow and no irrigation—an attempt to get at what would exist if there were no irrigation and no return flow.

The second table in Plaintiff's Exhibit 33 is headed "Months Showing Deficits. Figures show

(Testimony of J. C. Stevens.)

Actual Flows Available." In the second table for the month of August, 1908, there was an actual combined flow of the two streams available in the amount of 9,300 acre feet while the requirements for that month would be 10,650, as shown in the first table of Exhibit 33; the difference between them is the amount of shortage. In 1924 there were four months in which a deficit is shown. In June, 8,700 acre feet; in July, 3,000 acre feet; in August, 2,000 acre feet; and in September, 2,300 acre feet. In 1926, there was some stored water released from the Bridgeport Reservoir, which is included in the records. I did not have the information to make the corrections for storage, but they were near the amount available; (for instance, in August, 1926, it was 10,800, while the requirements for that month are 10,650) so that if we could correct the actual records by the amount released from storage, the natural flow would have been undoubtedly somewhat less than the requirements. During the months of August and September, 1928 the same conditions existed. In 1929, however, we do have the information to correct the records for the storage released from the Bridgeport Reservoir, and that shows only one month in which there would be a slight shortage in 1929. In making these figures I have taken into consideration the total supply of water from both the East and West Walker Rivers. I arrived at evaporation and seepage losses of 8,910 acre feet during the irrigation season, as follows: Starting at the stretch of river between the Parker control

(Testimony of J. C. Stevens.)

and the diversion dam on the Indian [937] Reservation, a distance of 19.8 miles, an average width of the channel of about 200 feet makes approximately 500 acres of exposed area in the river bed. When the water is high the entire river bed is covered; as the flow diminishes the water recedes to a narrower width. The evaporation loss is computed from records at Fallon. I reduced these by 20% because they were taken in a pan only partly submerged, and based upon an isolated small quantity of water about 3 feet square. The record was 3.38 feet in depth, for the irrigation season. Experiments have been made at Fort Collins and Denver, Colorado, by the Department of Agriculture, and the records are available showing that for saturated sands the evaporation is about 80% of the evaporation from a free water surface. On that basis 80% for saturated sands and 100% for water surface, I computed the evaporation loss month by month for the 20 miles stretch from Parker to the Indian Reservation dam. From Parker to Yerington weir, the river is narrower, and I have used 100 feet as an average width for the 14.2 miles distance and the evaporation would be 36% of the evaporation loss from Parker's control to the Indian diversion dam. There are probably some seepage losses in that stretch of river that are unknown, we can only estimate them. In the actual measurements of losses that I have made I cannot distinguish or segregate the evaporation from the seepage losses. I have allowed a reasonable amount for the seepage loss in

(Testimony of J. C. Stevens.)

that stretch, I have just doubled the amount that we got from evaporation.

From Yerington weir to the junction of the East and West Walker Rivers is 9 miles, and I used an average width of 110 feet for the river and find that the evaporation losses would be 23% of that at the lower end of the 20 mile stretch from Parker's to the Indian diversion dam. From the junction [938] of the two rivers to Hoy Canon, a distance of 20 miles, and, assuming an average width of 75 feet, the evaporation loss would be 38% of that on the lower river. On the East Walker River, from the junction to Strosnider's, there is a stretch of five miles of the river with an average width of 75 feet. From Strosnider's to the Bridgeport dam the distance is 47 miles, with an average width of the river channel of 60 feet. The evaporation losses from the junction to Bridgeport dam would be 82% of the evaporation losses in the lower river. On this basis the evaporation losses for each month for the entire stretch of river have been calculated.

The evaporation rate I used for July was 8½ inches; For August it was 7.6 inches; for July, 7.8 inches. These figures are 80% of the actual records at Fallon, Nevada. This is figured on the basis of prior rights to the Indians and no irrigation, and no return flow.

The flow at Wabuska gauge for June, 1927, was 41,300 acre feet and the loss at the Indian diversion dam was 2,662 acre feet; in July the flow was 20,500

(Testimony of J. C. Stevens.)

acre feet, with a loss of 2,705 acre feet. The flow for the entire season was 82,040 and the loss at the diversion dam was 8,463. The year 1926 preceding the year 1927, when the foregoing measurements were made, was a very dry year and undoubtedly considerable of the loss shown in 1927 went into storage in the river channel to fill up the dried out channel prior to the time the 1927 flow occurred. The average flow at Wabuska for the month of June, 1927, was 683 second feet and that for July was 330 second feet. The average daily requirement at the Reservation diversion dam for the irrigation of 10,000 acres of reservation land during the month of June 1927, was 165 second feet, and for July 160 second feet. In 1928 the total flow was 18,675 acre feet [939] and the loss was 3558 acre feet of which 2000 acre feet occurred in the month of May. The following month, June of that year, showed a gain instead of a loss, due probably to bank storage. In 1928 the total flow at Wabuska Gauge was 8,096 acre feet and the loss was 2,053 acre feet; so that my total loss of 3200 acre feet in that stretch of the river is a fair average. The total losses for July measured at the Indian diversion dam would amount to a constant flow of 32 second feet during the month. For June it would be 31 second feet.

"Q. Have you had some blue prints made showing graphically the result of the measured flow between the Bridgeport dam and Morgan?

"A. Yes.

(Testimony of J. C. Stevens.)

"Q. And also the measured flow between Yerington weir and the Indian Diversion Dam?

"A. I have.

"Q. And also between Wabuska station and the Indian diversion dam?

"A. I have; for the three years, 1927, 1928, and 1929.

"Q. What figure is that one? Oh, it is on figure 4 and 5?

"A. Four and five, yes.

"Q. Have you also made a graph illustrating Mr. Beemer's testimony of the return flows from Antelope Valley and Smith Valley and Mason Valley?

"A. I have; for the years 1922 and 1923.

"Mr. Harwood. I would like to offer those in evidence. I think we had better make them one exhibit so as to save so many exhibits.

"Mr. Kearney. If it is merely for illustration we have no objection.

"Mr. Harwood. They are.

"Q. They correctly show in graphic form the tabulation?

"A. They show in graphic form the figures that have been presented here.

"The Master. They may be admitted and marked Plaintiff's Exhibit 34."

Plaintiff's Exhibit No. 34 consists of five blue print sheets, 8x11 inches, showing in graphic form the losses on the Walker River System.

(Testimony of J. C. Stevens.)

Sheet No. 1 shows losses from Bridgeport Dam to Morgan Ranch.

Sheet No. 2 graphically shows accrued flow, gains and losses from Yerington Weir to Reservation Dam. [940]

Sheet No. 3 shows graphically the accrued flow from Wabuska Station, U. S. G. S. to Indian Diversion Dam.

Sheet No. 4 shows graphically accrued flow—Parker to Indian Diversion and Wabuska Station to Indian Dam.

Sheet No. 5 shows graphically the return flow East Walker River, Mason Valley, both in the year 1922 and East Walker River in 1923, Antelope and Smith Valleys in 1922; Mason Valley in 1923.

Sheet 1, figure 2A, from June 20 to September 30, 1929, inclusive, the "consumption in Bridgeport Valley—Accrued Flow", with a graph showing the total flow, net outflow, and thereby net consumption.

Witness continuing: The graph marked Fig. 2A (exhibit 34) shows the accrued flow to the Bridgeport Reservoir, as was testified to, or presented by Mr. Kronquist. The records begin June 20, and end September 30, 1929, and each number on the line is the sum of all the record for the preceding day. The low curve is the net outflow corrected for storage and evaporation. The difference between the two curves is the net consumption in the Bridgeport Valley.

Figure 2B is a similar tabulation of the flows at the Bridgeport Dam and at the Morgan station dur-

(Testimony of J. C. Stevens.)

ing the period of July 10 to September 30, 1929, the difference being the net consumption in that stretch of the river. The lower two curves, one a solid line and one dotted, show the flows for the Elbow station and the Morgan station, beginning August 1, and ending September 30 of the same years. It shows that the flow at these points was almost identical.

Figure 3, is the accrued flow and gains and losses from the Yerington weir to the Indian Reservation Diversion dam for the period beginning June 10 and ending September 30, 1929. The upper curve is the accrued flow at the Parker [941] control, 14.2 miles from the Yerington weir and shows the total gain in the flow in the 14-mile stretch of the river. The middle curve shows the flow at the Indian diversion dam 33.7 miles from the Yerington weir and the loss from the Parker control to the diversion. The lower curve shows the flow at the Yerington weir. And the difference between the Indian diversion curve and the Yerington curve shows the total gain from Yerington to the diversion dam. (The total flow up to September 30, of this year, was approximately 12½ acre feet at the Yerington weir; 4200 acre feet at the Parker control and 2600 at the Indian diversion dam.)

Figure 4 shows the accrued flow at the Wabuska Gauging Station of the U. S. Geological Survey and also at the Indian Diversion dam during the irrigation season of April to September, inclusive, 1927, taken from the tabulation on Exhibit 30.

(Testimony of J. C. Stevens.)

Figure 6 shows in graphic form the total diversions, consumption and return flow. For illustration, take the graph of the flows in 1922, in East Walker River from Strosnider's to the Indian diversion dam. The lower left-hand graph of this sheet 6 shows the same thing for the year 1923. The Antelope and Smith Valleys have been combined by utilizing inflow into the upper end of Antelope Valley and the outflow at Wilson Canon, below Smith Valley, with the diversions in those valleys. The graph in the upper right-hand corner of figure 6 and the one in the lower right-hand corner of figure 6, show the diversions, return flow and consumptive use in Antelope and Smith Valleys for the year 1922, and the year 1923. The total diversions in these valleys for the period of Aug. 1, to September 24, 1922, was 45,000 acre feet; the total consumption was approximately 30,000 acre feet; the return flow therefor being 15,000 acre feet. The instrument [942] mentioned as the Stevens recorder was used by me. It is one of my inventions and it is in general use in the West as a part of the automatic recording devices.

The Steven's recorder mentioned in some of the testimony is my invention and is in general use in the West as a part of automatic recording devices.

Cross-Examination

By Mr. Sanford:

In October 1926 I spent two days with Mr. Kronquist on examining various gauges on East Walker

(Testimony of J. C. Stevens.)

and the Main Walker. I spent probably half a day with Mr. Kronquist in driving over the lands of the Indian Reservation. We made no tests. The soil is generally sandy; some of it a little firm soil, perhaps with some little clays on the benches—not very much. In places there is gravel under the surface. It is all alluvial land; made no diggings in the soil; judged from the surface and the river banks. I made a report in 1915 for the Reclamation Service; recommended three acre feet for the average of the entire Walker River Basin. This was a preliminary report covering the amount of available water—amount of lands that could be watered with it and probable total requirements of water for the entire valley. I used three acre feet as an average for the entire valley without attempting to segregate it among any particular tracts of land. I did this with the knowledge that there were certain sandy portions that would require considerably more—certain types of soils that do not require as much. All the valleys within the basin were included. There was another reason why we used three acre feet. It was that I recommended in my report that all priorities in the Walker River Basin be entirely ignored—in other words, that all the water rights be pooled and that a new regime be [943] inaugurated by the construction of reservoirs to conserve the supply and distribution. At that time the Nevada statutes fixed the storage requirements in a maximum amount as 3 acre feet per acre. It also fixed a maximum amount of water to be acquired by appropriation at one

(Testimony of J. C. Stevens.)

second foot for 100 acres, which would amount to three acre feet in the practical application of water to the land. Of course if the question of old rights were involved, that could not apply. I included the Indian lands as well as the rest of the lands. I suggested a reservoir at Bridgeport and the Hoy Canon which would include the Topaz. I said that if these reservoirs were constructed at the Hoy Canon and Bridgeport, there would be enough to irrigate all the land along the river, including the Indian lands. This would be taking into account natural flow, return flow and seepage. There is more land in the valley than can be irrigated with this supply and I attempted to select the lands that could be supplied with the total yield of the streams and included some 10,000 acres down on the reservation. In accordance with the plan of my report there would be sufficient water from return flow and seepage to supply the Indian lands with a full water right, as well as all the other lands in the valley. My report mentioned a proposed reservoir called the Weber site on the reservation, with a capacity of somewhere around 10,000 acre feet. It is down stream from the Rio Vista site. I made no special study of storage on the reservation.

There was very little data on which to base a careful study of the possibilities. I was merely instructed to gather such data as was available and make a preliminary or sort of general bird's eye view of the possibilities that would serve as a guide for more intensive investigations [944] later on if

(Testimony of J. C. Stevens.)

they finally decided to undertake the work. Witness was asked by Mr. Kearney whether investigations on the reservation for a couple of hours influenced him to change his mind or whether he followed the suggestions made by Kronquist and Beemer, to which he answered "No". I had examined the lands in 1915 and knew the territory in a general way, and I fixed the quantity at 3 acre feet on account of the Nevada law that limits it to that amount. I have not changed my opinion about the duty of water. Three acre feet is reasonable for the average of the entire valley. The average minimum requirements for the reservation lands I had fixed in 1915 at 4½ acre feet. There are some sandy lands that might require 5 or 6 acre feet. There are firmer lands that will not require 4½ acre feet. I knew all of that at the time my first report was made in 1915, but there was no attempt to make any classification of the lands at all, or to fix the quantity of water for any particular tract. There is quite a little area in the lower end of Mason Valley that will probably require 4 or 5 acre feet of water. The estimate of 3 acre feet was not a guess. It is an average for the entire basin and is sound and valid, and if I were doing it over again, I would do it exactly as I did then. It is not a reasonable amount for some of the sandy lands, either in Mason Valley or in the Indian Reservation.

In my 1915 report I stated that there were 900 acres of land actually irrigated and cultivated on the Walker River Indian Reservation in 1915, and

(Testimony of J. C. Stevens.)

also that there were only 30,000 acres actually irrigated and cultivated in the rest of the valley. My statements were based upon surveys made by the Government in 1905. I had also the statement of the Indian agent in charge of the Reservation that [945] there were only 900 acres under cultivation. My testimony and figures regarding the water supply, etc. of the Walker River and its tributaries are based upon gaugings made by the U. S. Geological Survey and some made by Mr. Kronquist and Mr. Beemer that are not recorded in the Geological Survey records. On the East Walker River there are some missing records that are computed.

My figures are approximate only. My experience as to the accuracy of the U. S. Geological Surveys on the Walker River is that some are good and some are bad, but while there are individual months or periods when the inaccuracy is fairly large, yet in the entire year or series of years the final results are probably not very far off. Hydrographic work is just a study in nice approximations. I still believe to be true my report in 1915 on page 23, particularly with reference to the gauging station at West Walker River near Coleville, in which I say, 'The channel is rough and velocities much disturbed by the boulders in the river bed. The records, therefore, do not possess a high degree of accuracy.' Also the statement referring to the East Walker River at the Ross ranch where I got the reports on which I based my computations which were not gauged to the effect that the channel is subject to

(Testimony of J. C. Stevens.)

considerable changes from a scouring and silting, and on this account the records are not as accurate as could be desired. My report of 1915 was made before the decree was entered in Suit 731, and was based upon the findings made by Mr. Thurtell. I tabulated his statement of water rights in California and Nevada as being for 91,133 acres for the entire basin, including 1905 acres for the Indian Reservation. I estimated those in Bridgeport Valley from Thurtell's figures at 15,000 acres and those in Antelope Valley on the same basis at 14,200 acres. I stated in this report that the duty of water would be taken at 3 acre feet per acre per season [946] measured at the intake. In this seepage loss and waste in operation would amount to about one-third, leaving 2 feet net to be applied to the lands. This has reference to all the lands in the basin that were contemplated by the Government for reclamation. My figures on evaporation are just an intelligent guess. My seepage loss is purely an estimate—just an intelligent guess. It is my judgment that 78 second feet of water flowing in the head waters of the East and West Walker River above Bridgeport and Coleville would supply sufficient water for the irrigation of 10,000 acres on the reservation during September. When I use the words "head waters", I mean the water flowing at Coleville and at Bridgeport dam. The measurements in the table of the waters at Coleville include some percentage added to take care of the tributaries that come in below. I did not make the measurements myself. Even if

(Testimony of J. C. Stevens.)

the surface waters from these tributaries never reach the same stream, there would still be some seepage and percolation from them. If I am 100% in error as to increment from the side streams, yet it would not affect the total results more than 1% or 2%.

In Plaintiff's Exhibit 33, I assumed for the total year that the flow of West Walker River would be approximately twice that of East Walker, and I have filled out certain missing records on the East Walker by taking half of the flow on the West Walker. It is my judgment that if in the month of April there were 31 second feet of water flowing at the Bridgeport dam and 62 second feet at the Coleville gauge, that 4500 acre feet would reach the reservation diversion dam. In September if there were 26 second feet flowing at the Bridgeport dam and 52 at the Coleville dam, that amount of water will supply 3600 acre feet at the [947] reservation dam. The loss by seepage and evaporation is just an intelligent guess and not based upon an actual examination of the river, but upon a general knowledge of the river and of the average width and length of the channel and the rate of evaporation that probably obtains there.

Answering the question of defendants' counsel, whether witness believed it to be economically sound to allocate a water right for 10,000 acres on the Indian Reservation at the tail end of the stream, the witness replied: If I were advising bankers or financial men about the development of that irriga-

(Testimony of J. C. Stevens.)

tion district alone and you could get the prior rights recognized I would still want to take some precautions in the way of storage down there, just as I recommended in my first report, as an insurance that that supply would be available at all times. I think it is a practical thing to irrigate out there if these water rights could be established and they should be given the priority. I do not think there is anything impractical about it all. I think that these quantities are sufficient; but I think that as an additional precaution, some storage should be provided. I so stated in my first report and it is still my opinion. In any long river system the tail end always gets the worst of it no matter how good the intentions of everybody might be, and, as a practical thing, if some storage could be provided, it is a matter of insurance, and that is well worth the cost. I think it is not practical or necessary to line the canal or make provisions to prevent heavy losses between the Parker gauge and the Indian dam. It would be cheaper to invest the money in a reservoir and stand those losses. I think this Indian Project is economically sound and will work out in time. If these lands had not been upon the Indian Reservation all these years, 10,000 or 15,000 acres would have been watered there many years ago. [948]

"Q. Of course, they have gone on for a long period of time and only irrigated a small amount?"

"A. Yes, but you know how Indians irrigate."

(Testimony of J. C. Stevens.)

Further Cross-Examination

By Mr. Green:

Upstream storage is bound to equalize somewhat the flow of the stream and would furnish more water in the latter part of the season. So far as the Indian Reservation is concerned, the only advantage would be the return flow coming in below the Yerington weir, which would be water coming from the ditches diverting at Yerington weir, because all the return flow water that comes above the Yerington weir could be diverted into those ditches. I do not say that this is a fact, but it could be.

In determining whether there was an available water supply for the reservation lands, I did not take into consideration the waters that are stored. My exhibit 33 eliminated the effect of the storage water. The water stored at Topaz, Bridgeport or any other dam, may increase the supply at the Reservation, but it is not a foregone certainty. If the irrigated areas in Mason and Smith Valleys are extended and the return waters are again picked up the advantage to the reservation would be very small. My figure for the average annual flow of the stream since 1902 is 303,306 acre feet. Of this the winter and early spring runoff would not be available for irrigation without storage, but would go into Walker Lake. This would be a substantial portion of the 303,306 acre feet. This water would have to be stored to be of any economic use.

My figures show that there is not enough Water available in the East and West forks of the river

(Testimony of J. C. Stevens.)

without storage to irrigate all the lands in the different valleys and 10,000 acres on the reservation besides. I think there would be in ordinary years. There is another factor, and that is the quantity and kind of irrigation of these [949] lands. Mason Valley, particularly the lower end of it, is already over-irrigated, and the first thing that the District will have to do is to spend considerable money for drainage. If those lands are drained as they should be, that will help out the Walker River basin quite materially. The same thing applies to many portions of Mason and Smith Valleys.

My report for 1915 was based upon what I call a 75% year. In such a year I do not believe you would have enough water without storage to irrigate all the lands upstream that are now irrigated and 10,000 acres in the Reservation. The ordinary years which I think have furnished enough water for all the lands, including those on the reservation are 1904, 1906, 1907, 1911, 1914, 1916, 1917, 1922, and probably 1927. There are a number of other years. I was just picking out August; looking at the August record only for the entire series, and there might be quite a number of other years that would get a supply all through the month of August that would be entirely adequate to prevent the destruction of alfalfa and give them perhaps not complete irrigation, but very nearly so. My opinion is based on the combined flow of both streams at Coleville and Bridgeport gauges. I have not included the reservoir water in the flow indicated. The flow in

(Testimony of J. C. Stevens.)

August was 24,400 acre feet. I do not base my estimate on 91,000 acres of land. That is the amount under ditch. I think that probably there would be 80,000 acres irrigated out of 91,000 acres mentioned. It is true there are only 61,933 acres under Decree 731, excluding 14,200 acres in Antelope Valley. Together the total would be something over 76,000 acres. When these claims were made for something over 90,000 acres of land, a survey made by the Reclamation Bureau in 1905, showed only 33,000 acres actually irrigated; so the amount of water claimed, or the amount of land claimed to [950] have been irrigated in seeking a water right, is not a measure of the land actually irrigated. The supply for the month of August for 86,000 acres of land should, in my opinion, be practically 35,000 acre feet. In the year 1904, it was 43,900 acre feet. The years 1904, 1906, 1907, 1911, and 1914, were all in excess of 35,000 acre feet.

Do not know what the lag of the water is in the valleys of Bridgeport, Smith and Mason. A lag might be anywhere from three days to a month, depending upon the character of the soil; probably less lag in Bridgeport and Antelope Valleys than in the lower valleys. I did not figure the return flow available at the reservation as 33⅓%. That is the return flow for all of the diversions in the whole basin. I do not allow any return flow for the reservation lands.

(Testimony of J. C. Stevens.)

Further Cross-Examination

By Mr. Kearney:

In my 1915 report I gave for the Indian lands, 1910 acres irrigated; new lands, 7190 acres; total 9,010 acres; 3 acre feet and a total of 27,300 acre feet—total net draft.

For the data for my report of 1915, I made no tests of the soils, no borings, and did not make any segregation of the crops that were grown, and no segregation of the length of the irrigation season in the different valleys, except my general knowledge and belief that April to September would be a sufficient irrigation season.

In explaining the statement in my 1915 report that the decreed rights are almost meaningless and impractical of enforcement, I state that the total rights decreed in Case 731 include an area about 91,000 acres on which 1,577½ second feet of water were to be applied. There is not that much water, and never has been, in the river for irrigation throughout the season; therefore, a decree that fixes such [951] a quantity of water as is clearly in excess of the supply would have no particular meaning because it cannot be enforced. Perhaps that expression was not fully warranted. The decree does not divide the available water. There would not be anywhere near that amount in the latter part of the season. In my 1915 report, I stated that there is ample water for all land then under ditches and a liberal supply for additional reclamation if storage

(Testimony of J. C. Stevens.)

be provided. That statement included 10,000 acres of the Indian Reservation. My statement in my 1915 report that 'there is ample water for all the lands now under ditches and a liberal supply for additional reclamation if storage be provided,' included the 10,000 acres of Indian lands. I still think storage must be provided for the Indian lands. I do not think that all of the Julys were deficient nor that a majority of them were short. When I testified at the hearing that the ditch losses on the reservation would be 33⅓% it was just a general estimate based on measurements. It will not be economical to line the ditches on the reservation. I do not say now that there was sufficient water in 1922 to irrigate all of the lands based upon a definite acreage of 86,000 acres, without storage. I estimated the percolation losses in the river channel. I have seen the channel in several places, but made no detailed examination. I could not have determined the losses if I had walked over every foot of the river channel. I do not think I should have had a better idea as an engineer if I had seen it all. An engineer might determine the conditions from hearsay evidence. He could make an estimate of it. That is done right along. The computations were my own, based upon the length and average width of the river. I do not think there is any per- [952] manent seepage loss from the river in this portion of the East Walker River down to Morgan's ranch and Strosnider's ranch.

(Testimony of J. C. Stevens.)

Mr. Beemer's report Sept. 1, 1924 regarding the release of 700 second feet from the Bridgeport Reservoir, does not cause me to revise my opinion as to any permanent losses due to seepage in the river bed. This was water run when the river bed was dry. There were leaky headgates and brush dams and my calculation is for no irrigation and no return flow. That was a matter of 314 acre feet and 116 acre feet involved. My opinion is that Bridgeport Reservoir was not in operation until the season of 1925. They may have stored a small quantity of water before that. I am also advised that the storage in the Topaz Reservoir in 1924 was very small—almost negligible. There was some stored water perhaps released during the period, but not a full supply. My understanding is that 85 second feet of water was flowing down the West Walker at some point in the upper reaches and was thereafter diverted into the ditches. I am not familiar with this test. There appears to have been no measurements made. It is just some man's judgment, following the water down after a dry river bed. I do not change my opinion. I do not agree with Mr. Engle's opinion, that were it possible to restore the river to natural conditions without any irrigation above the reservation, the uncontrolled flow of the stream would be adequate for the full season for the total irrigated area of 10,000 acres of the reservation only in one season out of every two. There is sufficient water for the irrigation of those lands. I have set forth in a table which is in evidence here

(Testimony of J. C. Stevens.)

the few months in which a deficit would occur—a few months here and there. In some years there would be some shortage. I did not figure the per-[953] centage of loss—it is not a constant percentage.

Witness was asked whether he had used reports of Meskimmons, Coleman, Fitzpatrick, Engle, Blomgren, Jones, Weber, Dietz and others, to which he replied that he either did not know that they had gathered any data or else that he did not have their reports; but that he did not utilize the opinions of these men in coming to his conclusions. I had the stream flow records that were obtained this year by Mr. Kronquist and I had the data obtained by Mr. Beemer in 1922 and 1923.

There is very little actual data that is not already covered by the Geological Survey records and previous studies. My conclusions are based upon original investigations and original data that I have used. My investigations were made first in 1915, and then in 1929, when I was on the ground for two days. I did not use the amount of rain-fall in determining the duty of water. I do not know what constituted the consumptive loss of 6,830 acre feet in the flow of the West Walker River during the Winter season, measuring 19,060 acre feet at Coleville and 12,230 acre feet at Wilson Canon. They took out of the river stock water part of the time. This loss, according to the table was 35.8% of the flow at Coleville during this particular winter period in the river flow for a distance about half way down to the reservation diversions. There may

(Testimony of J. C. Stevens.)

be return water during this Winter period in the stream channel. The evaporation would be less in the Winter time than in the Summer. On the main Walker River from Strosnider's to Parker's during the same period the loss was 24%. From Parker's to Schurz station on the Reservation where there was no irrigation whatever and no stock water turned out, the loss during this period was 32.7%. I would not attempt to reconcile these figures with the computed losses that I have made for [954] the Summer. The April to September loss from Parker to Schurz is only 8.6%, and for the whole year is only 11.4% in the Summer table. For the period of October 1, 1921, to Sept. 30, 1922, at the Parker gauge there were measured 29,940 acre feet, and at Schurz, 19,460 acre feet, showing a consumption of 9,480 acre feet, being 32.70 percent. I think the Schurz record probably does not measure all the water at that point. I think the reservation canals carry considerable water around the gauge there, but I do not know this for a fact. Of course the percentage of loss is greater where the flow is smaller. Actual losses are more inclined to be a constant quantity. They do not fluctuate like the supply fluctuates. There must be enough water in the channel to supply the losses before you get any water. The percentage of consumption between Wilson and Coleville is less in the irrigation season than it is in the other seasons of the year.

(Testimony of J. C. Stevens.)

In making up the figures of plaintiff's Exhibit 33, I did not use or rely upon the figures in the tables, Exhibits 31 or 32.

Were there 93 second feet of water in the combined flow of the East and West Walker Rivers in April, at the headwaters without intervening irrigation or diversions, it would be sufficient for the irrigation of 10,000 acres on the reservation. The combined amount of flow at the headwaters, without irrigation or diversion intervening, sufficient for the irrigation of 10,000 acres of reservation lands are as follows: 154 second feet in May; 194 second feet in June; 192 second feet in July; 173 second feet in August; and 78 second feet in September. I have read the statement of Mr. Engle about 50% loss in transit in the river channel. I do not agree with him; nor do I agree that 150 second feet diversion will be needed at the Reserva- [955] tion during September. The diversions from East Walker are greater than the water supply available at Bridgeport in the year 1922. The total diversion between the Bridgeport dam and Hilbun was 122% of the available supply at the dam. In 1922 it was 124%. The return flow was 42% based upon the available water at Bridgeport.

Redirect Examination

By Mr. Harwood:

Plaintiff's Exhibit 33, on water required to be released for 10,000 acres, etc. is a calculation made to show extreme conditions. If there were a return

(Testimony of J. C. Stevens.)

flow in that stretch of the river and that return flow were not diverted, it would be added to the available supply for the Indians. Any return flow from Mason Valley available between Yerington Weir and Parker's would add materially to the available supply for the Indians. More would be available if the drains in Mason Valley were extended. That would diminish the necessary draft upon the stream flow up the river. The calculations that I made were based upon the area of the river in acres and I attributed a certain evaporation loss to that surface and doubled it for other unknown losses. I do not find any unusual losses in the Walker River Basin. I do not think they are unusual at all.

Recross Examination

By Mr. Kearney:

The figures I have given are the maximum that would be required at the head of the stream, assuming no return flow and no reservoir water to help out. Reservoir water must take a share of the losses. If a larger amount of water were run down the river, the total losses would be somewhat greater, but they would be divided into two portions; only that portion required for the Indian reservation would not be so great. April requires 93 second feet to be re- [956] leased at the head waters and if there were return flow, not diverted or wasted, the quantities released would not have to be so great.

(Testimony of J. C. Stevens.)

Of the 1,070 acre-feet loss with a flow at the head waters of 93 second feet, 789 acre feet would be lost below the Yerington weir. In second feet, that would amount to about 13 second feet. The percentage would be about 14%. I do not think the same percentage would hold throughout the remaining months. In the month of June, with 194 second feet, flow at the headwaters the percentage would be considerably less—about 8%—that is, between Yerington weir and Parker's. The figure, 279 acre feet loss above Yerington weir, is about 5%; and that, on the basis of 194 second feet available, is about 4%.

The defendants read into the record the following letters, reports, etc.

A copy of a report dated July 22, 1899, from L. A. Ellis, farmer in charge of Walker River Reservation, to the Commissioner of Indian Affairs (through Superintendent James K. Allen) Which is also contained verbatim in the Blomgren report. Referring to the Walker River Indian Reservation the report says: This reservation contains nearly 320,000 acres, only about 20,000 of which is arable. There is now under cultivation about 1,300 acres, which is nearly all that can be covered by our present ditches. There is always plenty of water and to spare in Walker River, but our trouble lies in the fact that it does not always hold out during the entire Summer. Last year we had no water for irri-

gation purposes after about July 10, and an insufficient quantity for at least two weeks preceding that date. This year, while there is at present an insufficient quantity, I think we shall not be entirely without until about August 1. [957] During the first four years of my stay here, the cultivated area has increased about 50%. The increases in the grain, wheat and barley yield were more than 300%. While the vegetable crop has grown from nothing to quite a respectable showing. Last year on account of failure of water as above stated, our grain crops were cut short about 40 percent of what they were the preceding year, while our vegetable crop was an entire failure. This year our water lasted a little longer and insures us that the grain and hay crops will mature. I estimate that each of these crops will be about the same as two years ago. Owing to the evidences of shortage of water in late summer, but few vegetables were planted this year, and it is well so, for only a few of those planted can mature. It is our aim to be able to report a steady increase in farm products each year, but when these dry years come a setback is inevitable, as things now are. but they can be remedied. By the construction of a dam across the Canon through which Walker River runs, about one-half mile above our present dam, a large reservoir several miles in extent can be made, thus not only insuring us against a possible drought in the driest years for what land we have now under cultivation, but this done and the construction of about 10 miles of ditch, about 10,000 acres additional can be brought under cultivation

and all insured against a possible drought. This, in my opinion, is not only feasable but can be done at a total cost of less than $3.00 per acre for the land covered. If the Pah-Utes contiguous to this reservation are to be induced to come out of opium and whiskey dens in the surrounding country, I would recommend the above described reservoir be looked into. These Indians are easily induced to farm if land with an assurance of water therefor and agricultural implements are furnished them. The latter we constantly need more of in order to properly do what we are now attempting. [958]

Defendants read a portion of the report of Chief Engineer Code, dated July 7, 1906, to the Secretary of the Interior, as follows: It is an unfortunate fact that the Indians of the Walker River Reservation will not be able to obtain any considerable amount of water during seasons of scant supply after July 1. The white settlers above have been occupying and farming lands in Smith and Mason Valleys for over 40 years, taking out ditches in the early sixties and having earlier priorities of appropriation than the Indians, whose first attempt at ditch construction was begun in about 1868, by the building of a small ditch and irrigating only a few acres of land. While they enjoy an early priority of diversion the area of the land irrigated was small. If they can establish title to sufficient water to irrigate one-third of their present farmed areas of 1400 acres, it will be as much as we can reasonably count upon. The United States Attorney with the data that has been furnished him by special agent

Couser and Superintendent Meskimmons, will undoubtedly secure their rights in the premises, but as matters stand it is altogether probable that the larger portion of the Indian holdings now in cultivation will be forced to depend chiefly on surplus spring and early summer's water for an irrigation supply. Considerable correspondence in the same tenor indicates that the Indians have always been handicapped by lack of a late season water supply.

Defendant then reads a petition to Congress signed by about 150 Indians of the Walker River Indian Reservation, dated November 3, 1919, presented by their delegation to Washington, stating: 'Whereas your petitioners respectfully offer the following: As we look back to the year 1860, as remembered by John Dave, then our reservation was established, there has been little change as it stands today.' [959] Our first Superintendent, Dodge, was a good man, and he did all in his power in instructing the Indians to produce their wants. Superintendent Jim was our next superintendent. He also was a good man; told us to stick to the task of farming; never to give up and in the future we would be glad; telling us that every inch of land on the reservation is ours; that if we stick by one another, and keep on the right side, we will make the best reservation on earth. Our next Superintendent, John Clark, was also a good man the same as the rest. His whole idea was like the rest, to uplift us Indians. He told us to stay on the reservation and improve ourselves and to raise what would be of most value, telling us that the time will come when

bad men will try to beat the Indians in every way. We now beg of you, Mr. Secretary, and Mr. Commissioner, and members of Congress to listen to our present needs and to take an interest in us. This is most important, that we must have a storage dam. It is needed to save us. We now have about 1300 acres that has cost $100.00 an acre, and water fails us in the early part of July causing much loss. With the storage dam we have nearly 7,000 acres that could be irrigated and the total cost of all would be less than $50.00 an acre, and water would be supplied through July, August and September, saving one or two hay crops and our gardens and pastures. Every superintendent who has been with us has urged the building of a storage dam—all say it is our salvation. We Indians have waited, but without success; our crops dry up early in the summer and our stock suffers. Most of our Indians now have to go away to work to make the money to live which is bad for them and their children. Our Indians are afraid and discouraged, but with the dam and water sure, we would take heart and our reservation and the whole valley would prosper. [960]

Defendants read into the record a letter dated Schurz, Nev. August 4, 1919, from James E. Jenkins, Superintendent, Walker River School and Agency, to the Commissioner of Indian Affairs, Washington, D. C., showing the irrigation situation on the reservation at the present time is as follows:

About 1350 acres are under ditches, all of which are of the most temporary character and subject to

wash. The Indians have 6,000 acres of fertile, irrigable land in this valley, all very productive. To properly irrigate this land would require a storage dam costing approximately $100,000 and an additional outlay of $25,000 to $50,000 for necessary ditches and laterals. The system complete would cost less than $50.00 an acre including all past expenditures, and with a water shortage confronting us that must be overcome at once or the Indians will suffer further losses. As the matter stands now, it would be necessary to add approximately $150,000 to the $150,000 already expended, or the entire investment will be lost. Your immediate consideration of the situation is urged.

Defendants read into the evidence a letter dated Department of the Interior, Office of Indian Affairs, Washington, December 2, 1920, from E. B. Meritt, Assistant Commissioner, to James E. Jenkins, Superintendent, Walker River School, as follows: "'The office is in receipt of your letter of November 17, 1920, inclosing a notice from the State Engineer, relative to proof of beneficial use of water to be used for irrigation purposes in the Walker River Reservation.

"In the absence of legislation by Congress, the lands and water rights belonging to the Indians within Indian reservations are not subject to the operation of State statutes. [961] As a matter of law, therefore, the Indians or the Indian Service representing the Federal Government cannot be compelled to comply with State statutes relative to the acquisition of water rights. As a matter of

comity or courtesy to State officials, however, it has been the practice to at least advise such officials of the rights of the Indians in order that due notice may be had thereof in adjudications by State officers of water rights pertaining to lands in white ownership. The actual filing of an application for permit pursuant to State statutes is not necessary and appears to have been undertaken through a misconception of the situation with reference to matters of this kind. Your action in partly filling out the blank from showing proof of beneficial use, while not absolutely necessary in order to protect the water rights of the Indians, was not at least improper, in that it is not seen how any direct injury will result therefrom. The chief difficulty in matters of this kind is the impression created in the minds of State officials and others that compliance with the State law, or attempt to comply with such law, is an admission that the State and the State officers have jurisdiction over the matters involved therein. It is thoroughly understood that such officers have no positive jurisdiction over the Indian water rights, but that the endeavor to comply with State statutes is merely for the purpose of notifying state officers and the public at large of the claimed rights of the Indians, the proceedings had in such endeavors to comply with state statutes would simply make of record the rights of the Indians in the premises. This action in declining to remit the filing fee required by State statutes was perfectly proper under the circumstances. Neither your letter of the 17th, nor the enclosures attached thereto, disclosed

the acreage on which proof of beneficial [962] use of water was attempted to be proven under the permit previously filed. Such information could have well been given, but it should be understood that the failure of either the Indians or anyone connected with the Service to offer proof of beneficial use within the time required by State statutes will in no way jeopardize the rights of the Indians under these circumstances, these property rights of the Indians not being subject to the laws of the State.

Defendants read into the evidence a copy of a very long report dated Stewart, Nev., July 7, 1906, from W. H. Code, Chief Engineer, Indian Inspection Service, to the Secretary of the Interior, Washington, D. C. This report states that the writer, in compliance with the Secretary's order of March 31, 1906, had investigated conditions on the Walker River Indian Reservation, Nevada. He reports that two plans have been submitted to the Indian Service, for the irrigation of the lands of the reservation; one being the construction of a pumping plant; the other the construction of a reservoir or reservoirs; saying that: It is an unfortunate fact that the Indians of the Walker River Reservation will not be able to obtain any considerable amount of water during seasons of scant supply subsequent to July 1. The white settlers above them have been occupying and farming lands in Smith and Mason Valleys for over 40 years, taking out ditches in the early sixties and having earlier priorities of appropriation than the Indians whose first attempt at ditch construction was begun in about 1868 by the

building of a small ditch and irrigated only a few acres of land which was irrigated not so much for cultivation as it was for raising wild hay. While they enjoy an early priority of diversion, the area of land irrigated was small. If they can establish title to sufficient water during such periods to irrigate one-third of their present farmed areas of some 1,400 acres, it will be as [963] much as we can reasonably count upon. The Alkali Lake site is an economic and feasable site for a dam. Reference is made to a pending water adjudication suit in which the United States Attorney for Nevada suggests that the Government intervene in behalf of the Indians. (A portion of this letter was read into the evidence, as above stated.) Then the letter discusses the investigations and examinations made and recommends that Ditch No. 2 on the Reservation be enlarged and extended to cover about 5,000 acres of allotments, and also that Superintendent Asbury be instructed at once to make application to the State Engineer for permission to appropriate 150 cubic feet of water per week of the surplus waters of the Walker River for the beneficial use of the Indians for the contemplated enlarged canal, the details demanded by the State Engineer to be obtained from Superintendent Meskimmons. The reasons leading up to the recommendations as stated are: that the Government records of the gauging station in Walker River near Wabuska demonstrate the fact that, except in unusually dry seasons, there is ample water available until early in July to warrant the construction of the canal recommended for the pur-

pose of using the surplus of flood waters for grain crops. The records of flow at Wabuska for July, during the past five years are as follows: 1902, a good flow existed until July 10, at least, there being 47 second feet in the river on July 22; 1903, 664 second feet July 1, and 251 second feet, July 9; 1904, 1082 second feet, July 1, and an abundance until August 31; July 1, 1905, 114 second feet, and July 6, 57 second feet—a very dry year; 1906, highest water in many years, and an abundance assured for all the season.

It is my belief therefore, that sufficient surplus waters can be annually obtained for the growing of [964] grain crops, and that this canal is warranted on the grounds that "half a loaf is better than no bread."

There are some 5,000 acres of land newly allotted which will be covered by the proposed canal, but probably not to exceed 4,000 acres would be worth irrigating for the present, at least. Some of the lands allotted to the old people and situated near Walker Lake are very poor comprising Salt Grass flats and sand dunes of a character which no white man would care to lease. With the building of this canal and necessary laterals and the construction of a high line lateral from ditch No. 3, covering some few hundred acres of land West of Schurz, the Indians will have all the land covered that it will be possible for them to farm. It is a discouraging feature in connection with this recommendation that the best of the lands to be covered by this canal are mediocre hence no great expense for reclamation

would be warranted, such as would obtain by the building of central steam plants, independent storage reservoirs, or hydroelectric power plants. The Indians have been given the best and practically all the irrigable lands, however, hence there seems to be no other course to pursue save to build the ditches recommended and let them make the best possible use of their holdings. The construction of this canal would be an essential preliminary to any plan for their relief which can be suggested. It would be needed, with the quota or surplus or flood waters it will furnish the allotments, in the event that supplemental waters be supplied the lands in the future either through storage or by means of pumping plants operated by rented hydroelectric power.

If the Government acquires and constructs in the future the Alkali Lake Reservoir, in addition to others in contemplation, in connection with the Walker River or [965] other Projects, I sincerely hope it will be your pleasure to effect some arrangements whereby these Indians may obtain the benefits of storage and be insured future independence.

Defendants read from a report dated February 14, 1927, by Supervising Engineer C. A. Engle, Indian Irrigation Service; This appears on page 96 of the report entitled "69th Congress, Second Session, House Document No. 767, Department of Interior, U. S. Indian Irrigation Service", to the Commissioner of Indian Affairs, recommending as follows: "That a storage reservoir be created for the Indian land of Walker River Indian Reservation, by the construction of a dam at the Rio Vista

site, and that the irrigation system be extended to cover the entire irrigable area of the reservation."

Defendants read an affidavit of Franklin Campbell dated Fort Churchill, Sept. 11, 1865, the material part of which seems to be as follows:

"Campbell says he resided at the Reservation off and on since April 1st, 1862, acting as Agent. Describes the Reservation—60 miles long, 12 miles wide, including Walker Lake. About 4000 acres are arable land, river bottom. One board house on the Reservation 25x15 worth $250 or $300; also an adobe stable; no fencing, some small corrals; there has been no cultivation on the Reservation. 500 or 600 Indians. Hunting and fishing, gathering seeds; at certain seasons 1500 to 2000 Indians gather there to fish. Thinks they could be domesticated. The Indians catch from 150 to 200 tons of fish in the lake and river annually. Gather seed from the bunch grass. Land must be cultivated and planted. Thinks there would be no difficulty in inducing Indians to labor, and the reservation made self-sustaining. There has been purchased and brought on the Reservation, a spade and hoe, [966] a few scythes, rakes and forks for haying. Has put up about 70 tons of hay on the reservation."

Defendants read deposition of Lieutenant Justin Edwards apparently taken about the same time in 1865, which includes the statement:

"Describes Reservation 300 or 400 Indians there. Indians are cultivating no ground. No white men are cultivating ground for them. Nothing is being

raised by cultivation for the Indians there. They are living in their usual wild way; huts of willow, fishing, hunting and gathering wild seeds, etc."

During the hearings before the Special Master (May 12-14, 1931) the following stipulation was offered by Mr. Harwood, solicitor for the Plaintiff:

> "In order to shorten the trial of this case, and to facilitate its early determination, the plaintiff is willing to make concessions to certain defendants, provided they are assented to by the other parties hereto.
>
> The plaintiff concedes to the defendant hereinafter named for and appurtenant to the lands belonging to said defendants respectively, the following water rights on and along the Walker River and its tributaries in Nevada and California, with the priorities also hereafter named in connection therewith; except that the priorities and water rights of the plaintiff, United States of America, as they may be fixed and determined by the court shall take their places in the order of priorities so that said defendants' rights as so conceded, which are subsequent to the rights of the United States as they may be fixed and determined by the court herein shall be subordinate to the rights of the United States.
>
> All the rights of the defendants as hereby conceded shall be fixed and determined upon the basis of the doctrine or law of appropriation and not upon the doctrine or law of riparian rights.

The duty of water shall be at the rate of .016 cubic feet of water per second of time per acre for each acre of land irrigated during the irrigation season. In Bridgeport Valley on the East Fork of the Walker River, and at all points above Coleville Gauging Station on the West Fork of the Walker River, the irrigation season covers the period from March 1st to September 15th in each year, and at other points on said river the [967] irrigation season shall conform to the season fixed in Decree #731. The water shall be measured at the point of diversion from the river.

The names of the defendants included in this concession; the description of the lands; the dates of priorities, and the areas are as follows:"

There follows the names of some 34 defendants whose lands are in the State of California with the right to irrigate approximately 23,970 acres in Bridgeport and Antelope Valleys, Mono County, California, the total diversion rights aggregating 379.62 cubic feet per second; the names of the defendants and their respective descriptions of land and priorities being omitted from the printed record by stipulation, the defendant's respective rights not being involved in this appeal. The stipulations so read into the record, then continues and says:

"All the foregoing is subject to such rights and priority or priorities for the plaintiff's

land and water rights as may be determined by the court."

Dated: This 13th day of December, 1937.

ROY W. STODDARD
Solicitors for Plaintiff and Appellant.

[Endorsed]: Filed Dec. 29, 1937. [968]

[Title of District Court and Cause.]

ORDER APPROVING STATEMENT OF EVIDENCE

This cause came on to be further heard upon proceedings for the approval of a narrative statement in simple and condensed form of the evidence adduced at the trial and it appearing to the undersigned District Judge before whom the above entitled cause was heard and before whom the proceedings therein were had, that the foregoing narrative statement of the evidence was lodged in due time with the clerk of this court and that the defendants have, within due time, lodged their objections and suggested amendments thereto, which were settled between the parties by stipulation filed herein and by [969] such stipulation it was agreed that the foregoing narrative is a full, true and correct statement of the evidence adduced in said cause and that the same may be approved by the court, and

It Further Appearing that the foregoing narrative of the evidence condenses all of the evidence

and all of the exhibits, stated in simple and condensed form that were introduced, heard or considered by the court in rendering its decree in the above cause and that as to such portion of the foregoing narrative which is set forth verbatim and in the form of questions and answers, such form is necessary to accurately reflect what occurred,

Now, Therefore, It Is Ordered that the foregoing statement of the evidence be and the same is hereby settled, allowed and approved as a full, true and correct statement in simple condensed form, of all of the evidence introduced in connection with all of the proceedings in the above cause and condenses all of the evidence material at the hearing of the appeal in said cause and the matters above stated in full and in the form of questions and answers are directed to be so set forth.

Witness The Hand and Seal of this court this 23rd day of December, 1937.

A. F. ST. SURE
District Judge.

[Endorsed]: Filed Dec. 29, 1937. [970]

In Equity—No. C-125

Filed Feb. 4th, 1937.

O. E. BENHAM,
Clerk

By .....,
Deputy

In the District Court of the United States of America, in and for the District of Nevada.

UNITED STATES OF AMERICA,
Plaintiff,
Appellant,

vs.

WALKER RIVER IRRIGATION DISTRICT, a Corporation, et al,
Defendants,
Appellees.

STIPULATION

It Is Hereby Stipulated and Agreed that any judge of the above-entitled court or United States Circuit Court of Appeals for the Ninth Circuit may sign and enter an order in substantially the form attached hereto, enlarging and extending the time of all the defendants (appellees) in the above-entitled case, to and including the 31st day of March, 1937, within which to serve and file defendants' (appellees') counter-praecipe, indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal, and also enlarging the time within which said defendants

(appellees) may lodge with the clerk, their statement of additional evidence for the record on appeal in said cause as well as any objections or proposed amendments to the appellant's statement of evidence and that the date for hearing the motion to approve the said statement be advanced and continued to a date not less than ten [971] days after the defendant's (appellees') counter-praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court.

Dated: February 1, 1937.

ETHELBERT WARD
By W. S. Boyle.
WILLIAM S. BOYLE
ROY W. STODDARD
Solicitors for Plaintiff and Appellant.
W. M. KEARNEY
E. F. LUNSFORD, GREEN & LUNSFORD
Solicitors for Defendants and Appellees.

[Endorsed]: Filed Feb. 4, 1937. [972]

[Title of District Court and Cause.]

ORDER ENLARGING TIME TO FILE DEFENDANTS' (APPELLEES') PRAECIPE AND TO FILE OBJECTIONS AND PROPOSED AMENDMENTS TO THE PLAINTIFF'S STATEMENT OF THE EVIDENCE, AND CONTINUING THE TIME FOR HEARING THE MOTION FOR SETTLEMENT OF THE STATEMENT.

Upon the 3rd day of February, 1937, there came before the Honorable A. F. St. Sure the application of the solicitors for defendants (appellees) in the above cause for an enlargement of the time within which to serve and file defendants' (appellees') counter-praecipe indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal, and also enlarging the time within which the said defendants (appellees) may lodge with the clerk, their statement of additional evidence for the record on appeal in said cause as well as any objections or proposed amendments to the appellant's statement of evidence, and that the date for hearing the motion to approve the said statement be advanced and continued to a date not less than ten days after the defendants' [973] (appellees') counter-praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court, and

It appearing that solicitors for the plaintiff have stipulated that the following order enlarging the time for the foregoing matters may be entered;

It Is Ordered that the application be granted and that defendants (appellees) and each of them be and they hereby are allowed an enlargement of time up to and including the 31st day of March, 1937, within which to serve and file defendants' (appellees') counter-praecipe with the clerk of the above-entitled court, indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal.

It Is Further Ordered that the said defendants (appellees) and each of them be and they hereby are allowed an enlargement up to and including the 31st day of March, 1937, within which to serve and file their statement of additional evidence for the record on appeal in said cause.

It Is Further Ordered that the defendants (appellees) and each of them be and they hereby are allowed an enlargement of time up to and including the 31st day of March, 1937, within which to lodge in the office of the clerk of the above-entitled court, any objections or proposed amendments to the appellant's statement of evidence.

It Is Further Ordered that the date for hearing the motion to approve the said statement be advanced and continued to a date not less then ten days after the defendants' (appellees') praecipe and objections and proposed amendment have been filed with the clerk, to be fixed by the court.

Dated: February 3, 1937.

A. F. ST. SURE
United States District Judge.

[Endorsed]: Filed Feb. 14, 1937. [974]

[Title of District Court and Cause.]

STIPULATION

It Is Hereby Stipulated and Agreed that any judge of the above-entitled court or United States Circuit Court of Appeals for the Ninth Circuit may sign and enter an order in substantially the form attached hereto, enlarging and extending the time for all the defendants (appellees) in the above-entitled case, to and including the 31st day of May, 1937, within which to serve and file defendants' (appellees') counter-praecipe, indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal, and also enlarging the time within which the said defendants (appellees) may lodge with the clerk, their statement of additional evidence for the record on appeal in said cause as well as any objections or proposed amendments to the appellant's statement of evidence and that the date for hearing the motion to approve the said [975] statement be advanced and continued to a date not less than ten days after the defendants' (appellees') counter-praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court.

Dated: March 17, 1937.

ETHELBERT WARD
By RWS
WILLIAM S. BOYLE
ROY W. STODDARD
Solicitors for Plaintiff and Appellant.

E. F. LUNSFORD
GREEN & LUNSFORD
W. H. METSON
By E. F. LUNSFORD
GEORGE L. SANFORD
W. M. KEARNEY
Solicitors for Defendants and Appellees.

[Endorsed]: Filed March 30, 1937. [976]

[Title of District Court and Cause.]

ORDER ENLARGING TIME TO FILE DEFENDANT'S (APPELLEES') PRAECIPE AND TO FILE OBJECTIONS AND PROPOSED AMENDMENTS TO THE PLAINTIFF'S STATEMENT OF THE EVIDENCE, AND CONTINUING THE TIME FOR HEARING THE MOTION FOR SETTLEMENT OF THE STATEMENT.

Upon the 29th day of March, 1937, there came before the Honorable A. F. St. Sure, the application of the solicitors for defendants (appellees) in the above cause for an enlargement of the time within

which to serve and file defendants' (appellees') counter-praecipe indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal, and also enlarging the time within which the said defendants (appellees) may lodge with the clerk, their statement of additional evidence for the record on appeal in said cause as well as any objections or proposed amendments to the appellant's statement of evidence, and that the date for hearing the motion to approve the said statement be advanced and continued to a date not less than ten days after the [977] defendants' (appellees') counter-praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court, and

It appearing that solicitors for the plaintiff have stipulated that the following order enlarging the time for the foregoing matters may be entered;

It Is Ordered that the application be granted and that defendants (appellees) and each of them be and they hereby are allowed an enlargement of time up to and including the 31st day of May, 1937, within which to serve and file defendants' (appellees') counter-praecipe with the clerk of the above-entitled court, indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal.

It Is Further Ordered that the said defendants (appellees) and each of them be and they hereby are allowed an enlargment up to and including the 31st day of May, 1937, within which to serve and

file their statement of additional evidence for the record on appeal in said cause.

It Is Further Ordered that the defendants (appellees) and each of them be and they hereby are allowed an enlargement of time up to and including the 31st day of May, 1937, within which to lodge in the office of the clerk of the above-entitled court, any objections or proposed amendments to the appellant's statement of evidence.

It Is Further Ordered that the date for hearing the motion to approve the said statement be advanced and continued to a date not less than ten days after the defendants' (appellees') praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court.

Dated: March 29th, 1937.

A. F. ST. SURE
United States District Judge.

[Endorsed]: Filed March 30, 1937. [978]

[Title of District Court and Cause.]

ORDER RESERVING JURISDICTION INTO AND THROUGH MAY 1937 TERM.

Upon application of solicitors for plaintiff and good cause appearing therefor;

It Is Ordered that jurisdiction of the above entitled cause be and the same is hereby reserved and continued into and through the May 1937 term of

the above entitled court for all purposes connected with said cause.

Dated: This 24th day of April, 1937.

A. F. ST. SURE
United States District Judge
Presiding.

[Endorsed]: Filed April 26, 1937. [979]

[Title of District Court and Cause.]

STIPULATION

It Is Hereby Stipulated and Agreed that any judge of the above-entitled court or United States Circuit Court of Appeals for the Ninth Circuit may sign and enter an order in substantially the form attached hereto, enlarging and extending the time for all the defendants (appellees) in the above-entitled case, to and including the 31st day of July, 1937, within which to serve and file defendants' (appellees') counter-praecipe, indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal, and also enlarging the time within which the said defendants (appellees) may lodge with the clerk, their statement of additional evidence for the record on appeal in said cause as well as any objections or proposed amendments to the appellant's statement of evidence and that the date for hearing the motion to approve the said [980] statement be ad-

vanced and continued to a date not less than ten days after the defendants' (appellees') counter-praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court.

Dated: May 24, 1937.

ETHELBERT WARD (RWS)
WM. S. BOWLE (RWS)
ROY W. STODDARD
Solicitors for Plaintiff and Appellant.

GEO. B. THATCHER
WM. WOODBURN
E. F. LUNSFORD
GREEN & LUNSFORD
WM. METSON
By E. F. LUNSFORD
GEO. L. SANFORD
W. M. KEARNEY
Solicitors for Defendants and Appellees.

[Endorsed]: Filed May 27, 1937. [981]

[Title of District Court and Cause.]

ORDER ENLARGING TIME TO FILE DEFENDANT'S (APPELLEE'S) PRAECIPE AND TO FILE OBJECTIONS AND PROPOSED AMENDMENTS TO THE PLAINTIFF'S STATEMENT OF EVIDENCE, AND CONTINUING THE TIME FOR HEARING THE MOTION FOR SETTLEMENT OF THE STATEMENT.

Upon the 26th day of May, 1937, there came before the Honorable A. F. St. Sure, the application of the solicitors for defendants (appellees) in the above cause for an enlargement of the time within which to serve and file defendants' (appellees') counter-praecipe indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal, and also enlarging the time within which the said defendants (appellees) may lodge with the clerk, their statement of additional evidence for the record on appeal in said cause as well as any objections or proposed amendments to the appellant's statement of evidence, and that the date for hearing the motion to approve the said statement be advanced and continued [982] to a date not less than ten days after the defendants' (appellees') counter-praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court, and

It appearing that solicitors for the plaintiff have stipulated that the following order enlarging the time for the foregoing matters may be entered;

It Is Ordered that the application be granted and that defendants (appellees) and each of them be and they hereby are allowed an enlargement of time up to and including the 31st day of July, 1937, within which to serve and file defendants' (appellees') counter-praecipe with the clerk of the above-entitled court, indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal.

It Is Further Ordered that the said defendants (appellees) and each of them be and they hereby are allowed an enlargement up to and including the 31st day of July, 1937, within which to serve and file their statement of additional evidence for the record on appeal in said cause.

It Is Further Ordered that the defendants (appellees) and each of them be and they hereby are allowed an enlargement of time up to and including the 31st day of July, 1937, within which to lodge in the office of the clerk of the above-entitled court, any objections or proposed amendments to the appellant's statement of evidence.

It Is Further Ordered that the date for hearing the motion to approve the said statement be advanced and continued to a date not less than ten days after the defendants' (appellees') praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court.

Dated: May 26, 1937.

A. F. ST. SURE
United States District Judge.

[Endorsed]: Filed May 27, 1937. [983]

[Title of District Court and Cause.]

STIPULATION

It Is Hereby Stipulated and Agreed that any judge of the above-entitled court or United States Circuit Court of Appeals for the Ninth Circuit may sign and enter an order in substantially the form attached hereto, enlarging and extending the time for all the defendants (appellees) in the above-entitled case, to and including the 1st day of September, 1937, within which to serve and file defendants' (appellees') counter-praecipe, indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal, and also enlarging the time within which the said defendants (appellees) may lodge with the clerk, their statement of additional evidence for the record on appeal in said cause as well as any objections or proposed amendments to the appellant's statement of evidence and that the date for hearing the motion to approve the said [984] statement be advanced and continued to a date not less than ten days after the defendants' (appellees') counter-praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court.

Dated: July 28th, 1937.

ETHELBERT WARD (RWS)
ROY W. STODDARD
Solicitors for Plaintiff and Appellant.
GEO. B. THATCHER
WM. WOODBURN
E. F. LUNSFORD, ESQ.,
By MRA
GREEN & LUNSFORD
(MRA)
WM. METSON &
E. F. LUNSFORD
MRA
GEO. L. SANFORD
K
W. M. KEARNEY
Solicitors for Defendants and Appellees.

[Endorsed]: Filed July 31, 1937. [985]

[Title of District Court and Cause.]

ORDER ENLARGING TIME TO FILE DEFENDANTS' (APPELLEES') PRAECIPE AND TO FILE OBJECTIONS AND PROPOSED AMENDMENTS TO THE PLAINTIFF'S STATEMENT OF THE EVIDENCE, AND CONTINUING THE TIME FOR HEARING THE MOTION FOR SETTLEMENT OF THE STATEMENT.

Upon the 29th day of July, 1937, there came before the Honorable A. F. St. Sure, the application

of the solicitors for defendants (appellees) in the above cause for an enlargement of the time within which to serve and file defendants' (appellees') counter-praecipe indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal, and also enlarging the time within which the said defendants (appellees) may lodge with the clerk, their statement of additional evidence for the record on appeal in said case as well as any objections or proposed amendments to the appellant's statement of evidence, and that the date for hearing the motion to approve the [986] said statement be advanced and continued to a date not less than ten days after the defendants' (appellees') counter-praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court, and

It appearing that solicitors for the plaintiff have stipulated that the following order enlarging the time for the foregoing matters may be entered;

It Is Ordered that the application be granted and that defendants (appellees) and each of them be and they hereby are allowed an enlargement of time up to and including the 1st day of September, 1937, within which to serve and file defendants' (appellees') counter-praecipe with the clerk of the above-entitled court, indicating the portions of the record defendants (appellees) desire to be incorporated in the record on appeal.

It Is Further Ordered that the said defendants (appellees) and each of them be and they hereby

are allowed an enlargement up to and including the 1st day of September, 1937, within which to serve and file their statement of additional evidence for the record on appeal in said cause.

It Is Further Ordered that the defendants (appellees) and each of them be and they hereby are allowed an enlargement of time up to and including the 1st day of September, 1937, within which to lodge in the office of the clerk of the above-entitled court, any objections or proposed amendments to the appellant's statement of evidence.

It Is Further Ordered that the date for hearing the motion to approve the said statement be advanced and continued to a date not less than ten days after the defendants' (appellees') praecipe and objections and proposed amendments have been filed with the clerk, to be fixed by the court.

Dated: July 29th, 1937.

FRANCIS H. GARRECHT
United States Circuit Judge.

[Endorsed]: Filed July 31, 1937. [987]

[Title of District Court and Cause.]

DEFENDANTS' AND APPELLEES' COUNTER-PRAECIPE FOR TRANSCRIPT OF RECORD ON APPEAL.

To the Clerk of the above-entitled court:

You are requested to prepare and certify and to include in the transcript of the record on appeal in

the above-entitled cause to be filed with the United States Circuit Court of Appeals for the Ninth Circuit, pursuant to an appeal allowed therein, the following, in addition to those covered by appellant's praecipe:

1. Stipulation dated February 1, 1937,

2. Order dated February 3, 1937, enlarging time for defendants to file additional statement of evidence and objections to plaintiff's statement of evidence;

3. Stipulation dated March 17, 1937,

4. Order dated March 29, 1937, enlarging time as in paragraph 2 above;

5. Stipulation dated May 24, 1937;

6. Order dated May 29, 1937, enlarging time as in order referred to in paragraph 2 above; [988]

7. Stipulation dated July 28th, 1937;

8. Order dated July 29, 1937, enlarging time as in order referred to in paragraph 2 above;

9. Printed copy of Decree No. 731 filed as an exhibit in the case but not marked as an exhibit number (The original of this document should be included as an exhibit, not susceptible of being copied into the record);

10. Defendants' Objections to the Master's Recommended Decree and Findings;

11. Blomgren Report in printed form which was not marked as an exhibit but which was included in the record for convenience (This document should be sent up as an original exhibit, not susceptible of being copied into the record);

12. This counter-praecipe with proof of service.

Dated: August 30, 1937.

W. M. KEARNEY
GEO. L. SANFORD
K
WM. H. METSON
EFL
GREEN & LUNSFORD
K
E. F. LUNSFORD
K
Solicitors for Defendants and Appellees.

[Endorsed]: Filed Aug. 31, 1937. [989]

[Title of District Court and Cause.]

ORDER RESERVING JURISDICTION INTO AND THROUGH OCTOBER 1937 TERM

Upon application of solicitors for plaintiff and good cause appearing therefor:

It Is Ordered that jurisdiction of the above entitled cause be and the same is hereby reserved and continued into and through the October 1937 term of the above entitled court for all purposes connected with said cause.

Dated: This 15th day of September, 1937.

A. F. ST. SURE,
United States District Judge Presiding.

[Endorsed]: Filed Sept. 17, 1937. [990]

[Title of District Court and Cause.]

STIPULATION

It Is Stipulated and Agreed that the answers and counterclaims filed in the above cause by defendants:

a. Walker River Irrigation District

b. Antelope Valley Land and Cattle Company and Antelope Valley Mutual Water Company

c. J. I. Wilson, sued as J. Q. Wilson

d. Leland Day, et al.

e. Clark J. Guild, M. R. Penrose, et al.

f. Frank W. Simpson

g. The Plymouth Land and Stock Company, a corporation [991]

contain in form and substance the same allegations as the answers filed herein by the remaining 231 defendants except as to the names of said remaining defendants and the descriptions of their respective lands and that the printing of the answers of said remaining defendants in the record on appeal in the above cause will be an unnecessary duplication; and

It Is Further Stipulated and Agreed that the above entitled court may enter its order that it shall be unnecessary for the appellant to print as part of the record on appeal any of the answers and counterclaims of the defendants excepting those hereinabove specifically mentioned in this stipulation.

Dated: This 13th day of December, 1937.

ROY W. STODDARD
Solicitor for Plaintiff.
W. M. KEARNEY
GEO. L. SANFORD
By W. M. R.
THATCHER & WOODBURN
E. F. LUNSFORD &
MYRON R. ADAMS
GREEN & LUNSFORD
W. H. METSON
By E. F. L.
Solicitors for Defendants.

[Endorsed]: Filed Dec. 29, 1937. [992]

[Title of District Court and Cause.]

ORDER ELIMINATING PRINTING CERTAIN ANSWERS OF DEFENDANTS IN RECORD ON APPEAL.

This cause came on to be further heard upon proceedings to perfect the record on appeal and to eliminate the printing of the answers of 231 defendants filed herein and it appearing to the undersigned District Judge before whom the above entitled cause and the proceedings therein were had that the solicitors for plaintiff and defendants have by stipulation filed herein agreed that it is an unnecessary duplication to print in the record on appeal the answers filed herein by the defendants

excepting the answers specifically mentioned in [993] said stipulation,

Now, Therefore, It Is Ordered that it shall be unnecessary for the appellant to print as part of the printed record on appeal any of said answers excepting the following:

a. Walker River Irrigation District

b. Antelope Valley Land and Cattle Company and Antelope Valley Mutual Water Company

c. J. I. Wilson, sued as J. Q. Wilson

d. Leland Day, et al.

e. Clark J. Guild, M. R. Penrose, et al.

f. Frank W. Simpson

g. The Plymouth Land and Stock Company, a corporation.

Dated: This 23rd day of December, 1937.

A. F. ST. SURE
District Judge.

[Endorsed]: Filed Dec. 29, 1937. [994]

[Title of District Court and Cause.]

STIPULATION

It Is Stipulated and Agreed for the purpose of this appeal only and in order to shorten the printed record on appeal, that:

The portion of the proposed findings of fact and conclusions of law filed by the Special Master on December 30, 1932, commencing on line 26, page 16 to line 28, page 20, thereof;

The portion of the proposed decree filed by said [995] Special Master on December 30, 1932, commencing on line 1, page 10 to line 14, page 11 and commencing on line 7, page 13 to line 12, page 68;

The portion of the Special Master's proposed findings of fact and conclusions of law filed as of August 8, 1935 commencing on line 12, page 20 to line 30, page 24;

The portion of the Special Master's proposed decree filed as of August 8, 1935 commencing on line 23, page 11 to line 15, page 70;

The portion of said District Judge's findings of fact and conclusions of law filed on April 15, 1936, commencing on line 21, page 20 to line 10, page 25;

The portion of the decree filed by Hon. A. F. St. Sure as Presiding District Judge and entered in the above cause on April 15, 1936, commencing on line 23, page 11 to line 24, page 70;

Contain the names of approximately 238 defendants with a detailed description of their respective lands and diversion rights to divert water of the Walker River stream system for the irrigation of their respective lands, aggregating total decreed rights for 110,774 irrigated acres with decreed water rights aggregating about 1580.75 cubic feet of water per second, which totals, by years of priority, are as follows: [996]

(Note: Top figures in column indicate rights shown in Decree #731. Bottom figures indicate rights as stipulated May 12-14, 1931—Bridgeport and Antelope Valleys)

1860	1861	1862	1863	1864	1865	1866	1867
16.18	13.49	55.53	94.40	111.88	46.75	4.46	7.80
24.92	51.04	94.48	26.82	62.88	00.00	.48	0.00
41.10	64.53	150.01	121.22	174.76	46.75	4.94	7.80

1868	1869	1870	1871	1872	1873	1874	1875
20.22	10.93	66.83	6.06	26.36	8.84	67.84	58.71
7.04	00.00	7.84	3.20	2.56	7.68	7.81	00.00
27.26	10.93	74.67	9.26	28.92	16.52	76.65	58.71

1876	1877	1878	1879	1880	1881	1882	1883
9.75	29.97	55.80	18.08	84.87	2.08	28.44	11.52
1.92	14.86	.64	1.60	6.63	5.60	00.00	00.00
11.67	44.83	56.44	19.68	91.50	7.68	28.44	11.52

1884	1885	1886	1887	1888	1889	1890	1891
3.83	59.85	8.12	5.42	4.32	2.44	72.90	5.60
7.04	1.06	1.28	0.00	0.00	0.00	4.04	1.44
10.87	60.91	9.40	5.42	4.32	2.44	76.94	7.04

1892	1893	1894	1895	1896	1897	1898	1899
6.11	.82	6.95	18.08	3.04	12.86	1.74	3.66
2.24	8.96	2.56	.32	0.00	2.16	1.92	.64
8.35	9.78	9.51	18.40	3.04	15.02	3.66	4.30

1900	1901	1902	1903	1904	1905	1906	1907
27.52	.58	7.51	1.92	2.19	29.77	.96	.32
1.60	1.60	2.88	0.00	0.00	00.00	.00	.00
29.12	2.18	10.39	1.92	2.19	29.77	.96	.32

1910	1916	1918	1920	1921
00.00	00.00	00.00	00.00	00.00
.80	1.28	7.88	1.28	.64
.80	1.28	7.88	1.28	.64

(Note: Stipulated Morgan, Fallon, Scierine and Riparian Sierra Pacific Power Company rights total 1295 acres with 20.55 second feet of water. Nevada State Engineer permit rights total 1891.31 acres with water to the extent of 18.18 second feet)

[997]

It is further stipulated and agreed that any errors in the foregoing figures shall not be deemed to in anywise affect the correct figures as shown in said decree.

It is further stipulated and agreed that also included within the above mentioned pages of the said court's findings and decree and the said Special Master's recommended findings and decree is an description of storage rights found and decreed to the defendants, which storage rights include the decreed right of the Walker River Irrigation District to store flood waters of the East Walker River in Bridgeport Reservoir to the amount of 57,000 acre feet and flood waters of the West Walker River in Topaz Lake Reservoir to the amount of 50,000 acre feet, together with such additional rights as said defendant Walker River Irrigation District has acquired under permits and applications for permits for storage of flood waters of the said streams issued by or filed with the State Water Commission of the State of California. The storage rights so decreed to said defendant Walker River Irrigation District are particularly set forth and described in the findings of fact entered by

the trial judge on April 15, 1936 which appears in the printed record on appeal herein.

It is further stipulated and agreed that solicitors for the parties hereto and the appellate court may use and refer to the copies of the original proposed findings of fact, conclusions of law and decrees filed in the above cause by the said Special Master and the original findings of fact, conclusions of law and decree filed in the above cause by the presiding district judge, as certified by the clerk of the trial court to the clerk of the appellate court, portions of which are hereinabove agreed to be omitted from the printed record on [998] appeal.

It is further stipulated and agreed that the above entitled court may enter its order that it shall be unnecessary for the appellant to cause the above mentioned portions of said court's findings and decree and of said Special Master's proposed findings and recommended decrees to be printed in the record on appeal.

Dated: This 13th day of December, 1937.

W. M. KEARNEY,
GEO. L. SANFORD,
By W. M. K.
THATCHER & WOODBURN,
E. F. LUNSFORD and
MYRON R. ADAMS,
GREEN & LUNSFORD,
W. H. METSON by E. F. L.,
Solicitors for Defendants.
ROY W. STODDARD,
Solicitor for Plaintiff.

[Endorsed]: Filed Dec. 29, 1937. [999]

[Title of District Court and Cause.]

ORDER.

This cause came on to be further heard upon proceedings to perfect the record on appeal and to eliminate the printing of lengthy descriptions of the names, land holdings and decreed water rights of some 238 defendants, which descriptions appear in the Special Master's recommended findings and form of decree and in the court's findings and decree; and it appearing to the court and the presiding judge thereof before whom the above entitled cause and the proceedings therein were had that the solicitors for plaintiff and defendants have, by stipulation filed herein, agreed that it is unnecessary for the purposes of the appeal that the names of [1000] said 238 individual defendants, together with the descriptions of their respective irrigated lands and decreed water rights, be printed in the record on appeal, and

It further appearing that the solicitors for the parties in said stipulation agreed that the portions of said Special Master's findings and decree and the court's findings and decree set forth a detailed description of said 238 defendant's irrigated lands aggregating a total of 110,774 acres, the decreed rates of flow aggregating 1580.75 cubic feet of water per second, setting forth the yearly totals of such flows in said stipulation,

It is ordered, that it shall be unnecessary for the appellant to print as part of the printed record on appeal the following:

The portion of the proposed findings of fact and conclusions of law filed by the Special Master on December 30, 1932, commencing on line 26, page 16 to line 28, page 20, thereof;

The portion of the proposed decree filed by said Special Master on December 30, 1932, commencing on line 1, page 10 to line 14, page 11 and commencing on line 7, page 13 to line 12, page 68;

The portion of the Special Master's proposed findings of fact and conclusions of law filed as of August 8, 1935 commencing on line 12, page 20 to line 30, page 24;

The portion of the Special Master's proposed decree filed as of August 8, 1935 commencing on line 23, page 11 to line 15, page 70;

The portion of said District Judge's findings of fact and conclusions of law filed on April 15, 1936, commencing on line 21, page 20 to line 10, page 25;

[1001]

The portion of the decree filed by Hon. A. F. St. Sure as Presiding District Judge and entered in the above cause on April 15, 1936, commencing on line 23, page 11 to line 24, page 70.

Dated: This 23rd day of December, 1937.

A. F. ST. SURE,
District Judge.

[Endorsed]: Filed Dec. 29, 1937. [1002]

[Title of District Court and Cause.]

STIPULATION.

It is stipulated and agreed that the following exhibits on the part of plaintiff, to-wit:

Exhibits 1, 10, 11, 12, 13, 14, 26, 27 and 31;

and on the part of defendants:

Exhibits B, C and L,

are either maps, graphs or diagrams or attached to such exhibits are either maps or graphs which are impracticable to print in the record on appeal and which should be available for the inspection of the appellate court; [1003]

That the following exhibits are cumbersome or bulky blue prints or typewritten copies of extensive tables and tabulations of stream flow measurements and studies or photographic copies of old maps written in longhand or written applications for water permits in question*airre* form which on the part of plaintiff include the following:

Exhibits 2, 3, 4, 5, 6, 7, 8, 9, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28, 29, 30, 32, 33 and 34;

and on the part of defendants:

Exhibits A, D, E, F, G, H, I, J, K.

That it is either impracticable to print the same in the record on appeal or that said exhibits cannot be printed therein without great inconvenience but should be available for inspection by the appellate court;

It is further stipulated and agreed that the above entitled court may enter its order that the above mentioned exhibits be certified in the original by the

clerk of the above entitled court to the clerk of the Circuit Court of Appeals for the Ninth Circuit and that it is necessary or proper that said original exhibits should be inspected by said appellate court and that it shall be unnecessary for appellant to cause the same to be printed in the record on appeal excepting such portions of said exhibits as are included in the narrative statement of the evidence.

Dated: This 13th day of December, 1937.

ROY W. STODDARD,
Solicitor for Plaintiff. [1004]

W. M. KEARNEY,
GEO. L. SANFORD,
By W. M. K.
THATCHER & WOODBURN,
E. F. LUNSFORD and
MYRON R. ADAMS,
GREEN & LUNSFORD,
W. H. METSON by E. F. L.,
Solicitors for Defendants.

[Endorsed]: Filed Dec. 29, 1937. [1005]

[Title of District Court and Cause.]

ORDER TO TRANSMIT ORIGINAL EXHIBITS.

It being stipulated by solicitors for plaintiff-appellant and defendants-appellees, pursuant to rule 14, paragraph 4 of the Circuit Court of Appeals for the Ninth Circuit, that the following described

papers and exhibits be certified to the clerk of the Circuit Court of Appeals for the Ninth Circuit at San Francisco in the original and it being proper in the opinion of the presiding judge that the following described papers in evidence in the above cause be inspected by the Circuit Court of Appeals for the Ninth Circuit upon the appeal thereto in said cause, [1006]

It is ordered that the original papers and documents mentioned in said stipulation, to-wit:

a. Plaintiff's exhibits 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33 and 34;

b. Defendants' exhibits A, B, C, D, E, F, G, H, I, J, K, L;

be safely kept and transmitted by the clerk of this court to the clerk of the Circuit Court of Appeals for the Ninth Circuit to be safely kept by said clerk for the use of said Circuit Court of Appeals in the consideration of said cause on appeal and thereafter by him to be returned to the clerk of this court on remand of the cause to this court; and

It is further ordered that it shall be unnecessary to print as part of the printed record on appeal any of the said exhibits excepting the portions thereof included in the narrative statement of the evidence.

Dated: This 23rd day of December, 1937.

A. F. ST. SURE,
District Judge.

[Endorsed]: Filed Dec. 29, 1937. [1007]

[Title of District Court and Cause.]

PLAINTIFF'S AND DEFENDANTS' AMENDED AND ADDITIONAL PRAECIPE FOR TRANSCRIPT OF RECORD ON APPEAL.

To the Clerk of the above entitled court:

You are requested to prepare and certify in accordance with this amended and supplemental praecipe, a transcript of record in the above entitled cause to be filed in the United States Circuit Court of Appeals for the Ninth Circuit pursuant to an appeal allowed therein and include in such transcript of record the following, to-wit: [1008]

1. The amended bill of complaint (filed March 19, 1926).

2. Bill of particulars (dated and filed October 19, 1926).

3. Plaintiff's further bill of particulars (filed February 23, 1927).

4. The answers and counterclaims of defendants:

a. Walker River Irrigation District

b. Antelope Valley Land and Cattle Company and Antelope Valley Mutual Water Company

c. J. I. Wilson, sued as J. Q. Wilson

d. Leland Day, et al.

e. Clark J. Guild, M. R. Penrose, et al.

f. Frank W. Simpson

g. The Plymouth Land and Stock Company, a corporation.

5. The order of the court appointing Robert M. Price as Special Master (entered January 6, 1931 in Journal Book 4, p. 793).

6. Report of Special Master filed December 30, 1932 and his supplemental report filed August 23, 1933.

7. The findings of fact and conclusions of law recommended by Special Master Robert M. Price (filed December 30, 1932).

8. The form of recommended decree filed by Special Master Robert M. Price on December 30, 1932.

9. Plaintiff's exceptions to the recommended findings of fact, conclusions of law and form of decree of Special Master Robert M. Price, said exceptions being filed on January 18, 1933.

10. The opinion and decision of Judge St. Sure (dated June 6, 1935, filed June 7, 1935).

11. "Notice of filing of proposed findings of fact, conclusions of law and decree with the clerk of said court" dated August 9, 1935, signed by Robert M. Price, Special Master (filed August 10, 1935).

12. Recommended findings of fact, conclusions of law and decree of Special Master Robert M. Price (filed November 19, 1937 as of August 8, 1935).

[1009]

13. Order of court filed August 15, 1935 extending time to file objections to recommended findings of fact, conclusions of law and decree (filed August 10, 1935) to September 20, 1935.

14. Plaintiff's objections and exceptions (filed September 27, 1935) to Special Master's recom-

mended findings, Conclusions of Law and Decree filed August 10, 1935.

15. Court's opinion and decision (dated March 21, 1936, filed March 23, 1936).

16. Order of court (dated April 14, 1936, filed April 15, 1936) overruling plaintiff's exceptions to Special Master's recommended findings, conclusions and decree filed August 10, 1935.

17. Findings of fact and conclusions of law by the court (dated April 14, 1936, filed April 15, 1936).

18. Final decree by the court (dated April 14, 1936, filed April 15, 1936).

19. Assignment of errors (dated June 20, 1936, filed June 20, 1936).

20. Petition for appeal (dated June 20, 1936, filed June 20, 1936).

21. Order allowing appeal with proof and acknowledgment of service thereof (dated June 22, 1936).

22. Original citation on appeal (dated June 22, 1936) with proof of acknowledgment of service thereof.

23. Order enlarging time within which to file and serve appellant's praecipe to the clerk for transcript of record (dated June 22, 1936).

24. Order enlarging time within which to file appellant's praecipe and lodge statement of evidence (dated July 13, 1936).

25. Order enlarging time within which to file appellant's praecipe and lodge statement of evidence (dated September 25, 1936).

26. Order enlarging time within which to file appellant's praecipe and lodge statement of evidence (dated November 24, 1936).

27. Notice of lodgement of statement of evidence and proof of service thereof. [1010]

28. Narrative statement of evidence with attached stipulation of attorneys approving the same and attached order and certificate of Judge St. Sure approving the same and directing its inclusion in the record on appeal (filed December 29th, 1937).

29. Praecipe for transcript of record on appeal with proof of service thereof (filed January 28th, 1937).

30. Order reserving jurisdiction through May, 1936 term (filed April 27, 1936).

31. Order reserving jurisdiction through October, 1936 term (filed September 26, 1936).

32. Order reserving jurisdiction through February, 1937 term (filed January 21, 1937).

33. Order reserving jurisdiction through May, 1937 term (filed April 26, 1937).

34. Order reserving jurisdiction through October, 1937 term (filed September 17, 1937).

35. Notice of motion for settlement of statement of evidence (filed February 1, 1937).

36. Stipulation and order enlarging defendants' time to file praecipe and objections to plaintiff's statement of the evidence to March 31, 1937 (filed February 4, 1937).

37. Stipulation and order enlarging defendants' time to file praecipe and objections to plaintiff's

statement of the evidence to May 31, 1937 (filed March 30, 1937).

38. Stipulation and order enlarging defendants' time to file praecipe and objections to plaintiff's statement of the evidence to July 31, 1937 (filed May 27, 1937).

39. Stipulation and order enlarging defendants' time to file praecipe and objections to plaintiff's statement of the evidence to September 1, 1937 (filed July 31, 1937).

40. All of defendants' objections and exceptions to the Master's recommended findings and decrees.

41. Defendants' counter-praecipe for transcript of record on appeal (filed August 31, 1937).

42. Stipulation and order certifying exhibits in the original to appellate court (dated December 23rd, 1937, filed December 29th, 1937).

43. Stipulation setting forth total number of defendants, the total acreage for which [1011] defendants are decreed irrigation rights and the total decreed diversion flow aggregated into yearly totals, all of which is summarization of the deleted portions of the Special Master's findings and proposed decree and Judge St. Sure's findings and decree which are not printed in the record on appeal (dated December 23rd, 1937, filed December 29th, 1937), and order entered pursuant thereto.

44. Stipulation providing in substance that the answers of seven defendants (Walker River Irrigation District; Antelope Valley Land and Cattle Company and Antelope Valley Mutual Water Com-

pany; J. I. Wilson, sued as J. Q. Wilson; Leland Day, et al.; Clark J. Guild, M. R. Penrose, et al.; Frank W. Simpson; The Plymouth Land and Stock Company, a corporation, contain in form and substance the same allegations as the answers of the remaining 231 defendants except as to the names of the respective defendants and descriptions of their respective lands; and order entered pursuant to such stipulation that the answers of the remaining defendants need not be printed in the record on appeal.

45. This amended and supplemental praecipe.

It Is Stipulated that the above praecipe may be filed in the above cause.

Dated: This 29th day of December, 1937.

W. M. KEARNEY
GEO. L. SANFORD
THATCHER & WOODBURN
By W. M. K.
E. F. LUNSFORD &
MYRON R. ADAMS
GREEN & LUNSFORD
W. H. METSON
Solicitors for Defendants.
ROY W. STODDARD
Solicitor for Plaintiff.

[Endorsed]: Filed Dec. 30, 1937. [1012]

[Title of District Court and Cause.]

ORDER RESERVING JURISDICTION INTO AND THROUGH FEBRUARY 1938 TERM

Upon application of solicitors for plaintiff and good cause appearing therefor:

It Is Ordered that jurisdiction of the above entitled cause be and the same is hereby reserved and continued into and through the February 1938 term of the above entitled court for all purposes connected with said cause.

Dated: This 31st day of January, 1938.

A. F. ST. SURE
United States District Judge
Presiding.

[Endorsed]: Filed Feb. 2, 1938. [1013]

[Title of District Court and Cause.]

CERTIFICATE OF CLERK, U. S. DISTRICT COURT, TO TRANSCRIPT OF RECORD

United States of America,
District of Nevada—ss.

I, O. E. Benham, Clerk of the District Court of the United States for the District of Nevada, do hereby certify that I am custodian of the records, papers and files of the said United States District Court for the District of Nevada, including the records, papers and files in the case of United States of America, Plaintiff, vs. Walker River

Irrigation District, a corporation, et al., Defendants, said case being No. C-125 on the equity docket of said court.

I further certify that the attached transcript, consisting of 1022 typewritten and printed pages numbered from 1 to 1022, inclusive, contains a full true and correct transcript of the proceedings in said case and of all papers filed therein, together with the endorsements of filing thereon, as set forth in Plaintiff's and Defendants' Amended and Additional Praecipe for Transcript of Record on Appeal filed in said case and made a part of the transcript attached hereto, as the same appears from the originals of record and on file in my office as such Clerk in Carson City, State and District aforesaid. [1014]

And I further certify that the original citation, issued in said cause, is hereto attached; and accompanying this record, in accordance with "Order to Transmit Original Exhibits" filed herein on December 29, 1937, are plaintiff's and defendants' original exhibits as set forth in said Order, to wit:

As to Plaintiff:

1. Plaintiff's Exhibit No. 1, being certified copies of letters, etc.;

2. Plaintiff's Exhibit No. 2, being certified copies of letters;

3. Plaintiff's Exhibit No. 3, being certified copies of letters;

4. Plaintiff's Exhibit No. 4, being certified copies of letters;

5. Plaintiff's Exhibit No. 5, being certified copies of letters;

6. Plaintiff's Exhibit No. 6, being certified copies of letters;

7. Plaintiff's Exhibit No. 7, being certified copies of letter;

8. Plaintiff's Exhibit No. 8, being certified copies of documents;

9. Plaintiff's Exhibit No. 9, being deposition of Edgar B. Meritt, etc.;

10. Plaintiff's Exhibit No. 10, being a Blue Print Map;

11. Plaintiff's Exhibit No. 11, being six Blue Print Maps;

12. Plaintiff's Exhibit No. 12, being a large map;

13. Plaintiff's Exhibit No. 13, being a sketch showing irrigated and irrigable lands;

14. Plaintiff's Exhibit No. 14, being a map of Walker River Basin;

15. Plaintiff's Exhibit No. 15, being certified copies of letters;

16. Plaintiff's Exhibit No. 16, being a certified copy of Final Decree, in case of Pacific Livestock Co. vs. Thomas B. Rickey, et al., No. 731;

17. Plaintiff's Exhibit No. 17, being several blue print tabulations;

18. Plaintiff's Exhibit No. 18, being blue print of "Walker River System Adjudicated Rights" under Decree No. 731;

19. Plaintiff's Exhibit No. 19, being a one sheet tabulation;

20. Plaintiff's Exhibit No. 20, being a blue print tabulation;

21. Plaintiff's Exhibit No. 21, being a tabulation of Water Records; [1015]

22. Plaintiff's Exhibit No. 22, being a typewritten tabulation of Bridgeport Valley Water Supply Studies;

23. Plaintiff's Exhibit No. 23, being a typewritten tabulation of Water Supply Studies;

24. Plaintiff's Exhibit No. 24, being a typewritten tabulation of Water Supply Studies;

25. Plaintiff's Exhibit No. 25, being a typewritten tabulation of Water Supply Studies;

26. Plaintiff's Exhibit No. 26, being a Sketch showing a part of Main Walker River;

27. Plaintiff's Exhibit No. 27, being a small map of Walker River Basin;

28. Plaintiff's Exhibit No. 28, being 4 sheets of tabulations (typewritten) of Water Supply Studies;

29. Plaintiff's Exhibit No. 29, being 2 typewritten sheets of tabulations of Water Supply Studies;

30. Plaintiff's Exhibit No. 30, being a 1 sheet typewritten tabulation of Water Supply Records;

31. Plaintiff's Exhibit No. 31, being a small blue print "Cyclic Variation in Stream Flow and Precipitation Walker River";

32. Plaintiff's Exhibit No. 32, being a 1 sheet typewritten tabulation of Water Consumption in Walker River Valleys;

33. Plaintiff's Exhibit No. 33, being a 1 sheet tabulation of Water Required to be released at head waters, etc.;

34. Plaintiff's Exhibit No. 34, being five small blue prints.

As to Defendant:

1. Defendant's Exhibit No. A, being 3 sheets of blue print tabulations;

2. Defendant's Exhibit No. B, being a small blue print;

3. Defendant's Exhibit No. C, being a map of Walker River Irrigation District;

4. Defendants' Exhibit No. D, being a small blue print and two typewritten letters;

5. Defendants' Exhibit No. E, being Application for Permit to Appropriate Water;

6. Defendants' Exhibit No. F, being Application for Permit to Appropriate Water and Certificate of Appropriation; [1016]

7. Defendants' Exhibit No. G, being Application for a Permit to appropriate water;

8. Defendants' Exhibit No. H, being Application for a Permit to Appropriate Water;

9. Defendants' Exhibit No. I, being Application for a Permit to Appropriate Water;

10. Defendants' Exhibit No. J, being Application for a Permit to Appropriate Water;

11. Defendants' Exhibit No. K, being Application for a Permit to Appropriate Water;

12. Defendants' Exhibit No. L, being a large red leather bound volume of a tabulation and plats.

Witness my hand and the seal of said United States District Court this 23d day of February, A. D. 1938.

[Seal] O. E. BENHAM
Clerk, U. S. District Court,
District of Nevada. [1017]

[Title of District Court and Cause.]

CITATION ON APPEAL.

United States of America—ss:

The President of the United States of America to Walker River Irrigation District, a corporation, Ernest Aeschlimann; Emillio Aiazzi; J. Arouze; Mrs. C. Baker, successor to Henry Baker; Carlo Barbagelata; W. L. Blackwell; Dora Williams Borge; August Bunkowski, successor to F. W. Simpson; Cecil Burkham, and Peter Savini, co-partners doing business under the firm name and style of Burkham & Savin, V. S. Connell; Mrs. M. E. Conway and Mrs. A. G. Sturgeon, Executrices of the Estate of Patrick J. Conway, Deceased; Frank Cordrey; Battista Cremetti; F. Dill, C. Metzger and B. F. Edwards doing business as Dill, Metzger & Edwards; Fred Dunn; Frank W. Estes, successor to Harriet Estes; Bertha M. Evans (sued as Bertha Simpson), successor to Frank Simpson; Joe Faber;

Ira Fallon; Mrs. J. C. Farral; Mrs. Ernina Francisconi, successor to Amanda Fenili; J. F. Fredericks; Geo. W. Friedhoff, sued as George Freidhoff; Fred Fulston; G. H. Fulstone, [1018] sued as George H. Fulstone; Mr. and Mrs. Wm. Gardiner; Mrs. Kate Gibbons, sued as J. G. Gibbons; Ugo Giorgi and Guilio Giorgi, co-partners doing business under the firm name of Giorgi Brothers, successors to D. J. Butler; A. Glock, successor to Mrs. Mary E. Young; M. J. Green, Greenwood Ditch Company, a corporation; A. Grulli, Menina Grulli and Manuel Grulli (sued as A. Grulli); Thomas Hay Peter Henrichs; Mrs. Adeline Hilbun; James Hilbun; Chas. Hinds, Joe Jaunsaras, John Juansaras and Joe Azcarraga (successors to F. W. Simpson); Joseph Jeppesen, successor to J. P. Perazzo; Hans C. Jesson, successor to Frank W. Simpson; Andrew Johnston; Bertha Johnston; Hattie F. Kremmel; Anetta D. Lewis; C. B. Logan; Fred Lomori; sued as Fred Lammon, Antone Manha; Alice Martin; Clara Masterson; Guilio Menesini and Earnesto Tognetti, doing business under the firm name of Menesini & Tognetti (a partnership, sued as Minesini & Tonitti); Mickey Ditch Company, a corporation; Mrs. Laura Dickinson Miller, a successor to Plymouth Company; J. G. McGowan; Louise McGowan, (Mrs. T. M.); W. R. McGowan; John Nagel, successor to Bertha Ann Johnston; Ester S. W. Neilson; Mrs. N. P. Neilson; A. M. Nesmith and Jennie Nesmith, his wife, successors to Plymouth Company; R. H. Okey; Geo. Parker; Mrs. Mary J. Parker, successor to J. C. Parker; Herbert

Penrose, successor to Wm. Penrose; Reynold Penrose; Wm. M. Penrose; C. C. Perry; Mrs. Anna B. Philatro; George Plummer, Jr.; F. Poli, successor to Mrs. Lizzie Hironymous; Arthur Pursel, (successor to Morris Pursel); H. M. Pursel; Wilton Pursel, successor to Morris Pursel; Mrs. Sarah Jane Rallens; W. H. Roach; Ambro Rosaschi; Amos Santina, successor to L. D. Santina; Carlo Scatena; Joe Sceirine; H. W. Schacht; A. B. Silva, sued as A. B. Silia; Frank W. Simpson; Spragg & Woodstock Ditch Company, a corporation; F. O. Stickney; I. A. Strosnider; I. A. and [1019] Fred Strosnider; A. D. Sturgeon and Maude Sturgeon, successors to P. J. Conway and H. F. Swasey and S. W. Gregory; A. Tomagni, sued as Antone Gamagni; Mrs. Lydia Trankle; A. J. Van Fleet, successor to A. H. Barlow and Wm. Penrose Estate; Fred Wade, sued as Edward Frederick Wade; Florence Williams Walmsley, sued as Florence Williams; Mamie Williams Walmsley; L. L. Wedertz; Henry Williams; George F. Willis, administrator of the Estate of Hester Wise, deceased; George W. Wilson; J. I. Wilson, sued as J. Q. Wilson; William G. Wise, successor to H. W. (Wm.) Schacht; J. D. Yeager, and J. W. Wilson, defendants, and William M. Kearney their solicitor;

Leon Auchoberry (successor to H. F. Powell); Fred J. Brooks; L. R. Bassman; Elizabeth Chichester; Bruce Chichester; A. and F. Charlebois; Roy G. Chichester; Frank Compston; James and Hachquet Compston; Douglas County Farmers Bank, a corporation; Estate of John B. Gallagher,

deceased, C. W. Gallagher, Elizabeth Gallagher DeSousa, et al.; Fox Ditch Company, a corporation; Penrose and Wast Guild; Charles Groso; Kate Smith Gage; Fred A. Hall; S. H. Hunnewill and Millie Morris; A. Jensen, Jr.; Hans Krauspe; J. S. Mann; Mono Land & Livestock Company, a corporation; H. S. Morgan; W. H. Morgan; Arthur and Melio Maionchi; F. B. Mann; John Manza; Eliza McKay; Geo. C. McVicar; Jas. T. and Alta M. McKay; Neil McVicar; Mrs. C. A. McVicar; James McAllister; A. A. Pitts; Minnie M. Powell; Edmond Powell; F. W. Settelmeyer; Schacht, Settelmeyer and Settelmeyer; Nellie Sunstedt; J. C. Snyder; Louis Saroni; Schreck Bros.; Bertrand Salles; The Plymouth Land and Stock Company, a corporation; G. M. Terry; R. C. Terry; Thomas Williams; Lee Wilkerson; James H. and John Wichman, defendants, and George L. Sanford their solicitor;

Antelope Valley Mutual Water Company, a California corporation; Mary E. Conway; Richard P. Conway; Charles E. [1020] Day; James H. Day; Leland S. Day; Charles M. Kirkwood; Idelle Balzar, Pearl Kirkwood, Lotta Twelves; Mrs. A. B. Philatro; and David S. Jones, defendants, and Green & Lunsford their solicitors;

Adel Balzar, Mary A. Conway; Richard P. Conway; Leland Day; C. E. Day; C. M. Kirkwood; Mrs. C. M. Kirkwood; and Lotta Twelves, defendants, and W. H. Metson and Green & Lunsford, their solicitors; and

Sierra Pacific Power Company (successor to Truckee River General Electric Company), Bank of

Nevada Savings and Trust Company and Antelope Valley Land and Cattle Company, defendants, and Thatcher & Woodburn, their solicitors, Greeting:

You and each of you are hereby notified that, in the above mentioned cause in Equity in the United States District Court for the District of Nevada wherein the United States of America is plaintiff and Walker River Irrigation District, a corporation, and the other hereinabove named persons are defendants, an appeal has been allowed the plaintiff herein to the United States Circuit Court of Appeals for the Ninth Circuit; and

You and each of you are hereby cited and admonished to be and appear in the United States Circuit Court of Appeals for the Ninth Circuit at San Francisco, California, within thirty (30) days from the date of this citation, to show cause, if any there be, why the final decree and judgment made and entered in said cause, dated April 14, 1936 and filed April 15, 1936, appealed from as aforesaid, should not be corrected and speedy justice done the United States of America in that behalf.

Witness, the Honorable Francis A. Garrecht, Judge [1021] of the United States Circuit Court of Appeals for the Ninth Circuit; dated this 22nd day of June, 1936.

FRANCIS A. GARRECHT,
U. S. Circuit Judge.

Service of the above and foregoing Citation is hereby acknowledged, by copy, this 24th day of June, 1936.

GEO. L. SANFORD,
Solicitor for certain above named defendants.

Service of the above and foregoing Citation is hereby acknowledged, by copy, this 25th day of June, 1936.

GREEN & LUNSFORD &
WM. H. METSON,
WM. M. KEARNEY,
GEO. B. THATCHER &
WM. WOODBURN,

Solicitors for certain above named defendants.

[Endorsed]: Filed June 26, 1936. [1022]

[Endorsed]: No. 8779. United States Circuit Court of Appeals for the Ninth Circuit. United States of America, Appellant, vs. Walker River Irrigation District, a Corporation, et al., Appellees. Transcript of Record. In 2 Volumes. Upon Appeal from the District Court of the United States for the District of Nevada.

Filed February 24, 1938.

PAUL P. O'BRIEN,
Clerk of the United States Circuit Court of Appeals for the Ninth Circuit.