

(call continued)

"A. B. Purton
A. B. Purton, District Engineer
Geological Survey."

Chairman Merrill: Gentlemen, you have heard the call. I presume the first thing would be the report.

Mr. Jerman: Mr. Chairman, this meeting follows a meeting of interested parties held in Salt Lake City last spring. At that time there was a turmoil as to how to carry on this hydrographic investigation. Prior to the spring meeting the three state engineers had met and decided that a hydrographer was necessary on Bear River. It was decided that the engineers would contact their representatives and see what could be accomplished. Mr. Debler suggested a financial plan which appeared feasible and was readily adopted. That plan was that the Bureau contribute one-fourth the expense of the investigation, the USGS cooperating with the state engineers and the Bureau 25 per cent, and the three states carry the remaining fifty per cent. No money was available at that time. Under Mr. Debler's suggestion, the Bureau would go ahead with the program until such time as the state legislatures met when money could be made available to pay the pro rata share of the investigation. It was not definitely understood the amount of money required or what the program would develop into. It was estimated, however, that \$10,000 would be required for the first year, and the work started off on that basis. Where a man could be found to carry on the work in the field was a question; the USGS reported they had none available. It was later found that Mr. Thomas Curtis of the Bureau of Reclamation could be made available for the work and this appeared to be satisfactory to all concerned. At the spring meeting you will recall it was suggested we meet early in the fall to determine what the program had headed into and what it was going to cost so the states could be ready to provide the necessary funds. The Bureau was investigating Bear River development possibilities, and it was decided that any additional hydrographic work necessary for the gathering of information for state compact purposes must be superimposed on the present hydrographic program.

Chairman Merrill then asked for a report from Mr. Curtis.

Mr. Curtis produced a map that had been prepared showing location of present and proposed gauging stations, indicating the area traversed by the Bear River and tributaries and explained in detail the result of his field investigation and labors with the various water commissioners on the creeks and tributaries in Utah, Idaho, and Wyoming. He said in the lower Utah area there are very few ditches so that there was no water commissioner on the main river. He said an attempt was made in the beginning, at a meeting of the local water users' committee in Evanston, to have a voluntary system of collecting the necessary information regarding the gauge heights on the various ditches. It did not work out very well - there was too much territory to cover. Then two ditch riders were hired by Wyoming. The idea was for these two people to ride the river twice a week. The record obtained has been inspected and is a very good record. The measurements were filed with us by the Water Commissioners and checked. There are probably sixteen ditches in the Utah area as against 96 in the upper area. The Utah group has sent in their observations and these results have been good. We have had some wonderful results in the Smithfork area. The USGS gauge above the Utah-Wyoming line was too far up and that has been moved down to just below the

fork at West Fork. Mr. Curtis went into considerable detail as to gauges and stations on the various streams, and the contribution of tributaries to the river. He said a basin-wide investigation should include an inventory of all the water we have, and that when we say all the water, that would mean at least a good estimate of what the ditches divert.

Mr. Debler stated that there is a development program and a so-called water inventory and that he did not believe they would need any inventory for compact purposes, - that a compact after all is always a "horse-trading" proposition; but the development program does require an inventory

It was explained that the development program is the development of everything that is possible in the basin, while in a compact program there is more or less of a policing proposition or problem of administration.

Discussion followed as to information necessary for distribution and adjudication purposes. Mr. Merrill stated a compact will relieve us of interstate adjudication; that if he understood Mr. Bishop correctly, the compact could take the place of the court adjudication by recognizing through the compact the fundamental points that he mentions and have the river administered as one stream without reference to state lines.

Mr. Debler called attention to the fact that an individual is controlled only by his own state laws and that interstate administration would necessitate an investigation of the constitutions of each state, that water is still administered according to state law and that individual priorities would have to be recognized. That programs connected with this stream gauging work must, in the end, conform to the waters available under any compact that is drawn up. That under the development program they are not so much interested in ditch measurements and the amount of water now being used but rather in how much more water is needed. There are lots of areas on the main streams that need supplemental water and we will want to know what the gains and losses are over wide sections. He said, however, that the measurement of ditches is related to administration. There are local situations where your compact program, when you are finally formulating your compact, will involve administration of certain ditches - it will involve individual ditches in some localities.

Mr. Cottrell said, "When it is all said and done, do we not want to collect sufficient information for all purposes", to which Mr. Debler replied, "That is what we have the program set up for. If you go into the so-called interstate priority arrangement like Mr. Bishop suggests, you will need just as much information on the diversions by the individual ditches on Cottonwood Creek in Utah as you will need on the ditches of Smith Fork, Twin Creeks and all the rest of the creeks above Evanston."

Mr. Bishop said he thought there were several streams needing adjudication and that he intended to see that this was accomplished in Wyoming.

Discussion followed on the matter of streams adjudicated and need for further adjudication in each of the three states.

Mr. Debler stated his main suggestion was to get the compact commissioners at this meeting, if they can, to determine a program and decide on the information they will need for their idea of a compact. That the legislatures will meet within two or three months and won't meet again for two or three years and that it is advisable to agree on a program in the next month or two which will be adequate, "so that you are adequately financed for all the work that is needed." He said you want to bear in mind that your program of measurement of ditches will continue long after our program is completed; that the development program would be worked out in three years and that will be the end of our work; but when it comes to measuring streams and ditches - for your end of it - you have to be prepared to continue on.

Mr. Newell inquired, must the compact information come first? Must there be a compact before you can complete your development?

Mr. Debler: Yes, we have to find out what the possibilities are and, of course, when you finally set up a program it must be trimmed to fit the compact.

It was stated that Bear Lake had been used for nothing but irrigation since 1930.

Mr. Debler said every compact had been drawn with regard to the obligation of one section to another; that every compact is based on a certain obligation. I would like to point out the need for getting the compact program out in the open, together with our program so that during this winter we have both the financial arrangements by the states to handle their share of the work and that Mr. Curtis makes the necessary arrangement in the field to get the information next year. That means he has to get his stations all in before the snow starts melting.

Chairman Merrill: For the benefit of the group, and bearing in mind the two views of the fundamental character of the compact, and the further fact that it is necessary to have an understanding of the river and an understanding of other problems before one view or the other might be adopted, what would you suggest would be the necessary information that should be obtained by Mr. Curtis?

Mr. Debler: For our development program we need the following:
1- Sufficient mainstream stations to enable the determination of storable water along the main stream and of storage requirements for lands under irrigation and for new lands to be served by mainstream ditches. 2- On tributary streams, gauging stations at preferred reservoir sites and at points on the stream where the flow is at a minimum during the irrigation season.

Chairman Merrill: I had in mind your suggestion for the compact program particularly.

Mr. Debler: In addition to gauging on the mainstream, there must be gauging stations at the stateline crossings of all important tributary streams and on canals crossing state lines; or where irrigation supplies on the main stream are dependent on tributary flows, full information on diversions by canals.

(Mr. Debler)

I think that is all that is needed in addition to our program. Now as to irrigable areas, you need the data being developed on our maps - which Mr. Thomas reported would require one more year.

Mr. Debler said these maps will show the lands being irrigated, the ditches serving these lands, the character of crop divided into cultivated and meadow; the character of lands suitable for irrigation and in some localities sufficient topography for general planning of additional needed canals.

Discussion on types of measuring devices and necessary information followed.

Mr. Merrill suggested that inasmuch as no decision had been reached, and it was now 12:30 p.m., that they adjourn until 2:00 o'clock p.m.

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At 2:00 p.m. the meeting resumed with all present except Mr. Debler, Mr. Jerman and Mr. Monson.

Mr. Cottrell reported that he neglected to state, in the morning meeting, that because of an accident, Mr. Ed. H. Watson is in the hospital and unable to attend.

Chairman expressed regrets and the hope that he will soon be well.

The Chairman then requested Mr. Curtis to further evolve his experiences on the river during the past summer and offer any concrete recommendations that he might have.

Mr. Curtis made his report and offered some criticisms and suggestions, after which discussion followed as to the best method of securing fairly accurate measurements on streams, and what would be required to accomplish the work before them.

It was suggested that Mr. Curtis provide in writing to the various groups definite recommendations as to what he believes is necessary and desirable for the accomplishment of the further study of the river with the aim of placing us in a position that we can adequately consider the compact under either of the two theories suggested this morning, viz.: the one suggested by Mr. Bishop of the priority rights theory or the one suggested by Mr. Debler of the unit theory, together with an appraisal of the cost, and then the groups could determine whether they could meet it.

It was suggested that the present plan of cooperation between the federal bureaus and the states continue.

The Chairman stated that the Geological Survey is contributing one-fourth, twenty-five per cent, the Reclamation Department twenty-five per cent, and the three states fifty per cent, and that with such a co-operating plan Mr. Curtis has been named as the man to take charge of the field work that is done and the various units contribute for the expense of it. This is the plan that is suggested be pressed further, with the further understanding that Mr. Curtis will make suggestions concerning

the present gaugings and make recommendations for an enlarged program for securing additional information for next year's study of the river.

Mr. Purton added that the Geological Survey, without the approval of the Washington office, is not in a position to contribute one-fourth of the expense -- except through doing cooperative work.

The Chairman asked if there was any objection from the Geological Survey Department to the continuation of the plan thus far followed with respect to the method, manner of doing the work, and also sharing the expense.

Mr. Purton said that so far as he personally was concerned he thought it was as good a way to go ahead on as any.

It was suggested that Mr. Curtis, because of his greater familiarity with all field angles, outline the plan which has been discussed to continue the investigation and the estimated cost thereof per year. After considerable discussion, the following resolution was unanimously adopted:

BE IT RESOLVED: That Thomas Curtis, Engineer in charge of investigation of streamflow of Bear River and its tributaries, be requested to prepare and submit to this body a plan for the continuation and enlargement of investigations over a period of two years, together with an estimate of the expenses to be incurred.

AND BE IT FURTHER RESOLVED, that Mr. Curtis be requested to continue with the investigation he is now making and that the expenses thereof be shared as follows:

25 per cent by the Department of Reclamation
25 per cent by the U. S. Geological Survey, and
50 per cent by the States of Utah, Idaho and Wyoming, said fifty per cent to be divided into thirds.

BE IT FURTHER RESOLVED: That Mr. Curtis submit the recommendations and suggestions, in writing, to the heads of the various state and federal departments within ten days from date.

Mr. Cottrell suggested that each of the states be furnished with a copy of the map used by Mr. Curtis. Mr. E. K. Thomas, who prepared the map, agreed to this suggestion.

The Secretary of the meeting was requested to make copies of the resolution and mail to the USGS at Denver, Salt Lake City and Boise, to Mr. E. B. Debler at Denver; Bureau of Reclamation, Salt Lake City; Mr. L. C. Bishop, State Engineer, Cheyenne; Mr. E. V. Berg, Commissioner of Reclamation, Boise; Mr. Watson; Mr. Thomas Curtis, Box 294, Logan; Mr. A. L. Merrill, Pocatello; Utah Power & Light Co., Salt Lake City, attention of Mr. E. G. Thorum; Mr. Robert Lewis, Evanston, Wyoming; and Mr. W. J. Hunter, Montpelier, Idaho.

It was suggested that a copy of the Curtis report be mailed to the same group.

Mr. Newell moved that the group extend their felicitations to Mr. Watson with the hope for his early recovery.

The motion was duly seconded and unanimously adopted.

It was duly moved, seconded and adopted that the three states furnish to the Bureau of Reclamation and the U. S. Geological Survey copies of all their water right claims, together with map showing location of the ditches, on or before January 1st, 1943.

It was stated that a further meeting will depend upon Mr. Curtis' report.

It was duly moved, seconded and carried that the meeting adjourn.

SUGGESTED BASIS FOR TRI-STATE BEAR RIVER COMPACT.

- 1- Disregard state lines and make distribution to individual water users on the law of appropriation.
- 2- Consider existing decrees in the various states as bases, and re-check irrigated land areas, and status of existing rights to bring them down to date.
- 3- Duty of water shall be investigated with view of making most economic use of water -- sliding scale depending on nature of soil and cultivation.
- 4- Hydrographic work under a commissioner or commission representing the three states.