

#5

BEAR RIVER COMMISSION

Minutes of Regular Meeting held in the Governor's Board Room of the State Capitol Building, Salt Lake City, Utah -- November 23, 1959

The regular meeting of the Bear River Commission was held in the Governor's Board Room of the State Capitol Building, Salt Lake City, Utah, on Monday, November 23, 1959, at 10:00 a.m. Chairman E.O. Larson presided.

Commissioners present:

IDAHO

Fred M. Cooper, Grace
Melvin Lauridsen, Montpelier
George H. Carter, Boise

WYOMING

Earl Lloyd, Cheyenne
J.W. Myers, Evanston

UTAH

L.B. Johnson, Randolph
A.V. Smoot, Corinne
Jay R. Bingham, Bountiful

UNITED STATES

E.O. Larson, Chairman, and U.S. Representative

Alternate Commissioners and Advisers present:

IDAHO

J. Warren Serrine, Paris

WYOMING

H. T. Person, Cheyenne
David Miller, Rock Springs

UTAH

Orson A. Christensen, Brigham City
L. B. Caine, Logan

UTAH (Continued)

J. L. Weidmann, Honeyville
Wayne D. Criddle, State Engineer, Salt Lake City

Others present:

Dean Bischoff, U.S.B.R., Logan, Utah
H.T. Wilson, U.S.G.S., Salt Lake City, Utah
Wallace N. Jibson, U.S.G.S., Logan, Utah
Russell D. Stoker, Soda Springs, Idaho
Richard Sims, Evanston, Wyoming
Elwin Sessions, Evanston, Wyoming
P.W. Spaulding, Evanston, Wyoming
E.G. Thorum, Utah Power and Light, Salt Lake City, Utah
J. Golden Haight, Utah Power and Light, Salt Lake City, Utah
James C. Busby, Utah Water and Power Board, Salt Lake City, Utah
Donald C. Horseth, State Engineer's office, Salt Lake City, Utah

CHAIRMAN: Called Meeting to order 10:10 a.m.

First order of business - reading of the minutes of the last meeting of the Bear River Commission.

COM. BINGHAM: At the request of the Chairman, I will be glad to read the Minutes of the last meeting of the Bear River Commission.

These Minutes have been distributed to the Commissioners, in accordance with by-laws of the Commission, further distribution will not be made until approved.

Commissioner Bingham read the Minutes of the April 20, 1959, Annual Meeting in their entirety.

A correction was made on page 29 of the minutes as follows: In line 1 of paragraph 3, page 29, the elevation of Bear Lake was corrected to read 5918.33 ft. instead of "1518.33 ft."

Mr. Jibson commented that some filings for appropriation were inadvertently left out of the minutes and stated that he would furnish copies of these. (Attached herewith)

COM. JOHNSON: On page 8 of the Minutes, in the tabulation of filings under the name of L.W. Roberts of Cokeville, this filing is for 9 cfs. Is that large a quantity needed? All applications should be scrutinized by the State Engineers, and they should have a uniform method of analyzing them.

COM. JOHNSON: I move that the minutes for the meeting of the Bear River Compact Commission held April 20, 1959, be approved, with the understanding that the filings omitted by Mr. Jibson be included as a part of the official record.

COM. LLOYD: Seconded the motion. Motion carried.

CHAIRMAN: Apparently the States' officials were able to go along and distribute water in accordance with the Compact, which I think is very fine. I think we ended up without getting Bear Lake down to the low point.

REPORT OF SECRETARY-TREASURER

COM. BINGHAM: I think a brief report would be appropriate here and I would like Mr. James C. Busby, Adm. Asst. to the Utah Water and Power Board, to make a short statement on the financial condition of the Bear River Commission.

We also have available for the Commission, copies of the Audit which has recently been completed by Lincoln J. Kelly Company, and distributed to the Governors of Idaho, Wyoming and Utah.

(Copies of the audit, and statement of income and expenditures for the period July 1, 1958 to June 30, 1959, were distributed to the Commission).

MR. BUSBY: My report does not pertain to the annual audit made by Lincoln J. Kelly, but their audit was based on my figures as submitted to them.

This report covers statement of income and expenditures for July 1, 1958 to June 30, 1959.

Total income of the Commission for that period was \$24,810.00, comprised of \$8,270.00 from each of the States of Idaho, Wyoming and Utah. Approved budget was \$24,810.00, total expenditure \$23,768.00, leaving a balance of \$1,042.00. Cash balance as of July 1, 1959 was \$7,260, which included an expense of \$6,213.00 which was an expense of fiscal year 1959, and included in the operating expense for that period, but was not paid until after July 1, 1959.

Page two of the report covers expenditures in detail.

Page three of the report shows the original estimated budget as set up, and also the adjustments made between the actual amounts spent. No changes were made in the totals, and the adjustments were approved by the Commission.

Reviewing the report, Mr. Busby stated the cash balance to date amounted to \$20,010.00, comprising the cash balance of \$7,260.00 at the end of the fiscal year, plus cash receipts to date of \$12,750.00. Disbursements to date during the present fiscal year amounted to \$12,843.00.

BEAR RIVER COMMISSION
STATEMENT OF INCOME AND EXPENDITURES
FOR THE PERIOD OF JULY 1, 1958 TO JUNE 30, 1959

INCOME:

	<u>Approved</u> <u>Budget</u>	<u>Assessments</u> <u>Outstanding</u>	<u>Total</u> <u>Revenue</u>
State of Wyoming	\$ 8,270.00	\$ - - - -	\$ 8,270.00
State of Idaho	8,270.00	- - - -	8,270.00
State of Utah	<u>8,270.00</u>	<u>- - - -</u>	<u>8,270.00</u>
TOTAL INCOME	<u>\$24,810.00</u>	None	<u>\$24,810.00</u>

Deduct: Operating Expense

	<u>Approved</u> <u>(Adjusted)</u> <u>Budget</u>	<u>Unexpended</u> <u>Balance</u>	<u>Total</u> <u>Expenditures</u>
Stream Gaging - U.S.G.S.	\$14,430.00	\$ - - - -	\$14,430.00
Personal Services	6,888.00	- - - -	6,888.00
Travel & Subsistence	848.00	- - - -	848.00
General Office Expense	840.00	432.70	407.30
Printing Annual Report	700.00	59.30	640.70
Treasurer Bond & Audit	400.00	350.00	50.00
Transcription of Minutes	150.00	- - - -	150.00
Fiscal Charge - U.S.G.S.	304.00	- - - -	304.00
Miscellaneous	<u>250.00</u>	<u>200.00</u>	<u>50.00</u>
Total Operating Expense	<u>\$24,810.00</u>	<u>\$1,042.00</u>	<u>\$23,768.00</u>

UNEXPENDED CASH BALANCE AS OF JUNE 30, 1959 \$ 1,042.00

STATEMENT OF CASH
AS OF JUNE 30, 1959

Cash Balance on hand as of
June 30, 1959 as shown above \$1,042.00

Add: Expense of Fiscal Year ended June 30, 1959
Taken up as an account payable and not paid
Until after July 1, 1959, and is included in
Total operating expense as shown above 6,218.00

CASH BALANCE IN BANK AS OF JUNE 30, 1959 \$7,260.00

BEAR RIVER COMMISSION
DETAIL OF EXPENDITURES
AS OF JUNE 30, 1959

<u>Voucher Number</u>	<u>Vendor</u>	<u>Amount</u>
1.	Marguerite Irvine	\$ 70.00
2.	Kelly Company	12.30
3.	Rocky Mountain Bank Note Co.	18.95
4.	Herald Printing Company	39.75
5.	Tanner & Garrett, et al	55.00
6.	Kolob Corporation	50.00
7.	Marguerite Irvine	35.00
8.	U.S. Geological Survey	5,715.00
9.	U.S. Geological Survey	5,829.00
10.	Sun Lithographing Company	254.00
11.	Marguerite Irvine	10.00
12.	Cancelled	- - - - -
13.	Marguerite Irvine	35.00
14.	Sun Lithographing Company	328.00
15.	U.S. Geological Survey	5,098.00
	Accounts Payable (U.S.G.S.)	<u>6,218.00</u> *
<u>TOTAL EXPENDITURES PER PAGE 1</u>		<u>\$23,768.00</u>

* Expense of fiscal year ended June 30, 1959, and not paid until after July 1, 1959.

BEAR RIVER COMMISSION
ADJUSTMENT OF ESTIMATED BUDGET TO BASIS OF ACTUAL EXPENDITURE
AS OF JUNE 30, 1959

<u>Items of Budget</u>	<u>Approved Budget</u>	<u>Adjustments</u>	<u>Adjusted Budget</u>	<u>Unexpended Balance</u>	<u>Total Expenditures</u>
Stream Gaging - U.S.G.S.	\$14,460.00	\$ 30.00 Cr.	\$14,430.00	- - - - -	\$14,430.00
Personal Services	6,640.00	248.00	6,888.00	- - - - -	6,888.00
Travel and Subsistence	1,200.00	352.00 Cr.	848.00	- - - - -	848.00
General Office Expense	610.00	230.00	840.00	432.70	407.30
Printing Annual Report	700.00	- - - - -	700.00	59.30	640.70
Treasurer Bond and Audit	400.00	- - - - -	400.00	350.00	50.00
Transcription of Minutes	150.00	- - - - -	150.00	- - - - -	150.00
Fiscal Charge - U.S.G.S	350.00	46.00 Cr.	304.00	- - - - -	304.00
Miscellaneous	300.00	50.00 Cr.	250.00	200.00	50.00
TOTAL	\$24,810.00	None	\$24,810.00	\$1,042.00	\$23,768.00

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COLL. COOPER: I move that we accept the financial report, and compliment those concerned on the fine report made.

COLL. SMOOT: Seconded the motion. Motion carried.

REPORT OF ASSISTANT SECRETARY

MR. JIBSON: We have extra copies of the Minutes available which are now approved and may be picked up by the advisers and others after the meeting.

Concerning the report on streamflow and compact operation, I might state that after a rather bad start we progressed quite satisfactorily during the season, and the Compact operated as smoothly as could be expected.

I believe we should read the report together and discuss the hydrographs of streamflow for the current season.

(Mr. Jibson distributed copies of his report. ~~copy attached~~)

During the reading of his report, Mr. Jibson commented that the supply of Smiths Fork was considerably below 1958 and also below the mean; while the upper Bear River supply was very comparable in 1958 and 1959, but still 15-20% below the long-time mean.

Commenting on compact operations in the Upper Division, Mr. Jibson said that there was a new water commissioner in the Upper Wyoming Section who was especially busy in learning the details of a new job and making releases from Sulphur Creek Reservoir. As a result he did not secure the quality diversion records that should have been obtained for the Commission, Mr. Jibson stated, but in future years a gage reader should be added during the critical part of the season which would alleviate the problem. Although there were insufficient records in both years to compute a daily record in the Upper Wyoming Section, the somewhat fragmentary records of the water commissioner were combined with spot-determinations from Survey personnel and Mr. Jibson was enabled to plot a general graph of the total divertible flow in that Division.

At the conclusion of reading his report, Mr. Jibson asked if there were any questions.

COM. JOHNSON: It appeared that the rainwater that came down into Upper Wyoming and Utah Divisions just amounted to a good overall irrigation when it came. Have you an idea of what it amounted to in additional acre-feet?

MR. JIBSON: I do not have it segregated from the base flow, but it can be estimated. On plate 6, if you draw a straight line from June 28 to July 23, the resulting graph would represent base, divertible flow without benefit of the heavy rainfall that came at the end of June.

COM. SMOOT: Is that an indication that maybe this might be a pattern of what might happen above Bear Lake when storage is completed, and when storage water is available?

MR. JIBSON: I think it is a pattern of what will happen with stored water. This is somewhat the type of hydrograph you might expect if Woodruff Narrows dam is built.

MR. MILLER: There was a good deal of friction in the Central Division. People in our particular area had never been regulated to the extent that they were this year, and they did not understand what was taking place. However, on the whole they came out with a better understanding. I think as time goes on, and these people become more used to being regulated, our whole situation is going to be relieved considerably. Regulation irons out a lot of situations occurring there in the past and in that area they will re-examine their situation and adopt irrigation practices more comparable to the allocation supply which is going to come in the future.

COM. BINGHAM: We have computed the late rainstorm contribution on plate 6 as suggested by Mr. Jibson, and it checks out about 5400 ac. ft.

COM. JOHNSON: I would like to state that it seems feasible to water those meadows with about 3" of water - that is, give them one more irrigation, because that is what we actually did.

COM. MYERS: What is the existing status of Bear Lake now, compared to a year ago and a year before that?

MR. JIBSON: At the end of the irrigation season Bear Lake was about one foot below the corresponding 1958 elevation.

The Lake did not fall below 3 ft. above the Irrigation Reserve during the draft period this year. However, it did not gain as much in 1959 as in the previous year. The drawdown during the draft period was about 2.5 feet this past irrigation season.

MR. MILLER: We had a storm about Oct. 1st. At the present time, is any of that water going into Bear Lake, or is it all being used in the Lower River?

MR. STOKER: I think it is going into Bear Lake. All the water coming down the river since the end of the irrigation season has gone into Bear Lake, and it has gained .13 feet this year due to the fall rain.

COM. JOHNSON: I wonder if Mr. Stoker would have a table that would convert this .13 feet into acre-feet.

MR. JIBSON: An increment of about 6,900 ac. ft. per 0.10' at this elevation would equal about 9,000 ac. ft. for 0.13'.

COM. SMOOT: The fall rain enabled us to shut down our canals. We shut down earlier than we ever have in the Bear River valley, so there was no need for any lake or storage water.

MR. JIBSON: July and September brought an additional 7,000 acre-feet to Stewart Dam (Over 1958). Even though the lake was shorted during the June snowmelt, it gained during the latter part of the season over the previous year.

COM. JOHNSON: This is an October figure, this .13' is it not?

MR. JIBSON: This figure is up to the present.

APPLICATIONS

MR. JIBSON: The three State Engineers have submitted applications to the Commission office, which have been filed with them since our last meeting. These do not include any applications filed with the Commission prior to this date - with one exception, which I will discuss in a moment.

(See list following page 12)

MR. JIBSON: Application No. 174/371 (deleted from final tabulation) does not show a definite amount. This was not given because it was assumed that State allocation has not yet been made between areas in Wyoming. Another group of applications was handed to me just before the meeting -- apparently duplicates of these -- filed by the Utah Water and Power Board with the State Engineer of Wyoming, showing supplemental supplies to the various lands in Rich County.

In addition to these, two more applications were handed to me at the beginning of the meeting - applications in Wyoming.

Please add to the list already given:

(1) UW 1/1/189. Type: irrigation. Name: Charles W. Anderson.

Source: Underground. Well in Lincoln County, Wyoming. Amount: Not given.

COM. LLOYD: I think that is probably the way it came in -- without the amount given.

MR. JIBSON: It appears there is in the neighborhood of maybe 300-340 acres involved here and probably it is for supplemental supply, although it is not stated.

(2) UW 1/6/189. Type: Irrigation. Name: Thornock Bros., Cokeville.

For a well in Lincoln County, Wyoming. Amount not given.

COM. JOHNSON: It is already in operation, and has been for two years. It is a good well.

MR. JIBSON: With the addition of these two, and the Woodruff Narrows application which is duplicated by Utah, this should comprise all of the applications received since April 1, 1959.

COM. LLOYD: There is the application for the Woodruff Narrows Reservoir, and then there are 25 applications for secondary rights from the water stored in the Narrows Reservoir. Amount stored - 22,000 ac. ft. active storage.

MR. JIBSON: You could write on the bottom of this tabulation below Woodruff Narrows Reservoir - 22,000 a.f.t. active storage, 6018.7 ac.ft. inactive. Total, 28,018.7 ac.ft. . (Joint application of the Utah Water and Power Board, with the Beckwith Canal Company).

Is this joint application still used in conjunction with the other application under the B.Q. Canal Co., which you submitted to the office, or will it be used in place of it?

COM. BINGHAM: There is a primary application to store water, and secondary applications for the Canal Companies who would use the water. Primary application would be the one the Commission is concerned with. Application for storage is No. 174/368. Secondary application No. 174/371.

MR. JIBSON: When the minutes are made up for this meeting we will include the primary application which just came to our attention. I see no point in including the secondary application, so there will be a slight change from the prepared list (in addition to inclusion of two applications in Wyoming as previously discussed).

COM. COOPER: I move that we receive the report of the Assistant Secretary.

COM. BINGHAM: Seconded the motion. Motion carried.

APPLICATIONS FOR APPROPRIATION - November 23, 1959

Notices have been filed with the Commission for the following applications to appropriate water in Bear River basin. These notices have been received since April 20, 1959 and the listing does not include those filed with the Commission prior to this date.

<u>Applic. Number</u>	<u>Type Approp.</u>	<u>Name</u>	<u>Source</u>	<u>County</u>	<u>Amount</u>
<u>Idaho</u>					
G-35923	Irr.	Dennis C. Ralphs	Underground	Franklin	1.32 cfs
<u>Utah</u>					
27675	Irr. (Res.)	A. J. Barker	Yellow Cr.	Summit	162.20 a.f.
31169	Dom.	K. A. Abbott	Underground	Rich	.015 cfs
31181	Irr.	U.S.U. Exp. Sta.	Underground	Cache	3.0 cfs
31201	Fish Culture	Lynn Erickson	Underground	Cache	30.0 cfs
31231	Dom.	Weston Ranch	Underground	Rich	.015 cfs
31286	Irr. Dom. Stk.	T. Bringham	Spring	Cache	0.5 cfs
31316	Irr.	N. O. Nielson	Waste Ditch	Cache	2.0 cfs
31360	Stock	M. J. Rasmussen	Open Drain	Cache	2.0 cfs
31365	Dom.	K. Biesinger	Underground	Rich	.015 cfs
31374	Municipal	Pickleville	Underground	Rich	0.5 cfs
31435	Stock	H. B. Anderson	Underground	Cache	.015 cfs
31445	Irr. Dom. Stk.	C. F. Reese	Underground	Cache	.015 cfs
31464	Stock	Bingham City Corp.	Underground	Box Elder	0.25 cfs
31465	Dom.	J. E. Ellis	Underground	Rich	.015 cfs
31542	Municipal	Deweyville	Underground	Box Elder	1.0 cfs
<u>Wyoming</u>					
UN 1-1-189	Irrig.	C.H. Anderson	Underground	Lincoln	(for 432 ac)
UN 1-6-189	Irrig.	Thornock Bros.	Underground	Lincoln	(for 251 ac)
17 4/351	Irr. Dom. Stk.	Harry Hansen	Yellow Cr.	Uinta	381.9 a.f.
17 1/368 et al	Irr.	Ut. Water & P. Bd. & B.Q. Canal Co.	Bear River	Uinta	Woodruff* Narrows Res.

* Primary application for 22,000 ac.ft. active and 6,018.7 ac.ft. inactive storage.

CHAIRMAN: The meeting will recess until 1:30 p.m. for lunch.

The meeting re-convened at 1:45 p.m.

CHAIRMAN: We are now down to "Reports of Committees". 1. Operations Committee - I assume Mr. Jibson's report covered that. 2. Budget Committee:

COM. SMOOT: I have nothing to report. This year, I understand, there is no way of adjusting anything until the Legislatures meet.

SPECIAL COMMITTEES

State Engineers' Committee

COM. LLOYD: I am Chairman of this committee, but I have nothing to report at this time. I have been pretty busy since we were given that assignment, and have not been able to actually come up with anything on it yet. I have not met with the other State Engineers. I do not believe it is quite as serious a problem as some of our discussions have led us to believe. Actually during the last period in Wyoming, no stock reservoirs were filed, and I think the situation is about the same in Utah.

MR. CRIDDLE: We have the problem on some of our streams - whether to file on them or not.

COM. LLOYD: There may have been some of these in Wyoming. There has not been much activity out there. I feel, Mr. Chairman, if our time could be extended on this until we can get into it further, I would see if we can come up with some definite report on it.

CHAIRMAN: Any comments from the Commission members.

COM. COOPER: Under the circumstances, I move that the State Engineers give the subject study. Inasmuch as a request has been made, I move that the time be extended until our next Commission meeting.

COM. MYERS: Seconded the motion.

COM. SMOOT: Up until that report is made, what will be the policy of the State Engineer in regards to approving these applications?

CHAIRMAN: When an applicant files an application, in most States, for his intention to appropriate water to put on the land, somewhere along the line he only gets the amount of water he can use beneficially. I wonder if the three State Engineers are following the same policy - that if a person files an application to appropriate water for stockwatering purposes, if it is analyzed to see what is actually needed? Whether 5, 10, or 20 acre-feet. I think that is a good point.

COM. SMOOT: I agree that can be done, but even at that, if I decide I need 5 ac.ft. and it affects my neighbor, certainly it is not my prerogative to go ahead. I know that a lot of these things are maybe not of major proportion at this time, but the longer we delay a decision on what it involves, maybe the harder it will be to arrive at an answer to this problem.

COM. LLOYD: A large number of these are put in under the S.C.S. program, and I think probably the local A.S.C. committees could do as much as anyone to reduce the number, or spacing, or control the construction, to a large extent, of these reservoirs. We have a large number over in the Northeast part of the State, where there is a different type of property. I think something along that line, with the local A.S.C. committees, if they would look into it a little closer, might help.

COM. SMOOT: Does the A.S.C. committee O.K. appropriation, or benefits to land, and let him go ahead without first obtaining permission for the project from the State Engineer?

MR. CRIDDLE: In our State we have an understanding with the S.C.S. who does the technical part, that they will not give assistance unless the water right is clear.

However, sometimes, there is not much technical assistance required, and the S.C.S. sometimes does not know about the operations. I might point out a little further, we do have some conflicting interests in different agencies of the Government. Certain laws are set up to develop water resources. They seem to be somewhat different between the agencies, and I would like to call attention to a meeting scheduled for December 2nd in Las Vegas, of the Pacific Southwest Interagency Committee, where this stockpond problem is going to be discussed. An entire meeting will be devoted to this problem to try to bring the agencies to a standard in design, spacing and need for stockponds etc., the purpose being to try to orient the thinking of the various State agencies in the Pacific Southwest, which includes the Great Basin, some of New Mexico and Idaho. We would then have a common yardstick with which to evaluate the need for, and design of, the stock ponds.

COM. JOHNSON: I think this Commission at this meeting should consider the gravity of the problem. I should like to call your attention to the Noblitt lands west of Cokeville. There are 135 little reservoirs developed, and they have 2 ft. of snow there in the winter. We could only find about 5 with water in. There has not been any water come down these water courses in a number of years. Just as soon as it does not come to the river, it is not irrigation water. Federal funds were used there, and the various agencies participated, and the thing was well done. The net result is, there is no runoff at all from that large area. If it does not waste or be used in one reservoir, there is another one to catch it. I cannot think of this Bear River Basin without a good irrigation stream in it. Everything is attrition that takes any of the water at all.

COM. COOPER: I do not think to take an overall view of Nevada, Western Utah,

Southern Idaho, and those areas in there, from the standpoint of stockwater ponds, can be a criteria by which we could measure the business of building stockwater ponds here, because the conditions are different. Necessarily, they have to go a long distance to water their stock, consequently they want to store their snow water so they will have reservoirs. In this instance, we are faced with the problem of whether it hurts existing rights, or whether it does not. I think this should be treated independently and separately from any other conditions. Circumstances alter cases, and the circumstances here are different from what they would be in Southern Utah or Nevada, or other places.

COM. JOHNSON: Will it make any difference in our attempts to allocate this storage water with this question pending? There was quite a bit of impatience on the part of Uintah County at our last meeting because we want to delay the enlargement of the Sulphur Creek Reservoir, and tie it to the Narrows Reservoir. Is there going to be any connection between the two?

MR. PERSON: I do not see why there should be. This allocation has nothing to do with stockwater.

COM. JOHNSON: We must be sure that the 35,500 ac.ft. is available for storage. With a series of reservoirs, beginning with one for the Hilliard people, then Sulphur Creek, then the Narrows - there are three. It seems to me the only way we can do this is to fill the upper one first, then if the lower ones fill to their allocation, fine, but if the lower reservoirs do not fill, then the upper reservoir would release down to its prorata share. This storage is all of the same priority, and must be treated as such - yet we all know we can't exchange upstream after the runoff passes.

If we spend one million dollars on the dam, we have got to have a practical repayment plan. I like stockwater ponds - we have some. But this 20 ac.ft.

affair is ridiculous. We could not have forage enough for even a 10 ac.ft. pond for livestock.

MR. JIBSON: In checking in the field the existing reservoirs, I do not believe we ever encountered a stockwater pond anywhere near that capacity. I do not know whether or not they will be built.

DEAN PERSON: I think, if we go back to discussion of stockwater reservoirs, we said they would not be an interstate problem because if someone builds one in Wyoming it is subject to the laws in Wyoming. There has not been a single one filed in Wyoming over 2 ac.ft. It could not, according to the Compact, interfere with existing rights in other States if it does not interfere with existing laws in the State in which it is filed.

COM. MYERS: In this particular area, at this particular time, it is not much of a problem I am sure.

COM. COOPER: I would like to say, in support of my motion, this stockwater business can be decided later, but in view of the fact that the State Engineers have not made the study up to now, and they have reported that they would like to complete the study and have asked for more time, I think, out of courtesy to them, we should go ahead and pass the motion.

COM. SMOOT: My question was simply, "How are they going to handle the situation until they get time to make the study?"

(Motion was passed)

NEW BUSINESS

COM. BINGHAM: As a matter of keeping informed, the Minutes we read this morning indicated the desire of the Commission that we request the U. S. Geological Survey to establish two quality of water stations - one near the Wyoming-Utah State line crossing of the Bear River in the vicinity of Woodruff,

Utah, or Sage, Wyoming, and the other station near the Idaho-Utah State line crossing of the Bear River in the vicinity of Preston, Idaho.

A letter was directed on May 29, 1959, to the Director of the U. S. Geological Survey making that request. On June 16th we had a reply which, in effect, stated that they were without funds with which to finance two new stations completely, but if the Commission could share a part of the cost, they might be able to do this. I reviewed our budget, and felt that there was no need to ask the Commission, as there are no funds budgeted for the purpose. I informed the Geological Survey that the States involved operated on a biennium, and I could see no possibility of increased budget during the next two years, due to the fact that our funds are drawn from legislative appropriations. I said I hoped that the future possibility of water quality stations would be kept in mind.

They have replied that they have been in touch with their District Chemist, Mr. Connor, who will help to make some sort of interim arrangements. It would be smaller sampling than we want, but such measurements will be available.

CHAIRMAN: A report on the Woodruff Narrows, or what is now called the Woodruff-Cokeville Project, has recently been sent in. The report will not be released to the public until it has been sent back officially, under the Flood Control Act, to the three States involved. Then it will be officially released to the public.

I would like to introduce Mr. Dean Bischoff, of our Logan office, to discuss the Woodruff-Cokeville Project report.

(Governor Clyde joined the meeting at 2:15 p.m., and listened to Mr. Bischoff's report, which was as follows:)

MR. BISCHOFF: As the name implies, the Woodruff-Cokeville project is named after the two communities of Woodruff in Utah, and Cokeville, in Wyoming.

This is purely a supplemental project. We have the major diversions and canals drawn on a map before you, and this map also shows the proposed area that would be served from the project. In assisting the Beckwith Quinn Canal Co., and the Utah Water and Power Board, with the water rights, there were 23 diversions listed, of which 10 serve approximately 90% of the area. The area comprises 53,000 acres, approximately, and in going through and making a land classification, we eliminated some of the bad areas that would not by economic justification be included in the project area. Approximately 18,000 acres were eliminated, making the total area to be served 35,400 acres.

The only new feature of the project is the Woodruff Narrows dam and reservoir at the Upper site. It would be an earth fill structure about 68' in height above streambed, or 82 feet above bed rock. Volume in yardage would be about 175,000 cu.yds., and it would impound both live and dead storage in the amount of 25,400 ac.ft. of which you heard the amount of 22,000 ac.ft. as being active storage for the irrigation of the project, leaving 3,400 ac.ft. for silt deposition and for some incidental uses which I will discuss later. The area it would inundate is about 1500 acres, comprising meadow land, some farm land and range lands.

The purpose served would be, primarily, irrigation. Incidental uses to irrigation would be fish and wildlife propagation and the National Park Service recommended that some facilities be constructed for recreational purposes.

Cost

With regard to cost, the dam and reservoir, including rights of way, and investigation costs, totals \$1,479,000.00.

In a report from the National Parks Service they have recommended that \$21,000.00 be spent for recreational use at the site, making a total of \$1,500,000.00. We have allocated the cost to the three purposes. In our methods, we allocate mainly by the benefits that would accrue to each purpose as follows:

- (1) Irrigation - \$1,045,000.00
- (2) Fish and Wildlife - \$434,000.00
- (3) Recreation - \$21,000.00

Project Water Supply

Yields: Of the 22,000 ac.ft. of live storage, the reservoir would yield an average of 19,300 ac.ft. annually. Also, because of the very narrow valley and the nature of the soil, the project would also yield some high return flows which we feel we have estimated conservatively. From our estimate we have determined that the reusable return flows would amount to 10,800 ac.ft. annually. Total project average annual yield of supply to the area would be 30,100 ac.ft., making the supply to the total area a little less than 1 ac.ft. per acre on project lands estimated to be served.

Repayment

Based upon economical surveys in the area, allowing a living allowance, and a certain percentage for incentive on the farm, we have estimated that the irrigator can pay for this water to retire the debt, about 77 cents per ac.ft., and an additional 23 cents will be required for operation and maintenance of the new works, and the additional maintenance, etc. that may be required on the existing canals. Total amount estimated for operation and maintenance, annually, is \$6,900.00. The irrigators would have to pay \$23,200.00 per year to retire the debt. Dividing their allocation of \$1,045,000.00 by 23,200, it would require

45 years to amortize the construction cost of the project.

In terms of cost per acre-foot, and cost per acre of land that is going to be served in the area, and based on the total water yield to the project area, it would amount to \$34.80 per ac.ft. or \$29.50 per acre.

You will determine that this is very economical, compared with other projects.

Benefits:

This project has a benefit-cost ratio of 2.1:1.0. In other terms, for every dollar spent by the Nation, it means she would receive \$2.10 in return. For every dollar spent by the irrigator, he would receive \$2.30 in return. For every dollar spent for recreation, there would be a \$1.80 return. For every dollar spent on Fish and Game propagation, there would be \$1.70 return.

There are some other considerations. You realize that this is a preliminary report. It is out for a 30-day review to the States and to the Federal agencies. There are some things that we will probably have to consider further. I just want to say that in relation to the design of the dam, it is simple, economical, and very adequate. I have conferred with the Regional Director, with our designers at Denver, and they have done the best they can to make it simple, but adequate and reasonable.

Another matter we must consider is acreage limitation. Under reclamation law, the limitation is 160 acres. Based on a survey, the requirement in that area, to repay the project and provide a reasonable living, would be about 500 acres. So special legislation is going to have to be required to waive to some extent the reclamation law on 160-acre limitation on the areas surveyed.

Fish and Wildlife

The States' Fish and Game Departments have made other recommendations.

They have recommended that we release from the reservoir for fishery purposes, throughout the reach of the river in the project area a 10 cfs continual release. They have also proposed, within the project area, a refuge to mitigate some of the project caused losses to wildlife. There are some geese nesting in this area. If we store water in the reservoir, the supply of water would not be adequate to maintain the geese and nesting as at the present time. Under their new Coordination Act, rather than suffering losses or negative benefits, the Fish & Wildlife Service desire to mitigate the losses by some means. So I am sure that these items will come up. We will get comments from Fish and Game Departments of Utah and Wyoming, but we could not determine the impact on the project from the refuge, as the area was not definitely delineated.

On releasing 10 cfs for fishery purposes, studies indicated that about 21% of the project water supply would be utilized for that purpose, or about 6,300 ac.ft. would be required from the irrigation supply to maintain the 10 cfs. Because it was not compatible with the primary purpose of the project, we did not consider it. However, I am sure we will get comments on it.

Share of Bear River Compact Water Allocation

The way the requirement was worked up for Utah, it is the complete share of Compact allocated water - 17,750 ac.ft. estimated to be stored in the reservoir, and for use on Utah lands.

Wyoming's share of 4,300 ac.ft. to be stored in the reservoir, was based on their land requirements, or 8,100 acres. Also, in making this allocation it was assumed that Wyoming would use approximately 10,000 ac.ft. above Woodruff Narrows. Therefore, in figuring the water supply, 10,000 ac.ft. was reserved for Upper Wyoming uses.

COM. COOPER: In your discussion, did you say that it is going to be necessary

to pass legislation in Congress revoking the 160 acre land limitation law?

MR. BISCHOFF: No. For this project it would be waived, to some extent.

CHAIRMAN: In the case of the Seedskadee project, for which the U. S. Bureau of Reclamation has money to start construction this present fiscal year, there was special legislation that permitted serving farms of more than 160 acres, because at that elevation, and the type of agriculture, it is considered necessary.

There are other projects in other places - three in Nevada - where hay is raised, Humboldt, Newlands and Truckee storage reservoirs, all of which have special legislation permitting delivery of water to farms in excess of 160 acres.

DEAN PERSON: You are taking out about 1500 acres (inundated) - what do you contemplate doing with the water taken out? There are 1500 acres of irrigated lands in Wyoming now using water.

MR. BISCHOFF: Part of that was off-set by evaporation. There are only about 300 acres of land that is actually irrigated. Of course there is some evaporation and transpiration, but in the total loss figure, evaporation, rainfall, etc., that was taken into consideration.

DEAN PERSON: There is some irrigated land taken out of production in Wyoming?

MR. BISCHOFF: Yes.

DEAN PERSON: In order to furnish these acreages in the project one acre-foot per acre, you had to furnish return flow, and in order to pay for the project, they had to pay for that. If Wyoming drains water out of Woodruff Narrows site, and our Court decides this water goes back, could we use that water further down on the Bear River? The only users you are taking are the ones that irrigate from the Pixley canal and above. There are other users down below.

DEAN BISCHOFF: We assume that a large part of the project would be served about as it is now, and that it would not change much, and that the users would all

have to participate in the project to make use of the waters and return flows. It is not possible to make that kind of administration economical and feasible on the river.

DEAN BISCHOFF: We have estimated roughly about 5,000 ac.ft. of water - return flow - that we cannot use in the project area, that will get by in addition to the return flows that we use.

We used a rather low farm efficiency. We used a figure of 40% because of the type of irrigation they do, meaning that we are not taking credit for about 60% of the water that is used on the farm for the growing of crops.

GOVERNOR CLYDE: Did you say that the apportionments to the two states would be entirely used up with the construction of the Narrows?

DEAN BISCHOFF: No. Utah's would, but not Wyoming's.

COM. JOHNSON: Have Fish and Wildlife made any other application other than the 10 cfs?

DEAN BISCHOFF: I would not say it is an application. It is a recommendation on their part.

COM. JOHNSON: The refuge, somewhat, we do not like. The geese knock the heads off the grain, and the ducks follow them, and take thousands of acres of our grain in there. Local geese amount to hundreds. Their next move is into the sugar beet patches down by St. George.

DEAN BISCHOFF: It is not in our plan. This is Fish and Wildlife Service recommendation, but has not been included in our plan.

COM. JOHNSON: You are getting these costs down with help from federal agencies?

DEAN BISCHOFF: Yes.

COM. MYERS: All the Utah water is to be put in there. Are there any outlying Utah people interested in this?

COM. BINGHAM: Utah has already allocated about 160 acre-feet to the storage structure on Yellow Creek. We have other people who are interested in getting storage. We are going to study where it would serve the most beneficially. We plan to hold meetings with our people to get their views and comments before finally deciding.

COM. LLOYD: You mentioned two other sites up on West Fork. Are these still pending?

COM. BINGHAM: That is right.

COM. LLOYD: If we interpret correctly, the last diversion, so far as water is concerned, is diverted at Pixley Dam, and no project lands below those canals at Pixley would be served. Is all the land in the project area included upon the map that was filed with these applications?

DEAN BISCHOFF: Yes.

MR. MILLER: You said there was some storage left available for Wyoming in the Woodruff Narrows Reservoir?

DEAN BISCHOFF: Not necessarily.

MR. MILLER: Could the capacity be increased?

MR. BISCHOFF: Yes.

MR. MILLER: I think there are people in the Cokeville area who would be interested in receiving water. There is nothing here that would preclude them doing this?

MR. BISCHOFF: That is correct. This will be on the recommendation of Wyoming.

MR. MILLER: That would necessitate amending the plans to increase the size of the reservoir?

MR. BISCHOFF: Yes. But now would be the time to make your comments during the 30-day review.

COM. MYERS: If we do not have enough water to go around for all our Wyoming users, and cannot allocate any more for those on down below, why cannot they get a portion of the amount of water that has already been stored? Why cut it off at one particular place?

MR. BISCHOFF: That is based on requirements.

COM. MYERS: Under the Compact, we all recognize that we do not have enough water for our requirements.

DEAN BISCHOFF: There is a point where you can go on shortages. If you desire to suffer further shortage on the land, that is all right. We want to hear these recommendations.

MR. MILLER: You say the cut-off point was made at Pixley Dam?

MR. BISCHOFF: We do not know the desires of the users down below.

MR. MILLER: The users have not expressed themselves sufficiently.

MR. JIBSON: This would be, primarily, an exchange proposition with the users on Smiths Fork. Past experience has shown there is generally enough water to take care of these irrigators. If Smiths Fork users want to participate they would have to make exchange of storage water for the amount that they would be regulated under the Compact, then continue to divert Smiths Fork water without regulation.

MR. MILLER: I think a meeting will be held with those people down there, and the situation explained to them, and if they desire to participate, the time to do it will be in the immediate future.

COM. LLOYD: Out of the 4300 ac.ft. that is to be put in on Wyoming land, only 2300 ac.ft. would be actually delivered from storage. The rest would be just return flow?

MR. DEAN BISCHOFF: Yes, but that is an average. Some years you would make use

of your full allocated supply - in dry years.

MR. MILLER: You figure between storage release and return flow it will make up an average water supply to the same extent as the other people who live further up the stream would get?

MR. BISCHOFF: Yes.

CHAIRMAN: Thank you Mr. Bischoff for your statement.

COM. JOHNSON: I think the Minutes should show a resolution of appreciation of Dean Bischoff at this moment. I would like to say that on a number of visits to his office we found him working at this report. It has been with him night and day, and we appreciate it.

CHAIRMAN: There are three items of this project that make it favorable.

- (1) It is supplemental water
- (2) High benefit cost ratio
- (3) It is fully repayable.

GOVERNOR CLYDE: I appreciate the opportunity to come in and visit with you. I too am very glad we have a project that shows the favorable conditions that this one does. I did not know that we could find such a favorable project. I want to commend all of you for a fine job - Dean included.

Meeting adjourned 3:00 p.m.

APPLICATIONS FOR APPROPRIATION

The following applications were presented to the Bear River Commission in annual meeting April 20, 1959. However, the tabulation was inadvertently omitted from the minutes of that meeting and are herewith attached to and made a part of the minutes of regular meeting held November 23, 1959:

<u>Applic. Number</u>	<u>Type Approp.</u>	<u>Name</u>	<u>Source</u>	<u>County</u>	<u>Amount</u>
<u>Wyoming</u>					
U.M. 117	Irrig.	John A. Reed	Underground	Lincoln	(For 160 ac)
17 6/329	Stock	Deseret Livestock Co.	Bear River	Uinta	19.1 a.f.*
17 2/295	Stock	Ben R. Lowham	Yellow Cr.	Uinta	0.587 a.f.
17 3/295	Stock	Ben R. Lowham	Yellow Cr.	Uinta	0.843 a.f.
17 4/295	Stock	Ben R. Lowham	Yellow Cr.	Uinta	6.364 a.f.
21933 (Temp. Hiway)		Indust. Pipeline	Bear River	Uinta	1.00 cfs
17 3/286	Irrig.	John A. Reed	Bear River	Lincoln	0.64 cfs
17 4/286	Irrig.	John A. Reed	Bear River	Lincoln	21.88 a.f.
17 6/260	Stock	L. W. Roberts	Smiths Fk.	Lincoln	0.77 a.f.
17 1/261	Stock	L. W. Roberts	Smiths Fk.	Lincoln	0.77 a.f.
17 2/261	Stock	L. W. Roberts	Smiths Fk.	Lincoln	8.45 a.f.
6434 Res.	Irrig.	John J. Martin	Sulphur Cr.	Uinta	87.90 a.f.
5695 Res.	Irrig.	Sulphur Creek Co.	Sulphur Cr.	Uinta	4104.13 a.f.
17 2/251	Irrig.	Sulphur Cr. Co.	Sulphur Cr.	Uinta	510.41 a.f.
17 5/271	Irrig.	Elwin Sessions et al	Sulphur Cr.	Uinta	2473.85 a.f.

* Application for Chapman Canal Enlargement.

(Attachment)