

VERBATIM MINUTES  
BEAR RIVER COMMISSION MEETING

App.  
4/15/85  
CIRCUL.  
5/6/85

NOVEMBER 26, 1984  
11:00 a.m.

Department of Natural Resources Building  
1636 W. North Temple  
Salt Lake City, Utah

Submitted by  
Connie Borrowman, Secretary

THOSE PRESENT

UNITED STATES

Kenneth T. Wright, Chairman  
and Federal Representative

WYOMING COMMISSIONERS

George Christopulos  
J. W. Myers  
S. Reed Dayton

ENGINEER MANAGER

Wallace N. Jibson

IDAHO COMMISSIONERS

Kenneth Dunn  
Daniel Roberts  
Don W. Gilbert  
Rodney Wallentine

LEGAL ADVISOR

E. J. Skeen

SECRETARY TO COMMISSION

Connie Borrowman

UTAH COMMISSIONERS

Daniel F. Lawrence  
Blair R. Francis  
S. Paul Holmgren

OTHERS IN ATTENDANCE

WYOMING

John A. Teichert, State Board of Control  
Mike Ebsen, Hydrology Commission  
John W. Shields, State Engineer's Office  
Jeff Fassett, Deputy State Engineer  
Walter Scott, Water Commissioner  
M. Bollschweiler, Evanston

UTAH

Dean Stuart, Alternate Commissioner  
Calvin Funk, Alternate Commissioner  
Dee C. Hansen, State Engineer  
Barry Saunders, Division of Water Resources  
Norman E. Stauffer, Division of Water Resources  
Robert Fotheringham, Division of Water Rights

OTHERS

Robert W. Hill, Utah State University, Logan, Utah  
Ted Arnow, U.S. Geological Survey, Salt Lake City, Utah  
Carly Burton, Utah Power & Light Company  
Jody Williams, Utah Power & Light Company

MINUTES  
BEAR RIVER COMMISSION  
MEETING

November 26, 1984 - Salt Lake City, Utah

11:00 a.m.

Verbatim Minutes of the Bear River Commission meeting held November 26, 1984 at Department of Natural Resources Building, Salt Lake City, Utah. The meeting commenced at 11:00 a.m. with Chairman Kenneth T. Wright presiding.

WELCOME AND INTRODUCTIONS

CHAIRMAN WRIGHT: With the arrival of the Wyoming people, I think that we can get rolling. The first item on the Agenda is the reading of the summary of the minutes of the previous meeting. I don't think we ought to do that because it would take about 4 hours.

MR. LAWRENCE: Mr. Chairman, I move that the minutes that were sent to the members prior to the meeting be accepted, and that we dispense with the reading of the minutes.

MR. ROBERTS: I second.

CHAIRMAN WRIGHT: Any discussion? Questions?

MR. CHRISTOPULOS: I think we have picked up some changes in the minutes but I don't know if they have been corrected or not?

MR. JIBSON: They have been called to my attention, George, but I think I mentioned most of them to Connie.

MR. LAWRENCE: I would be glad to amend my motion that we call for corrections to the minutes.

CHAIRMAN WRIGHT: Second?

MR. ROBERTS: Second.

CHAIRMAN WRIGHT: Go ahead George.

MR. CHRISTOPULUS: On page 2 of the minutes, under 'Others in Attendance', John Buyok is shown as an attorney. He was a Research Associate at the University of Idaho. For Wyoming, Jeff Fassett, Deputy State Engineer was present and was not shown as present. On page 7, under 'Budget', budget estimates were shown on pages 10 and 11, and I think that should be pages 9 and 10. Under 'Budget', the third paragraph says "on page 11". It should be on page 10 in the first line. On page 16, I offered a motion, which was passed, to have Bob Hill report back to the Commission at its November meeting concerning adjustments that may be made due to the wet year data base to more approximate a normal water year. On page 17, second paragraph from the top, second line, dealing with the budget, it shows \$29,000 FY 84, \$42,000 F Y 85, \$42,000 F Y 86. Those should be changed. FY 84 should be changed to FY 85, FY 85 should be changed to 86, and FY 86 should be changed to 87.

MR. LAWRENCE: I'm not sure that's true. I disagree. Connie, did you check that with the verbatim? Did we send the verbatim?

MRS. BORROWMAN: No, you told me not to send it.

MR. SHIELDS: Wally, when I talked to you on the phone hadn't we kind of discussed that one there?

MR. JIBSON: Well, at the time I agreed with George that the change should be made, but I'm not sure. We could be wrong. Maybe it's right the way it is.

MR. LAWRENCE: I think my motion is as it was given, and if that motion is incorrect and the Commission wants to change it then I think we have to do something about that, but I think the minutes are correct as they are read.

MR. CHRISTOPULOS: Well, we certainly will get into that discussion when we discuss the budget. Perhaps the proper thing to do would be to leave the minutes alone and correct the issues in this meeting if we need to.

CHAIRMAN WRIGHT: Well, to leave that part until later on in the meeting, and if there are any other changes to the minutes - did you have any with those changes that George has made? Is there a motion for approval to

the minutes, with the changes that have been recommended by George, forgetting the '85, '86, and '87 budget allocation, leaving that for further discussion?

MR. CHRISTOPULOS: I will so move.

MR. GILBERT: I second.

MR. SHIELDS: Mr. Chairman does that also include the Bylaws as attached to the minutes? Shouldn't that have been addressed?

MR. LAWRENCE: Yes.

CHAIRMAN WRIGHT: Yes.

MR. SHIELDS: Wasn't Article - I might be wrong, here, I don't have it right in front of me - wasn't Article VII struck at the last meeting?

MR. LAWRENCE: It was intended to be struck but after the discussion we didn't. Article VII is the duplication of the requirement for a report. We didn't actually do it; we talked about it but it wasn't done. I see no real serious flaw. It just says in two places there will be a report - one in the Compact, and one in the Bylaws.

MR. CHRISTOPULOS: Do you think that could stand that way then?

MR. LAWRENCE: Sure.

MR. CHRISTOPULOS: I thought that we went to a Biennial Report.

MR. JIBSON: Yes, we did go to a Biennial report, and I think that those things will have to be changed, if we didn't get around to changing them at the last meeting. They have to be changed according to what we have approved.

CHAIRMAN WRIGHT: What does that mean, Wally?

MR. JIBSON: Well, we have a number of little corrections in here that we got off the discussion last meeting and we assumed, I think I assumed, that we would approve them.

CHAIRMAN WRIGHT: But we haven't?

MR. JIBSON: Well Dan says no, we didn't actually get around to approving them.

CHAIRMAN WRIGHT: So will we get into those later in this meeting?

MR. JIBSON: I think we ought to.

MR. LAWRENCE: I move that we appoint a committee and bring it back to the next meeting. I don't think there is anything that's so fatal.

CHAIRMAN WRIGHT: You're trying to get Bylaws on it?

MR. CHRISTOPULOS: That would be the entire Bylaws?

MR. LAWRENCE: Well, if it can be done with a simple correction - but I don't know, I think we spent a lot of time before and now we apparently are confused as to what we did. I don't think we can unconfuse ourselves in 5 minutes when it took us that long before.

CHAIRMAN WRIGHT: The same committee?

MR. LAWRENCE: I don't know, I doubt it.

(Laughter)

MR. LAWRENCE: I thought we did a pretty good job, but what corrections do we have?

MR. CHRISTOPULOS: I think that Article VII is the only one, isn't it?

MR. JIBSON: The main corrections I was thinking about, John, were these that were on the pink sheets.

MR. CHRISTOPULOS: But none of those were bodied in this.

MR. LAWRENCE: All of them were except the deletion of the Article VII and changing the number of Article VIII; that's my understanding. I went through it again after Wally wrote to me and spent another couple of days.

CHAIRMAN WRIGHT: If there is just one little change that you have to make, is it little or is it complex, or what? Do you think we can grab that here or do you think it needs a separate study?

MR. CHRISTOPULOS: I think, if I understand correctly, now if you went through these Bylaws as printed with these minutes, with the pink sheets; were there other changes other than deleting Article VII and changing Article VIII to Article VII?

CHAIRMAN WRIGHT: These were intended to be the amended Bylaws, with the minutes.

MR. LAWRENCE: That's right; and they were included as part of the minutes so that there would be no question that what's intended and if we don't want those, then I think we have to correct them.

MR. ROBERTS: Well actually, we were on an annual basis. Now we are on biennial basis; and if you want to put that biennial in there ahead of that report that changes it, doesn't it?

CHAIRMAN WRIGHT: Where would you put biennial?

MR. ROBERTS: It should be here on Page 23, Article VII "Commission shall biennially compile a report". Instead of "annually", you see, because we did change from an annual to a biennial.

CHAIRMAN WRIGHT: Will that help, Wally?

MR. JIBSON: Well, let me say what happened here. Dan and I haven't discussed it since I wrote him, so maybe we don't agree on what happened; but I wrote Dan a letter after the Summary of the Minutes was circulated. I didn't have the Verbatim minutes. So I wrote him a letter calling his attention to the changes that we had approved - or I thought we had approved, that did not get into the summary that was sent out. That's what it amounts to. Dan says this morning that we didn't get around to approving the Bylaws; and I didn't know whether we did or not. I thought we had. I didn't have the Verbatim minutes, and I don't know.

The way the lead-in to the Bylaws reads it says, "After some discussion, Mr. Lawrence made a motion that the Bylaws which had been published to the Commissioners in advance, and amendments at this meeting, be accepted and now used as the official Bylaws; that the Commission direct the Secretary to make a new 1984 printing of the same. Motion was seconded by Gilbert, and passed unanimously. The amended Bylaws as approved, are as follows."

MR. LAWRENCE: The Secretary submits that what you have approved is what's printed.

MR. CHAIRMAN: And not on the pink sheet?

MR. LAWRENCE: That's right. What we need to do, I think, - we have two choices - one is to get them the way we want them today and amend any previous actions; or go back and search to see what we did. And probably what we did doesn't matter; if we need to do it, we want to do it.

MR. CHRISTOPULOS: Mr. Chairman.

CHAIRMAN WRIGHT: Yes?

MR. CHRISTOPULOS: What are the plans? Are we going to run through lunch and continue, or are we going to break for lunch? We have to be out of here by 4:00 or shortly before that.

CHAIRMAN WRIGHT: Well, I have to be out of here by quarter to three.

MR. LAWRENCE: We should be through before 3:00.

MR. CHRISTOPULOS: What I was going to suggest - that I'm sure I got notes from the meeting, and maybe Dan has, and someone else, that we could look at.

MR. LAWRENCE: We have a verbatim copy that is backed up by a tape and we can find exactly what happened. It's 120 pages.

MR. CHRISTOPULOS: I suggest that we go ahead. Pass up this portion of the minutes also and come back to it next time.

CHAIRMAN WRIGHT: I agree. Let's conduct a search of what really happened, and the verbatim, and when that search is done have it presented at the next meeting. Is there a motion to that effect?

MR. CHRISTOPULOS: I'll so move.

MR. ROBERTS: Second.

CHAIRMAN WRIGHT: All those in favor?

MOTION CARRIED UNANIMOUSLY

CHAIRMAN WRIGHT: We still have a motion to accept the minutes minus all the corrections that George made. Minus whether its '85, '86 and '87 or '84, '85 and '86. We will leave that question with the next meeting as well. Is there a motion to accept the minutes, minus that provision?



MR. CHRISTOPULOS: One point, Mr. Chairman. I think that we can resolve the question about the budget as we talk about the budget.

CHAIRMAN WRIGHT: Okay. Is there a motion to accept the minutes from the last meeting without the changes that George made?

MR. CHRISTOPULOS: I'll move.

MR. LAWRENCE: Second.

CHAIRMAN WRIGHT: All those in favor?

MOTION CARRIED UNANIMOUSLY

MR. ROBERTS: Is the Secretary going to make the review of the Bylaws?

CHAIRMAN WRIGHT: The secretary? Dan, you'll make the review of the Bylaws? Right?

MR. DUNN: Maybe we ought to re-phrase that.

CHAIRMAN WRIGHT: Who's going to do that? That's a good question. Well I would add to the confusion, that it should be the same committee that presented the corrections to the Bylaws in the first place. Wouldn't you say so, Dan?

MR. LAWRENCE: It would be alright with me. That's George and Mr. Dunn and myself.

CHAIRMAN WRIGHT: Well let's look at it that way. That group would be the group that would make the review and the revisions if necessary. Do we have to get approval for that, Connie?

MRS. BORROWMAN: I don't think that is necessary.

CHAIRMAN WRIGHT: Any further discussion? On anything? In the Report of the Chairman, and I have nothing more to say other than I am a first-time grandfather. Is there anything more that you want to say? I really don't have that much to say, so I'll move smartly on to Dan to get the report of the Secretary-Treasurer. There is just one thing - I did take the tour last April with Dan, and Wally, and Norm Stauffer and it was a great day. We went through Wyoming, Utah, and Idaho, and saw a lot of the Bear. Probably I know just enough now to make me very dangerous; but I'm not totally ignorant. It was a good tour and I appreciate it.

### Report of Secretary-Treasurer

MR. LAWRENCE: I guess that I can report that the minutes we sent you apparently are not adequate; therefore, I resign. (Laughter)

I've written a letter to Governor Matheson and my Board indicating my plan to retire early in 1985. It's not exactly certain whether I'll stay through the legislative session or whether I'll retire on January 1st. Most of you have already heard that in the public announcement; but I just wanted to tell you that I have appreciated working on the Bear River problems. I was on the first negotiating committee for the Amended Compact. It has been a very pleasant experience. With respect to the Treasurer's Report, I would like to call on Bert to give that report.

MR. PAGE: There are two separate reports. As you realize, when we talked about it earlier, we changed fiscal years last year. It caught me by surprise, I wasn't in the last half of your meeting, and didn't know it until I saw the minutes, so its kind of after the fact thing here, but I've taken the first report that you have - October 1st thru June 30th, which is a 3-quarter year. This kind of offsets what we had several years ago when we had a 5-quarter year. That one we kind of stretched our budget; this one we're kind of making up for what we lost then. The income, if you remember from your last meeting, Utah prepaid its \$29,000 in the old fiscal year, and the other two states came in and paid their money on time. You have had interest at that period of time at \$7,506.04, for a total income through June 30th, of \$145,000 plus. Expenditures that were made during that time are indicated below for a total of \$29,416. The USGS was not paid during that period of time, which left us a balance of \$115,000 at the end of the year. On the back are listed the expenditures in detail, and a reconciliation down at the bottom shows the same \$115,000.

The new period of time, July 1st through October 31st, is on your second sheet of paper. It shows the \$115,000 that we started with, or what we ended last fiscal year with, which is our beginning balance. We have picked up interest of \$4,152.94 and two of the three states have made their payments so far, for a total income of \$177,744.59. The USGS

payment of \$59,840 was paid the end of September. We paid personal services of \$1,323, a \$58.00 legal fee, and \$9,030 to Utah State University - for a total expenditures of \$70,251.93, leaving a balance of \$107,492.66. There have been four checks issued this year and they are listed on the back. In our savings at this time we have \$74,399.59 and when the other state comes in with its payment it will be added to that figure.

Last meeting, actually April 13th, the budget for the fiscal year was prepared and it kind of got taken by surprise. Last year was the change of fiscal year for our auditors and to make everything legal, we have changed the budget only in the dates involved. You will notice that it says 'revised'. We have changed it so that it is a fiscal year ending June 30th 1985 - it's for a full 12-month year. The dollar figures are exactly the same as you approved earlier; and that, Mr. Chairman, is the financial report.

MR. GILBERT: I have a question on the USGS part, Bert. We had approved a budget to the USGS for the fiscal period on 9-30-84 at \$59,840, which is what we paid them. How come we put \$62,240 in there? That's next fiscal year, isn't it?

MR. PAGE: Well, we were in the next fiscal year when that was paid. Oh, one other thing - you will find on your desk a copy of the audit of last year, for your information.

MR. CHAIRMAN: Are there any questions, corrections or additions to this present report or forecast?

MR. CHRISTOPULOS: I don't know if this is the proper point to bring it up, but I think we have run into a snag on the budget. There has been a question raised as to why we would be paying a full budgeted amount for a 9-month period? The \$29,000 billing for the FY 85 is covered through the period from July 1, 1984 to June 30, 1985. Last year we paid from October 1, 1983 through September 30, 1984. It would seem to me that unless we can figure out some other way to do it, the amounts that are billed for this fiscal year should be three-fourths of the \$29,000, rather than the full \$29,000.

MR. LAWRENCE: I think it's a valid question, Mr. Chairman; and it was probably arbitrary on my part, because we were struggling so hard to try to figure out how to make the transition to move from \$29,000 to \$42,000 - and it's my feeling that this was part of the lengthy negotiations or discussion that we had at the last meeting on just where and how to make that break. I think that George's question on the minutes, on the motion itself, is probably important. Maybe it would be appropriate to bring that up at the same time, to see if we couldn't resolve the issue. When I sent the notices out, I didn't get any question raised, so I kind of assumed for the purpose of this meeting, that it had been accepted. But if it hasn't, we probably ought to clear it up.

MR. CHRISTOPULOS: I think what it really gets back to - it seems to me that in our budgeting cycle, in trying to arrive at the monies we wanted to have in place, perhaps we were counting on that full \$29,000 for the 9-month fiscal year.

I'm not too sure it was made that clear. If it was - where the question has risen is not with us, it has risen with our budget officer. They went back to the previous billing and say that it covered through September 30, 1984; and now we are overlapping coming from July 1, 1984 through June 30, 1985.

MR. LAWRENCE: Could we solve that? This is just a mechanical solution. Could you solve their problem by us rebilling you from September 30th to July?

MR. CHRISTOPULOS: Well, perhaps with some explanation that it was intended to make that change because the money has been advanced, say for this study or something like that. I just think we need an explanation as to why it's happening, more than anything else. John, you talked to Mr. McCune and he talked to you at the same time?

MR. SHIELDS: We had a conference call with Mr. Page.

MR. PAGE: I thought that we had him convinced.

MR. SHIELDS: Well the only thing is, he wants to know why. He needs something to put his hand on to say.

MR. CHRISTOPULOS: Well, of course I think that we just need maybe a letter that says this is covering the period from October 1 through July 1 of 1984 - a nine-months period - but the \$29,000 is needed because we expended funds for the consumptive use study, and we need that money to help get us back on track. That's part of what it is, I think, isn't it?

MR. LAWRENCE: We will be glad to do that if you think that would do it?

MR. CHRISTOPULOS: I'd like to try it. I presume that the Commission wants the full \$29,000 from each state. The other two states have already paid without any problems.

MR. LAWRENCE: Well, I think we need it in order to meet the goals of the studies.

MR. CHRISTOPULOS: Now maybe let's get back to page 17 on the minutes. The \$29,000 should be FY '85, then, in the minutes, because that's what we are talking about; and then would it be \$42,000 for the following two years? Is that the proper figure - \$42,000, Bert?

MR. PAGE: Yes - \$42,000 for next year.

MR. CHRISTOPULOS: Now we only budgeted \$39,000; that's all we got. Would that mean that we have to come up with another \$3,000 for each year? Did you budget \$42,000 for the following two years?

MR. LAWRENCE: We did.

MR. CHRISTOPULOS: Did you, Ken?

MR. DUNN: I don't remember. For '86?

MR. CHRISTOPULOS: For '85?

MR. LAWRENCE: You're saying that the \$29,000 is for the fiscal year we are in, and that's FY 85? Yes.

MR. CHRISTOPULOS: Yes.

MR. DUNN: That's for '86 and '87?

MR. CHRISTOPULOS: There is some discussion of that some place in these minutes.

MR. LAWRENCE: I admit that it's a lot shorter than the verbatim. I tried quite hard to get the points where we appeared to have reached a conclusion and put that in.

MR. JIBSON: George, I think on page 16 it should be \$29,000.

MR. LAWRENCE: This is in regards to \$29,000 for each state for the fiscal year ending September of 1984. And it might be that the motion was still talking about a fiscal year. That might be our problem - that might be the fiscal year that ended in September of 1984, September of '85, and September of '86, because we made the by-law change after that action. I might not have caught that.

MR. CHRISTOPULOS: Well, I think we might have been contemplating that. Now, see, on top of page 17 we are talking about the \$42,000 per year for the year that begins July 1, 1985.

MR. LAWRENCE: Yes. That's consistent with this page that we just have approved. And you say that you have only budgeted for \$39,000?

MR. CHRISTOPULOS: We only budgeted for \$39,000. Now, doesn't this change on how much longer they may get samples on the consumptive use study? How much are we paying Utah State for a year? \$18,000?

MR. JIBSON: \$36,120.

MR. CHRISTOPULOS: \$9,000 per quarter?

MR. TEICHERT: George, that's divided back to the State, though.

MR. CHRISTOPULOS: I realize that, but they are the pass-through. Do we have to have \$42,000. We went through quite a rigmarole trying to figure out what we needed to get some of our reserve built back up that we borrowed from. And I presume that this \$42,000 will do that.

MR. LAWRENCE: As I was remembering the verbatim minutes, we were moving a little bit and \$42,000 was \$1,000 more than the budget that we had been discussing, mostly through the verbatim. I guess that was to give us some assurity that we had enough. I think if Wyoming doesn't have it, and it's not in their legislative budget, maybe what we have to do is to determine if we can get by with \$9,000 less.

MR. CHRISTOPULOS: Is Bob Hill going to be here today?

MR. LAWRENCE: He's here.

MR. CHRISTOPULOS: The question as to how long the study goes on is going to determine how much more money we have for that purpose.

MR. JIBSON: George, do you agree with this on page 16? The \$29,000 carried through September 1985?

MR. CHRISTOPULOS: Yes. I'm willing, if its necessary, to try and get the \$42,000. We've got the \$39,000, and if we can't get it then we are going to have to look at it again.

CHAIRMAN WRIGHT: You're going to write the letter too?

MR. LAWRENCE: Yes, I will be sure to get something set up.

MR. CHRISTOPULOS: Well what it really amounts to is a letter that says that we were planning on that \$29,000, even though we had that overlap in order to get us back to where we were, because we borrowed the money to pay for this consumptive use study.

MR. LAWRENCE: And our problem is that we did overlap the fiscal years in our statement.

MR. CHRISTOPULOS: Yes, that's the problem.

MR. LAWRENCE: If we had just said for the period ending, not when it began, it would have been acceptable. Give me a crack at that.

MR. CHRISTOPULOS: Getting back to page 17, now I think that we need to correct that.

CHAIRMAN WRIGHT: How will that be corrected?

MR. LAWRENCE: Make that '85, '86 and '87.

MR. JIBSON: The top figure July 1, 1985 is correct. Wouldn't you agree? It's the figures in the second paragraph that should be moved up a year.

MR. CHRISTOPULOS: FY '84 should be '85.

MR. JIBSON: '85, '86 and '87. Okay, that's the corrections that I have.

CHAIRMAN WRIGHT: Now that will be a part of the Bylaws?

MR. CHRISTOPULOS: No. That's a part of the minutes.

CHAIRMAN WRIGHT: Yes, I'm sorry. I made a mistake.

MR. CHRISTOPULOS: Okay. Then Dan will re-bill us for the \$29,000 for FY '85 with an explanation as to why we are paying that overage.

MR. LAWRENCE: Then that corrects that much more of the minutes too.

CHAIRMAN WRIGHT: Right.

MR. LAWRENCE: Then we don't have to do that twice?

CHAIRMAN WRIGHT: That part is corrected.

MR. LAWRENCE: Then we only have the Bylaws, of the minutes? Okay.

CHAIRMAN WRIGHT: Any further discussion of the budgets?

MR. LAWRENCE: I move that we accept the report of the Treasurer.

MR. CHRISTOPULOS: Second.

CHAIRMAN WRIGHT: All those in favor? MOTION PASSED UNANIMOUSLY.

CHAIRMAN WRIGHT: If anyone here is attending the Bear River Commission meeting for the first time, would you please stand and identify yourself and tell us who you are. We all had to go through it.

MR. EPSON: I'm Mike Epsen, with the State of Wyoming Hydro Commission of Evanston.

MR. CHRISTOPULOS: I think I should say that Marv, who has been our Hydrologic Commissioner, retired: and Mike is his replacement. It's nice to have him here, and it's certainly nice to have Marvin back here with us today.

CHAIRMAN WRIGHT: We will now hear the report of the Engineer-Manager.

#### Report of Engineer-Manager

(Mr. Jibson presented the Report of the Engineer-Manager, a copy of which is attached as a part of the Minutes. The following comments were also made by Mr. Jibson - cross-referenced with the Report.)



Most of what I have here will not come as a surprise to you - as far as the 1984 water year is concerned. We have some rather interesting figures.

(1) That's about a little over 4/10 of a foot below what we call full.

MR. LAWRENCE: I got behind you a little bit. In your last sentence, under water supply, I'm not quite sure I understand what that means. That the volume of the Bear River raises the Great Salt Lake 3 feet?

MR. JIBSON: No. You know that you have evaporation and everything. So all I did was take a capacity table of Great Salt Lake above elevation 4205 - the next 3 feet to see how that compares to 3,817,000. It's not exact, but that volume of water is the capacity of Great Salt Lake in that next 3 feet above 4205. We've got the Woodruff Narrows hydrograph shown on page 5, which you will see we had a kind of an up-and-down situation during the summer, and at no time did it get below a total capacity of just under 45,000 acre-feet, and ended up the year just about up to spillway crest again.

(2) The next couple of sentences may tend to contradict that, but what I mean by that is that we did not actually regulate, we were in a state of water emergency for a short time.

These two initiating criteria for water emergency that we discussed here, is typical of your extremely wet years that the diversions are small compared to the total River flows, so our divertible flow drops below the initiating 870 cfs quite awhile before Border gets below 350 cfs, whereas in the average years they are just 2, 3, or 4 days apart.

(3) I'm not sure here, George, of the status of your computerized listing. I talked to John about it; and where the bulk of the applications that came back from Wyoming this time were cancelled, and just a half dozen or less of new ones, there is no big problem either way. You will notice that when I put these on the report each time, the typing and format in Utah is just a shade different than the others.

It's because Dee's office summarizes them the way I do for the other two states and sends a completed summary form, which I just pull out of his report and reproduce.

(4) I think as far as any action, if we dispense with the discussion on the Bylaws at this meeting there wouldn't be any action there. The contract with the Engineer-Manager - I didn't know that Dan would have a sample which he has handed out, which he did put on the calendar year.

MR. LAWRENCE: We could cut this to six months, if Wally thinks that would do it better.

CHAIRMAN WRIGHT: Why? What's the reason for that?

MR. JIBSON: Well, if we pass on this at the same time we do our annual budgets in April, annual meeting, then it's logical that the contract starts July 1st. The budget starts July 1st and the contract comes within the budget year. If we keep this on a calendar year basis, we've always got an overlap of six months. And there may have been a good reason for it, but I just didn't have that many notes on our meeting when we discussed it. So I think that it would be expeditious even though it involves just a little change now, to get this on a fiscal year basis.

CHAIRMAN WRIGHT: Well we've done it to everything else.

(End of Engineer-Manager Report)

MR. LAWRENCE: Are you suggesting, Wally, that we change Article VI, Paragraph 4 in the Bylaws to a different date?

MR. JIBSON: I was going to let sleeping dogs lie. It keeps cropping up. Connie brought this pink copy down; it disagrees with mine. Let me read Article VI, Paragraph 4, as I thought we had approved it. I have this written in from our meeting. "On or before May 1," - we changed that from December 1 - "of each even-numbered year, the Commission shall adopt and transmit to the appropriate water resource agencies of the three states" - we deleted Governors of the three states and the President of the United States - "the budget covering an estimate of expenses for the following biennium and the amount payable by each state under the provisions of the Bear River Compact." Now this is what I meant by my reference to May 1.

CHAIRMAN WRIGHT: We have December 1 here.

MR. JIBSON: Yes, we have December 1 here.

MR. LAWRENCE: In submitting the Report to the President - we don't ask him for any money.

MR. JIBSON: No. You were the one Dan, that thought that this should go through the appropriate water resources agency.

MR. ROBERTS: Then the budget is scheduled in 3 states?

MR. LAWRENCE: Sounds fine to me. Does that get to George soon enough? It's a biennial budget.

MR. CHRISTOPULOS: May 1 would probably fit us on the even-numbered years.

MR. LAWRENCE: This would be a biennial budget, George?

MR. CHRISTOPULOS: Yes, we had it May 1 of each even-numbered year. We had the same as you did on the pink sheet. That would work alright for us, but we wouldn't be looking at this again until '86.

MR. LAWRENCE: We would have to figure some interim means for notice.

MR. CHRISTOPULOS: I kind of like to forget about budgets. But let's see.

MR. LAWRENCE: If I could do it every two years, I would like that, too. It's twice as much work now.

MR. CHRISTOPULOS: Well, we will budget again in '86, but that's going to be too late - the '86 session.

MR. JIBSON: We are budgeted now through the '86 fiscal year.

MR. CHRISTOPULOS: Yes; but we have to prepare our '87-'88 budget in '86. We are already budgeted through July 1 of '86, right now. We will start preparing a budget in '86, on May 1. I think May 1 is okay.

MR. LAWRENCE: That's right after our April meeting.

MR. CHRISTOPULOS: We would have to be prepared for it in April, and I think that will do it.

CHAIRMAN WRIGHT: So, what are we going to do? Do we follow this to reflect all of this?

MR. LAWRENCE: Shall we let that committee pay attention to what we just said and alter that to fit? Maybe we can get our work done.

MR. JIBSON: I think we can, Dan. I think that we all are in agreement on this. It was maybe a lack of communication.

MR. CHRISTOPULOS: Are we going to try to go through, then eat lunch after we get through with the meeting, or what are the plans?

CHAIRMAN WRIGHT: Bob, how long is your report?

MR. HILL: As long as you want.

CHAIRMAN WRIGHT: Because we don't really have any committee reports, except the operations committee.

MR. JIBSON: Incidentally, Michael O'Grady was scheduled for a report, but he will not be here.

CHAIRMAN WRIGHT: So really it's just a contract, and Bob's report, George. That's all we have.

MR. CHRISTOPULOS: Well, what I was thinking, if we did that and broke for lunch, we could probably look at the Bylaws if we take a lunch-break.

CHAIRMAN WRIGHT: Right now?

MR. CHRISTOPULOS: Well whenever. And then we should still be able to get through by your departure time.

CHAIRMAN WRIGHT: Bob, how does that affect your schedule?

MR. HILL: No problem.

CHAIRMAN WRIGHT: If we took a quick break right now to give these gentlemen an opportunity to look at the Verbatim and the Bylaws and make their changes, then we could come back and discuss that and get into your report. Would that be okay?

Alright, let's take a break and we will come back in one hour. Come back here at 1:15 and regroup. I'm as confused as everybody else is, so -

LUNCH BREAK.

CHAIRMAN WRIGHT: Alright, if we could start once more, on the same subject that we started on, I think 3 hours ago. We are at a point of where we have the report on the committees. I think that we just formed a committee to review the verbatims.

MR. LAWRENCE: We appointed George as chairman; didn't we, Ken?

MR. CHRISTOPULOS: If you will turn to page 23 of your minutes, Item 4, which deals with the budgeting process. Strike the words 'December 1' in the first line; strike the word 'even'. In the second line strike 'Governors of the three states'; in the next line, 'and the President of the United States of America'. For 'December 1', substitute 'May 1', and for 'even' put in 'odd'.

CHAIRMAN WRIGHT: George, why don't you read it, as it should be.

MR. CHRISTOPULOS: Everybody ready now? Strike 'even', and then in the second line strike 'Governors of the three states'; third line, 'and the President of the United States of America'. Okay? Now substitute this language. In the first line substitute 'May' for 'December'; substitute 'odd' for 'even'; and then instead of the phrase starting with 'Governors', put "appropriate Water Resource agencies of the three states". Now that should read: "On or before May 1 of each odd-numbered year, the Commission shall adopt and transmit to the appropriate water resource agencies of the three states a budget covering an estimate of its expenses for the following biennium and the amount payable by each state under the provisions of the Bear River Compact."

MR. JIBSON: We did have an 'of' on the next to the last line. Strike 'of' and 'the amount payable'. Where it says 'and of the amount payable by each state', we have struck 'of', previously. This is a slight change from what we have agreed to in April, in that we have changed the word 'even' to 'odd', to take care of Wyoming.

MR. LAWRENCE: It was three-to-nothing on the Committee's vote.

MR. CHRISTOPULOS: The next change then to the minutes on the Bylaws was to strike all of Article VII, which deals with the Annual Report, and then change Article VIII, the next article, to Article VII. I'll move the adoption of the Bylaws as changed.

CHAIRMAN WRIGHT: As changed. Second?

MR. LAWRENCE: Second.

CHAIRMAN WRIGHT: All those in favor?

MOTION APPROVED.

CHAIRMAN WRIGHT: The Bylaws are approved as changed. Now we get to Wally's contract which has been rewritten to go from the end of this year to the end of next year; and Wally's report which was heard, to have it go from 6 months so that it would match the fiscal year of the Bear River Commission.

MR. LAWRENCE: Mr. Chairman, I made one copy of the proposed contract for each state, that's all; so you will have to share the copies that we have prepared. Its identical to the current one, except for the time; and now we are going to amend it.

CHAIRMAN WRIGHT: We are talking about amending it to match out fiscal year, so it would be for a six-month period through June 30, 1985; and then review it on an annual basis from that point on.

MR. DUNN: Mr. Chairman, under paragraph 5, the reimbursement for mileage shows 21¢ a mile, I don't have any problem paying 21¢, except if you exceed 20.5¢, then you have to submit a separate W4 form to the IRS and to the State. The Commission has to do that, and Wally will have to do that, because anything above 20.5¢ is considered excess reimbursement. It's income rather than expenses. I would recommend that you put that to 20.5¢.

MR. JIBSON: I would agree to that.

CHAIRMAN WRIGHT: Thank you. That's a good one. Is there any discussion on that? Is there any problem with making this interim revision which amounts to \$6,000 for a six month period and starting again the end of June to run for a full year, to June of '86 for \$12,000?

MR. JIBSON: Except we could approve that in the Annual meeting if you want. If you want to approve it for the 6 months, and then for a year, you could do it that way.

CHAIRMAN WRIGHT: Let's do it for the six months and then we will talk about the Annual report at the next meeting. Do we have a motion to approve the interim price structure for Wally for six months until the end of June 1985? And then we will discuss the annual fee at that point on? Is there a motion to that effect?

MR. WALLENTINE: Yes, I'll make the motion.

MR. LAWRENCE: Second.

CHAIRMAN WRIGHT: All those in favor? Opposed?

MOTION CARRIED.

CHAIRMAN WRIGHT: The Motion is carried. Do we have an Operations Committee?

MR. JIBSON: We have one but we haven't used it the past few years.

MR. CHRISTOPULOS: Mr. Chairman.

CHAIRMAN WRIGHT: Yes, George.

MR. CHRISTOPULOS: Before we move on, as I recall the Bylaws are going to be printed after they are modified.

MR. LAWRENCE: That was the purpose of this exercise - to get this thing cleared up; and it seems to me that we have done that now. We will move ahead if you would like, and the secretary will take the initiative of getting them printed and send the Commission the bill. Is that fine?

CHAIRMAN WRIGHT: Yes.

MR. HANSEN: Mr. Chairman, could I introduce someone that came in late? Mike Turnipseed, Engineer from the Logan office, has left the State of Utah and has gone to work for the State of Nevada. Whatever tempted him to go there, I've never figured out. Robert Fotheringham is filling in for him now and I would like to introduce him to you. Bob has been in the Logan office, so he is familiar with everything and he'll just carry on, we hope.

DR. STAUFFER: I just want clarification here. Before when we published the By-Laws, we also published the Compact. Is this what you are going to do this time, or are they going to be separate from the other? Previously we published the Compact and Bylaws in the same book. Do we want to do that?

MRS. BORROWMAN: I think that you agreed in the last Commission meeting that that's what we would do.

CHAIRMAN WRIGHT: That's right. If you want, both would be within the same book.

MR. LAWRENCE: Then I guess we will stay within the budget somehow when we do that.

MR. JIBSON: We were rather disappointed when we published the Amended Compact in this form here. As we get older and have a tougher time reading small print, I figure if I couldn't read it a lot of other people couldn't read it either. I hope when Dan does this, it's at least at a size that we could read pretty well.

CHAIRMAN WRIGHT: Well, if there are no further questions? Let's have an update of the 3-state study.

DR. HILL: This is an update on our study, so I'll start back and review a couple of things. One thing to review is where we have sites that we are collecting data in the Bear River system. We have identified with the triangle the sites where we have weather stations and our lysimeters and our neutron probes. We have lysimeters located at Montpelier which is just north of Bear Lake - these were installed in the spring of '83. We had a partial year last year and we got a whole season this particular year. North of Randolph, JF Ranch; and Hilliard Flat, Joe Barker's ranch. At Preston is a dry land site; no irrigated activity there. We have neutron access tubes in the dryland alfalfa. At Talmage, which is just slightly out of the surface boundaries of the Bear River Basin, we have access tubes in dry wheat and in irrigated alfalfa. At all sites we are getting essentially the same weather data, which is daily maximum-minimum temperature, total solar radiation for the day, wind travel for the day, and maximum-minimum relative humidity, along with rainfall daily, from which we can calculate crop water requirements by anyone.



I guess there are some 50-odd equations that if we wanted to use we could. Any questions or comments on the basic site study areas? Then let's go to the slides and show what happened this year.

(SLIDE PRESENTATION)

This is the CR-1 Data Logger Weather Station. And you can see there the Anemometer on the upper left, the solar radiation on the upper right, and the rain gauge in the middle; and the little white shelter where we have the temperature and humidity sensors. By way of review again, the lysimeters are just metal tanks - you can see the one in the background - they were installed by hand-digging the hole and replacing the topsoil with the sod like a piece of a jigsaw puzzle - then each shovel depth, or lift layer, in a different pile so that we can refill the lysimeter in reverse order to try to approximate the same soil condition. That's at the JF Ranch. This presentation begins at the JF Ranch.

That's what the lysimeter looked like immediately after we completed installation and added water to its surface.

That's that same lysimeter on the JF Ranch this spring. We made the mistake of putting fence posts at the corners of the lysimeter, and you can kind of see where the fence posts were. They fed their cattle in that same vicinity all winter long and those fence posts were a magnet to the cows. I think we had about 6 inches of hair we raked off the top of that lysimeter earlier this summer. We certainly have problems with the surroundings there.

Here is the lysimeter about 50 yards to the east, the line where they fed during the winter is right here; the trailers, their sleds, whatever it was they used, the remnants of the hay that they fed; and the cattle just tromped this to death walking.

We had an expert in range vegetation visit each lysimeter site in August and key out the species that were in the lysimeter compared to the species that were outside the lysimeters, at all three sites. Here is the dry land site north of Preston after the first cutting - you can see

some growth coming back. The orange flags indicate where the neutron probe access to the lysimeters is at Montpelier and Longtime Ranch. This looks a lot better than the surroundings. You can see the white cap of the access well, the lysimeter itself is back in that area. Here again, we don't have exactly the same kind of surroundings that we would out in the field because they have fed a little off the stack yard during the winter.

At Hilliard Flat, south of the Barker home, a good surrounding there, here we had sheep in the pasture and they were not fed close to these so we did not have a problem with it or the property around the fence.

And that same lysimeter, I think, is still at the Barker's. We harvested it by hand, to match the same time when they harvested it from the fields. It is the 11th of September, 1984. As you can see we are not without trouble. I used to think that the farmers were the only ones that had troubles, but this year we didn't put any fences by the Hilliard Flat lysimeters, hoping that we wouldn't attract the cattle this winter.

The question has come up as to what are we doing, or what should we do to make an adjustment for those wet water years that we have had? I've tried to put together some data to see if we can suggest what the effect might be. In the lysimeters we're hopefully without any leaks as we come from week to week. Then we either add water or take water out of the lysimeter, to try to maintain the water level in the lysimeter about the same as the water table outside the lysimeter. Hilliard Flat is that one picture with the water standing on the surface. At that particular lysimeter the water was almost at the surface all summer long until they pulled it off to dry it down for the cutting. So on some of these the water table was right at the surface. In others it may be a foot, or two feet deep, depending on conditions at that time. So we either add irrigation or we pump it out as we visit once a week to maintain that water. We also take a neutron probe reading at the center and measure the soil water content, above the water table.

As you look at the water budget on this little tank, we have evapotranspiration, ET, from the crop that's taking water out during the week, rain that may come during the week, and then when we visit we pump or add. Most of the time we are adding irrigation water. So that the budget calculation for a measured value of ET for a week-by-week basis is a plus-or-minus change in the soil water content. And the water table moves up a little bit or down, plus rain, plus irrigation, minus what we pumped out, if any. Quite often this is zero and the rain is zero, and then there is no change in the total water content. Then we add water by dumping water on the lysimeter. So we are accounting for rain. If there is more rain than normal, there's going to be less irrigation than normal. So directly were accounting for rain when we measure it. Then we calibrate our equations by calculating a correction factor, or a coefficient, in which we take the measured ET from our lysimeter and divide it by the calculated ET from the equation.

This is how we calibrate those particular equations and we use that calibration coefficient, multiplied back, times the calculated value to estimate the measured value. That's the whole purpose of taking the lysimeter measurement. The calibration factor then lets us adjust the encircle equation, or some other equation, to calculate crop water requirements. Any comments or questions on that little process?

The solid line denotes normal monthly precip at Woodruff, where we have long-term record. At Woodruff, about 12 miles south of the station, - we did a little correlation with our weather station down at the JF Ranch with temperature at Woodruff, and we found that there was about 63 degrees difference, a little cooler at the Ranch than we were at Woodruff. For long-term records all we have is Woodruff, and you can see in the summer of '83 we have had significantly higher precipitation during July, August, and September than the normal. In '84, and here again I had to go to the chronological records and I didn't have anything past July for this year, so you can see that in July of this year we were much above the normal again in terms of precip. Which means that our irrigation requirements would be reduced to have the same evapotranspiration.

There's the Woodruff average monthly temperatures, and notice that even though we had more rain we had higher temperatures in the late summer '83 than the normal. Again in '84 it looked like we were either about at the normal or a little higher than the normal in terms of temperatures. Last year we had a partial season. We calculated the calibration coefficient for the Blaney-Criddle equation for that partial season and then used those correction values to calculate what the consumptive use would be for the normal conditions, which is the solid line, and then again for the 1983 conditions. You see where we calculated a higher ET for 1983 than we would have done for a normal year. And it appears that we would do the same thing for 1984 depending on how the temperatures were during the latter part of 1984. That's at Woodruff.

At Montpelier (Chuck Brockway put this together and Gary Johnson helped.) here's the precipitation at Montpelier the long-term average. I don't know whether this is the normal or not. They did this in colors so it doesn't come out too good; '83 I believe is this one, and '84 was that one. In either way both '83 and '84 were above the normal in July, one of them was about the normal in August, and both of them were above the normal in September of those two years. When we apply the adjustment factor correction again, let's look at the temperature - both sets of temperatures were below the normal slightly in May and June and one was below in July. Both of them were at the normal or above in August and September of '83 and '84.

As we calculate crop water requirements in this case for pasture in Montpelier, we see that all those calculated are the same. So what I'm suggesting is that with the way we do our calculations, where we are measuring water use out of this tank, we take into account a month in which we may have twice or three times as high rainfall as what we would during the normal year, so we are adjusting for that instance the way we are doing our calculations. The irrigation requirements you can see would be much reduced for the same water use by the crop. Perhaps there was some concern about irrigation requirements which naturally would be reduced, but in our calculations crop water requirements accounted for rain that may be significantly above the normal.

If I remember correctly, we have talked in terms of a 5-year study period for this particular study, and I think you can see that one of the reasons we felt better with that 5-year study period is that we had part of a year in '82 and we didn't get the lysimeters out because it was too wet - because we couldn't get out in the fields. In '83 we got them out in June. It had been a wet spring, so we had a partial record in '83 - from essentially the end of June through out September. And then in '84 it has been our first full season of data, and we haven't had a chance yet to reduce that particular set of data to see how the lysimeters turned out. We of course would feel much more comfortable if we had a couple more full seasons of data before we come to a strong conclusion on that. Any questions on where we are?

CHAIRMAN WRIGHT: What does ET mean?

DR. HILL: Evapo-Transpiration - crop water heat. I used ET to make it shorter on the slide.

CHAIRMAN WRIGHT: Why was the data cut off in July, 1984?

DR. HILL: For the Woodruff site I had to go on the National Weather Service published data, which is typically about 5 months behind. So I had just got the July set a couple weeks ago and that's all I had; I didn't have August or September yet. If we had used our own data, which we had only had 3 years' worth, we could have that up there, but for the long-term I had to go back.

CHAIRMAN WRIGHT: I have one last dumb question. It is related to drought years. If you're adding water to it as if it were irrigation water, say there is no rain so therefore the irrigation water - there is always a comparable level of water on this lysimeter?

DR. HILL: We try to maintain the water table in the lysimeter at essentially the same level of any water table outside the lysimeter, so if there was a drought year and they cut back on their irrigation and the water table drops, then we would reflect that.

CHAIRMAN WRIGHT: Alright. I didn't understand that.

MR. CHRISTOPULOS: The question we had, last October I guess, was where do we go from here? You intend to continue, for how long? Another year?

DR. HILL: We had proposed originally a five-year time schedule, figuring that optimumly we could possibly get four years of good data out of the field and at worst we hoped for three good years of data. Up to this point of time we have a partial year from '83, and one year from '84; so next year we would be in our third year. So if we went two additional years - if we get a good year next year, and then depending on what happens the following year - perhaps a good year then -

MR. JIBSON: Bob, if there is no decision made until April, for the next fiscal year, does this interfere any with your overlap or your plans? What I'm getting at, do you need a decision today?

DR. HILL: No. Each year the decision has been made in April and I appreciate the budgeting process. But I think that you understand that none of us as professionals, Chuck Brockway, Bob River, and myself, get any salary from this study; so our job is not on the line, as you all know. All that the budget goes to is funding graduate students to do field work as well as the data analysis, and publishing the reports.

MR. JIBSON: Now that we have changed the Bylaws to odd-numbered years we will be taking the budget up again next April, for the following biennium.

DR. HILL: Well, I don't have any problem with that. You appreciate that in the places where we are doing our studies the snow is not gone really until about the end of April. The past year the alfalfa didn't start to use water until the end of May.

CHAIRMAN WRIGHT: It's too early to draw any conclusions at this point?

DR. Hill: We can draw conclusions. We drew conclusions from the last year's data and that is what I used in the comparison between normal in '83 and '84. We can draw conclusions after this particular year. It depends on how firm you want the results to be. I don't know, if we were ever challenged on this that if we were called into court and somebody challenged us on this year-and-a-half worth of data, how valid it would hold up in court.

CHAIRMAN WRIGHT: But, for the purpose of next April's meeting, could you draw some conclusions, just for this body, of what you think?

DR. HILL: Reports are due on three dates - December 31, which we will draw as many conclusions as we can from the analysis as we have from the next project; and then in April we present a brief report detailing what final work would be for next summer, so we can have at that point - the time more or less tentative - more firm conclusions.

CHAIRMAN WRIGHT: Any other questions?

MR. CHRISTOPULOS: I don't know, I would like to get some feeling from the rest of the Commission about whether we should commit to at least another year at this point. I think that is the direction that we are going. I would just as soon say so, if that's the case, instead of having it hanging until next April.

CHAIRMAN WRIGHT: I agree with you. It's not my place to have an opinion but I think that once you have committed to do something you ought to see it through so that it is done properly.

MR. CHRISTOPULOS: I would be inclined to at least go for one more year and then see where we are next year. Then get a report where you are in April. That would be my thought on it.

CHAIRMAN WRIGHT: What about others? Would the Commission be in favor of one more year at this point and see about getting a report in April?

MR. FRANCIS: I think that when we discussed it last fall, that was the indication, was to complete this year and one more anyway because that would be four years of that.

MR. DUNN: I don't think that George is right. We would increase your fee based on the \$3,000 you may not have.

MR. CHRISTOPULOS: Well that's alright; you go ahead and do that. .

(Laughter)

CHAIRMAN WRIGHT: Is there any new business, or other matters? Bob, thank you very much. Are there any other matters that we would like to bring up at this point?

MR. DAYTON: If it's not out of order, I would like to see this body go on record in extending our thanks and appreciation to Dan Lawrence for the great service that he has rendered this body.

CHAIRMAN WRIGHT: I think that is very important - that we pay special tribute to Dan and all that he has done for this Commission, and the hard work that he has put in; for his good guidance, and all the words that you can think of. Let us express our appreciation. That's a very good point.

MR. MYERS: He has moved steadfastly forward since I have known him.

CHAIRMAN WRIGHT: Thank you. If there are no other matters, then is there a motion for adjournment? I'm sorry about the little chaos that occurred earlier.

MR. CHRISTOPULOS: I'll move.

CHAIRMAN WRIGHT: It has been moved. Second?

MR. HOLMGREN: Second.

CHAIRMAN WRIGHT: All those in favor?

MOTION CARRIED

Meeting adjourned at 2:00 p.m.



BEAR RIVER COMMISSION

STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF OCTOBER 1, 1983 TO JUNE 30, 1984

<u>Income</u>	<u>Cash On hand</u>	<u>Interest Income</u>	<u>From States</u>	<u>Total Revenue</u>
Cash Balance 10/1/83	\$ 79,502.18	\$-----	\$-----	\$ 79,502.18
State of Wyoming	-----	-----	29,000.00	29,000.00
State of Idaho	-----	-----	29,000.00	29,000.00
State of Utah	-----	-----	-----*	-----
Interest on Savings and other income	-----	7,506.04	-----	7,506.04
<hr/>				
TOTAL INCOME TO June 30, 1984	\$ 79,502.18	\$ 7,506.04	\$ 58,000.00	\$145,008.22

\*Utah's prepaid \$29,000 is included in beginning cash balance

DEDUCT OPERATION EXPENSE

EXPENDED THROUGH U.S.G.S

	<u>APPROVED BUDGET</u>	<u>UNEXPENDED BALANCE</u>	<u>TOTAL EXPENDITURES</u>
Stream Gaging	\$ 59,840.00	\$ 59,840.00	\$ .00
SUBTOTAL	\$ 59,840.00	\$ 59,840.00	\$ .00

EXPENDED THROUGH COMMISSION

Personal Services	8,600.00	6,985.64	1,614.36
Travel	400.00	400.00	.00
Office Expenses and Supplies	200.00	17.79	182.21
Treasurer Bond and Audit	500.00	30.00CR	530.00
Printing and Reproduction	100.00	100.00	.00
Legal Consultant	500.00	500.00	.00
Contract-Universities	\$ 36,120.00	\$ 9,030.00	\$ 27,090.00
SUBTOTAL	\$ 46,420.00	\$ 17,003.43	\$ 29,416.57

TOTAL	\$106,260.00	\$ 76,843.43	\$ 29,416.57
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UNEXPENDED CASH BALANCE AS OF 06-30-84			<u>\$115,591.65</u>
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BEAR RIVER COMMISSION  
DETAILS OF EXPENDITURES  
FOR PERIOD ENDING JUNE 30, 1984

366	Wally Jibson	\$ 514.92
367	Postmaster	20.00
368	Utah State Treasurer	59,000.00
---	1st Security Bank (checks)	93.43
101	Utah State University	18,060.00
102	Gilchrist & Co.	480.00
103	Hiller Industries	58.00
104	Fenton-Beason Insurance Agency	50.00
105	Wallace N. Jibson	1,099.44
106	Utah State University	9,030.00
107	VOID	---
---	Bank Charge	10.78
		<u>\$ 88,416.57</u>
	Less Savings	<u>59,000.00</u>
	Total Expense	\$ 29,416.57

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BANK RECONCILIATION

June 30, 1984

Cash in Bank per Statement 07-01-84	\$ 4,345.00
Less: Outstanding Checks	<u>-0-</u>
Total Cash in Bank	\$ 4,345.00
Plus: Savings Accounts - Utah State Treasurer	<u>111,246.65</u>
TOTAL CASH IN SAVINGS AND IN CHECKING ACCOUNT	<u>\$115,591.65</u>

BEAR RIVER COMMISSION

STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF JULY 1, 1984 TO OCTOBER, 31, 1984

<u>Income</u>	<u>Cash On hand</u>	<u>Interest Income</u>	<u>From States</u>	<u>Total Revenue</u>
Cash Balance 07/01/84	\$115,591.65	\$-----	\$-----	\$115,591.65
State of Wyoming	-----	-----	-----	-----
State of Idaho	-----	-----	29,000.00	29,000.00
State of Utah	-----	-----	29,000.00	29,000.00
Interest on Savings and other income	-----	4,152.94	-----	4,152.94
<hr/>				
TOTAL INCOME TO October 31, 1984	\$115,591.65	\$ 4,152.94	\$ 58,000.00	\$177,744.59

DEDUCT OPERATION EXPENSE

EXPENDED THROUGH U.S.G.S

	<u>APPROVED BUDGET</u>	<u>UNEXPENDED BALANCE</u>	<u>TOTAL EXPENDITURES</u>
Stream Gaging	\$ 62,240.00	\$ 2,400.00	\$ 59,840.00
SUBTOTAL	\$ 62,240.00	\$ 2,400.00	\$ 59,840.00

EXPENDED THROUGH COMMISSION

Personal Services	8,600.00	7,276.07	1,323.93
Travel	400.00	400.00	.00
Office Expenses and Supplies	200.00	200.00	.00
Treasurer Bond and Audit	500.00	500.00	.00
Printing and Reproduction	2,300.00	2,300.00	.00
Legal Consultant	500.00	442.00	58.00
Contract-Universities	\$ 36,120.00	\$ 27,090.00	\$ 9,030.00
SUBTOTAL	\$ 48,620.00	\$ 38,208.07	\$ 10,411.93

TOTAL	\$110,860.00	\$ 40,608.07	\$ 70,251.93
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UNEXPENDED CASH BALANCE AS OF 10-31-84			<u>\$107,492.66</u>
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BEAR RIVER COMMISSION  
DETAILS OF EXPENDITURES  
FOR PERIOD ENDING OCTOBER 31, 1984

108	Utah State University	\$ 9,030.00
109	Wally Jibson	1,323.93
110	US Geological Survey	59,840.00
111	Van Cott, Bagley	58.00
		<hr/>
	Total Expense	\$ 70,251.93

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BANK RECONCILIATION

October 31, 1984

Cash in Bank per Statement 11-01-84	\$ 33,093.07
Less: Outstanding Checks	<hr/> -0-
Total Cash in Bank	\$ 33,093.07
Plus: Savings Accounts - Utah State Treasurer	<hr/> 74,399.59
TOTAL CASH IN SAVINGS AND IN CHECKING ACCOUNT	<u>\$107,492.66</u>

# BEAR RIVER COMMISSION

880 River Heights Blvd.

LOGAN, UTAH 84321

November 26, 1984

## Engineer-Manager Report

Wallace N. Jibson

### 1984 Water Supply and Compact Operation

#### Water Supply

April-July runoff from the Upper Bear River Watershed was gaged at 162,200 acre-feet or 99 percent of the 164,000 acre-feet forecast on April 1. Measured runoff in 1983 also was 164,000 acre-feet. Further agreement with forecasts ends abruptly as we move down the river and find Smith's Fork in the 170,000 acre-foot range, more than 140 percent of average, compared to 114,000 (96%) forecast. Though part of the summer record is not yet available, Smiths Fork runoff will be near that measured in 1982 and 1983.

Runoff at the Harer gage, above the point of diversion to Bear Lake, was the highest of record (1914-1984) for the water year and was gaged at nearly 683,000 acre-feet for the April-September period which is 220 percent of the 1961-1980 average now used for comparison in the forecasts. Flow at Harer was forecast at 434,000 acre-feet or 140 percent of average.

Bear Lake was drawn down as rapidly as conditions would permit during the water year, yet lost only 38,600 acre-feet from October 1 to September 30. Logan River, typical of lower-basin tributaries, produced 183 percent runoff, so it was not surprising that a record-breaking 3,817,000 acre-feet passed the Corinne gage to freshen up Great Salt Lake. Extending this record back by correlation with the long-term Collinston gage shows that annual flow in 1984 was almost 150 percent of the next highest year (1907) in 95 years of record. Interesting also is that this volume from Bear River when moved to Great Salt Lake equals a change in elevation of nearly three feet above elevation 4,205 feet.

#### Reservoirs

Hydrographs for Bear Lake for 1983 and 1984 are shown on page 4. Content and pattern of operation are almost identical for the two years with releases during the winter to get capacity for spring runoff, then high spring gain followed by low summer demand. In neither year was the Lake capacity adequate to accept late spring runoff. ① Maximum content in 1984 was 1,398,000 acre-feet at elevation 5,923.32 feet.

Other reservoirs, filled to capacity, were utilized to some degree during the summer. Woodruff Narrows at the end of the water year was about full and is now spilling (see page 5). Woodruff Creek Reservoir was about half full

at the end of the season. Sulphur Creek Reservoir had a carryover of 4,400 acre-feet, about 62 percent of its capacity, and Whitney Reservoir had 3,100 acre-feet, about 65 percent of its capacity. Porcupine and Hyrum Reservoirs in the lower basin also had large carryover storage, particularly Hyrum.

### Compact Operation

As would be expected, interstate regulation was not required during the 1984 season. Divertible Flow in the Central Division fell below 870 cfs in August, and the flow passing Border gage decreased to 350 cfs in late September. ② Total Wyoming diversion in August and September was far below respective compact allocation during these periods of "water emergency."

### Budget and Fiscal

Article III-D-2 of the Amended Compact requires that we include in the Biennial Report a report of expenditures in the current biennium and an estimate for the following biennium. The report due next July 1 will include expenditures for 1983 and 1984 fiscal years and a biennial estimate for 1985 and 1986 fiscal years. Budget estimates and state assessments through the 1986 fiscal year were approved in the last Annual Meeting and should need no further action today, even though the fiscal year is changed.

The bylaws, as amended (Article VI.4) requires that on or before May 1 of each even numbered year, a budget estimate for the following biennium and the amount payable by each State will be transmitted to the respective Water Resource Agencies. Again, this estimate for the 1985-1986 biennium along with state assessments was approved in the April Meeting.

Informal discussion with Bert Page and with Ted Arnow, USGS, indicates that no problem is foreseen if we continue with one annual Joint Funding Agreement between the Commission and the USGS. The agreement would be for the federal fiscal year, October 1 to September 30 each year, with payment made to the USGS on or before October 1. Matching funds in the agreement are based on the estimated cost per gaging station year which is now determined and approved for the 1985 fiscal year (estimated for 1986).

### Stream-Gaging Program ③

The 32 gaging stations in operation in the 1984 water year were included in the approved budget for 1985. Gaging stations funded through the Joint Funding Agreement between the USGS and Bear River Commission, should be reviewed periodically for suggested additions and/or deletions from the streamflow program. This review logically should be in the Annual Meeting each year when budgets are considered.

### Contract with Engineer-Manager

The current contract, approved October 3, 1983, is for 15 months from October 1, 1983 to December 31, 1984. Thereafter, the contract would be renewable each year in November and would be on a calendar-year basis. The contract year was discussed in the unofficial meeting held September 12, 1983, for which my notes are sketchy, but I don't recall a particular reason for the calendar-year contract.

The Annual Meeting in April would seem to be more appropriate for approval of annual contracts that would be effective July 1 each year. The contract amount would be included in the fiscal-year budget. Of course, this would leave an interim period from January 1, 1985 to June 30, 1985. I am suggesting that unless there is good reason for the change to calendar year, that the present contract be extended to June 30, 1985 and a fiscal-year contract be approved in each Annual Meeting beginning in 1985. ④

An "easy" year of compact operation because of high water supply and some unavoidable delay in work on the 1983-1984 Biennial Report will result in underspending the present 15-month contract (\$12,000) by as much as 40 percent. The Biennial Report is due by July 1, 1985 which means a heavy work load in the January-June period, so I would suggest that if an interim contract is approved it should be for about \$6,000.

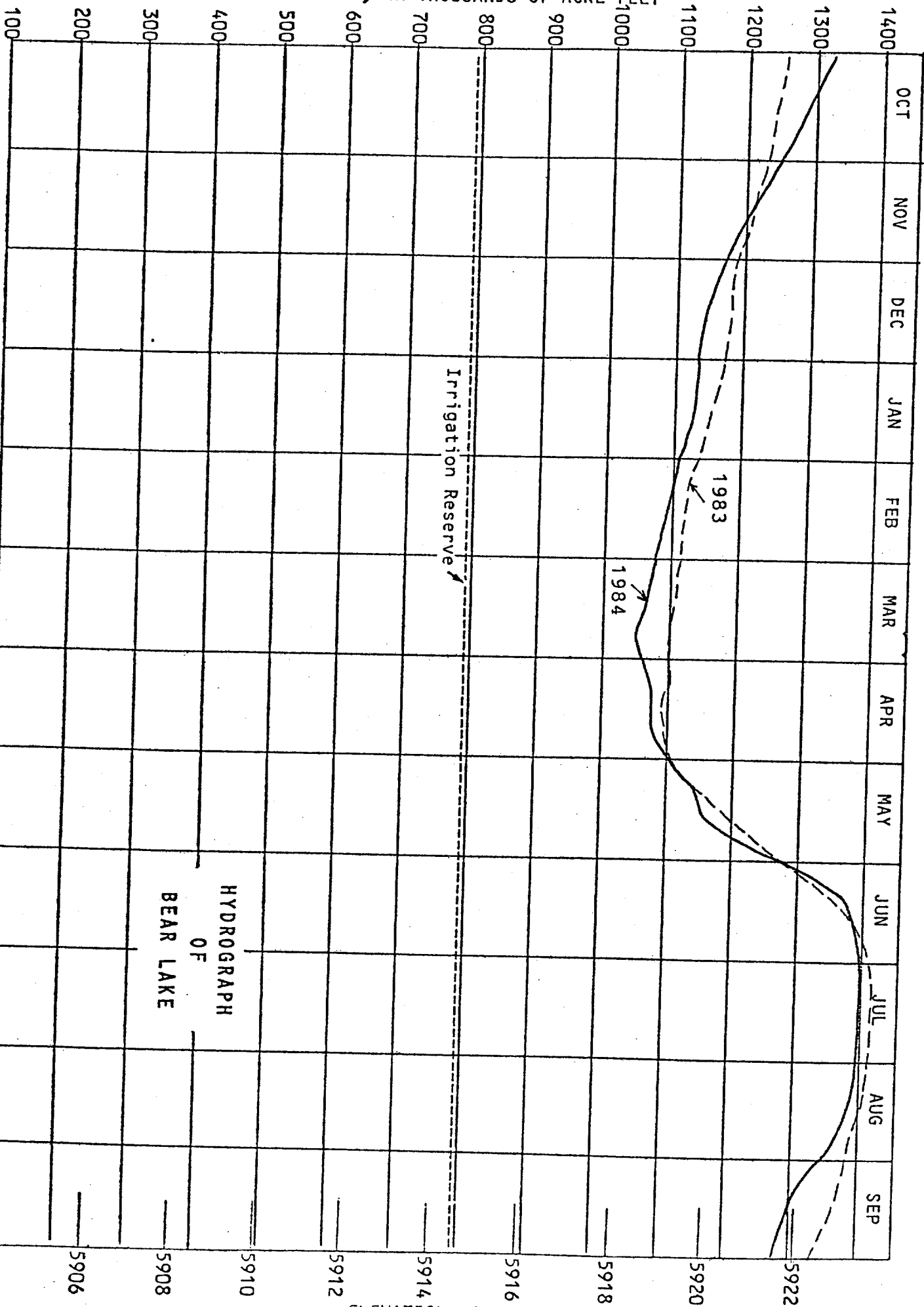
### Applications for Appropriation

Current summaries of applications to appropriate water are shown on the last three pages of this report. Noteworthy, is a pending application in the lower Bear and Weber Rivers to appropriate 2,500 cfs for irrigation and municipal use (Page 8). Several hydropower rights are noted in Idaho, and Wyoming summaries consist primarily of temporary industrial rights, previously approved, now evidently discontinued in use and cancelled.

The long-used State Engineer form (Form 74 in Utah) for summarizing pertinent information from applications to submit to the Commission was discontinued a few years ago by Idaho in favor of computer printouts showing essentially the same information. A few months ago, Utah also suggested that we modernize our reporting procedure, and I spent some time in the Logan area office where a terminal is available. No particular problem was evident in getting the information to us with less work, so I am suggesting that it be used in all states where feasible. We have appreciated Utah completing the summary in a format that can be presented directly to the Commission.

Idaho includes changes to abstract of rights for all filings made prior to the six-month reporting period in addition to filings in the reporting period. Wyoming applications in recent years for the most part are industrial filings related to the oil industry, and most of these are approved on a temporary basis for a given period of time. As mentioned above, most summary sheets now being received are cancellation of these temporary permits.

CONTENTS, IN THOUSANDS OF ACRE-FEET

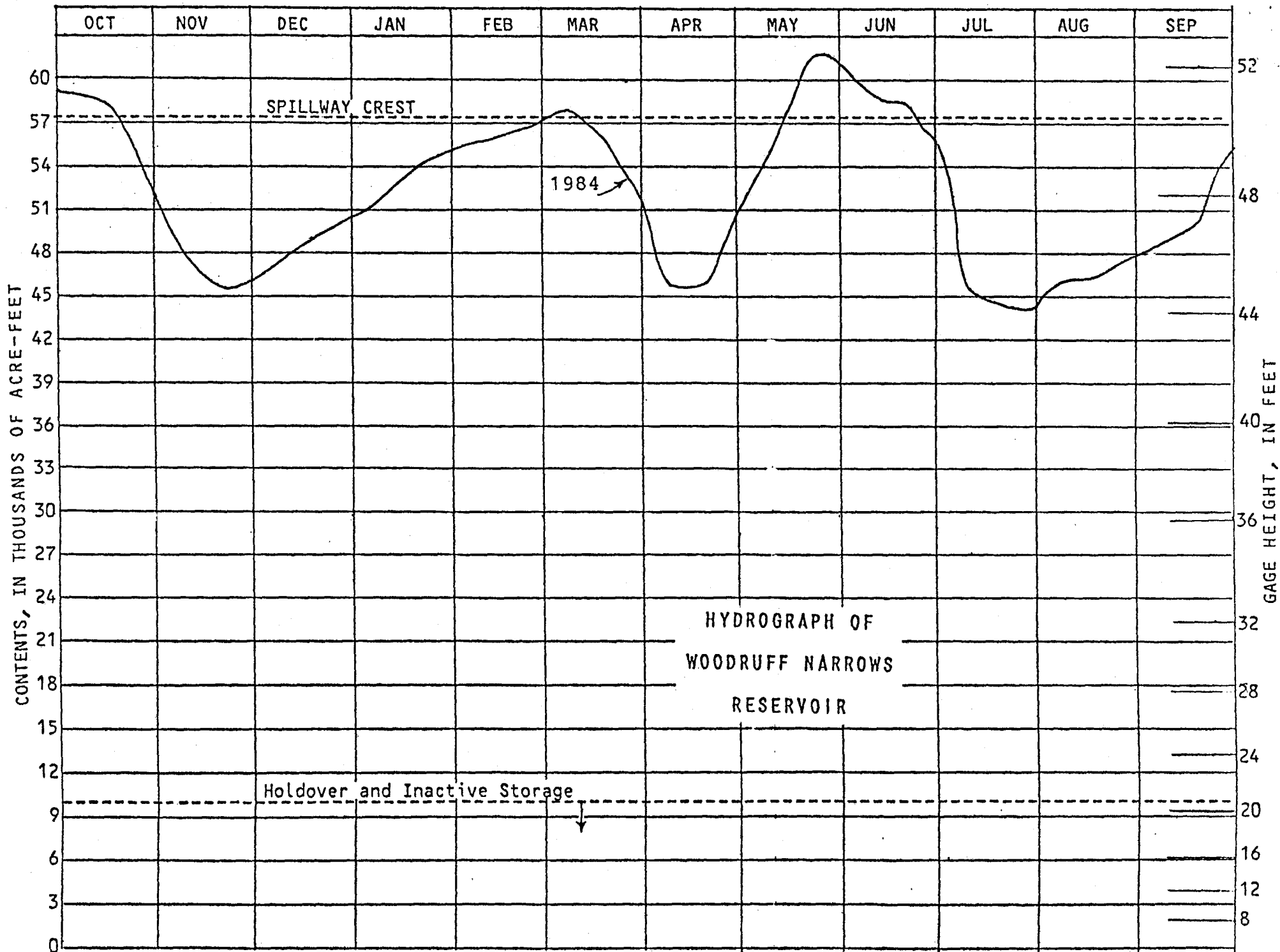


HYDROGRAPH  
OF  
BEAR LAKE

Irrigation Reserve

ELEVATION, IN FEET





Applic. Number	Date of PRIORITY	Name	Source	Use	Location	Amount (cfs)	Act'n
			STATE OF IDAHO (Page 1 of 1)				
11-7340	6/30/83	UTAH PROCESS AGENCY	SPRINGS	IRRIG DOM	S36T9SR41E	0.20	PEND
11-7341	6/30/83	UTAH PROCESS AGENCY	SPRINGS	IRRIG DOM	S26T9SR41E	0.27	APP.
11-7342	6/30/83	CONNIE SHIPP TRUST	SPRINGS	IRRIG DOM	S30T9SR41E	0.24	APP.
11-7343	6/30/83	CONNIE SHIPP TRUST	SPRINGS	IRRIG DOM	S31T9SR42E	0.28	APP.
11-7344	6/30/83	UTAH PROCESS AGENCY	GROUND WATER	IRRIG	S25T9SR41E	2.80	APP.
11-7346	3/15/84	UTAH PROCESS AGENCY	GROUND WATER	IRRIG	S25T9SR41E	1.24	APP.
13-7412	4/9/84	RILEY L. MICHELSON	SPRING	POWER	S24T11SR40E	20.00	APP.
13-7413	4/6/84	KARL G. ALDER	SPRING	IRRIG	S26T15SR39E	0.10	PEND
13-7414	4/12/84	VERL J. AUGER	SPRING	DOMESTIC	S02T15SR40E	0.04	APP.
13-7415	5/3/84	TWIN LAKES CANAL CO.	MINK CREEK	POWER	S27T13SR41E	40.00	PEND
13-7416	5/18/84	ROBERT N. FACKRELL	MINK CREEK	POWER	S13T13SR41E	125.00	PEND
13-7417	6/14/84	WILLIAMS C HYDRO CO	WILLIAMS CREEK	POWER	S19T12SR41E	30.00	PEND
13-7418	7/23/84	ALBERT N. FACKRELL	CLIFTON CREEK	POWER	S06T15SR38E	8.00	PEND
13-7419	7/23/84	ROBERT N. FACKRELL	CUB RIVER	POWER	S11T15SR41E	50.00	PEND
13-7420	7/27/84	JAMES S. READ	GROUND WATER	HEATING	S31T14SR40E	0.07	PEND
13-7422	8/30/84	N. ROSS SMITH	SPRING	RECREATION	S19T12SR41E	0.60	PEND
13-7423	9/5/84	ACE BECKSTEAD	GROUND WATER	IRRIG	S27T15SR39E	0.06	PEND
13-7424	9/17/84	CHARLES V. WESTERBERG	SPRING	DOMESTIC	S22T14SR40E	0.04	PEND
13-7425	9/21/84	LARRY D. MATTHEWS	ANDERSON SPRING	IRRIG	S5T14SR38E	0.60	PEND

TOTAL SURFACE WATER, IDAHO...APP. 20.83 cfs (INCL. 20.0 cfs POWER)...PEND. 254.54 cfs (INCL. 253.00 cfs POWER).  
 TOTAL GROUND WATER, IDAHO ...APPROVED, 4.04 cfs .....PENDING, 0.13 cfs.

CHANGE IN STATUS, PAST SIX MONTHS, OF PREVIOUSLY REPORTED APPLICATIONS.

PENDING OR APPROVED TO LICENSED: 7.67 cfs GROUND WATER, 1.21 cfs SURFACE WATER, AND 4,464 ac-ft STORAGE.  
 PEND. OR APP. TO CANCELLED, VOIDED, LAPSED, ETC: 34.51 cfs SURFACE WATER (INCL 33.0 cfs NON-CONS-USE) & 5.70 cfs  
 PENDING TO APPROVED: 8.86 cfs SURFACE WATER, INCLUDING 7.0 cfs NON CONSUMPTIVE USE.

APPLICATIONS TO APPROPRIATE WATER  
BEAR RIVER DRAINAGE  
STATE OF UTAH

Presented to Commission: November 26, 1984

AREA CODE	DATE OF FILING	NAME	SOURCE	USE	LOCATION	AMOUNT (CFS)	ACTION
			STATE OF UTAH	(PAGE 1 OF 2)			
23-3671	06/20/84	Vista Grande Home Owners	UGW	D/Irri	Sec17T13NR6E RI	0.2	Appr
25-8561	04/09/84	WRIGHT, Stephen	Unnamed Spr	D/S/Fish	Sec01T10NR01W CA	0.5	Appr
25-8569	04/23/84	Fisher Land & Livestock	Unnamed Spr	D/I/Fish	Sec15T14NR01W CA	0.1	Appr
25-8570	05/04/84	L.W. Miller Transp.	UGW	D/Ind/Truck	Sec32T12NR13E CA	0.1	Appr
25-8571	05/04/84	Great Western Power & Light	Clarkston CK	Power	Sec05T13NR01W CA	75.0	Pend
25-8574	05/11/84	ELDER, Dallas J.	UGW	I/Space Heat	Sec28T12NR01E CA	2.0	Pend
25-8581	06/04/84	First Sec. Bank of UT	UGW	D/S/Irri	Sec21T11NR01W CA	0.3	Pend
25-8582	06/05/84	MITTON, W. Kay	Unnamed Spr	D/S/Irri	Sec22,23T10NR01W CA	1.0	Appr
25-8583	06/08/84	SKABELUND, J. Howard	UGW-Drain	Irri	Sec32T12NR01E CA	0.5	Appr
25-8584	06/15/84	Nixon & Nixon, Inc.	UGW	D/S/Irri	Sec22T13NR01E CA	1.0	Pend
25-8586	06/20/84	BLACK, Merrill	UGW	D/S/I/Fish	Sec13T14NR01E CA	0.222	Pend
25-8590	07/19/84	JEPPESEN, Donald J.	Dry Lake	Irri	Sec28,33T10NR01W CA	2.0	Pend
25-8594	07/23/84	MITTON, Dee W.	UGW (2)	D/S/Irri	Sec13T10NR01W CA	0.1	Appr
25-8595	07/25/84	USU/C/o Stevenson	UGW	D/Fish	Sec35T12NR01E CA	0.5	Pend
25-8597	08/02/84	HOGGAN, Kent A.	UGW	D/Irri	Sec13T11NR01E CA	0.1	Pend
25-8598	08/03/84	NIELSEN, Blair R.	UGW	D/S/Irri	Sec26T10NR01E CA	0.1	Pend
25-8626	08/14/84	Lockhart Company	UGW	D/S/Irri	Sec26T10NR01E CA	0.1	Pend
25-8636	09/17/84	BLIESNER, Ronald(trustee)	UGW	S/Irri	Sec28T11NR01E CA	0.1	Pend
25-8642	09/28/84	Smithfield City Corp	Seven Spr	Power	Sec09T13NR02E CA	8.0	Pend
29-2996	04/16/84	BOUVIER, Eric Gabriel	Spr&Seeps	D/S/I/Power	Sec34T13NR02W BE	0.5	Pend
29-2998	05/09/84	ANDERSON, Daryl K.	UGW	D/S/Irri	Sec05T11NR03W BE	3.0	Appr
29-2999	05/10/84	MARSH, William D.	Unname Str	S/Irri	Sec01,10T14NR04W BE	3.0	Pend
29-3000	05/22/84	Belmont Springs	Unnamed Spr	I/Fish	Sec23T13NR03W BE	0.5	Appr
29-3002	05/31/84	RICHARDS, Myron M.	Unnamed Drn	Irri	Sec12T12NR03W BE	1.0	Pend
29-3003	06/11/84	DAVIS, Tom A.	Unnamed Drn	S/Irri	Sec04T10NR02W BE	1.0	Pend
29-3004	06/11/84	DAVIS, Tom A.	Unnamed Drn	S/Irri	Sec33T10NR02W BE	0.5	Pend
29-3007	07/09/84	Flying I Ranch	Unnamed Seep	D/S/Irri	Sec10T14NR04W BE	5.0	Pend

APPLICATIONS TO APPROPRIATE WATER  
BEAR RIVER DRAINAGE

Presented to Commission: NOVEMBER 26, 1984

AREA CODE	DATE OF FILING	NAME	SOURCE	USE	LOCATION	AMOUNT (CFS)	ACTION
			STATE OF UTAH (Page 2 of 2)				
29-3008	07/15/84	GARDNER, Lamont D.	Garland Spr	Irri	Sec04T11NR02W BE	0.1	Pend
29-3018	09/12/84	Honeyville City	UGW	Muni	Sec05T10NR02W BE	3.0	Pend
29-3019	09/12/84	HIGLEY, Ben Lawrence	Unnamed Spr	D/S/Irri	Sec26T10Nr02W BE	0.1	Pend
29-3020	09/20/84	HARDY, J. Dee	UGW-Drain	S/Irri	Sec33T10NR02W BE	0.5	Pend
29-3022	09/24/84	ORME, Robert	Unnamed Drn	S/Irri	Sec04T10NR02W BE	0.4	Pend
29-3023	09/28/84	GRADNER, Randell L.	Spring Area	S/Irri	Sec04T11NR02W BE	0.1	Pend
29-3024	09/27/84	Nielsen Int. Energy	Bear & Weber Rivers	Irri/Muni	Sec27T06NR03W BE	2500.0	Pend
				<u>APPROVED</u>	<u>PENDING</u>		
TOTAL SURFACE WATER FOR CONSUMPTIVE USE, UTAH .....				2.10 cfs	2,513.70 cfs		
TOTAL SURFACE WATER FOR HYDROPOWER, UTAH .....				00	83.0 cfs		
TOTAL GROUND WATER FOR CONSUMPTIVE USE, UTAH.....				3.90 cfs	7.92 cfs		

			STATE OF WYOMING (1 of 1)						
*	25 1/172	06/08/84	BEAR RIVER CONTRACTORS	Bear River	Industrial	S1T14R120	Uinta	0.89	App.
*	25 5/191	07/16/84	SAMUEL GARY & ASSOC.	So. Fk Twin C	Industrial	S23T21R121	Lincoln	0.45	App.
	UW 17/4/403	4/19/84	NGPL-CANYON COMPRESSION	Ground Water	Industrial	S16T17R119	Uinta	0.03	App.
*	UW 17/8/395	4/12/84	ANSCHUTZ	Ground Water	Industrial	S26T13R121	Uinta	0.56	App.

\* TEMPORARY PERMIT

TOTAL SURFACE WATER, WYOMING .....APPROVED 1.34 cfs

TOTAL GROUND WATER, WYOMING .....APPROVED 0.59 cfs

SUMMARIES ALSO SUBMITTED FOR 0.66 cfs (GW) PREVIOUSLY SUBMITTED AS 'PENDING', NOW 'APPROVED'.

SUMMARIES ALSO SUBMITTED FOR 4.22 cfs (SW) & 5.32 cfs (GW) PREVIOUSLY REPORTED AS TEMPORARY, NOW CANCELLED.

11/1/83 THROUGH 10/31/84: 2.77 cfs (SW) ADJUDICATED.