

MINUTES OF THE
BEAR RIVER COMMISSION
ANNUAL MEETING

April 28, 1980

Room 303
State Capitol Building
Salt Lake City, Utah

Bear River Commission

April 28, 1980

THOSE PRESENT:

UNITED STATES

Wallace N. Jibson, Chairman and Federal Representative

IDAHO COMMISSIONERS

J. Daniel Roberts, Preston
Clifford J. Skinner, Dingle
Don W. Gilbert, Grace
C. Stephen Allred, Ex-Officio Member, Boise

UTAH COMMISSIONERS

Daniel F. Lawrence (Secretary-Treasurer) Bountiful
Simeon Weston, Randolph
Paul Holmgren, Bear River City

WYOMING COMMISSIONERS

George Christopoulos, State Engineer, Cheyenne
John A. Teichert (Alternate Commissioner) Cokeville
Clem Lord (Proxy for J.W. Myers) Cheyenne

LEGAL ADVISER

E. J. Skeen, Salt Lake City

Alternates and Others in Attendance

Blair R. Francis (Alternate Commissioner) Randolph, Ut.
Dee C. Hansen, State Engineer, Salt Lake City, Ut.
Norman Stauffer, Div. of Water Res., Salt Lake City, Ut.
R. Michael Turnipseed, Div. of Water Rights, Logan, Ut.
Bert Page, Div. of Water Res., Salt Lake City, Ut.
Walter Scott, Hydrographer-Commissioner, UT-Wy, Logan

Roland G. Robison, Solicitor's Office, Dept Int. Salt Lake
Ted Arnow, District Chief, U.S. Geol. Survey, Salt Lake City

Marvin Bollschweiler, Water Commissioner, Evanston, WY.

Ralph Mellin, Idaho Div. of Water Res., Boise, Id.

Keith L. Putnam, Woodruff, Ut.
Raymond L. Peterson, Wyo. Woodruff Narrows Res. Co.
James R. Kunkel, Woodward-Clyde Consult. Denver, Co.
James M. West, Chevron Oil Co., Denver, Co.
John S. Kirkham, Atty, Chevron Oil Co. Salt Lake City
Dick Painter, Chevron Oil Co., Denver, Co.

Roger Pusey, Deseret News Reporter, Salt Lake City, Ut.
Connie Borrowman, Secretary to the Commission, Salt Lake

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10:55 a.m.

CALL TO ORDER

CHAIRMAN JIBSON: I think we'll start with introductions. Let's go right around the table and each of us introduce himself and then we'll go back into the group. Starting with Ed.

MR. SKEEN: E. J. Skeen, Attorney for the Bear River Commission.

MRS. BORROWMAN: Connie Borrowman, Secretary to the Commission.

MR. SKINNER: Cliff Skinner, Bear River Compact, from Idaho.

MR. ROBERTS: Dan Roberts, Bear River Compact, from Idaho.

MR. GILBERT: Don Gilbert, Bear River Compact, from Idaho.

MR. ALLRED: Steve Allred, Department of Water Resources, Idaho.

MR. TEICHERT: John Teichert, Superintendent, Water Division for Wyoming.

MR. CHRISTOPULOS: George Christopulos, Wyoming.

MR. LORD: Clem Lord, Wyoming.

MR. HOLMGREN: Paul Holmgren, Utah.

MR. FRANCIS: Blair Francis, Utah.

MR. WESTON: Sim Weston, Utah.

CHAIRMAN JIBSON: Dan is with us, but out for a moment. Ted, why don't you start?

MR. ARNOW: Ted Arnow, Geological Survey.

MR. ROBISON: Roland Robison, Solicitor's Office.

MR. SCOTT: Walt Scott, Water Commissioner.

MR. TURNIPSEED: Mike Turnipseed, Division of Water Rights, Utah.

DR. STAUFFER: Norm Stauffer, Utah, Water Resources.

MR. PAINTER: Dick Painter, Chevron Oil Company, Denver.

MR. KIRKHAM: John Kirkham, from VanCott, Bagley, here in Salt Lake.

MR. WEST: I'm Jim West, Chevron.

MR. KUNKEL: Jim Kunkel, Woodward-Clyde Consultants, Denver.

MR. PUTNAM: Keith Putnam, Woodruff, Utah.

MR. PETERSON: Raymond Peterson, Cokeville, Wyoming.

MR. BOLLSCHWEILER: Marvin Bollsweiler, Hydrographer Commissioner, Wyoming.

MR. MELLIN: Ralph Mellin, Idaho Department of Water Resources.

CHAIRMAN JIBSON: Okay. And I'm Wally Jibson^{of} the Bear River Commission.

SUMMARY OF MINUTES OF NOVEMBER MEETING

CHAIRMAN JIBSON: Our next item will be the summarizing of the Minutes of our Regular Meeting held November 26, 1979, approving those Minutes or correcting them. It has been customary for me to summarize them; which I'll do at this time. (Chairman Jibson then read the Summary of Minutes.)

(See next page)

SUMMARY OF MINUTES

Regular Meeting

Nov. 26, 1979

Regular Meeting of the Commission was called to order at 10:30 am in the State Capitol at Salt Lake City. Regular Commissioners were present from Utah and Idaho with Wyoming being represented by Clem Lord and Marvin Bollschweiler serving for George Christopulos and J.W. Myers. Richard Skeen sat in for E.J. Skeen as Legal Advisor. After introductions, minutes were approved for the Special meeting of August 13, 1979.

The Chairman reported on the status of Federal legislation on the Amended Compact.

Bert Page reported for the Secretary-Treasurer giving the financial report as of October 31, 1979. Adjusting for two State assessments arriving after October 31, each of the States then had paid \$22,000 to cover the 1980 budget. This left a balance of \$85,009. Obligated against this will be \$45,300 to the USGS as of September 30, 1980 and lesser obligations for direct-expenditure items. On page 1 of the financial report, the approved budget as shown was incorrect. Bert used the April 1979 budget which was revised downward in August from \$57,000 to \$45,300.

Report of the Assistant Secretary showed that 1979 was low in water supply; the deficiency ranged from 30 percent in the upper basin to about 17 percent in the lower basin. He also reported that we inadvertently failed to approve the revised 1980 budget in the August meeting. This was approved later in the meeting, but it was agreed in discussing State assessments to hold in abeyance until the April meeting the earlier-approved 1982 assessment of \$24,000 per State.

The Commission discussed several individual applications for appropriation, and a report was given on the enlargement of Woodruff Narrows Reservoir.

Dee Hansen gave a report for the State Engineer's Committee on implementation of the Amended Compact. Possibility of aerial photography was discussed and the probability that some budgeting should be provided by the Commission for preparation of a base map. By motion, the Commission gave general endorsement to the concepts included in the report.

Meeting adjourned at 12:30 p.m.

APPROVAL OF MINUTES OF NOVEMBER 26, 1979

CHAIRMAN JIBSON: Now, we did make distribution a couple of weeks ago - but not total distribution - on the Minutes; and I have about a dozen copies here for those of you who didn't get your copies of the Minutes in the mail. Clem reported that none of the Minutes came over to Cheyenne, nor did the Notice of Meeting. We are going to have to blame the mail department for that, because they were sent. John, I believe you got your Minutes. If there's anyone else who needs copies, they're here at the table. Other than this flub in Cheyenne, I think all Commissioners got copies of the Minutes. I don't know whether you've had a chance to look them over in detail, but in view of the summary I think a Motion would be in order to approve them or to correct them if need be.

MR. ROBERTS: Mr. Chairman, I move that we approve the Minutes.

CHAIRMAN JIBSON: It's been Moved. Second?

MR. LAWRENCE: Second.

CHAIRMAN JIBSON: If there's no further discussion on it, all in favor?

MR. ALLRED: Mr. Chairman, one typing error on page 26, referring to Mr. Hansen's discussion - "Thank you Mr. Chairman. Alan Robertson has been sharing," I think that should be "chairing."

CHAIRMAN JIBSON: Oh. I read these over after Connie sent them to me and I thought it was "sharing". Those of you who have your Minutes here, if you'll notice that reference. It's "Chairing".

MR. ALLRED: I assume that's what we said; rather than "sharing".

CHAIRMAN JIBSON: Dee isn't here yet. We hope to hear from him today; but he called a couple of days ago and said that he was tied up until later in the meeting. It's already later in the meeting, after our late start. Any further corrections or discussion? Okay. Those in favor of approving the Minutes as they were circulated, with this correction? Opposed?

MINUTES APPROVED.

REPORT OF CHAIRMAN

CHAIRMAN JIBSON: The next item on our agenda will be the report of the Chairman. My report, other than the one I give as Assistant Secretary, will be in regard to the Amended Compact.

After an Administrative problem in Washington, the Compact had to be referred back to the floor of the Senate; and so it was approved by the Congress officially after the first of the year, and was signed by President Carter on February 8.

We had expected to get maybe 400 or 500 copies from the Government Printing Office; but it turned out to be harder than we expected. So, as an interim measure at least, we had printed locally, at Logan, a few hundred copies in this form. They do not have the by-laws attached to them, like our previous Compact had; and we can decide if that would be desirable, and perhaps make another printing. We also had a little administrative problem in printing them locally. I had the Water Lab printing shop at Utah State University do our printing, and he was unable to find slightly-oversized paper. as the few copies we did have from Washington were printed on. So they assured me they would only have to reduce them about 5%. For some of us old ones with bifocals, they were small enough anyway; but when I got the printing from them, they came out 14% reduction. So I had them do them over again. So, I have a number of each size here. These that I have passed around the table are the second printing; and I have bound up in rubber bands, here, two or three bunches of the smaller printing that you can send to your 'lesser' friends. We do have 200 copies of this printing, and about 300 of the others. But considering the cost, which was not exorbitant, I think they made pretty good prints.

Today we would like to have the States, if they have more room in their brief case, to each take at least one group of the smaller copies, and some more copies of the other. I think Idaho was finally able to get about 50 copies from Church's office. Utah didn't have quite as much clout. We got nine copies from Representative McKay's office. The Chairman got one copy.

There was a very minor typographical error that I noticed in the copy prepared for the House and Senate in Washington. I thought I'd better 'let sleeping dogs lie', back there, so I never called it to anyone's attention.

The only other one - on page 6, at the top of the page, where it says, "Spring Creek means a Smiths Ford tributary which rises in Lincoln County, Wyoming, in Sections one and two" - it should be "Township 24 North", and they left out the "North", which was of very small consequence. Another minor one or two. I looked through and it looked like they had corrected those.

That's the total report I have at this time. I think next we'll go to the report of the Secretary-Treasurer.

REPORT OF SECRETARY-TREASURER

MR. LAWRENCE: I'd like Mr. Page to give that report, if he will.

MR. PAGE: Wally said there was a mistake made last time on the approved budget amount. If that's the case, it's also here this time, because I used last time's as a guide. The expenditures, however, have been changed to reflect the current date.

As of the 1st of April, the States had all paid their dues. We had interest on savings of \$4,045.79, which gives a total income at that time of \$87,227.21. The stream gaging costs to the GS, of course, are paid once a year and are not recollected at this time.

Expended through the Commission, we've printed the Annual report - \$968.20. I believe that reflected the last time. The Treasurer's bond, and the audit, came to \$405.00; Office Expenses and Supplies for printing came to \$159.68. That's a total of \$1,532.88. The total expenditures at this date was that; and it leaves us \$85,694.33 in the bank.

On the back of the form, I've indicated the checks that have been written and, the bank reconciliation. There have been written seven checks - one of them to the Utah State Treasurer, which was putting our money into the savings account, as we do all the time. The others are indicated there for their amounts, and the people to whom they were written. The bank reconciliation - we have no outstanding checks at the end of the period. We had \$3,898.52 in the bank; in the savings account there's \$81,795.81 - which gives us a total cash on hand and in the bank of \$85,694.33.

Are there any questions?

CHAIRMAN JIBSON: I would assume Dave, that to be budgeted against this \$85,000 will be our billing on September 30 of \$45,300. So we are essentially carrying a balance of about \$40,000 as of now.

We don't have an annual report this year because of the Amended Compact, and a year from now we will have a biennial report. So, as far as this budget is concerned, we won't have many more additional expenses out of it, other than the GS.

MR. LAWRENCE: You've got the printing of the Compact.

CHAIRMAN JIBSON: Yes, altogether, on printing Minutes, printing my report, and printing the Compact, we have less than \$200 due that I want to get with Bert today.

Do we have any further discussion or questions on the report? If not, a Motion would be in order to accept the report of Secretary-Treasurer.

MR. CHRISTOPULOS: I so move.

CHAIRMAN JIBSON: Second?

MR. WESTON: Second the Motion.

CHAIRMAN JIBSON: All in favor? Opposed?

MOTION CARRIED.

CHAIRMAN JIBSON: Do you have any further report, Dan?

MR. LAWRENCE: No.
(Report attached, next page)

ELECTION OF OFFICERS

CHAIRMAN JIBSON: Before we go to the report of the Assistant Secretary, I think we should have in our agenda the election of officers. It's been customary to have a Vice-Chairman elected, as he has been serving one year; and it has been customary for him to be reelected for a second term. If my figures are correct here, Cliff Skinner served as Vice-Chairman in 1978 and 1979; Utah's group served before that. As a matter of fact, we forgot to elect one year, and Paul Holmgren served for three years. So it would be Wyoming's turn for Vice-Chairman; and the last Vice-Chairman you had from Wyoming was Wes Meyers, George, back in 1973 and 1974.

So a Motion would be in order for nomination or election of Vice-Chairman.

MR. LAWRENCE: I make a Motion that we follow the tradition and elect whomever from the State of Wyoming, to be designated by the Wyoming delegation.

CHAIRMAN JIBSON: You heard to Motion, is there a Second?

MR. SKINNER: Second that.

CHAIRMAN JIBSON: All in favor? Opposed?

MOTION CARRIED.

MR. TEICHERT: I'd so move that George serve as the Vice-Chairman of the Commission.

CHAIRMAN JIBSON: It's been moved that George Christopulos serve as Vice-Chairman for this next year, Second?

MR. LAWRENCE: My view, is that if we passed the Motion that I made, any Motion on this floor is out of order. Wyoming just tells us.

CHAIRMAN JIBSON: Read Dan's Motion again, would you Connie?

MRS. BORROWMAN: I make a Motion that we follow the tradition and elect a Vice-Chairman from the State of Wyoming, to be designated by Wyoming.

MR. LAWRENCE: If they're ready now, we could withdraw my Motion and -

MRS. BORROWMAN: Your Motion's already passed.

MR. ROBERTS: I think your Motion is all right, Dan. All it is, is ask them to name their man.

CHAIRMAN JIBSON: Okay, John, you have named George, so he will serve as Vice-Chairman without a Motion. I didn't mention that Wes is not with us today. He had a conflict in Cheyenne; so Clem Lord will be sitting in for J. W. Meyers.

We still have another officer to elect - the office of Secretary-Treasurer. A Motion would be in order for Secretary-Treasurer.

MR. CHRISTOPULOS: I nominate Dan Lawrence to continue as Secretary-Treasurer.

MR. ROBERTS: I second that, it we don't raise his wages.

(Laughter)

BEAR RIVER COMMISSION
STATEMENT OF INCOME AND EXPENDITURES
FOR THE PERIOD OF OCTOBER 1, 1979, TO APRIL 1, 1980

| <u>Income</u> | <u>Cash on hand</u> | <u>Misc. Income</u> | <u>Approved Budget</u> | <u>Total Revenue</u> |
|---|-------------------------|-------------------------|----------------------------|--------------------------|
| Cash Balance 10/1/79 | \$17,181.42 | \$----- | \$----- | \$17,181.42 |
| State of Wyoming | \$----- | \$----- | \$22,000.00 | \$22,000.00 |
| State of Idaho | \$----- | \$----- | \$22,000.00 | \$22,000.00 |
| State of Utah | \$----- | \$----- | \$22,000.00 | \$22,000.00 |
| Interest on Savings and other income | \$----- | \$ 4,045.79 | \$----- | \$ 4,045.79 |
| TOTAL INCOME TO April 1, 1980 | \$17,181.42 | \$ 4,045.79 | \$66,000.00 | \$87,227.21 |

DEDUCT OPERATION EXPENSE

EXPENDED THROUGH U.S.G.S.

| | <u>APPROVED BUDGET</u> | <u>UNEXPENDED BALANCE</u> | <u>TOTAL EXPENDITURES</u> |
|--------------------------|----------------------------|-------------------------------|-------------------------------|
| Stream Gaging | \$36,300.00 | \$36,300.00 | \$ 0 |
| Personal Services | 7,245.00 | 7,245.00 | \$ 0 |
| Travel | 200.00 | 200.00 | \$ 0 |
| Fiscal Charge | 405.00 | 405.00 | \$ 0 |
| Washington Office Charge | 810.00 | 810.00 | \$ 0 |
| General Office | 340.00 | 340.00 | \$ 0 |
| SUBTOTAL | \$45,300.00 | \$45,300.00 | \$ 0 |

*Entire bill to be paid
9/30/80

EXPENDED THROUGH COMMISSION

| | | | |
|------------------------------|-----------------|------------------|-----------------|
| Printing Annual Report | \$ 0 | \$ 968.20 CR | \$ 968.20 |
| Treasurer Bond and Audit | 350.00 | 55.00 CR | 405.00 |
| Transcription of Minutes | 200.00 | 200.00 | 0 |
| Legal Consultant | 500.00 | 500.00 | 0 |
| Office Expenses and Supplies | 60.00 | 99.68 CR | 159.68 |
| SUBTOTAL | \$ 1,110.00 | \$ 422.88 CR | \$ 1,532.88 |

| | | | |
|--------------------|-------------|-------------|-------------|
| TOTAL EXPENDITURES | \$46,410.00 | \$44,877.12 | \$ 1,532.88 |
|--------------------|-------------|-------------|-------------|

| | | | |
|--------------------------------------|--|--|--------------------|
| UNEXPENDED CASH BALANCE AS OF 4-1-80 | | | <u>\$85,694.33</u> |
|--------------------------------------|--|--|--------------------|

BEAR RIVER COMMISSION
DETAILS OF EXPENDITURES
FOR PERIOD ENDING APRIL 1, 1980

| | | |
|-----|-------------------------|--------------------|
| 281 | Rose Printing Co. | \$ 968.20 |
| 282 | Postmaster | 30.00 |
| 283 | Utah State Treasurer | 65,000.00 |
| 284 | The Copy Center | 53.20 |
| 285 | USU Printing Services | 76.48 |
| 286 | Gilchrist & Co. - CPA's | 355.00 |
| 287 | Beacon Insurance Co. | 50.00 |
| | | <u>\$66,532.88</u> |
| | Less Savings | <u>65,000.00</u> |
| | Total Expense | \$ 1,532.88 |

BANK RECONCILIATION

April 1, 1980

| | |
|--|---------------------------|
| Cash in Bank per Statement 4/1/80 | \$ 3,898.52 |
| Less: Outstanding Checks | <u>0</u> |
| Total Cash in Bank | \$ 3,898.52 |
| Plus: Savings Accounts - Utah State Treasurer | <u>\$81,795.81</u> |
| TOTAL CASH ON HAND AND IN THE BANK | <u><u>\$85,694.33</u></u> |

CHAIRMAN JIBSON: Conditional second, any discussion? All in favor?
Opposed?

MOTION CARRIED.

CHAIRMAN JIBSON: I never know for sure whether we should elect an Assistant Secretary. Again, we generally don't. I assume that until I'm canned.. We have discussed in the past the feasibility of eliminating the position, as such, as Assistant Secretary. Where I'm 'wearing two hats' I don't know if it's anything but a technicality anyway.

MR. LAWRENCE: Would it be different if we had a different Chairman?
Would the conditions be different; or would it be the same.

CHAIRMAN JIBSON: I think it would be, I think if you had a different Chairman then we'd have to decide whether the position of Assistant Secretary should continue.

MR. SKEEN: Are you getting tired of 'wearing two hats'? Is it burdensome?

CHAIRMAN JIBSON: My wife is getting tired of my retirement. I supposedly retired the 1st of January, and I took a full week off; and then I've been back to the office every day since. She says, "what a joke!" She said she's getting an inferiority complex, that I don't like to be around the house. And I said that I didn't choose to be gone all the time; but I always figured that when we got to the 'Honey-do' stage, that I'd like at least to be able to put my coat on and say, "I've got to go to the office." But, so far the situation has been working out okay - at least as far as I'm concerned.

MR. SKEEN: It's perfectly legal, and I don't see a reason for changing it right now.

REPORT OF ASSISTANT SECRETARY

CHAIRMAN JIBSON: Okay, would you pass some of those down this side and down this side? The Budget Committee has copies that I handed them today.

Ed, have you formally set your meeting up after this meeting?

MR. SKEEN: We've tentatively set it up for 1:30, assuming that this meeting will be over by then; with the understanding that if we should conclude before noon that we might proceed with that meeting.

CHAIRMAN JIBSON: If everyone has a copy then, we'll read through the report and perhaps come back to discussion after I finish it, rather than stopping during the reading. The first part of the report deals with our water supply outlook, I have a little update that I will give after I read the April 1st forecast.

(The Chairman's report is attached as a part of these Minutes. The following comments were made in the places indicated on the report.)

2nd Para., page 1:

CHAIRMAN JIBSON: I don't know what happened on the Hayden Fork gage, whether I got figures wrong from Bob Wailey; but now, as of the end of April, this morning I talked with him and he gave me a quick run-down. I use the Hayden Fork gage for two reasons; primarily because it is a key gage for the Upper Bear River, and also, it is equipped with radio equipment so that we can get an adequate update on the snow-cover at least weekly. But as of the 1st of May, the Hayden Fork gage has dropped to 103% of normal snow pack, and the tentative forecast that Bob gave me would drop our flow past the state-line gage - that's entering Wyoming from the Uintas - to 101% of normal, and our inflow to Woodruff Narrows would be dropped from 116% to 103%. So we have taken some downward turn.

3rd Para., page 1:

CHAIRMAN JIBSON: You'll notice that we did have, on April 1st, the best forecast on the Upper Bear; and then 104% from the Smiths Fork area, and down in the Lower River as represented by Logan River, we'd have 110% forecast.

3rd Para., page 2:

CHAIRMAN JIBSON: The elevation yesterday was 5919.0, reflecting this early run-off that we are getting. We had, yesterday, about 2,400 second-feet coming in the Rainbow Canal.

4th Para., page 2:

CHAIRMAN JIBSON: The three that were discontinued last fall, as you may recall - Hilliard-East Fork Canal, which will continue under the Wyoming canal record program, but will be discontinued under our regular program; Montpelier Creek near Montpelier; and Summit Creek near Smithfield, Utah were the others that were discontinued.

Bottom page 2:

CHAIRMAN JIBSON: All five of these stations are physically in Utah.

4th Para., page 4:

CHAIRMAN JIBSON: You might wonder at what appears to be an inconsistency there, that we have increased 48% over this year and only 20% over the previous year. It all has to do with my retirement on the 1st of January. Our 1980 budget, by reason of the fact that I came back as a reemployed annuitant, at a pittance, is much lower this year than it was in 1979. Maybe the moral there is that I should have been canned many years ago.

MR. LAWRENCE: What is the amount Wally? What is that pittance amount?

CHAIRMAN JIBSON: The amount per state?

MR. LAWRENCE: No the annuitant.

CHAIRMAN JIBSON: The annuitant's wages are the difference between what he was making, and what his annuity is.

MR. LAWRENCE: That's what we're charged?

CHAIRMAN JIBSON: That's all you are charged.

MR. LAWRENCE: Is that shown here somewhere?

CHAIRMAN JIBSON: Not the actual rate. But under the law, our Washington office has to pick up my total budget as it was before I retired, and pay the difference to the Civil Service Retirement Fund. But we, locally, do not have to budget for that. So we're budgeting for about a fourth of what my salary was; because the law says that I can't be paid any more than the difference between what I'm drawing in annuity and what I was drawing in salary.

CHAIRMAN JIBSON: Now keep in mind that these budgets are on the basis of a cost per gaging-station year, rather than all earlier budgets for the past 25 years which have been based only on the actual operating expense of the Logan office plus Salt Lake and Washington overhead.

(Report of Assistant Secretary attached at end of Minutes)

CHAIRMAN JIBSON: I don't know if we, right at this point of time, should call for a Motion to accept or approve this report, until we have some discussion on items discussed in the Budget Committee this morning. Even though many of you were kept waiting out in the hall, we didn't complete our discussion.

The Chairman of the Budget Committee has been J. W. Myers, who is not with us today; and we didn't appoint a chairman^{for}/today. I don't know that any of the members of the Budget Committee would like to make comment at this time. Perhaps before we go to members of the Budget Committee we should ask Ted Arnow of our office to give us the latest scoop on the federal funding that is available, in view of the two budgets that I have presented to you today for your consideration.

MR. ARNOW: I have been informed that the appropriation bill of the Geological Survey that is now going through Congress contains in it no increase at all for federal matching funds. That means, if it continues that way, that we would not receive any more than \$36,300 which we had received last year for matching for the Bear River Commission.

I have also received a letter in writing from Mike Wallace in Denver pointing this out. I gave a copy of that letter to each member of the Budget Committee. The letter pointed out that there would be no increase in matching funds, and that we should look into methods of cutting gaging station programs and also cutting investigative-type programs. Now, there is one possibility. There's one present cooperat~~or~~ that we have in Utah now, who is putting up \$57,000; and we are matching it with \$57,000 in federal matching funds. The program with them terminates this year. It is possible, and I hope, that \$57,000 will come to Utah for use with other cooperatives. If that happens, there could be an increase to the Bear River Commission. If it doesn't happen, I'm held to the \$36,300 - unless Congress changes its mind and adds to our appropriation.

MR. LAWRENCE: Mr. Chairman, I'm wondering if, before we act on budget matters, we ought to have a report of the Engineering Committee too; for whatever that might affect our budget?

CHAIRMAN JIBSON: I think that is a good suggestion. Dee, do you have a report today for the State Engineers' Committee, and what we might be looking for in budget obligations?

MR. HANSEN: I don't; but let me report to you, as best I can, what is going on. The staff that we appointed from each of the States has met on one occasion, I believe, and discussed the preparation of the map that you mentioned. I don't know if Ralph is prepared to give a report on that.

MR. MELLIN: Thank you. Mr. Chairman, members of the Commission, I don't know if this could really be called a report of the Engineers' Committee; but, as Dee mentioned, I did travel to Utah in the middle of February and met with Mike and also Wally; and when I got back, I called Clem Lord on the telephone and talked to him a little bit about some of the things that we discussed. He suggested we wait and finalize our thoughts at this meeting.

Some of the things that I would request to take a look at (and this is excerpts out of the Minutes of the last Commission meeting):

1. Select a base map.
2. Take a look at Basin boundaries.
3. Map and tabulate the irrigated acres as of January 1, 1976.

We won't be able to fully discuss all of these; but I did take a look at a base map. First, I might reference a memo that was directed to me from Alan Robertson. He suggests that we take a look at three things: (1) review available maps for use in preparation of an adequate base map. The map will ultimately show irrigated areas, municipal water system service areas, Compact divisions, and Basin boundaries. The map will be segmentally contained in a report. (2) ask to prepare a proposal for the preparation of a base map, including source information, scale, schedule, cost estimate, and a possible entity that could do the work. (3) identify source of information that would include the use for the pre-76 water-use map.

Starting out, I did review available maps, and talked this over with Mike and Wally, and Clem to some extent on the phone. I came up with three possible alternatives. (1) Use an ortho-photo base map; and I might just pull out a demonstration, or sample, for those who are not acquainted with these. These are published by the U.S. Geological Survey. These are put out on a 7½-minute quad size. Now what we could do with those - we could overlay a land-grid from the topographic maps on that. In other words, show the section and township boundaries on there, so you could get some reference. And then perhaps reduce that 50%; which would give you a scale of about 1.26 miles per inch. That would compare with a scale of 1 inch per mile, which we see in the

SCS Type IV studies that most of you are familiar with. That would be one possibility. Now, there would be probably considerable detail lost when you reduce it down and print it, because you put your overlay information on there of the irrigated lands, and so forth.

CHAIRMAN JIBSON: Would you figure on this, in black and white, the way this one is?

MR. MELLIN: Yes.

CHAIRMAN JIBSON: They are being published in color, you know.

MR. MELLIN: The base would be in black and white; the overlay could be whatever color you'd want.

MR. ALLRED: Why don't we go through the three alternatives, and then we can discuss a little further.

MR. ROBERTS: Steve, it doesn't mean anything anyway; we can't see it.

MR. ALLRED: I'm going to put all three of them up here; so at least you can come see what they are.

CHAIRMAN JIBSON: With the scale shown, Dan, that does show individual fields; so if one of you guys drills a well up there and runs it over another 40 acres, it will show up.

MR. MELLIN: The next one would probably be an SCS county base map. That is very similar to the county highway maps. That could be made either 1/2-inch to the mile, or you can get it 1 inch to the mile. I guess one problem with that, it doesn't show quite as much river and stream lengths as the last one I'm going to mention. Also, if you mosaic it together, you're going to be cutting it on the county boundaries, and so forth, and that would be a little bit of a problem.

The last one I took a look at would be what they call the USGS's new 1" to 100,000' map series. It would take 11 of these to cover the Basin. There's be 3 in Idaho; 5 in Utah; 3 in Wyoming. This is a new base that's being done. These are essentially all available now for their area of interest; except one in Wyoming, which will be about 9 months before we expect that will be done. I might show you a final version on that.

The Bureau of Land Management is using this for an ownership map. You see here the green, which is Forest Service-owned lands; the yellow, which is Bureau of Land Management-owned land; and the blue, which is State-owned lands. I've also put some of our information in Idaho on that, of irrigated lands.

Now, the way this is to be published is - like the top - which would be the base information, although the base could be in color, depending on the wishes of the Commission. Which would have the roads in red, for example, the streams in blue, and would probably not have contour information, because it perhaps would clutter it up. Then you could have your overlay information on there in a separate color.

Now those are, in essence, the three alternatives. I don't know - if there is some question or further discussion on that, I could probably respond.

CHAIRMAN JIBSON: Have you, perhaps - I didn't hear everything you said - but have you looked into the cost on these, to a point where we can have a 'ball-park figure'?

MR. MELLIN: Yes, I have done that; and maybe I could jump into that now. The cost - I guess we could look at it, essentially, two different ways. One would be to look at publishing this. Whether you have 100 copies, or 200 copies, the cost is not going to be too much different. The largest part of the cost would be transferring the raw data, which we see here on the top - this is Malad Valley, Idaho - over to something that could be published, which you would call the cartographic work. I talked to our people at the University of Idaho, at the cartographic lab, and they came back with a price of \$10,000 for the entire works - which would cover the three states. I thought that was a little high, so I checked in Boise at a commercial lab; and they came out just a little bit higher than that. As I recall, about \$11,000. So I thought perhaps that \$10,000 is pretty close. Then, in addition, you would have your printing cost. And if you wanted to print in color, similar to this base map here, the printing would run about \$4,500. If you wanted to print in just black and white, similar to this, you'd have a cost of about \$3,000. This would give you 200 copies of the 11 sheets. We have a total, if you go to color, of \$14,500 - versus \$13,000 if you go in black and white. Now, if you go to more copies, or less copies, the cost is not going to change appreciably. The largest part of the cost is in cartographic work. And then in the printing, again, just setting it up and shooting your photographs for the printing is the main part of the cost.

MR. LAWRENCE: Ralph, I didn't keep up with the discussion. Why do we publish 200? What do we do with the 200 copies?

MR. MELLIN: Well, that is just an arbitrary number. Say you wanted 50; that would be fine, too - but the cost would not change appreciably.

MR. LAWRENCE: In other words, we're using them. These are working tools in the process, and you need as many copies as you have people involved in the three states -

MR. HANSEN: You may have water commissioners, engineering staff, or whoever might need one. USGS would probably want some.

CHAIRMAN JIBSON: The \$13,000 to \$14,500 includes the finished base map?

MR. MELLIN: It includes everything.

CHAIRMAN JIBSON: That includes all your initial drafting, plus the printing?

MR. MELLIN: Well, excuse me. The initial drafting, like I've done here in Idaho - the thought would be that each state would furnish that to the cartographic personnel. Each state would provide the basic data in a rough form, as we have here. And that would not be included in this cost.

CHAIRMAN JIBSON: So, basically, the cost that you have is for reproduction.

MR. MELLIN: Right.

MR. LAWRENCE: I haven't checked it out recently; but in some cases, where you have color prints, each additional print has fairly high significance, because of the cost.

MR. MELLIN: The information that was given to me was that you've got your plates already made up, and there's the large part of the cost - just setting up those plates to run. The only additional cost would be, largely, just the paper cost, and the full amount of the labor.

CHAIRMAN JIBSON: Again, you made initial overtures to the USGS on that? Is your estimate based on their cost?

MR. MELLIN: No. I seem to have run up against some kind of a blank wall there, the real hesitancy of the GS doing the work. What Wally is referring to - I did approach the U.S. Geological Survey as far as doing the entire work; that is, doing the cartographic work, and doing the printing; on the basis that we

have a Commission member that is a past and present employee of the GS, and it is a tri-state effort. But they seemed to put me pretty well off on it. Here, again, it would be on a cost basis. I don't know if we'd save too much on that.

CHAIRMAN JIBSON: So these are private firms that you've contacted? I was going to contact - and I'm sorry I didn't get around to it - the firm that has been printing our annual report, just to see if they could handle anything this large, here in Salt Lake, and see what they might come up with, if we furnish the final draft to them.

MR. MELLIN: In other words, they would do the cartographic work?

CHAIRMAN JIBSON: No; we would do it. They would just print it for us.

MR. MELLIN: We might look around further, and actually even go to bids.

CHAIRMAN JIBSON: I was curious about our overall size, and if these local firms could handle that size.

MR. MELLIN: I might throw out another alternative that we might want to consider; and that would be just to bring it to this stage. In other words, each state maybe could hand-draft out 4, to 10, or maybe 12 copies, and distribute to the other states and not go to a final version. That would keep the cost considerably lower.

MR. CHRISTOPULOS: Where are you getting that base information? What you had represented there is land actually irrigated as of January 1, 1976?

MR. MELLIN: No; this is just a start in Idaho. What you are really asking me now, and maybe it will be your next question, is how we would go about doing that. What this is, to this point, is data from our work back in 1968 in the Bear River Report. Dan Roberts is quite familiar with that report. That was blown up and placed on the map. So that's just step one of our getting our lands in Idaho. Step 2, we might overlay and take a look at the SCS report, the Type IV study that has been done; and that is a little bit different representation than what we have here. Thirdly, we might use high altitude U-2 infrared photography, which we have available in Idaho, that could show the irrigated land, or would show green vegetation. Then last, we may go into the field and do some field examination and checking, where we would work with the county ASCS offices, and also do some field checking with our own personnel.

We're not near to the state that Utah is, where I understand that Utah has actually done adjudications of all the land above Cutler Reservoir; and then those lands below Cutler Reservoir has very good data also.

CHAIRMAN JIBSON: That's very good map data, isn't it? As I understand, the work that you've been doing, your maps would be supportive to tabulations as increased depletions take place. Is that right? The map itself would not, of course, have any figures on it. It would show general areas and would have to be supportive to some type of tabulation, before and after January, 1976.

MR. HANSEN: I don't know if you're ever going to get to a complete tabulation. As Ralph mentioned, in Utah we have most of the area adjudicated that is tabulated, already. But not in tabular form, or simple form that you're thinking of. It seems to me that we're going to have to use some sort of theoretical approach to the actual depletions, based on the filings and when they were put into operation; and then have some infrared photography flown periodically as a check to see what's going on, and then check that against streamflows to see if the depletions are actually occurring as we had predicted they would occur. I think we're just going to have to work into it, year by year, and develop something.

MR. ALLRED: It seems to me, as Dee said, what we're really interested in is change after 1976. If we can once get a base, and if we each individually prepare the base in our own state, we're going to have some differences in definition and other things. I don't think that is important, as long as they reconcile them in the standpoint of future analyses; and I think that if we get to the point where we have a base map, by then - in fact, by the middle of this year - we'll have a capability to use Landsat. While Landsat isn't sufficient at the present time to prepare the base, once you have the base it's an excellent tool to then reconcile the three bases and use for future analyses. I would suspect that by the middle of this year we'll have the capability, for example, to analyze the 1976 Landsat image - field-checked or reconciled with the base map. And then run a 1980 image, and actually tell the difference in where they are. We have the capability now, except we're waiting on some new equipment that speeds it up considerably. I think that can be a major tool in this periodic check.

Why don't you go ahead and tell them what your recommendation is; and then maybe, Wally, the people ought to go up and look at the maps. I think

what's important to decide today is which base to use, in order to get started on getting that base map ready. The expenditure of funds, for example, to put them on a cartograph before a print might be a year away.

MR. MELLIN: As far as recommendation, just based on the accuracy of these 1" to 100,000' maps, in essence - that they were made from the 7½-minute quads, or the 15-minute quads of the U.S. Geological Survey, whichever was available; and that they show more stream length than the county highway map or the SCS map you see there in the middle. And based maybe on the lack of how much information you really get from an ortho-photo, my thought would be to lean towards this new GS 1" to 100,000' scale map. It would take 11 maps with information; and also it would take 2 additional maps that have corners of mountain areas on them, but no valley areas.

These maps we are showing you are the same. This is just preliminary addition of what we can get to work with. The BLM edition is not available in all cross-sections. I guess the recommendation is, in essence, the top one without the ownership information, without the government ownership; in other words, without the Forest Service and BLM, and then we would put our data on there.

MR. ALLRED: Ralph, that can include, though - can't we get a base map with the colored streams, for example?

MR. MELLIN: Yes. As far as printing, it seems it's a minimal amount to print the base in color - \$13,000 versus \$14,500. Maybe we'd want to go ahead and print the base in color.

CHAIRMAN JIBSON: Dan, when you stepped out, Steve suggested that maybe today what we ought to try to do is decide which way to go on the map rather than budget for it. If we can get that decision today, then they can go ahead.

MR. MELLIN: There's maybe other questions, too, brought up about the tabulation that would concern me a little bit; and if we really do want to tabulate acres, and if we do, do we want to do it by county, by township, or even by section. The more detail you get, the more problem.

MR. LAWRENCE: Philosophically, Mr. Chairman, I would say that this effort has surely got to be a high-quality activity. I look into the history, and I see that Mr. Jibson was an advisor to an original Bear River Compact Commission; and all of us here today, with just one or two exceptions, have been on this

thing for another 12 years - so you've got a lot of effort. The Compact is the result of the whole thing; and I think that the determination of the consumptive use is going to be very, very important to people, a year from now, or fifty years from now. I'm not saying that we should spend money foolishly; but it seems to me that whatever the State Engineers' Committee, and the other people we have work on it, recommend -- We have to use the best available to us, and not the cheapest, necessarily.

CHAIRMAN JIBSON: George, do you have any comment at this point?

MR. CHRISTOPULOS: Well, I've been trying to give a little thought to it. This is kind of my first exposure, since I didn't get to read the Minutes from the last meeting. I have mixed feelings on where you start as a base map. The 1" to 100,000' isn't really a very good detail scale. It can give you some generalized information, and you can pick out changes alright; I think you can do that. But I'm wondering whether maybe you want to start with either the ortho-photo, or even start with the USGS quadrangle maps, the 7½-minute quads, and maybe go with that as your base map.

We've done a considerable amount of mapping - not out here, but we've done water rights mapping where we've used the USGS quadrangle maps and gotten reproduceable linens from the originals; and then used that as the base map, with the contours on it and everything else, and worked onto that. I don't really know how much information we have on the Bear River Basin, as far as that showing actual irrigated lands; and that's going to be the starting point.

CHAIRMAN JIBSON: We do have some areas of the Basin, George, that are covered as of today only by 15-minute quads, which are not so good; but most of it is covered by 7½-minute. It is a nice scale to work with. It would take a large number of maps to comprise our base map.

MR. HANSEN: Let me offer just a comment in that regard - because we do have everything already surveyed. I'd hate to have to go to a 7½-minute quad and transfer everything we have over to that type of a map. We'd be happy to give you copies of all of our adjudication maps; but we'd hate to go to that much effort, George. That's a repeat of what we've already done.

CHAIRMAN JIBSON: What scale are your adjudication maps?

MR. HANSEN: 1" to 500'. We have several large books full of maps. We'd be happy to give you copies of those.

MR. LAWRENCE: Well, you've got to start with something pretty close to that, haven't you, as a base?

MR. HANSEN: We think for our purposes, at least, that's a very accurate layout. The scale is adequate to give you the detail that you really need. Now, as far as a working copy, maybe the 1" to 100,000' is adequate to be able to take with you in the field - to have something that is manageable.

CHAIRMAN JIBSON: You took your 1" to 500' right off the photos, didn't you?

MR. HANSEN: Yes.

CHAIRMAN JIBSON: You overlay the photos, and then update them?

MR. HANSEN: In some cases they were actual plane table surveys.

MR. LAWRENCE: And what is the date of yours?

MR. HANSEN: The date of ours? They vary. Some of those Rich County and Summit County maps were mapped in 1956. But there's been very little change. Now, in Rich County we've got a little bit of change. We'd have to update it. We've had some areas where there's been some acreage expansion, and that would have to be mapped in for the benefit of the other states. But that could be done on our existing maps. And then they come all the way down to where we're just now mapping parts of Box Elder County and the Bear River drainage, that are being finalized. They were mapped several years ago; but we're now putting the data on them, so they're being rechecked, in essence.

MR. TURNIPSEED: But as far as water rights, even our Rich County maps are up-to-date.

MR. HANSEN: Yes. If we were to give you copies of those maps they would be up-to-date. I guess the important thing is to get January 1, 1976 information on them. We made a fairly accurate estimate of that at the time, if you recall, when we were still in negotiations. I think we know about what that acreage was; so we are probably much closer than either of the other two states. I don't know what the solution is, to get a base map that we can work from; but I'm not anxious to get into another big project that we've already done.

MR. TEICHERT: I'm just wondering - There is a set of maps, I think it was furnished by the USGS, on the Upper Bear River. Marvin has a set. Was the whole Bear River mapped out at that time of the original Compact?

CHAIRMAN JIBSON: Yes, the entire river was mapped, in what we call land-use maps, by the Bureau of Reclamation. It was a real large-scale, and of course they were based on 1944 vintage photos. I know I had to furnish Marv some, and he's kept them up-dated. They were an awfully good map to work with; but they took a stack of maps that high, and so big, to cover them at that scale. Of course, they'd be sadly out-dated today. We still have the originals of them.

MR. ALLRED: I don't see that this replaces the records in every office that we maintain on a day-to-day basis; but it seems to me what we need from a standpoint of a base map is something where each state can really see what is happening in other states. I think the real key to this is this Landsat data. It can do nothing but get better than where it is; and as far as accuracy is concerned, we're doing a first adjudication with it exclusively. If that's good enough for the Corps, I have a hard time seeing why it wouldn't be good enough for us. If we go that route, then 1" to 100,000' is sufficient from the standpoint of the visual thing you want as to where we were in 1976. If you also have the Landsat data that really tells you, and that goes down to 1 acre accuracy, or can measure 1.1 acre at the present time, although a new satellite going up a good measure above can get about 4 times smaller than that.

In our old adjudications we used to go the route that George is talking about. I think we were using 1" to 660'. I'm convinced, with the new Landsat capability, that we don't need it. For example, the Landsat can tell the change -

CHAIRMAN JIBSON: Why don't you explain to the group what you mean by Landsat?

MR. ALLRED: The Landsat capability is the ability to analyze the image that comes from the satellite. It's called a Landsat satellite. It gives you a digital image; it's not a picture, it's a digital image - but it measures, what we're using in infrared reflectants. The reflectants, then, give you a certain digital indication. We obtain those from USGS. You then train the computer to recognize that digital signature as it appears on an image. At the present time, I think we can recognize something like 63 different of what are called 'signatures'. Either from the standpoint of differentiating between 'urban residential' and 'urban industrial', or 'urban commercial'. That thing can be analyzed. You can compare for example, a 1974 image, and those are available, with a 1980 image, and actually tell where the change is; where the changes have occurred. It takes field truth data - which in 1974 would be these maps that

we are doing; and 1980 would be some field truth maps plus some actual extra checking in the field. With that you can print out, or have available on a real time basis, the change that has occurred in the Basin as far as new lands. And also with regard to some urbanization. Obviously, you can't get it with regard to industrial expansion unless that industrial expansion is somehow tied to a land base that you can measure. But using that, I think that 1" to 100,000' gives you sufficient information; because the real data you use are the Landsat - not these maps.

CHAIRMAN JIBSON: That comes out in digital form.

MR. LORD: These would all have to be proofed in the time period around January 1, 1976, then, wouldn't they, Steve?

MR. ALLRED: Yes.

MR. LORD: Some limits - say three months before and after, or -

MR. ALLRED: I suspect most of the data are either going to be the summer of '75 or the summer of '76; and I don't remember in '76 what kind of year '76 was as far as development is concerned. But I suspect because we don't have a January '76 photo, we're going to have to settle for either '75 or '76, whichever is available. The Landsat data you can get every 18 days. It's available in '76; I don't know if it's available in '75 or not. I believe in '76, Ralph, it was every 9 days, wasn't it?

MR. MELLIN: They had two satellites going then.

MR. ALLRED: So, it was every 9 days. I think now it's every 18, until a new one goes up.

CHAIRMAN JIBSON: Dee, do you have a comment?

MR. HANSEN: I want to just add to what Steve said, and I agree with him that that's probably the best route to go. We presently have a research project going on at the University of Utah, and the Landsat system, where they're attempting to use the digital data that's coming from the satellite. One problem that we're having is the address of the satellite image. The satellite moves a little bit each time; so you don't get exactly the same picture, or image of the ground. They think that they can run a computer program for us that you don't even have to visually analyze the data. You simply feed a computer, and it will tell you if there is a change and then point out the spot where there's

a change. We're trying to do that with acreage surveys within the State, and I think it would work here very well if, in fact, they can do what they're telling me they can.

Two or three years ago when we first started this with the University of Utah, the resolution of the Landsat data wasn't good enough; but they're getting better cameras - or however they view the ground - all the time, and as Steve says, they get down now to 1 acre, which is accurate enough, I think, for the work that we'll be doing here. So, here's a case where you just simply feed the computer. You don't have to go out. You may want to check in the field, as Steve said. It may take some proofing. If the computer kicks out a coordinate and says there's some development going on there, naturally we're not going to call up and raise heck if it puts them over unless we check in the field. So, it will take some proofing, and within the State, on our own acreage surveys, we'll be proofing everyone that is indicated in overage. We're trying to get it down to an individual farmer - to prove his acreage within the bounds that he has land ownership. They think they can even do that; and if they can, our acreage survey worries are over in the future, I hope.

CHAIRMAN JIBSON: Dee, basically then, you and Steve agree that probably as far as the base map is concerned 1" to 100,000' would suffice?

MR. HANSEN: I think so.

CHAIRMAN JIBSON: If we used Landsat along with it.

MR. HANSEN: Yes. I don't think we can go out every year and check this out. I think the only realistic way of doing it is by Landsat data; and if we can develop a program, then the base map is just simply a base map - it's for reference to some date in time.

CHAIRMAN JIBSON: Do you foresee that this is going to be an expensive program?

MR. HANSEN: I don't see that it is going to be too bad. NASA is anxious to get this type of thing going. They're trying to get away from all wartime use and into peacetime use, so they can justify their budgets. I haven't found it too expensive, have you, Steve? It costs some money; but it's -

MR. ALLRED: It's about a \$100,000 viewer; so -

MR. HANSEN: Well, the equipment - the computer, the viewer, things like that - would cost a lot of money.

MR. ALLRED: But no; the big expense is the field and the ground proof; and as long as we have that capability on our staff, the actual computer processing and tapes are not a significant amount.

CHAIRMAN JIBSON: I'm wondering - what's your pleasure? It's 12:20. I just had another short statement to make on the budget. I would like to say this about the budget. The State assessments have been made for 1981 and therefore, even though we always budget in our annual meeting in April, I guess it is not a requirement that we approve our budget today. It is so closely tied to our stream-gaging program, and the State assessment for the 1981 fiscal year has been made, as I understand it, in all three states. So if we want to study the budgeting further with respect to our stream-gaging program we can do that; and not actually approve it today. But if we should approve the committee's action here, on the base map, I'm wondering whether your pleasure is to break for lunch. People in Utah and Wyoming have a meeting set up for this afternoon to discuss some questions that have come up in connection with the enlargement of Woodruff Narrows, and they are sort of 'playing it by ear' according to when we adjourn. I'm wondering what might be the best thing for us to do - whether to stay on here for a while and at least get some feeling on this base map and just a little further discussion on the budget, or whether you'd like to break for lunch and come back?

MR. ALLRED: Mr. Chairman, we have a 2:10 plane to catch.

CHAIRMAN JIBSON: What is your setup for this afternoon, George?

MR. CHRISTOPULOS: Well, I think we leave at 4:20 or 4:25.

MR. SKINNER: This is too prolonged. Let's finish the business.

CHAIRMAN JIBSON: Well, like I say, you can make it just as long as we want. You can hassle over what we should do on stream gaging, which ties into our budget. I was going to suggest a possible alternative here on budgeting. It's unfortunate, of course, that our people have tied our 1981 budget strictly to the 1980 budget, because we were very low in 1980, as we've discussed. But if we wanted to consider a total of about 25 gaging stations as a sort of permanent on-going group, as a primary interest to the Commission, even with the budget that Ted presented us, with a ceiling of \$36,300 from the Survey, with a slight modification, we could get by for 1981 with a total of 25 gaging stations.

I realize that 25 gaging stations perhaps should require a little more time than we have today to decide what they ought to be. I know Norm had one or two exceptions to the 16 that I recommended be deleted in our last meeting. Pescadero was one. Maybe that's as far as we can go today.

MR. ALLRED: Mr. Chairman, I have some things on the budget that I'd like to talk about before I get that all confused. I wonder if we might get a decision on the base map?

CHAIRMAN JIBSON: Okay. I gather that you'd like to stay in session here for a little while, because of your plane commitments. In view of what Steve and Dee have said, George, do you have any further feeling, since we discussed the Landsat?

MR. CHRISTOPULOS: I'd like to better understand what Landsat would do for you. I'd like to know where we would start as far as a base map is concerned. I presume that Utah, if you're going to start out with a 1" to 100,000' base map, is going to have to transfer that information to its adjudication maps or something, or from somewhere, as a starting point, aren't you?

MR. HANSEN: Yes. We'd be happy to do that. I just didn't want to get into putting it on 7½-inch quads, because it involves so many maps.

CHAIRMAN JIBSON: Is Idaho in that same position, where you'll have to -- ?

MR. ALLRED: We would have to use our 1968, which was our work, and in the 1970's the SCS Type IV work that was done for the Basin. And that's done for the whole Basin, and using a zoom transfer scope put on these. That would not be that big a job for us; and then we'd have to do some field checking, too.

MR. MELLIN: They are also using the U-2 photography; and I did not mention that in the Upper Basin I understand BLM has 1974 aerial photography in Wyoming; 1976 in Utah in Rich county; and that is also in infrared photography. So that would be available for checking, too.

CHAIRMAN JIBSON: Did you investigate the last USGS coverage?

MR. MELLIN: The USGS coverage would be ortho-photo, I guess, you're referring to.

CHAIRMAN JIBSON: I was under the impression that we have fairly recent coverage in that part of the Basin.

MR. MELLIN: That's somewhat disjointed, as far as the entire Basin is concerned. But it appears that there will be ortho-photo coverage of the entire area at a 7½-minute scale in about 1 to 2 years, and that may take some prodding from, like yourself, to get that pushed along to that point. We're in pretty good shape except for some spots.

CHAIRMAN JIBSON: Well, are we at a point where we could give this committee some further direction?

MR. CHRISTOPULOS: What I kind of see maybe developing, is that each state would attempt to get this information on a 1" to 100,000' scale of the existing situation, more or less, as of January 1, 1976. That's what I'm hearing. And then beyond that, we could look into Landsat, or whatever, to show change. I think between that, and what water rights have been issued, and what's happening in our water-right situation, as far as completions, beneficial use, that's being made, of course that's the other check that you have.

CHAIRMAN JIBSON: Does that sound pretty good to you, George, as far as using that scale? Recognizing the fact that we can't get the kind of detail on there that we can on the 24,000?

MR. CHRISTOPULOS: Well, I'm certainly willing to see what we can do with it.

MR. LAWRENCE: I'm assuming that you haven't got it for Wyoming yet, to the -

MR. CHRISTOPULOS: Well, I really don't know. Of course, as Ralph mentioned, this Type IV study in 1970, that's the starting point. We did go and map all the irrigated acreage in Wyoming, at different times, through different portions of the state. I'd have to look into that to see what we have for the Bear River Basin.

MR. LAWRENCE: You could use whatever you wanted - 7½-minute quads, or whatever, if you were working towards getting a base map.

CHAIRMAN JIBSON: Your coverage up in Uinta county, Marv, is pretty well up-to-date, isn't it?

MR. BOLLSCHWEILER: Yes.

CHAIRMAN JIBSON: And the old land-use maps. That data could be transferred.

MR. TEICHERT: We are having a map prepared at the present time which would cover the Lower section of Wyoming for the changing to irrigation and power

districts, showing the irrigated acres that would be covered under that.
But I don't know what the scale will end up.

MR. CHRISTOPULOS: I think what we should do is just go ahead and maybe agree that we try to go towards the 1" to 100,000' base map and each of the three states try to come up with a base map for their state.

CHAIRMAN JIBSON: Will that suffice for the committee, then, Dee and Ralph, to move ahead?

MR. HANSEN: Does that mean that George is suggesting that each state prepare its own base maps and it not be a budget item?

MR. CHRISTOPULOS: Well, I think it's a question of getting the information together. I think eventually what we wind up with is this 11-sheet printed base map. But from information furnished by each of the three states. So there would be a budget for printing.

CHAIRMAN JIBSON: We'd have a budget item, as I gather, ranging from \$13,000 to \$14,500 and that would probably come within the '81 fiscal year.

MR. MELLIN: I would say that would be the earliest.

CHAIRMAN JIBSON: Yes. Certainly nothing coming in 1980 that would require any kind of -

MR. MELLIN: Absolutely not.

MR. CHRISTOPULOS: I think it might be appropriate to have a meeting of that committee, between now and our next meeting; let them all kind of see where they might go with this thing, come back together 2 or 3 months from now, and see what they come up with.

CHAIRMAN JIBSON: I think we could do that. It had been suggested that the Budget Committee may have to get together before our next regular meeting. Possibly we could 'kill two birds with one stone', and get the committee to come back with us at that time. Does that sound feasible?

MR. CHRISTOPULOS: It sounds okay.

CHAIRMAN JIBSON: Shall we leave it at that point then without actually agreeing, by Motion, to any amount for the budgeting? Is that okay?

MR. LAWRENCE: I think it's fine. I think each of the states, the money has already been appropriated for FY '81, hasn't it?

MR. ALLRED: Mr. Chairman, to finish this up then - one of the things we wanted to do was get started this summer with some of the work; and I anticipate then, with what we've said, if we go ahead on this basis, unless somebody has some real problem with it when they get together, it's worthwhile for us to proceed.

CHAIRMAN JIBSON: Yes; on the 1" to 100,000'.

MR. ALLRED: Regarding the budget, while we've got our '81 assessments set, I think the Budget Committee needs to get together and look at some alternatives, particularly in light of what Ted told us. I've done just some scribbling around, and it seems to me there's some things that we need to investigate further. We've been, in effect, relying on the USGS to do the work in a normal co-op procedure; and we have not had, directly, a Commission office - except as the Commission operated through the USGS. With what is going on, I think maybe it's time to look at a Commission office. A Commission office, not only as we have used it in the past, but also as a coordinated operation for the three states for the water master system. I think that at some point in time - maybe we're getting to that point - but at some level of time it would appear to me there could be a real advantage in making the Commission operating the gages and even, as has happened in some other states, through a reverse co-op; instead of the USGS operating the gages and the Commission paying them, perhaps the USGS could appoint a certain portion of the Commission, operating the gages. It just appears to me that at the level I budget you proposed, that you could work something out like that. It would only take \$36,166 to make the program whole, as you defined it in your budget I. I'm not proposing anything now; but I think there are things that the Budget Committee has to look at pretty hard. If we're faced with cutting back to 25 gages, I think we need to look at some of these other things before we do that. In that one instance, that's \$36,166 compared to the current USGS contribution of \$36,300.

CHAIRMAN JIBSON: Yes. Do we have any further comment from the other two states on Steve's suggestion that the Budget Committee should try to get together, perhaps early this summer?

MR. LAWRENCE: Who is the Budget Committee now.

CHAIRMAN JIBSON: I started to look through my files to see if you had handed me a letter; but in the '78 Annual Report it's Dan Lawrence, J. W. Myers, and Steve Allred. I tried to search the Minutes to see if we had covered that, because

that is a new Budget Committee from the one we have had. I don't know whether that was just word-of-mouth, or whether I have a letter to that effect; but that is the last word I had.

MR. LAWRENCE: If it was George, and he'd get Senator Myer's proxie, we'd be together the 18th of July. Maybe we don't have time during that kind of activity to come a day earlier. It seemed to me that this is going to be more than an hour meeting that Steve's talking about.

MR. ALLRED: I would suggest that we take a day and dedicate a trip to it. I know I've tried to get together at other meetings on things, and we end up spending an hour trying to do something. I just suggest this thing's important enough, I'm willing to come to Salt Lake for a day.

MR. TEICHERT: I feel, as far as the Wyoming section is concerned, as we look at this depletion allowance, it's not going to come from additional irrigation; it's going to come from industry and other things. It's not going to be reflected on the maps, anyhow.

MR. CHRISTOPULOS: John, we're really talking more about the stream-gaging program, or our Commission program, per se, more than we are about depletions.

CHAIRMAN JIBSON: Yes. The budget as it ties into our overall stream-gaging program, John. I think you are correct in what you are saying; with the industrial use that you are getting up there, and I'm sure are going to be getting in increasing amounts. That is something that won't show up on a base map. But, on the other hand, you have a better handle on this thing than you do on increased irrigation.

MR. LAWRENCE: I think Steve is suggesting that the time is rapidly approaching when the Bear River Commission needs to be more of an operating Commission, in terms of managing the River, and needs to start looking towards that. Is that what you are saying? Those kinds of things need to be brought out in some preliminary meetings.

CHAIRMAN JIBSON: Would you like to suggest a date or approximate time?

MR. LAWRENCE: Does that Committee have a chairman?

CHAIRMAN JIBSON: J. W. Myers was the last chairman of the Committee. I think the by-laws state that the chairman should select a chairman for each Committee of the Commission. As of now, Wes is chairman of the Budget Committee.

MR. CHRISTOPULOS: I think what we should really do is maybe think along the lines of having some sort of a special - whether it is the Budget Committee, or whether it's a Commission meeting. Really, I think what Steve is proposing here is pretty big. Because whether you do it through a Budget Committee and then consider it and bring back recommendations to the full Commission, or whatever, it's beyond a couple of people.

CHAIRMAN JIBSON: It is actually part of the Operations Committee, too; since we're involved in the stream-gaging aspect of it, and the administration of the Compact. So you are correct. It's bigger than a Budget Committee function.

MR. ALLRED: Mr. Chairman, I think though, that there could be an advantage in two or three of us getting together. It would save us a lot of questions that have to be looked into on this thing. You can't really do it in a Commission meeting. I suggest maybe there's reason to try to at least find out some of those answers before we bring the whole Commission together. I think it would be more productive for Commission members.

MR. LAWRENCE: Maybe what George is saying is that we ought to appoint a special study committee to get its homework done. And everybody, each state, would have had a caucus, too, after the committee meeting; and come prepared to really discuss it the next time the Commission is together.

MR. CHRISTOPULOS: I think we either ought to have that kind of a special committee that can get together and spend a day together and come with some recommendations, either the following day to the Commission, or -

CHAIRMAN JIBSON: This is off the cuff here - How would it be if the present Budget Committee - Steve, George, and Dan, and at least one other man from each state - join in a preliminary meeting; so that we have a meeting of at least six from the states?

MR. CHRISTOPULOS: I think that would be alright; and I think that, as I say, there are many ramifications of this. I'd like to talk to Steve and get his feeling for what he means, when he talks about setting up a Commission office. How it might be involved in operations; things like this. I think these things have to all be aired. I think maybe your idea of a couple of people from each state sitting together, just to thrash it out; and then we either would have a Commission meeting sometime down the line after that, or even the following day, depending on how you set it up. It might be better to have the Commission meet

later on after this group has met and kind of mulled it over and thought of the various alternatives; kind of see if we can come to some sort of conclusion as to what we might feel might be best. Of course, I think one of the very important things would be quite a discussion on these gaging stations.

CHAIRMAN JIBSON: I'm sure it would be. Because everything hinges on what kind of a stream-gaging program you want to continue as far as budget is concerned.

MR. CHRISTOPULOS: Do we have anything we can do, or should we be doing anything, the remainder of today on this - or should we just leave it to this special committee?

CHAIRMAN JIBSON: Unless Steve, or Dan, particularly, have something else to suggest on this, I don't think we can proceed any further. I don't think that you would be interested in approving either of these budgets that I've presented today for 1981. Since, at least our assessment, is approved to the states, we're not pressed with a deadline, as of now.

MR. CHRISTOPULOS: If nothing happened with this committee, the worst real problem that we would have is the money that the GS might have in the way of match.

CHAIRMAN JIBSON: For next year?

MR. CHRISTOPULOS: For next year.

CHAIRMAN JIBSON: I think we'd have to meet early enough to let the GS know what we want to do for 1981.

MR. ARNOW: I expect to know by about July 1; and if you're going to withdraw cooperation or something like that, I'd want to use those funds for some other cooperator.

MR. CHRISTOPULOS: I think we ought to try to set a date.

CHAIRMAN JIBSON: Why don't we come up with a suggested date and place? Ted, you would be able to probably give us some answers by the 1st of July, you say?

MR. ARNOW: I think so.

CHAIRMAN JIBSON: It might be well to meet just after that, then, at the nearest convenient date.

MR. ALLRED: What about late in June?

CHAIRMAN JIBSON: The only thing there would be if Ted would have an answer on his request for an increase.

MR. ARNOW: I can try to get that early. I think they'll 'cut the pie' when all the districts are in, and I think the last one comes in early in June, and then they finally get out the allotments by July 1st.

MR. ALLRED: Maybe that last week in June?

MR. LAWRENCE: I'm tied up the latter part; probably starting as early as Wednesday. Thursday, Friday, and Saturday, for sure.

MR. ALLRED: 23rd or 24th?

CHAIRMAN JIBSON: How does that look to you, George?

MR. CHRISTOPULOS: I've got something flagged; it's kind of tentative. You can't make the 25th, Dan?

MR. LAWRENCE: I probably could make the 25th. I couldn't make the 26th, though, as a second day for the Commission, or something.

MR. CHRISTOPULOS: If we met here in Salt Lake on the 25th --

CHAIRMAN JIBSON: Got here as early as we could -- Should we set it, at least tentatively, for the morning of the 25th of June, here in Salt Lake?

MR. LAWRENCE: Is that alright, Dee?

MR. HANSEN: That's fine.

MR. CHRISTOPULOS: Okay.

CHAIRMAN JIBSON: Okay; then we'll plan on the Budget Committee plus at least one additional from each state.

MR. CHRISTOPULOS: I can get here at 9:30, I think.

CHAIRMAN JIBSON: Can you get here at 9:30? You got in about 9:30, didn't you, Steve?

MR. ALLRED: I got in at 7:30.

CHAIRMAN JIBSON: Ted, I guess you can make that?

OTHER BUSINESS

CHAIRMAN JIBSON: Do we have any other business to come before the Commission?

I have one small item. I hate to even bring it up; but maybe I'll just mention it. George wasn't here at the last meeting, and the question came up whether on the 6-month reports of applications for appropriation we should include all these small domestic filings, and so forth. Your people didn't want to make a decision for you; so we didn't make a decision at that time.

MR. CHRISTOPULOS: I think that we, in spite of what the Minutes say - that we pull them off the computer - we don't. We do them manually. I think most of our filings are stock and domestic filings. The question arose as to whether those are that necessary, since they are pretty well exempted. I think that's what we had in mind, is whether or not there is any real purpose served in listing them.

CHAIRMAN JIBSON: I think Dee mentioned that yours is pulled off the computer, Dee? That it wouldn't make that much difference to you - or what?

MR. HANSEN: We pull them off by hand, too.

CHAIRMAN JIBSON: It would tend to balance out a little better. It always looks like Utah has 6 or 8 pages of applications, which they do; but about 75% of them are small domestics that they include all the time. And apparently Idaho has not included those in the past. It would seem that it might be expeditious, and I don't think it would lose anything if we didn't report the single-family domestic rights.

MR. CHRISTOPULOS: We also have a bunch of temporary uses that are maybe good for two years.

CHAIRMAN JIBSON: They could, however, they're industrial uses, and they could come into your depletion in the future, even though they are temporary type of uses. It might be advisable to continue those.

MR. ROBERTS: Wally, I'd like to point out that I've been hearing the story that Utah Power & Light Company has been objecting to some of these stock filings, or home-use filings.

CHAIRMAN JIBSON: They've been objecting to everything.

MR. ROBERTS: I think this may be right. It may be a question, in my mind, at least - of, do these people have to pay attention to Utah Power & Light Company's objecting? There's a real concern about this in my area; and I wondered, just as protection for those people, and it might be for everybody, it might be well to have those on record.

CHAIRMAN JIBSON: Of course the Commission has no more authority than any individual to accept or protest the right. In connection with Utah Power & Light Company's stand, Mike or Dee, could you give us an update on what they're doing as far as the Utah filings are concerned?

MR. HANSEN: Well, in answer to Dan's problem, they're all on record anyway in the states, and the Commission has no authority to approve or deny, anyway. The states have that authority. So I don't know that they need to be on this record.

MR. ROBERTS: I didn't mean on our record; but maybe on the states' records.

MR. HANSEN: They are on ours. We will continue carrying that. Of course Utah Power & Light's stand, Mike probably is better able to treat than I would be.

CHAIRMAN JIBSON: The only other point that I wanted to mention to the group - and I've mentioned it before - Each two years we did set up a summary file of rights. I noticed I got that summary from Idaho this time. This would have been the year for that update, and the cutoff date would have been December 31, 1979; and then presented at this meeting today would have been the summary filings. Idaho pulled theirs and sent them, as they did a year ago. Utah and Wyoming did not. I personally would not make an issue of it; but if we think that it's no longer particularly desirable, in view of our Amended Compact and inventory-type of thing that we're going to have to do on depletion anyway, it might be advisable to do away with the biennial summary.

MR. ALLRED: I would think what would be important, now, since the Compact has been approved, are listings as of January, 1976. Prior to that, it doesn't have much validity anymore. But it seems to me there is reason to re-compile those datings from that date in the Compact.

CHAIRMAN JIBSON: What we're saying, then, is that anything since January 1, 1976 that we've presented to the Commission as pending, say, if they later rejected it, or later developed it and approved it, then we should have that updated summary. Is that what you're saying Steve? That sounds okay. If we went on

even years, we could use a cutoff date of next December 31, if you'd like - December 31, 1980, and present it in our next Annual meeting. Does that sound okay, Steve? Shall we do that? I'll try this time to remind you ahead of time.

MR. HANSEN: Just don't let Idaho look better than us because we didn't do something we were supposed to.

CHAIRMAN JIBSON: I was trying to get you off the hook on those domestic filings.

MR. CHRISTOPULOS: Did we come to a conclusion on the domestic filings, or not?

CHAIRMAN JIBSON: I thought we concluded that inasmuch as the point that Dan Roberts brought up, they would be on file and as far as the Commission is concerned, there would be no particular reason to have them brought to the Commission each six months. Is that satisfactory with the three states?

MR. HANSEN: It's less work for us.

MR. ALLRED: One code change in our printouts. Doesn't make any difference.

CHAIRMAN JIBSON: Is that okay, George? I think Idaho has a problem, don't you? Or do you? You're filing on everything now; but you haven't done in the past?

MR. ALLRED: The printout, since 1971, everything had to be filed on; but now it takes only 15 minutes to get.

CHAIRMAN JIBSON: Alan was just a little vague in our last meeting as to what the status was right now on all those; so we didn't try to reach a decision on it.

MR. ALLRED: I have one question with the ground rules. Idaho has a mandatory filing process for all old rights; and there are going to be tens of thousands of those by '83, and it's already starting. I'm assuming that you don't want anything that's a claim of an old right, since that would already be covered by the Compact.

CHAIRMAN JIBSON: I would think that we wouldn't want anything prior to January 1, 1976.

MR. HANSEN: That would be part of your base map. It may be valuable for you to verify that and put it on paper.

MR. CHRISTOPULOS. I think if we leave these out - these post-January 1, 1976 domestic - if we're going to leave out the domestic and stock that are exempt from the Compact, I think we ought to put a little caveat at the head of the tabulation saying that as of a certain date we stopped reporting these.

CHAIRMAN JIBSON: Yes, we could do that, and I would put it in my report, and also it would show in our next Biennial report. If we have no objection to that, then we will leave out, in the future, the domestic filings. And we will summarize, with the next cutoff date of December 31, 1980, the status of our rights since January 1, 1976. Agreed?

Do you have anything else? It's one o'clock, Ed. Do you want to make a statement about the meeting that you have called, as to whether you boys want to pass today and go right into the meeting, or whether you want to go out and have lunch?

MR. SKEEN: I think maybe we better have lunch and come back here as soon after 1:30 as we can. I wonder if we can use this room?

CHAIRMAN JIBSON: I think we had it all day, didn't we, Connie?

MRS. BORROWMAN: Yes.

ADJOURNMENT

CHAIRMAN JIBSON: If there's no further business, a Motion would be in order to adjourn.

MR. WESTON: I so move.

MR. TEICHERT: Second.

CHAIRMAN JIBSON: All in favor?

Meeting adjourned at 1:00 p.m.

BEAR RIVER COMMISSION

22 EAST CENTER ST.

LOGAN, UTAH 84321

April 28, 1980

Wallace N. Jibson

1980 Water Supply Outlook and Compact Operation

Water Supply Outlook

Following two dry seasons out of the last three, it's encouraging to find above-average streamflow forecast from all watersheds in Bear River basin. Hopefully, the April 1 forecast will not be followed by a sharp turn downward as it did last year.

Snow cover improved during March and on April 1 averaged 122 percent over all Bear River courses. However, after three weeks in April, the overall snowpack in the basin had dropped to 115 percent, but the key station for the upper river (Hayden Fork) remained at 144 percent, the April 1 percentage of normal. Streamflow forecasts generally are lower this year than snowcover would indicate because of dry ground conditions over the watersheds. Potential April-July runoff is especially significant this year to owners of Woodruff Narrows Reservoir where because of spillway modifications, an effort is being made to discharge reservoir inflow through the outlet conduits. (See 'Reservoirs' paragraph.)

The table below shows the most probable seasonal runoff as published jointly by the National Weather Service and the Soil Conservation Service following the April 1 snow surveys. Weekly updates on snow-water content are now available for those snow courses where snow sensors and telemetry are available. The key station for the upper Bear on Hayden Fork is equipped for updates.

Streamflow in Acre-Feet

April - July

| | <u>Average</u> <u>1963-77</u> | <u>Measured</u> <u>1979</u> | <u>Forecast</u> <u>1980</u> | <u>Forecast as</u> <u>Percent of</u> <u>Average</u> |
|------------------|----------------------------------|--------------------------------|--------------------------------|---|
| Upper Bear River | 114,000 | 77,800 | 132,000 | 116% |
| Smiths Fork | 120,000* | 89,900* | 125,000* | 104% |
| Logan River | 118,000 | 92,200 | 130,000 | 110% |

*April-September

Reservoirs

Warm weather in the past couple weeks has resulted in extensive melting of the low and intermediate snowpack with rather high flows from many streams that drain the medium-elevation watersheds. Inflow to Woodruff Narrows Reservoir reached 1,750 cfs last Tuesday. Generally, such initial peaks on the main stem and major tributaries are followed by the annual peaks a month or six weeks later. However, if diversion for irrigation above Woodruff is near maximum at the time of the later peaks, inflow may not exceed this initial peak. Total storage in Woodruff Narrows last week was in excess of 18,000 acre-feet as releases were being maintained at the maximum rate of 1,220 cfs under a head of about 28 feet.

Woodruff Creek Reservoir began spilling last Monday, and Sulphur Creek Reservoir probably is spilling by today. Most of the capacity of Whitney Reservoir is yet to fill as no melt has taken place at that elevation.

Bear Lake on April 23 had active contents in storage of 1,077,800 acre-feet at elevation 5,918.75 feet. This is the same content and elevation as a year ago on this date. Bear Lake graphs for 1979 and 1980 are shown on page 6. With normal precipitation in the next two months, we would expect the Lake to peak higher than 5,921 feet (1,235,000 ac-ft). Inflow to Bear Lake has increased considerably this past week with 1,850 cfs in the Rainbow Inlet Canal on April 23rd and all inflow going into storage.

Stream-Gaging Program

In Special Meeting last August, a detailed review of the cooperative stream-gaging program was presented to the Commission. A total of 16 of the 41 gaging stations then in operation were recommended to be considered for removal from the Commission program. Three of the sixteen were discontinued as of September 30, 1979. Some of the remaining 13 stations were felt to be of continuing value to the Commission, and all were left in operation through the 1980 water year pending further action at this meeting.

We feel at this time that at least 5 of the 13 should be dropped from the Commission program. Alternatives to discontinuing these records would include operation within the USGS-State program or operation by State or local interests. The five are:

- 1047 - Little Bear R. bl Davenport Cr.
- 1049 - East Fk. Little Bear R. ab Porcupine R.
- 1070 - Hyrum Reservoir
- 1152 - Logan R. bl Blacksmith Fork
- 1256 - Malad River near Plymouth, Ut.

Little Bear River (above Hyrum Res.) near Paradise is not included above even though last year we recommended it be dropped from the Commission group. Flow at this gage, though affected by irrigation and Porcupine Reservoir, is a good measure of watershed hydrology in the south part of Cache Valley. It has been used for years as a point of streamflow forecast and would be the last

remaining gage in the Little Bear River system if the five are discontinued. It has much value of course to local interests as a water-management station. Malad River (Plymouth) had been recommended earlier for exclusion from the Commission program. This has a 15-year record that correlates closely with Malad River near Woodruff, Idaho (about 15 miles upstream).

Remaining gages of those initially recommended for discontinuance are primarily in the upper basin and include:

- 0104 - East Fork Bear River
- 112 - West Fork Bear River at Whitney Dam
- 114 - West Fork Bear River below Deer Creek
- 209 - Woodruff Creek below Reservoir
- 195 - Chapman Canal at State line
- 380 - Bear R. below Smiths Fork
- 685 - Bear River at Pescadero

Consideration of future stream gaging is directly tied to the budget, which is the next item in this report.

Budget

Beginning with the 1981 fiscal year, annual stream-gaging budgets will be based solely on an estimated cost per gaging-station year multiplied by the number of gaging stations that are included in the cooperative USGS-Commission program. This estimate is the cost used by the Utah District USGS office that is applied to all Federal-State gages in the State. The stream-gaging budget, thus computed, will result in an increase over 1980 and earlier budgets that were based only on the Logan office cost, plus District office and Washington office overhead. Some reasons for this increase have been discussed in previous meetings.

Two budget estimates have been prepared for your consideration today because the 1981 cooperative stream-gaging program is not firmed up at this time. Budget number 1, page 7, is based on the 38 gaging stations currently operated in the cooperative program. Budget number 2, page 8, is based on the elimination of five gaging stations from the coöp program. The 'Compact Assistance' part of the coöp program and 'Direct Expenditure' items, outside the coöp program, remain the same in each budget.

For many years, we have assessed 4 1/2 percent of the total amount in each cooperative agreement for District office administrative overhead and 9 percent for Washington office overhead, the latter amount being applied uniformly throughout the country. For other stream gaging and project activities in Utah, the 4 1/2 percent assessment gradually has increased to a current 18 percent. Corresponding increases in assessment to the Logan program have not been made for a number of reasons. First, because of the interstate scope of programs with the Commission, administrative and several other functions have been conducted differently than in other sub-district and field offices. For instance, we have prepared and adhered to our own budget each year from which the annual cooperative

agreement is prepared; streamflow records have been computed and prepared to the point of publication without District review; purchasing and contracting have taken place at the local level; and, in several other respects, we have operated more like a small District office doing much of our own administrative work.

The Logan office now has been designated as a 'Field Headquarters' instead of a 'Subdistrict office'. Bruce Garrett, who has been with us for the past 16 years as a Technician, will be in charge. Budgeting and most other administrative matters will now be carried out at the District level.

Of special note, is that the present administrative assessment of 18 percent includes a number of obligations and/or services that have been included in previous budgets, in total or in part, in the categories number (5), (6), and (7) as shown in the breakdown. These would include office and garage space rental, part of the overall computer data processing costs, telephone and other communication charges, and routine office supplies and costs. About \$8,900 in these categories are included in the current (1980) budget, so the relative rate change in 1981 would be an increase from 4.5 percent to 10 percent rather than to 18 percent.

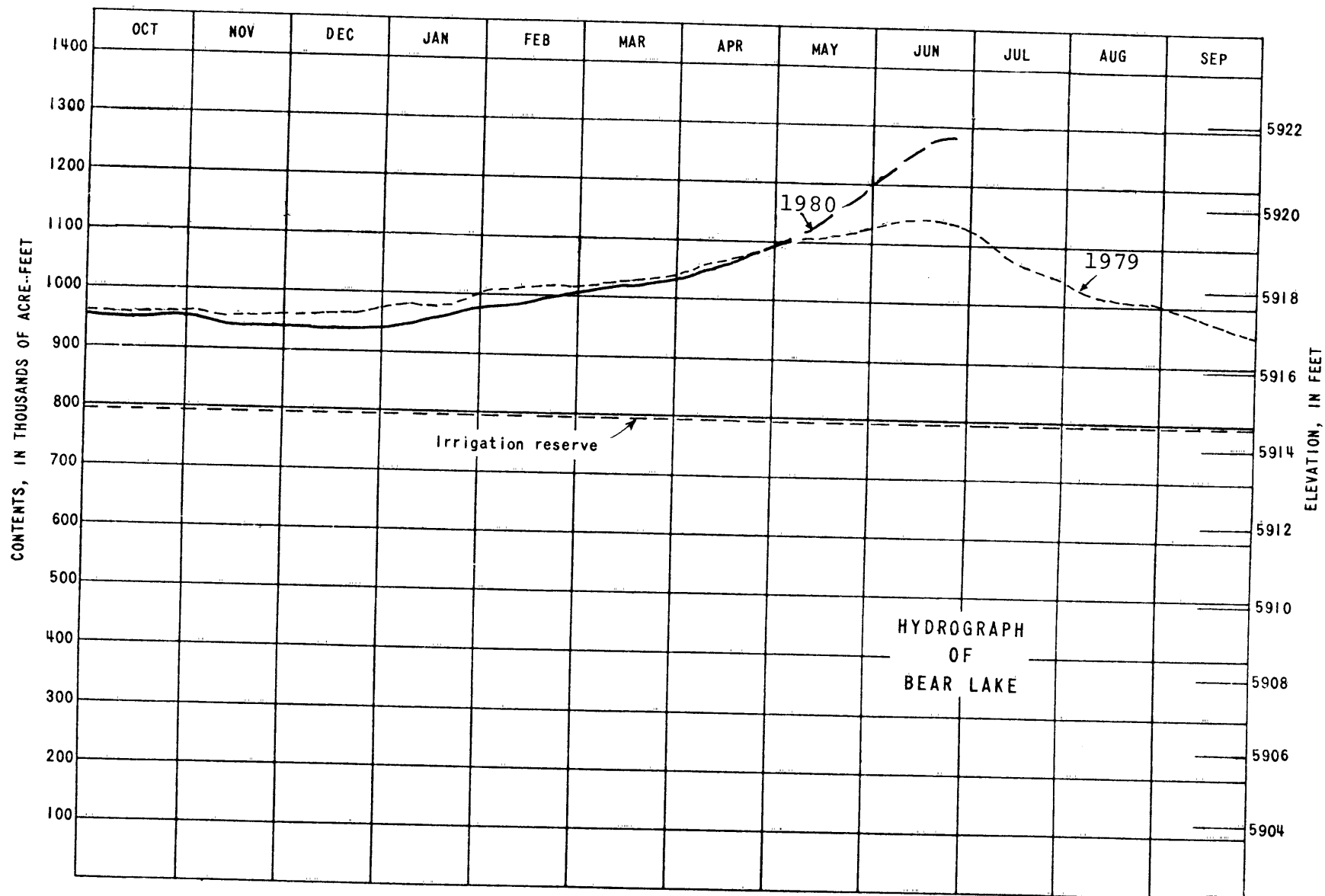
The first budget would result in a total cost to the Commission of \$68,490 (\$22,830 per State), an increase of 20 percent over 1979 and 48 percent over 1980 fiscal years. The second budget would result in a total cost of \$60,690 (\$20,230 per State), an increase of 6 percent over 1979 and 31 percent over 1980.

In researching Minutes of the last three meetings, I find that the Commission has approved assessments to each of the States as follows: 1980 - \$22,000; 1981 - \$23,000; and 1982 - \$24,000. By subsequent motion, in November 1979, the 1982 assessment of \$24,000 is to be held in abeyance until this meeting today. It is evident that the assessment of \$23,000 for 1981 would cover either of the two budgets I am presenting today. However, we have not included in either budget an estimate for preparation of a base map and other work incidental to implementation of depletion provisions of the Amended Compact. A report from the State Engineers' Committee today may shed some light on these requirements.

Applications for Appropriation

Appropriation summaries submitted since the last meeting are shown on pages 9 through 14. Total of pending and approved applications in Idaho and Wyoming would appropriate 75 cfs. This includes a pending appropriation for 25 cfs to be pumped out of Bear River for the Cub River Irrigation Company serving land in Idaho and Utah. Utah pending and approved applications would appropriate 185 cfs, mostly surface water, and 32,467 acre-feet of storage, primarily in Rich County. Of the 185 cfs, 162 cfs would be a non-consumptive power right to Hyrum City on the Blacksmith Fork. All of the Rich County storage rights, which are pending, are on Saleratus Creek and tributaries serving the Deseret Livestock

Company (Deseret Ltd). Reservoirs would include enlargement of the existing Neponset Reservoir, present capacity of which is confirmed in the Bear River Compact. The enlargement would not be served from Bear River main stem as is the existing reservoir.



BEAR RIVER PROGRAM

DETAIL OF BUDGET

Fiscal Year Ending September 30, 1981

April 28, 1980

Budget #1

| <u>Detail of Budget</u> | <u>Allocable for Stream Gaging (Coop. Agreement)</u> | <u>Bear River Compact Assistance (Coop. Agreement)</u> | <u>Administ. Allocation (Direct Expend.)</u> | <u>Total Budget</u> |
|------------------------------|--|--|--|-------------------------|
| (1) Personal Services | \$ 75,673 | \$4,310 | \$ 0 | \$ 79,983 |
| (2) Travel & Subsistence | 8,700 | 500 | 0 | 9,200 |
| (3) Fiscal & Administ. (SLC) | 21,341 | 1,260 | 0 | 22,601 |
| (4) Washington Service Chge | 10,670 | 630 | 0 | 11,300 |
| (5) Rental (Office & Stor.) | See item(3) | 0 | 0 | 0 |
| (6) Digital Recorders (Rent) | 1,176 | 0 | 0 | 1,176 |
| (7) Office, Supplies, Misc. | 1,000 | 300 | 60 | 1,360 |
| (8) Biennial Report | 0 | 0 | 1,200 | 1,200 |
| (9) Treasurer's Bond & Audit | 0 | 0 | 350 | 350 |
| (10) Printing & Reproduction | 0 | 0 | 300 | 300 |
| (11) Legal Retainer & Fees | <u>0</u> | <u>0</u> | <u>300</u> | <u>300</u> |
| TOTAL | \$118,560* | \$7,000 | \$2,210 | \$127,770 |
| <u>Allocation of Budget</u> | | | | |
| Geological Survey | \$ 59,280 | \$ 0 | \$ 0 | \$ 59,280 |
| Bear River Commission | <u>59,280</u> | <u>7,000</u> | <u>2,210</u> | <u>68,490**</u> |
| TOTAL | \$118,560* | \$7,000 | \$2,210 | \$127,770 |

*38 gaging stations at \$3,120/station year

**\$22,830 per state

Note: \$6,300 transferred from item (5) and \$2,624 from (6) & (7) to item (3).

BEAR RIVER PROGRAM

DETAIL OF BUDGET

Fiscal Year Ending September 30, 1981

April 28, 1980

Budget #2

| <u>Detail of Budget</u> | <u>Allocable for Stream Gaging (Coop. Agreement)</u> | <u>Bear River Compact Assistance (Coop. Agreement)</u> | <u>Administ. Allocation (Direct Expend.)</u> | <u>Total Budget</u> |
|------------------------------|--|--|--|-------------------------|
| (1) Personal Services | \$ 64,795 | \$4,310 | \$ 0 | \$ 69,105 |
| (2) Travel & Subsistence | 8,400 | 500 | 0 | 8,900 |
| (3) Fiscal & Administ. (SLC) | 18,533 | 1,260 | 0 | 19,793 |
| (4) Washington Service Chge | 9,266 | 630 | 0 | 9,896 |
| (5) Rental (Office & Stor.) | See item(3) | 0 | 0 | 0 |
| (6) Digital Recorders (Rent) | 966 | 0 | 0 | 966 |
| (7) Office, Supplies, Misc. | 1,000 | 300 | 60 | 1,360 |
| (8) Biennial Report | 0 | 0 | 1,200 | 1,200 |
| (9) Treasurer's Bond & Audit | 0 | 0 | 350 | 350 |
| (10) Printing & Reproduction | 0 | 0 | 300 | 300 |
| (11) Legal Retainer & Fees | <u>0</u> | <u>0</u> | <u>300</u> | <u>300</u> |
| TOTAL | \$102,960* | \$7,000 | \$2,210 | \$112,170 |
| <u>Allocation of Budget</u> | | | | |
| Geological Survey | \$ 51,480 | \$ 0 | \$ 0 | \$ 51,480 |
| Bear River Commission | <u>51,480</u> | <u>7,000</u> | <u>2,210</u> | <u>60,690**</u> |
| TOTAL | \$102,960 | \$7,000 | \$2,210 | \$112,170 |

*33 gaging stations at \$3,120/station year

**\$20,230 per state

Note: \$6,300 transferred from item (5) and \$2,624 from (6) & (7) to item (3).

Presented to Commission:

| Applic. Number | Date of Filing | Name | Source | Use | Location | Amount (cfs) | Act'n |
|--------------------------------|----------------|-------------------|-----------------------|----------------|--------------------|--------------|-------|
| | | | <u>STATE OF IDAHO</u> | | | | |
| 11-7171 | 11-13-79 | BLM | Pegram Cr. | Wildlife | S22T15SR45E B.L. | 0.10 | Pend |
| 11-7172 | 11-20-79 | Zelda C. Evans | groundwater | Irr. | S14T13SR46E B.L. | 2.9 | App. |
| 11-7173 | 12-27-79 | Soda Springs City | Munic Waste Wtr | Irr. | S13T9SR41E Carib. | 4.0 | Pend |
| 11-7174 | 01-14-80 | L. Anderson et al | groundwater | Irr-Dom | S7T12SR43E B.L. | 0.20 | App. |
| 11-7175 | 01-28-80 | Cattle Baron, Inc | groundwater | Irr-Stk | S5T13SR44E B.L. | 0.87 | App. |
| 11-7176 | 02-01-80 | Ezra Lakey & Sons | groundwater | Irr. | S16T9SR42E Carib. | 6.8 | App. |
| 11-7177 | 02-05-80 | Dale Ayers | groundwater | Dom-Stk | S34T7SR41E Carib. | 0.18 | App. |
| 11-7178 | 03-05-80 | Reed W. Kunz | groundwater | Irr. | S36T12SR43E B.L. | 0.80 | App. |
| 13-7265 | 10-30-79 | Franklin City | groundwater | Munic. | S21T16SR40E Frkln. | 0.70 | App. |
| 13-7266 | 11-02-79 | J. Roberts et al | trib to Sinks | Dom-Stk | S32T13SR8E Frkln. | 0.08 | Pend |
| 13-7267 | 11-13-79 | H. N. Williams | spring | Dom. | S7T16SR38E Frkln. | 0.02 | App. |
| 13-7268 | 11-13-79 | BLM | sp-sinks | Stk. | S3T11SR41E Carib. | 0.50 | Pend |
| 13-7269 | 11-16-79 | D. Olson et al | drain | I-D-S | S26T14SR40E Frkln. | 0.50 | Pend |
| 13-7270 | 11-19-79 | D.M. Hatch | groundwater | Dom. | S8T16SR40E Frkln. | 1.2 | App. |
| 13-7271 | 11-19-79 | J. H. Jones | groundwater | Irr. | S30T15SR39E Frkln. | 4.54 | App. |
| 13-7272 | 12-03-79 | G. Christensen | sp tr Bear | Irr-Dom | S28T16SR39E Frkln. | 0.04 | App. |
| 13-7273 | 01-08-80 | V.R. Owen | groundwater | Irr-Dom | S6T15SR40E Frkln. | 0.78 | App. |
| 13-7274 | 01-16-80 | Weston City | spring | Munic. | S16T16SR38E Frkln. | 0.75 | App. |
| 13-7275 | 02-19-80 | Sunoco Co. | groundwater | Geoth. | S8T15SR39E Frkln. | 8.915 | Pend |
| 13-7276 | 03-06-80 | B. Shahan | Wms C tr Bear | Power | S27T12SR41E Frkln. | 5.0 | Pend |
| 13-7277 | 03-14-80 | C.E. Mumford | tr Deep C | Irr. | S10T14SR38E Frkln. | 2.8 | Pend |
| 13-7278 | 02-20-80 | C.H. Cox | spr. cr. | Irr. | S19T13SR38E Frkln. | 1.0 | Pend |
| 13-7279 | 03-31-80 | Cub Irrig. Co. | Bear R. | Irr. | S20T16SR39E Frkln. | 25.0 | Pend |
| 13-2225 | 02-29-80 | G. Mathews | groundwater | transfer | S35T10SR40E Carib. | 3.71 | Pend |
| 15-7061 | 03-19-80 | Rex Evans | tr Devil C | Irr. | S11T13SR36E Oneid | 0.26 | Pend |
| 15-7060 | 01-25-80 | L.C. Alder | groundwater | Irr-Stk | S4T15SR36E Oneid | 2.0 | App. |
| | | | <u>Approved</u> | <u>Pending</u> | <u>Total</u> | | |
| Total Surface Water (Idaho) | | | 0.81 cfs | 39.24 cfs | 40.05 cfs | | |
| Total Ground Water (Idaho) | | | 20.97 cfs | 8.915 cfs | 29.885 cfs | | |
| Change in place of use (Idaho) | | | | 3.71 cfs | | | |

Presented to Commission: April 28, 1980

| Applic. Number | Date of Filing | Name | Source | Use | Location | Amount (cfs) | Act'n |
|-------------------------------|----------------------|--------------------|------------------------------|----------------------------|---------------------------|-----------------|-------|
| | | | STATE OF WYOMING | | | | |
| UW137355 | 05-14-79 | Ray. Christensen | groundwater | Dom. | S34T15NR120W Uin. | 0.06 | App. |
| 23 1/216 | 09-04-79 | Louisiana Explor. | Twin Cr. | Ind. | S4T21NR118W Linc. | 0.50 | App. |
| UW143167 | 10-29-79 | Amoco Prod. Co. | groundwater | Misc. | S15T14NR120W Uin. | 0.33 | App. |
| UW1412186 | 11-28-79 | Gary Hutchinson | groundwater | Dom-Stk | S16T13NR119W Uin. | 0.06 | App. |
| UW142189 | 11-30-79 | Chris Schwitzer | groundwater | Dom-Stk | S6T15NR120W Uin. | 0.06 | App. |
| 23 4/241 | 11-30-79 | Cath. A.V. Seale | Sulphur Cr. Sp. | Stk. | S6T14NR120W Uin. | 1.15af | App. |
| UW1412190 | 12-05-79 | Gordon Moore | groundwater | Dom-Stk | S24T16NR121W Uin. | 0.06 | App. |
| UW141191 | 12-05-79 | Loe John Pierce | groundwater | Dom-Stk | S7T15NR120W Uin. | 0.06 | App. |
| UW149193 | 12-12-79 | Amoco Prod. Co. | groundwater | Misc. | S13T18NR120W Uin. | 0.33 | App. |
| UW148198 | 12-20-79 | Amoco Prod. Co. | groundwater | Misc. | S1T17NR120W Uin. | 0.33 | App. |
| UW144200 | 12-20-79 | Chevron Inc. | groundwater | Misc. | S35T16NR121W Uin. | 0.04 | App. |
| UW141198 | 12-20-79 | Amoco Prod. Co. | groundwater | Misc. | S10T14NR120W Uin. | 0.33 | App. |
| UW142198 | 12-20-79 | Amoco Prod. Co. | groundwater | Misc. | S2T14NR121W Uin. | 0.33 | App. |
| UW143204 | 12-31-79 | Chevron Inc. | groundwater | Misc. | S6T18NR119W Uin. | 0.04 | App. |
| UW146205 | 01-03-80 | Herschul Goldsby | groundwater | Dom-Stk | S17T15NR120W Uin. | 0.06 | App. |
| UW146207 | 01-07-80 | Wyo. Highway Dept | groundwater | Misc. | S21T15NR119W Uin. | 0.45 | App. |
| UW141210 | 01-10-80 | Amoco Prod. Co. | groundwater | Misc. | S25T18NR120W Uin. | 0.33 | App. |
| 23 2/249 | 01-10-80 | Amoco Prod. Co. | Salt C Trib.BR | Ind. | S31T18NR119W Uin. | 0.39 | Pend |
| 23 2/250 | 01-14-80 | Amoco Prod. Co. | Yellow C. | Ind. | S1T14NR121W Uin. | 0.167 | App. |
| 23 3/250 | 01-14-80 | Amoco Prod. Co. | Bear R. | Ind. | S19T14NR119W Uin. | 0.167 | App. |
| 23 4/250 | 01-14-80 | Amoco Prod. Co. | Bear R. | Ind. | S22T15NR120W Uin. | 0.167 | App. |
| UW144218 | 01-21-80 | Yellow Cr. Estates | groundwater | Misc. | S6T14NR120W Uin. | 0.28 | App. |
| UW146225 | 02-04-80 | Bergen & Lowham | groundwater | Dom. | S26T15NR121W Uin. | 0.06 | App. |
| UW149229 | 02-11-80 | Amoco Prod. Co. | groundwater | Misc. | S8T15NR119W Uin. | 0.33 | App. |
| UW148243 | 02-27-80 | Amoco Prod. Co. | groundwater | Misc. | S18T17NR119W Uin. | 0.22 | App. |
| UW149243 | 02-27-80 | Amoco Prod. Co. | groundwater | Misc. | S18T17NR119W Uin. | 0.22 | App. |
| Total Surface Water (Wyoming) | | | <u>Approved</u> 1.001 cfs | <u>Pending</u> 0.39 cfs | <u>Total</u> 1.391 cfs | | |
| Total Ground Water (Wyoming) | | | 3.98 cfs | 0 | 3.98 cfs | | |
| Total Surface Water (Storage) | | | 1.15 a.f. | 0 | 1.15 a.f. | | |

APPLICATIONS TO APPROPRIATE WATER
BEAR RIVER DRAINAGE
STATE OF UTAH

Presented to Commission: April 28, 1980

| AREA CODE | DATE OF FILING | NAME | SOURCE | USE | LOCATION | AMOUNT (CFS) | ACTION |
|--------------|----------------------|--|--|-------|---|-----------------|--------|
| | | | STATE OF UTAH | | | | |
| 21-1393 | 10-3-79 | Alden L. Grimm (Pine Plateau Water System) | UGW | D | S9T2NR10E Summit | 0.015 | App |
| 21-1394 | 10-9-79 | Pine Plateau Water System | UGW | D | S9T2NR10E Summit | .015 | App |
| 21-1395 | 12-21-79 | Gerald R. Nichols | UGW | I D S | S9T2NR10E Summit | .015 | Pend |
| 23-3550 | 10-2-79 | William Nielson | Pole Canyon | I | S28T11NR6E Rich | 200 a f | Pend |
| 23-3551 | 10-2-79 | William Nielson | New Canyon Creek | I | S22T11NT6E Rich | 100 a f | Pend |
| 23-3552 | 10-10-79 | Darlene Spencer | UGW | I D S | S23T12NR7E Rich | .030 | App |
| 23-3553 | 11-15-79 | Hodges & Gammill, Inc. | UGW | D | S28T14NR5E Rich | 0.1 | App |
| 23-3554 | 11-20-79 | Orson Cornia | UGW | S | S15T9NR7E Rich | .015 | App |
| 23-3555 | 11-14-79 | O. Gregory DeMille | UGW | I D | S20T13NR6E Rich | .015 | App |
| 23-3556 | 11-27-79 | Roger Peart | UGW | I D S | S13T12NR7E Rich | .015 | App |
| 23-3557 | 1-24-80 | Great Deseret Ltd | Saleratus Creek | I | S2,11,12,13, Rich 14,25,26T6NR6E | 399 ac ft | Pend |
| 23-3558 | 1-24-80 | East Deseret Ltd | Saleratus Creek Spring Canyon Chapman Canal | I | S3,4,10,11, Rich 12,13,14,25, 26,27,33,34,35, T6NR6E | 9502 a f | Pend |
| 23-3559 | 1-24-80 | North Deseret Ltd | Home Canyon and Chapman Canal | I | S23,24,35, Rich T8NR7E | 1680 a f | Pend |
| 23-3560 | 1-24-80 | North Deseret Ltd | Neponset Reservoir | I | S35T8NR7E Rich | 13649 a f | Pend |
| 23-3561 | 1-24-80 | North Deseret Ltd | Saleratus Creek Spring Canyon Chapman Canal | I | S2,11,12,13, Rich 14,25,26,35 | 6886 a f | Pend |

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STATE OF UTAH

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|--------------|----------------------|--|---|---------------------|----------------------|-----------------|--------|
| | | | STATE OF UTAH | | | | |
| 25-8065 | 9-28-79 | Alvin S. Haslam | UGW | I D S | S21T11NR1W Cache | 0.1 | App |
| 25-8066 | 11-15-79 | Providence Utah Stake LDS Church | UGW Drain | I | S3T11NR1E Cache | 0.5 | App |
| 25-8067 | 10-2-79 | Rulon Jensen | Unnamed Drain | I | S22T13NR1W Cache | 0.5 | App |
| 25-8068 | 10-16-79 | Sullivan E. Blau | UGW | I D | S34T11NR1E Cache | .06 | App |
| 25-8069 | 10-16-79 | Frank B. Snow | UGW | D | S11T12NR1W Cache | .02 | App |
| 25-8070 | 10-18-79 | Blair R. Nielson | UGW Drain | I S Fish Culture | S4T10NR1E Cache | .015 | App |
| 25-8072 | 10-24-79 | Stephen J. Szot, Jr. | Irr Waste Water & Surface Drainage | I | S19T14NR1E Cache | 20 a f | App |
| 25-8073 | 10-25-79 | Cache Meadow Farms | Bear River | I | S35T15NR1W Cache | 1.0 | Pend |
| 25-8074 | 11-2-79 | Cornish Town Corporation | Pearson Springs | Oth | S8T14NR1W Cache | 0.5 | Pend |
| 25-8077 | 10-26-79 | Maxine Hendricks 1/3 int E. L. Waite 1/3 Lynn F. James 1/3 | Unnamed Tile Drain | I | S10T12NR1E Cache | 0.5 | App |
| 25-8078 | 11-30-79 | Stanley E. Jackson | UGW | I D S | S2T11NR1W Cache | 0.1 | App |
| 25-8079 | 12-3-79 | Calvin Christensen | UGW | S | S32T11NR1E Cache | 0.1 | App |
| 25-8080 | 1-2-80 | David C. Kimball & Cache Valley Chinchilla Corp. | UGW | Oth | S29T13NR1E Cache | 0.5 | Pend |
| 25-8081 | 11-29-79 | Milton Barnes Family Partnership | UGW | I D S | S13T14NR1E Cache | 0.1 | App |
| 25-8082 | 12-12-79 | John T. Allen | UGW | I D | S1T12NR1W Cache | .015 | App |
| 25-8083 | 12-14-79 | Cache Valley Dairy Assoc. & Cache Valley Chinchilla Corp. | UGW 6 wells | Oth | S19,29,30 T13NR1E | 1.0 | Pend |
| 25-8084 | 12-17-79 | Harold Ricks | UGW | I D S | S14T12NR1W Cache | .015 | App |
| 25-8085 | 12-27-79 | Richard Grant Lamb | UGW | I D S | S15T12NR1E Cache | .015 | Pend |

APPLICATIONS TO APPROPRIATE WATER
BEAR RIVER DRAINAGE

STATE OF UTAH

Presented to Commission: April 28, 1980

| AREA CODE | DATE OF FILING | NAME | SOURCE | USE | LOCATION | AMOUNT (CFS) | ACTION |
|--------------|----------------------|-----------------------------------|---|-------|-------------------|-----------------|--------|
| | | | STATE OF UTAH | | | | |
| 25-8086 | 1-3-80 | Floyd W. & Laura Dorius | Unnamed Spring | S | S11T14NR1W Cache | .01 | Pend |
| 25-8087 | 1-8-80 | Henry D. Lewis | Seeps & Springs | S | S32T12NR1W Cache | 3.0 a f | Pend |
| 25-8088 | 1-11-80 | Thorene S. Petersen | UGW | I D S | S16T10NR1E Cache | .1 | Pend |
| 25-8089 | 1-11-80 | Carol S. Katalin | UGW | I D S | S16T10NR1E Cache | .1 | Pend |
| 25-8090 | 1-11-80 | Max Christiansen | UGW | I | S32T15NR2W Cache | 3.0 | Pend |
| 25-8091 | 1-15-80 | Paul Gunnell | UGW | D | S2T10NR1W Cache | .030 | Pend |
| 25-8092 | 1-16-80 | Dennis & Doyle McBride | UGW | I S | S14T10NR1W Cache | 2.0 | Pend |
| 25-8093 | 1-17-80 | River Heights City Corporation | UGW | Oth | S3T11NR1E Cache | 3.0 | Pend |
| 25-8094 | 1-22-80 | Stephen J. Szot | Irr Waste Water & Surface Drainage | I | S19T14NR1E Cache | 8.0 a f | Pend |
| 25-8095 | 1-22-80 | Russell V. Anderson | UGW | I D S | S13T12NR1W Cache | 0.1 | Pend |
| 25-8096 | 1-24-80 | Harry and Melba Klee | UGW | I D S | S32T12NR1W Cache | .015 | Pend |
| 25-8097 | 1-24-80 | Early Dawn Dairy | UGW | I D S | S10T10NR1E Cache | .05 | Pend |
| 25-8098 | 1-25-80 | Claine Skidmore | City Creek | I | S28T14NR1E Cache | 20.0 a f | Pend |
| 25-8099 | 1-28-80 | Smithfield City Corporation | Skunk Hollow Spring | I | S26T13NR1E Cache | 1.0 | Pend |
| 25-8100 | 1-30-80 | Gregory A. Nielsen | UGW | I D S | S7T10NR1E Cache | .015 | Pend |
| 25-8126 | 1-30-80 | Lawrence C. Wiser | Unnamed Tile Drain | S | S2T14NR1W Cache | 0.5 | Pend |
| 25-8127 | 1-31-80 | Hyrum City | Blacksmith Fork River (Creek) | Oth | S8T10NR2E Cache | 162.0 | Pend |
| 25-8128 | 2-4-80 | Rich & Rich | Bear River | I | S8T13NR1E Cache | 5.0 | Pend |
| 29-2374 | 10-4-79 | Scott Grover | UGW | I D S | S18T11NR3W Box E1 | .015 | App |
| 29-2377 | 11-9-79 | Helen S. Peirce | UGW | I D S | S36T10NR2W Box E1 | .045 | Pend |
| 29-2378 | 11-13-79 | Gary Viri Woorwood | UGW | I D S | S15T10NR2W Box E1 | 0.50 | Pend |

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BEAR RIVER DRAINAGE

STATE OF UTAH

Presented to Commission: April 28, 1980

| AREA CODE | DATE OF FILING | NAME | SOURCE | USE | LOCATION | AMOUNT (CFS) | ACTION |
|--|----------------------|------------------------------|-------------------------------|------------|-------------------|-----------------|--------|
| 29-2380 | 11-30-79 | James Abraham Kay | STATE OF UTAH | | | | |
| 29-2382 | 12-10-79 | Plymouth Town Corporation | UGW | D | S1T11NR3W Box E1 | .015 | App |
| 29-2383 | 12-10-79 | Tom Davis | UGW | Oth | S12T13NR3W Box E1 | 0.2 | App |
| 29-2384 | 12-10-79 | Tom Davis | Overflow / Drain & Pond | I | S20T10NR2W Box E1 | 0.1 | App |
| 29-2385 | 12-11-79 | Randal B. Marble | Underground Drains | S | S16,17 Box E1 | 1.0 | Pend |
| 29-2387 | 12-20-79 | Michelle Montgomery | UGW | I D S | T10NR2W | | |
| 29-2388 | 1-03-80 | 3-M Farms | UGW | I D S | S26T12NR4W Box E1 | 0.1 | App |
| | | | Marble | I D S | S10T11NR3W Box E1 | .015 | App |
| | | | Spring #1 | | S9T12NR2W Box E1 | 0.5 | Pend |
| | | | Unnamed | | | | |
| 29-2390 | 1-30-80 | Herman Kotter | Springs | I D S | | | Pend |
| | | | UGW Drains | | S12T9NR2W Box E1 | 0.05 | |
| | | | Approved | Pending | Total | | |
| Total Surface Water (Utah) | | | 0.1000 cfs | 171.475cfs | 171.575 cfs | | |
| Total Ground Water (Utah) | | | 2.075 cfs | 11.070 " | 13.145 cfs | | |
| Total Surface Water Storage (Utah) ... | | | 20.0 ac-ft | 32,447. af | 32,467 ac-ft | | |