

BEAR RIVER COMMISSION

106 West 500 South, Suite 101
Bountiful, UT 84010-6232
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MINUTES

BEAR RIVER COMMISSION REGULAR MEETING NINETY-FIFTH COMMISSION MEETING

Utah Department of Natural Resources
Salt Lake City, Utah
November 14, 2000

COMMISSION MEMBERS

Chair

Denice Wheeler

Idaho Members

Karl J. Dreher
Rodney Wallentine
Don W. Gilbert

Utah Members

D. Larry Anderson
Blair Francis
Charles W. Holmgren

Wyoming Members

Patrick T. Tyrrell
James Crompton
John A. Teichert

ENGINEER-MANAGER

Jack A. Barnett
Suite 101
106 West 500 South
Bountiful, UT 84010

The regular meeting of the Bear River Commission was called to order by Chair Denice Wheeler at 1:00 p.m. on Tuesday, November 14, 2000 at the Utah Department of Natural Resources building in Salt Lake City, Utah. This was the ninety-fifth meeting of the Commission. Chair Wheeler welcomed everyone to the meeting. It was requested that all in attendance introduce themselves. A list of those in attendance at the meeting is attached as Appendix A.

Chair Wheeler presented the agenda for the meeting. It was moved that the agenda be approved. The motion was seconded and carried. A copy of the approved agenda is attached as Appendix B. It was pointed out that copies of original court papers from the archives that relate to the trial that led to the Dietrich Decree were available in the meeting room today for people to review. Jody Williams indicated that a copy of the Kimball Decree itself was stored in Logan about four years ago and the copy is now lost. It was stated that if anyone knew the whereabouts of this copy, they should help to have it returned as soon as possible.

The Commission then considered the proposed minutes from the Annual Meeting of the Commission held on April 18, 2000 in Salt Lake City. Two editorial changes were requested on pages five and six of the proposed minutes. It was also pointed out that the Engineer-Manager needed to prepare a draft letter responding to three entities which had written to the Commission regarding PacifiCorp's Operation Agreement and the possibility of the Commission annually reviewing the proposed operation of Bear Lake by PacifiCorp. There was a motion to accept the minutes with the minor editorial changes to be made. The motion was seconded and carried.

The time was then turned to Larry Anderson to cover agenda item III, the Secretary/Treasurer report. Anderson asked Randy Staker to give a report on the financial status of the Commission. Staker distributed two handouts and a copy of these handouts is included as Appendix C. Staker reviewed Page One of Appendix C pointing out that the Commission had a total of income and carry-over reserves of \$195,640.20 for the FY 2000 year and the expenses totaled \$105,456.38. The remaining balance carried over into FY 2001 is \$90,183.82. There were no questions on this information. Staker then reviewed Page Three of Appendix C and indicated that the Commission has received all the state assessments and should be receiving \$5,600 from the Fish & Wildlife Service soon. The amount of interest accrued thus far is \$2,113.28 and the expenses, at this point in time, total \$73,717.03, which includes the annual stream gage payment to the U.S. Geological Survey (USGS) of \$48,685.00. This leaves the Commission with a current balance of \$112,258.62. There were no questions for Staker. There was motion to approve the Secretary/Treasurer's report. The motion was seconded and carried.

Chair Wheeler then moved to agenda item IV, PacifiCorp's relicensing with FERC, and asked Deputy Attorney General Tom Davidson from Wyoming to give this report. Mr. Davidson first gave some background on the Federal Energy Regulatory Commission (FERC) relicensing. In October of 1996, the Army Corps of Engineers issued a request asking FERC to determine whether it had jurisdiction over Bear Lake as part of the hydroelectric facilities for PacifiCorp. During the next year and a half, PacifiCorp provided some information to demonstrate to the FERC that the Bear Lake activities are not connected with the FERC relicensing jurisdiction. On February 12, 1998, FERC determined that it did not have jurisdiction over Bear Lake as such and that Bear Lake provides no downstream energy benefits to PacifiCorp and, therefore, FERC's federal jurisdiction did not extend that far upstream. On March 13, 1998, a number of groups moved to intervene in the FERC relicensing proceedings. The groups were allowed to file briefs with respect to their request for a rehearing on the FERC issue of jurisdiction over Bear Lake operations.

Davidson indicated that recently the Department of the Interior, from a Pacific Northwest office, filed an unexpected motion to intervene and requested that FERC reexamine the issue of jurisdiction over Bear Lake. The states collectively believe that any intrusion of federal jurisdiction impaired their rights to self-determination to their own actions with respect to water laws, to the compacts and to the operations of the Bear River Commission. The belief is that if control is handed over to a federal body, particularly FERC, the states risk intervention into all of their water supply, water quality and delivery schedules under the states' laws and compacts. The states made the decision that they had no choice but to intervene and, on October 20, the states filed a motion to oppose the Interior's intervention. Alternatively, the states filed a motion to allow the states to intervene and to argue that federal jurisdiction should not be asserted over the Bear Lake operations. The basis of the states' argument was: 1) the Department of the Interior's motion was late, two years after Bear Lake Watch had filed its motion to intervene, and the motion was untimely; 2) the historic PacifiCorp operations did not include any discretion for PacifiCorp to operate in a manner that would solely benefit hydro power; 3) PacifiCorp has no flexibility to make releases for hydro power; 4) the approval and ratification by Congress of the Bear River Compact was a federal law and because it was approved by Congress that cannot be circumvented by FERC; and that 5) FERC has not asserted jurisdiction but an assertion of FERC jurisdiction would undermine the balance between the states for the use of the

compacted Bear River water. The motion was filed with the concurrence of the three State Attorney Generals' offices. No action has been taken on the motion yet. It was indicated that FERC has not acted on any motions to date. Brent Rose wanted the record to show that the Bear River Water Users Association has formally filed a motion to intervene in the FERC proceedings.

Chair Wheeler then moved to agenda item V, cloud seeding in the Bear River Basin. Olean Parker gave a presentation on cloud seeding and a copy of his statement is attached to these minutes as Appendix D. Parker urged the cloud seeding of the entire basin and asked the Commission to become involved. Commissioner Wallentine indicated that the funding for cloud seeding is where it belongs and this is not a Commission issue, as far as a funding project, but it is a very worthwhile effort. Commissioner Dreher pointed out that the Compact does not deal with this issue. The Compact doesn't preclude the Commission from providing some assistance in some form but this issue is outside the responsibilities of the Compact as enumerated. The time was turned to Norm Stauffer to explain the cloud seeding that has been done in Utah. Stauffer passed out a report entitled "Atmospheric Water" published by the North Dakota Water Education Foundation. He also passed out a document entitled "Utah Cloud Seeding Activities, Water Year 2001" and reviewed the document with the Commission (a copy is attached as Appendix E).

Following Stauffer's report, several questions were raised, the first being what is the basis for the assertion that there is a need to cloud seed the entire Bear River Basin. It was agreed by some that there is not a need to seed the entire basin. Stauffer indicated that in Utah when the local people perceive there is a need for clouding seeding, they pay for 50% or more of the project. Larry Anderson pointed out that the State of Utah does not go into the state indicating what cloud seeding should be done. The program is simply permitted and licensed through the Division of Water Resources. Their office also has the authority to cost-share up to \$150,000 per year and if there are no cloud seeding projects requested, the money is used for a water project somewhere else. Commissioner Dreher asked how Utah determined the benefit of cloud seeding. Stauffer indicated that the State looks at areas that are not seeded and areas going to be seeded prior to any seeding, goes back to build a relationship with the target area using a standard regression type equation, projects into the future what should fall and then observes what precipitation actually falls. The difference is the percentage of increased runoff.

Commissioner Holmgren indicated that he is continually asked by local governments in Box Elder County why Utah requires a license to cloud seed whereas in Idaho they do not require a license, and it appears that the cloud seeding in Idaho is done less expensively. Counties in Idaho are setting up their own cloud seeding generators. Stauffer indicated that it was his understanding that in Idaho the cloud seeding is permitted by the Department of Agriculture. Commissioner Dreher indicated that as far as he knows no cloud seeding is being done in Idaho at this point. Some cloud seeding was done in drought years and they did have to get permits. The permits were not issued by the Department of Water Resources but by the Department of Agriculture.

Mr. Parker pointed out that if there was a way to abolish state lines, cloud seeding could be done throughout the Bear River Basin. Larry Anderson indicated that cloud seeding is not a responsibility of the Bear River Commission. The Commission could decide to help provide funding

for a Bear River Basin cloud seeding program but there would have to be a substantial increase in state dues. Commissioner Stockdale indicated that Wyoming has been involved with some cloud seeding projects and the State Engineer's office issues the permits.

Chair Wheeler then turned to agenda item VI and asked Karl Dreher to report on the Interim Procedures for the Lower Division. Dreher indicated that two years ago the Commission adopted interim procedures in the Lower Division to be used in the event of a water emergency, which would provide for distributing water on the basis of the priority of rights without regard to state line. The interim procedures were adopted for a period of two years and the Commission was to re-evaluate the interim procedures at this November Commission meeting. Dreher indicated that he felt there were two reasons that the procedures were adopted as interim procedures: 1) the Commission did not have included in the procedures an accounting for ground water (how do ground-water use depletions get factored in with surface water rights); and 2) Idaho had an issue with adopting procedures as permanent when the Commission had no experience with the procedures. Fortunately there has not been a need to declare a water emergency in the Lower Division and thus the Commission still has not gained any experience with the procedures. The ground-water analysis has not been completed. Idaho has made substantial progress in its efforts to quantify ground water withdrawals. Idaho is finding that the potential depletions estimated previously from ground water usage were as much as a factor of two too high, mainly because the crop mix that Idaho was assuming is not the crop mix that farmers are growing. The ground water usage is substantially less than what Idaho thought it would be, but Idaho needs to do some additional work. Therefore, the Commission is not ready to adopt the procedures as permanent but it is useful to have procedures in place in the event that a water emergency is declared in the Lower Division. There was a motion to readopt the Lower Division procedures for distributing water in water emergencies as interim procedures for another two years. The motion was seconded and carried.

The Commission moved to agenda item VII, the report of the Operations Committee. Commissioner Crompton reported that the Operations Committee met at 10:30 a.m. today. The water regulation in 2000 was reported by Jack Barnett. Barnett reported to the Commission that in the Upper Division it was an unusual year. There was so little water that there was very little natural flow, but yet Woodruff Narrows Reservoir was totally full. With the releases of water from the Woodruff Narrows Reservoir, there was a significant amount of storage water being used downstream of Woodruff Narrows. During the irrigation season, the reservoir was totally used and it is now empty. Very little natural flow water was available so as the Commission got in the area where there was a water emergency as defined by the Compact, the river was, so to speak, self-regulating. The upstream users didn't find there was as much water there as they would have been entitled to had they been restricted by the Compact. The Commission was not restricting the Wyoming users upstream of Woodruff Narrows, nature was restricting them. This was because when the total divertable flow was calculated, as defined by the Compact, it was larger than expected because of important return flows to the river from the irrigation with stored water.

Barnett reported that in the Central Division there was a lack of natural flow and the Commission was in regulation from mid-June until the end of the water emergency, September 30. At times there was very little water to regulate in the Central Division. Crompton then indicated that

the Operations Committee had received a report of PacifiCorp's operation of Bear Lake by Elaine Prause. Ms. Prause distributed to the Commission a several-page summary of PacifiCorp's operation of Bear Lake and reviewed the summary. A copy of the handout is attached as Appendix F.

Commissioner Crompton then indicated that the Operations Committee had received a brief report from Hal Anderson on a study being done in Idaho on the water being withdrawn from wells in Idaho.

A distribution issue was brought before the Operations Committee concerning the Below Border Gage. The TAC was asked to look into the issue.

Crompton indicated that there is a concern that PacifiCorp has cut its staff to the point where they have one person doing the stream gaging for all their operations out of Salt Lake and that data was not being provided in a timely way for the operation of the state river model. The urging was that PacifiCorp needed to better staff its offices to accomplish the stream gaging. After some discussion, it was moved that the Engineer-Manager draft a letter to the Chief Executive Officer at PacifiCorp, Alan Richardson, expressing the Commission's concern regarding the lack of staffing in order to adequately support the administration of water rights and water allocations in three areas: 1) operations of the pumps at Lifton; 2) timely information regarding entitlements under the contracts for supplemental irrigation supply; and 3) stream gaging and developing of associated rating curve information needed to do proper water accounting. The Engineer-Manager will circulate the draft letter to Commission members for their review and then send the final letter to Mr. Richardson. The motion was seconded and carried. It was determined that the draft letter will be sent to Commission members within two weeks and Commissioner members will have until December 15 to respond. The final letter will be sent to Mr. Richardson on December 15. Commissioner Anderson indicated that it is important that the Commission emphasize to PacifiCorp its responsibility in this matter.

Chair Wheeler then moved to agenda item VIII, the report from the Water Quality Committee. Jack Barnett indicated that Chairman Don Ostler could not attend the Commission meeting and had asked him to give the Water Quality Committee report. Jack indicated that the Water Quality Committee met on Monday, November 13. The USGS reported to the committee on the NAWQA study effort and indicated that the data collection was tapering off. For the next two or three years, less data will be collected. However, there are two concentrated data collections that the USGS wants to get involved in, the first being in mid-spring of 2001 and the second being in late summer of 2001. The USGS wants to measure upwards of 30-40 sites on the river system almost simultaneously during the spring before the major runoff begins and then plans to measure again in late summer. The USGS asked the Water Quality Committee to look at the selected sites and give recommendations as to the best sites as far as the three states are concerned. The USGS also asked the states if they might contemplate making additional measurements during this concentrated period of time at other sites to expand the data base. The Water Quality Committee concluded that it would like to get involved in the review of the effort. The committee assigned the Bear River Basin Water Quality Task Force to meet and look at the specifics and to report back to the committee by phone or by letter. It was noted that the NAWQA study effort liaison committee was going to have a committee meeting in January in

Logan. There was some discussion that potentially the Task Force could meet at that time in Logan to address the issue.

Barnett then reported on a subject that was brought before the Commission in April. The Western Governor's Association was to receive some grant money from the EPA to help states coordinate multi-state efforts to collect data for TMDL analysis. After some investigation, it was found that the funding was only for the staff of the Western Governor's Association. Barnett indicated that recently he had a chance to meet with individuals at the EPA Regional office. The EPA views the Bear River as an outstanding example of interstate cooperation and would like to be able to tell its story. Just last week the Denver Region of the EPA sent out a letter (referred to as their One-Stop Shopping Center) which would allow for the request of grant money for this type of activity. The Water Quality Committee advises the Commission that it desires to further consider the opportunity to seek a grant through the Commission. Commissioner Dreher pointed out that in the minutes of the April 2000 meeting (page 9) the Commission already authorized the Water Quality Committee to pursue this opportunity and thus no additional motion was necessary. It was the consensus of the Commission that this grant opportunity should be pursued. Barnett indicated that the Water Quality Committee plans a conference call during the first week of December to discuss this issue.

Barnett concluded the Water Quality Committee report by indicating that the TMDL reporting by the states is progressing. Idaho has a draft report and hopes to soon complete the study effort. The Utah effort is about one year behind. Wyoming has not started its TMDL study effort at this time. Barnett indicated that, in his view, the Water Quality Committee has been very effective in looking at how the three states could coordinate their TMDL investigative effort but it is now realizing that once the TMDL reports are submitted, the states are under a deadline to implement.

Chair Wheeler then moved to agenda item IX, a report by the Records & Public Involvement Committee. Commissioner Charles Holmgren reported that the Records & Public Involvement Committee met during the morning. The committee wanted the Commission to be made aware of the opportunity to view the Dietrich Decree documents provided by Jody Williams, PacifiCorp's counsel. Holmgren reported that the committee had discussed last summer's tour, noting that the tour was very successful and educational and the Commission broke even on the expenses. He thanked the cosponsors of the tour; Bear Lake Regional Commission, PacifiCorp, Denise Wheeler, Forsgren & Associates and the Bear River Water Users Association. He also thanked those who gave presentations. Holmgren pointed out that three years ago the Records & Public Involvement Committee received the assignment to become more involved with the public. These tours are designed to include everyone in the Bear River system. Jack Barnett also gave his thanks to all who helped with the tour. There was a question from an individual in the audience as to how to receive information regarding the planned tours. Barnett indicated that he contacted all the water user groups involved with the Bear River, hoping that they would get the word out to their members. If anyone wishes to be notified personally, they should get their name and address to the Commission offices. Holmgren then reported that next summer's tour will be held in the Upper and Central Divisions, possibly beginning in Evanston, Wyoming. A firm date has not been set, but the tour will probably be held in late July or early August. It was moved that the Commission should pursue plans for a 2001 summer tour and develop a proposed budget. The motion was seconded and carried.

Holmgren reported that Don Barnett is beginning to work on the Eleventh Biennial report and that possibly he will assemble information to review at the April 2001 Commission meeting. He then discussed the Woodruff Narrows records and indicated that Jade Henderson and his staff made measurements to determine the water level of the reservoir. The reservoir had been measured by a USGS automatic gage but there were considerable problems with the gage and so the contract with the USGS was dropped. Holmgren reported that the committee had further discussed the issue of having a website for the Bear River Commission rather than having people go to state agencies' websites. This effort is moving ahead but the website has not yet been defined. Depletion maps were discussed in the committee meeting and staff is looking at ways to transfer the data on tape to new storage. Holmgren indicated that the Commission has this old tape with data which Hal Anderson is going to try and interpret. Blair Francis indicated that the Woodruff Narrows Reservoir Company is working with the State of Wyoming on the collection of the data at the reservoir. One general question came from an individual in the audience who has a son living in the Tremonton area. He asked what turns the water off at the end of the irrigation season. Holmgren pointed out that the Bear River Canal Company has a water right until November 1. The water that is unused before November 1 goes down the canals and returns to the Bear River and then goes to the Bear River Bird Refuge.

Chair Wheeler then turned to agenda item X, a report from the Engineer-Manager. Jack Barnett indicated that it was an extraordinarily dry year and expressed his appreciation for the cooperation of the watermasters. Call-in's were made each week, which allowed him to call out the regulations. There were no questions for Barnett.

The Commission then moved to agenda item XI, a report of the Management Committee. Larry Anderson indicated that the Management Committee had met earlier in the morning. The Management Committee is asking the TAC to get involved in a review of the issue of the gages at Border and at Rainbow to try and verify the accuracy and reporting of the flows in the Central Division. The TAC is to get back to the Management Committee with some type of report. Commissioner Dreher pointed out that the Management Committee had also talked about making sure that the states, primarily Idaho and Wyoming, have appropriate personnel involved in the Water Quality Committee.

Chair Wheeler turned to agenda item XII, the state reports. Karl Dreher reported that a series of circumstances arose from the fact that Idaho elects Supreme Court Justices. The only Supreme Court Justice up for re-election this year was Justice Silak. Justice Silak had authored an opinion involving federal claims to water rights in wilderness areas that was very unpopular. She was opposed in her re-election and was voted out. Dreher indicated that in his opinion the Supreme Court misinterpreted the vote and interpreted the vote to be a vote for her opponent, as opposed to a vote against the presiding justice. The reason this became an issue was because the newly elected justice, Justice Eismann, is the brother-in-law of the presiding judge in the Snake River Basin Adjudication, Judge Wood. As a result, the Supreme Court decided that since the voters had voted for Justice Eismann, as opposed to voting against Justice Silak, that the voters wanted Justice Eismann to preside over appeals on water right decisions that went to the Supreme Court. As a result, Idaho removed Judge Wood as the presiding judge in the Snake River Basin Adjudication. It was an unfortunate development because Judge Wood had developed into a tremendous judge in presiding over the

adjudication. It is a very complex judicial proceeding that involves 170,000 parties joined in a lawsuit to determine who has the right to what water from what source in the Snake River Basin. The new judge presiding over the adjudication is Judge Burdick and he starts in December. He has limited experience in water issues.

The relevance of this to the Bear River Basin is that the Idaho Department of Water Resources is considering what it should be doing in its role in preparing Director's reports for the court as the Snake River Basin Adjudication winds down. The Department is currently anticipating including its portion, which is to investigate all of the 170,000 claims that are not based on federal law and recommend those claims based on state law to the court in terms of how they should be decreed. The Department's role in this will be complete in 2005. The Department has in place a fairly efficient team working on the adjudication matters. One of the remaining portions in Idaho where the water rights have not been fully adjudicated is the Bear River Basin. One of the options being considered is recommending to the Governor, as well as to the legislature and the judicial system in Idaho, that perhaps Idaho should consider keeping this team together and initiating a complete adjudication in the Bear River Basin in Idaho. This would involve both ground-water rights, as well as recorded claims to water rights in the Bear River Basin. This would improve the Idaho Department of Water Resources ability to fulfill its statutory responsibility to administer the water rights. The only question for Commissioner Dreher was whether all this had occurred since the general election early in November. Dreher's response was that all this had taken place since the election.

Chair Wheeler then turned the time to Larry Anderson for the Utah report. Commissioner Anderson indicated that the State of Utah has been involved in statewide water planning for a number of years. The first document titled as the "State Water Plan" was published in 1990. After the State Water Plan was finished, Utah did individual basin plans. The first basin plan was for the Bear River Basin and it was completed in 1992. All the other basin plans have been completed and the last two plans are in the process of being printed. It was determined that the State Water Plan should be updated and public meetings are currently being held. The document is entitled "Utah's Water Resources: Planning For The Future." It is a much smaller document than past documents. It was a goal to compile and make sense of all the information gathered from all the basin plans. Anderson indicated that a list of the public meeting dates and locations is available to anyone interested. The report is on the Internet and comments can be made via the Internet. The final report should be out by June. Utah is working on another draft of the Bear River Basin Plan. Anderson concluded by indicating that the Bear River Bird Refuge is continuing to look at the possibility of enlarging Hyrum Dam. They are now in the process of meeting with the citizens of Cache County to try and generate support. The Hyrum Dam today is about 19,000 acre-feet and they are talking about raising it to as much as 70,000 acre-feet of storage. The Bird Refuge would use the water that is stored to meet their late summer and early fall water needs. They would hope to generate about 40,000 acre-feet of additional water yield on the average. The cost would be about \$60 million. Chair Wheeler pointed out that reference to the Bear River development in the Utah State Water Plan is on page 44. There were no questions for Commissioner Anderson.

The time was then turned to Richard Stockdale for the Wyoming report. Commissioner Stockdale reported that Wyoming developed a water planning program in the early 1970's and

ultimately cultivated the program by the publication of the Wyoming Framework Water Plan in 1973. This effort was a static effort in that the report basically was placed on the shelf and for the ensuing 20 years not much has gone on in Wyoming relative to water planning. The legislature took an interest in this a few years ago, along with the Water Development Commission, and an effort was made to re-engage the water planning effort in Wyoming. In 1999, the legislature approved \$3.7 million for the state to go out and look at the seven major river basins in the state. One of the initial basins that was investigated was the Bear River Basin, which has been an ongoing project for approximately two years. This effort has culminated in the publication of a soon-to-be-released report that was prepared by Forsgren & Associates, the consultant on the job. Stockdale indicated that Sue Lowry was distributing a handout entitled "Wyoming's River Basin Planning Program." A copy of this handout is attached to these minutes as Appendix G. The program that the legislature came up with was to take a five-year period of time and visit the seven river basins around Wyoming and then continue to update the river basin plans on a five-year rotating schedule. The second basin which was investigated and which is almost completed is the Green River Basin. Two basins which were undertaken just after the Green River Basin are just getting underway. Both of these basins are located in Northeastern Wyoming. The first basin covers the Belle Fourche River, Cheyenne River and Little Missouri River drainages. The second basin covers the Tongue River and Powder River drainages. These areas were selected because of all the coal bed methane activity ongoing there. Stockdale indicated that Wyoming has been apprised that potentially as many as 55 to 70,000 coal bed methane wells will be drilled in the northeast corner of Wyoming over the next ten-year period. The State of Wyoming has gone from what was an apparent deficit in funding to a surplus of \$200 million to \$300 million. Part of this money ultimately gets into the water planning and development program.

Stockdale concluded his report by indicating that at the April Commission meeting Jeff Fassett indicated that he was going to resign as Wyoming State Engineer on June 15. This did occur and Stockdale was appointed the Interim State Engineer. Jeff has his own consulting firm in Cheyenne and continues to deal with water issues around the state. In the past, the Commission has approved a resolution of appreciation for past commissioners. It was decided that the Engineer-Manager will coordinate the preparation of a resolution of appreciation for Jeff Fassett and it was formally moved that a resolution of appreciation be prepared to honor Jeff Fassett. The motion was seconded and carried.

Karl Dreher asked Commissioner Stockdale a question regarding Wyoming's planning process and the use of consultants. Stockdale indicated that requests for proposals are sent out which generate statements of interest. In most instances, there is a maximum of three consultants selected to be interviewed. This process is followed for each basin. The methodology for the investigative effort is standardized.

There was then a discussion regarding the potential for the Commission to acknowledge the Bear River Basin Advisory Group for their work effort. Chair Wheeler indicated that the Bear Basin Advisory Group is the first group from the Wyoming river basin planning program to complete their work. It was determined that it would be appropriate to have a report given on the planning effort during the summer tour.

Bear River Commission Meeting
November 14, 2000

Chair Wheeler then announced that the Bear Lake Preservation Advisory Committee will meet immediately following the Commission meeting. There were no additional items brought to the Commission. It was determined that the next Commission meeting will be held on Tuesday, April 17 at the Utah Department of Natural Resources building. There was a motion made to adjourn the meeting. The motion was seconded and carried. The meeting was adjourned at 3:10.

ATTENDANCE ROSTER

BEAR RIVER COMMISSION REGULAR MEETING

Utah Department of Natural Resources Building
Salt Lake City, Utah
November 14, 2000

IDAHO COMMISSIONERS

Karl J. Dreher
Rodney Wallentine
Don W. Gilbert

WYOMING COMMISSIONERS

James L. Crompton
Dick Stockdale
Sue Lowry (Alternate)
Gordon Thornock (Alternate)
Jade Henderson (Alternate)

FEDERAL CHAIR

Denice Wheeler

UTAH COMMISSIONERS

D. Larry Anderson
Blair R. Francis
Charles Holmgren
Joseph G. Larsen (Alternate)
Norm Weston (Alternate)

ENGINEER-MANAGER & STAFF

Jack A. Barnett
Don A. Barnett
Nola Peterson

OTHERS IN ATTENDANCE

IDAHO

Hal Anderson, Department of Water Resources
Pete Peterson, Watermaster

UTAH

Norm Johnson, Attorney General's Office
Paul Riley, Board of Utah Division of Water Resources
Norm Stauffer, Division of Water Resources
Randy Staker, Division of Water Resources

WYOMING

Tom Davidson, Attorney General's Office
Kevin Payne, State Engineer's Office
Kevin Wilde, State Engineer's Office

OTHERS

Marvin Bollschweiler, Public
Randy Budge, Bear River Water Users Association
Carly Burton, PacifiCorp
Claudia Cottle, Bear Lake Watch
David Cottle, Bear Lake Watch
Rolf Esche, Bear Lake Regional Commission

APPENDIX A
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Marc Gibbs, Last Chance Canal Company
Allen Harrison, Bear Lake Regional Commission
Kelly Holt, PacifiCorp
Norm Johnson, Last Chance Canal Company
Jim Kimbal, Bear Lake Preservation Advisory Committee
Merlin Olsen, Bear Lake Watch
Marion Parker, LOVE Bear Lake
Olean Parker, LOVE Bear Lake
Elaine Prause, PacifiCorp
Annette Prows, Bear Lake property owner
Ron Prows, Bear Lake property owner
Don C. Riches, Bear Lake Watch
Brent Rose, Bear River Water Users Association
Dick Strong, Bear Lake Watch
David B. Styer, Bear River Canal Company
Jody Williams, PacifiCorp

**PROPOSED
AGENDA**

**Bear River Commission Regular Meeting
November 14, 2000**

Utah Department of Natural Resources
Auditorium
1594 West North Temple
Salt Lake City, Utah

COMMISSION AND ASSOCIATED MEETINGS

November 13

1:00 p.m. Water Quality Committee Meeting, Room 314 Ostler

November 14

8:15 a.m. TAC Meeting, Room 314 Barnett

9:15 a.m. Records & Public Involvement Committee Mtg, Room 314 Holmgren

10:15 a.m. Operations Committee Meeting, Room 314 Crompton

11:30 a.m. Informal Meeting of Commission, Room 314 Barnett

11:45 a.m. State Caucuses and Lunch Dreher/Stockdale/Anderson

1:00 p.m. Commission Meeting, Auditorium Wheeler

*3:15 p.m. Bear Lake Preservation Advisory Committee Meeting, Auditorium

REGULAR COMMISSION MEETING

November 14, 2000

Convene Meeting: 1:00 p.m., Chair Denice Wheeler

- | | | |
|------|--|---------------------|
| I. | Call to order | Wheeler |
| | A. Welcome of guests and overview of meeting | |
| | B. Approval of agenda | |
| II. | Approval of minutes of last Commission Meeting (April 18, 2000) | Wheeler |
| III. | Report of Secretary | Anderson |
| IV. | PacifiCorp's Relicensing with FERC and Bear Lake | Davidson |
| V. | Cloud seeding in the Bear River Basin | Parker and Stauffer |
| VI. | Action expiring Interim Procedures for Lower Division | Dreher |

* This meeting has been called by PacifiCorp and the starting time given above is only approximate as the meeting will be started after the Commission meeting is adjourned

APPENDIX B
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| VII. | Report of the Operations Committee | Crompton |
| VIII. | Report of the Water Quality Committee | Ostler |
| IX. | Report of the Records & Public Involvement Committee | Holmgren |
| X. | Engineer-Manager report | Barnett |
| XI. | Items from the Management Committee | Anderson |
| XII. | State Reports | |
| | A. Idaho | Dreher |
| | B. Utah | Anderson |
| | C. Wyoming | Stockdale |
| XIII. | Other Items | Wheeler |
| XIV. | Next Commission Meeting | Wheeler |

Anticipated adjournment: 3:00 p.m.

BEAR RIVER COMMISSION
STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF JULY 1, 1999 TO JUNE 30, 2000

| INCOME | CASH ON HAND | OTHER INCOME | FROM STATES | TOTAL REVENUE |
|--------------------------------------|-----------------|-----------------|-----------------|------------------|
| Cash Balance 07-01-99 | \$88,357.57 | | | \$88,357.57 |
| State of Idaho | | | \$30,000.00 | 30,000.00 |
| State of Utah | | | 30,000.00 | 30,000.00 |
| State of Wyoming | | | 30,000.00 | 30,000.00 |
| US Fish & Wildlife | | \$5,600.00 | | 5,600.00 |
| Symposium Income | | \$5,500.00 | | 5,500.00 |
| Interest on Savings | | \$6,182.63 | | 6,182.63 |
| TOTAL INCOME TO JUNE 30, 2000 | \$88,357.57 | \$17,282.63 | \$90,000.00 | \$195,640.20 |

DEDUCT OPERATING EXPENSES

EXPENDED THROUGH U. S. G. S.

| | APPROVED BUDGET | UNEXPENDED BALANCE | EXPENDITURES TO DATE |
|---------------|--------------------|-----------------------|-------------------------|
| Stream Gaging | \$46,735.00 | 0.00 | \$46,735.00 |
| SUBTOTAL | \$46,735.00 | 0.00 | \$46,735.00 |

EXPENDED THROUGH COMMISSION

| | | | | |
|---------------------------------|------|------------------|------------------|------------------|
| Personal Services | Jack | \$38,960.00 | (7,982.92) | \$46,942.92 |
| Travel (Eng-Mgr) | | 1,200.00 | 110.17 | 1,089.83 |
| Office Expenses | | 1,600.00 | 165.55 | 1,434.45 |
| Printing Biennial Report | | 2,000.00 | 610.48 | 1,389.52 |
| Treasurer Bond & Audit | | 1,250.00 | (90.00) | 1,340.00 |
| Printing | | 1,600.00 | 136.81 | 1,463.19 |
| Contingency | | 6,000.00 | 6,000.00 | 0.00 |
| SUBTOTAL | | \$52,610.00 | (\$1,049.91) | \$53,659.91 |
| SYMPOSIUM EXPENSES | | 5,500.00 | 438.53 | 5,061.47 |
| TOTAL EXPENSES | | \$104,845.00 | (\$611.38) | \$105,456.38 |
| CASH BALANCE AS OF 06-30-00 | | | | \$90,183.82 |

BEAR RIVER COMMISSION
STATEMENT OF INCOME AND EXPENDITURES

FOR THE PERIOD OF JULY 1, 2000 TO NOVEMBER 1, 2000

| INCOME | CASH ON HAND | OTHER INCOME | FROM STATES | TOTAL REVENUE |
|------------------------------------|-----------------|-----------------|-----------------|------------------|
| Cash Balance 07-01-00 | \$90,183.82 | | | \$90,183.82 |
| State of Idaho | | | \$30,000.00 | 30,000.00 |
| State of Utah | | | 30,000.00 | 30,000.00 |
| State of Wyoming | | | 30,000.00 | 30,000.00 |
| US Fish & Wildlife | | \$0.00 | | 0.00 |
| BR Tour Income | | \$3,678.55 | | 3,678.55 |
| Interest on Savings | | \$2,113.28 | | 2,113.28 |
| TOTAL INCOME TO NOV, 1 2000 | \$90,183.82 | \$5,791.83 | \$90,000.00 | \$185,975.65 |

DEDUCT OPERATING EXPENSES

EXPENDED THROUGH U. S. G. S.

| | APPROVED BUDGET | UNEXPENDED BALANCE | EXPENDITURES TO DATE |
|---------------|--------------------|-----------------------|-------------------------|
| Stream Gaging | \$48,685.00 | 0.00 | \$48,685.00 |
| SUBTOTAL | \$48,685.00 | 0.00 | \$48,685.00 |

EXPENDED THROUGH COMMISSION

| | | | | |
|-----------------------------|------|--------------|-------------|--------------|
| Personal Services | Jack | \$48,141.00 | 28,082.25 | \$20,058.75 |
| Travel (Eng-Mgr) | | 1,200.00 | 980.25 | 219.75 |
| Office Expenses | | 1,600.00 | 1,082.73 | 517.27 |
| Printing Biennial Report | | 2,000.00 | 1,597.99 | 402.01 |
| Treasurer Bond & Audit | | 1,300.00 | 1,300.00 | 0.00 |
| Printing | | 1,600.00 | 1,482.74 | 117.26 |
| Contingency | | 5,000.00 | 5,000.00 | 0.00 |
| SUBTOTAL | | \$60,841.00 | \$39,525.96 | \$21,315.04 |
| BR TOUR EXPENSES | | \$3,678.55 | (38.44) | 3,716.99 |
| TOTAL EXPENSES | | \$113,204.55 | \$39,487.52 | \$73,717.03 |
| CASH BALANCE AS OF 11-01-00 | | | | \$112,258.62 |

Bear River Commission
Regular Commission Meeting
November 14, 2000

V. Cloud seeding in the Bear River Basin

Olean Parker, born and raised at 573 Dingle Road, Wardboro, Idaho, about one mile from Camp Stewart, and still living on the same farm with my lovely wife of 55 years, Marion. My Mother and Dad spent their honeymoon working for the Utah Power and Light Company guarding and operating the check gate at the dike on the outlet canal from Mud Lake during the 1st World War. At the end of the war, with his job terminated, he said he wasn't going to work for wages anymore, and bought our farm. And that was where I was born.

I've been a farmer and irrigator most of my life. We began with flood irrigating. I could see this was a very inefficient way to water our crops and we were wasting water, so we pioneered our sprinkler irrigation system on the Preston/Montpelier Irrigation Company in 1959. Since 1963, with the inception of "Love Bear Lake Incorporated", where I'm presently Historian, I have been involved in aiming for the best management of Bear Lake's water. The fluctuating high and low water levels of the lake are of concern to local residents still today.

We lived through the drought and depression in the 1930's. Looking forward to "lean" years, we should keep in mind the Scout's motto, "Be Prepared".

Cloud seeding in dry years on the whole Bear River drainage could mean up to a 15% increase in our snow pack. On high water or high snow pack years, we need more storage space on Bear River. We should not depend only on Bear Lake for irrigation and flood control. We do have three proposed sights for reservoirs, the Caribou Dam sight, Rocky Point, and Smith's Fork. Cloud seeding could be used when our snow pack is below normal. The Wasatch Front is concerned about their snow pack for the 2002 Winter Olympics, and they are included in the Bear River Drainage, and would benefit from cloud seeding.

APPENDIX D
PAGE TWO

In the 1990's we had a seven-year drought, Bear Lake recovered after two years of above normal precipitation. The prediction was for a 5-year recovery period with normal precipitation.

When Utah Power & Light Company seeded, according to Carly Burton the precipitation increased about 10%. Bear Lake, Franklin, Caribou Counties, and others, seeded and quit. In the early days, Indians did rain dances to increase the precipitation. Our LDS Church and others have recommended we fast and pray for rain. Cloud seeding is a scientific approach and the technology has been continually improving to help us control the weather.

The Salt Lake and Boise International Airports seed the fog to keep the airports open. Nevada seeds to increase their snow pack.

The Atmospheric Resource Board in Bismarck, North Dakota, has compiled a booklet on the most common questions and answers about cloud seeding, which I have copied for the commission members. It states "cloud seeding is paid for by the participating counties along with some state cost-sharing. In recent years, about 80 percent of the project has been funded through county taxes, with the remaining 20 percent picked up by the state."

Cloud seeding would be a benefit to all residents of the Bear River Drainage. Some people say water flows downhill, actually water follows money. Thank you for your interest and support in proposing this worthwhile project.

Thank you.

Olean W. Parker

UTAH CLOUD SEEDING ACTIVITIES WATER YEAR 2001

In water year 2001, there are six active project areas in Utah. Five large-scale project areas using silver iodide include: (1) the Central/Southern Utah and the (2) Tooele County Project Areas, sponsored by the Utah Water Resources Development Corporation; the (3) West Box Elder and (4) East Box Elder/Cache County Project Areas, sponsored by the Bear River Water Conservancy District and Cache County; and the (5) West Uintas Project Area sponsored by the Weber Basin Water Conservancy District and the Provo River Water Users Association. North American Weather Consultants is the cloud seeding contractor for these project areas. The total estimated cost for these projects is \$321,900, of which the state will cost share 46.598 percent (\$150,000). Emery Water Conservancy District is operating a small scale project using liquid propane to seed the Wasatch Plateau above Joes Valley Reservoir. This is a continuation of part of the NOAA Research Project conducted in the 1990s.

The Central/Southern Utah Project has operated continuously since water year 1974, with the exception of the extreme wet period from 1984-87. The project has 23 seeded seasons. The project area has 65 cloud seeding generators. Using a target and control regression analysis for December through March precipitation, the Central/Southern Utah Project Area indicates a 14 percent average increase in precipitation for this period.

Seeding began in the Tooele County Project area in 1976 and continued through the 1982 water year. Seeding resumed in 1989 through 1992 and again in 1996 to 2000. There are 16 seeded seasons. The project area has nine cloud seeding generators. Target and control regression analyses show a December-March precipitation average increase of 19 percent.

The East Box Elder/Cache County Project Area has operated 12 years beginning in 1989. The project area has 22 cloud seeding generators. Target and control regression analysis shows a December-February precipitation average increase of 20 percent.

The West Box Elder Project Area operated for ten years from 1989 through 1997, and 2000. The project area has 12 cloud seeding generators. The target area has no precipitation

gages; however, there are two snow courses. A target and control regression analysis shows an April 1 snow water content average increase of 18 percent. The target and control regression analysis for the non-seeded years of 1998 and 1999 shows no seeding effects; i.e., the regression equation accurately predicted the target April 1 snow water content.

The West Uintas Project Area operated for six years from 1989 through 1993, and 1995. It will be operated again this year. Target and control regression analyses show a December-March precipitation average increase of eight percent.

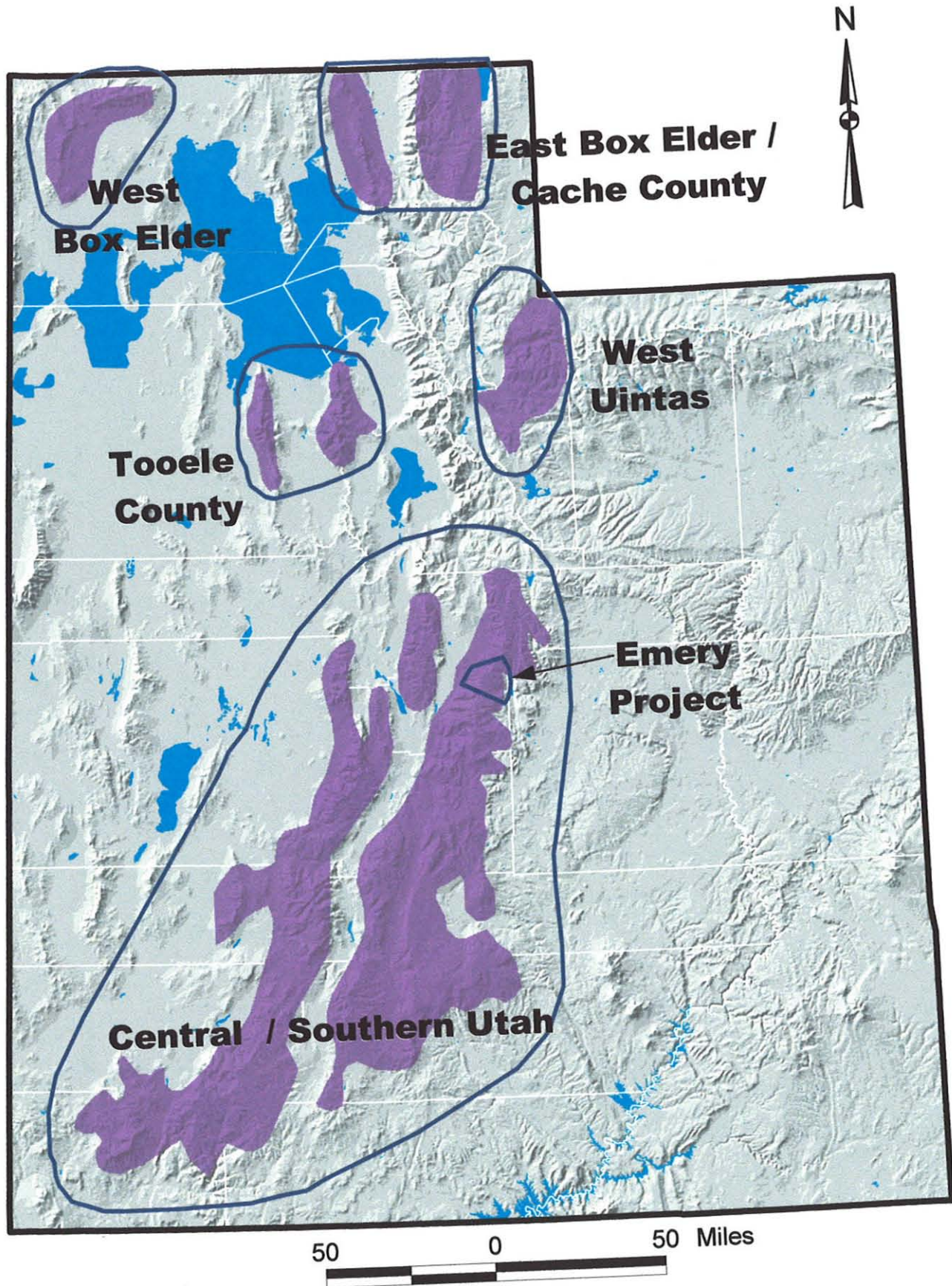
The table below shows a summary of the cloud seeding project areas. A map of the project areas is also shown.

| 2001 WATER YEAR SUMMARY OF CLOUD SEEDING PROJECT AREAS | | | |
|---|---|-----------------|--|
| Project Area | Number of Cloud Seeding Generators 2000-2001 Season | Seeded Years | Precipitation Increase During Seeding Period |
| Central/Southern Utah | 65 | 23 | 14% |
| Tooele County | 9 | 16 | 19% |
| East Box Elder/Cache County | 22 | 12 | 20% |
| West Box Elder County | 12 | 10 | 18%* |
| West Uintas | 15 | 6 | 8% |
| *Based on April 1 snow water content. | | | |

A recent study by the Division of Water Resources estimated the average annual increased runoff due to cloud seeding to be 13.0 percent. The cost of water developed from cloud seeding in Utah is estimated to be about one dollar per acre-foot.

The Division of Water Resources has a web site that includes the cloud seeding program. The web address for the Department of Natural Resources is <http://www.nr.state.ut.us/>. Click on Water Resources and then on Cloud Seeding.

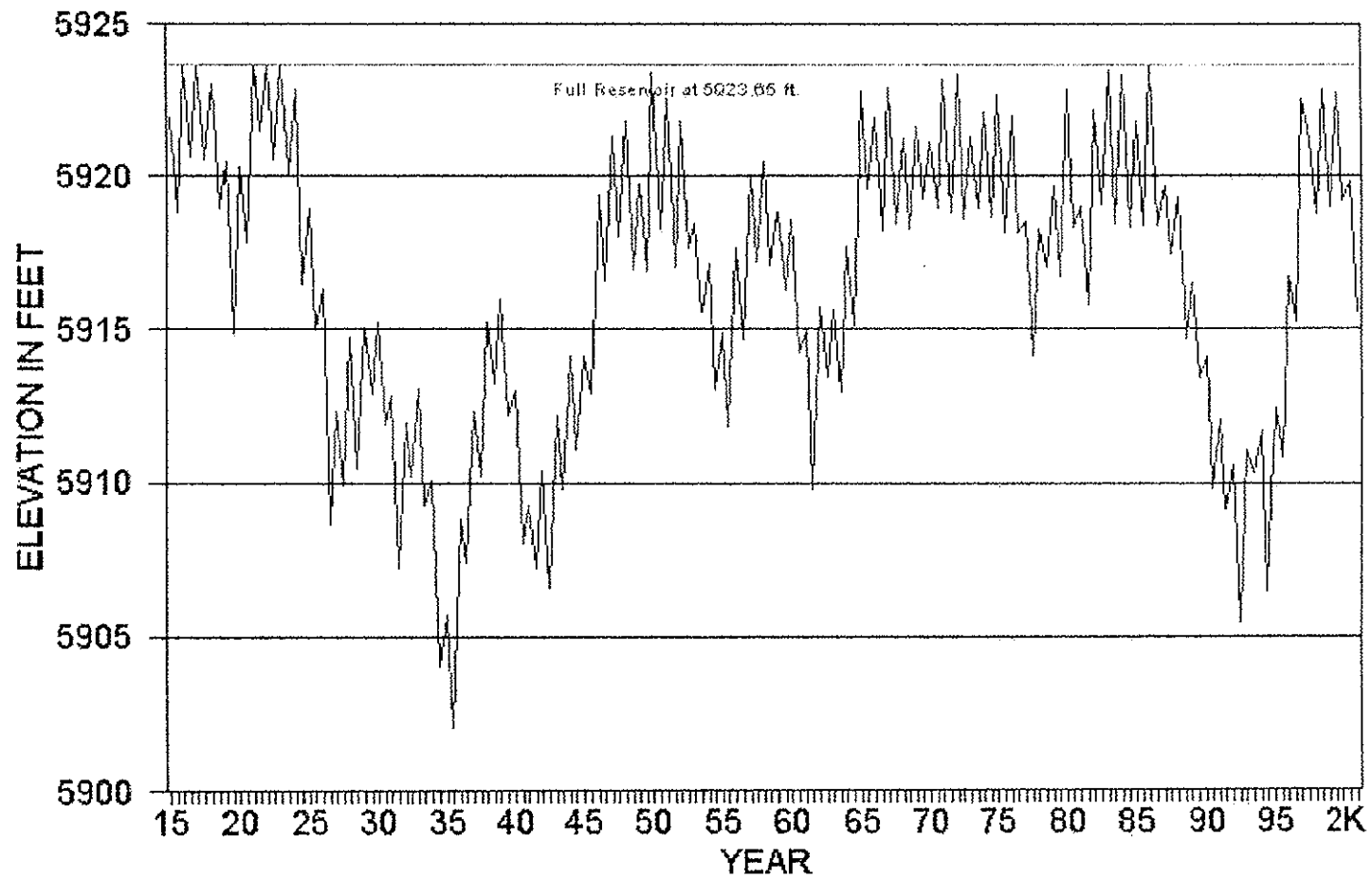
Current Cloud Seeding Project Areas



SUMMARY OF SIGNIFICANT EVENTS
WATER YEAR 1999-2000

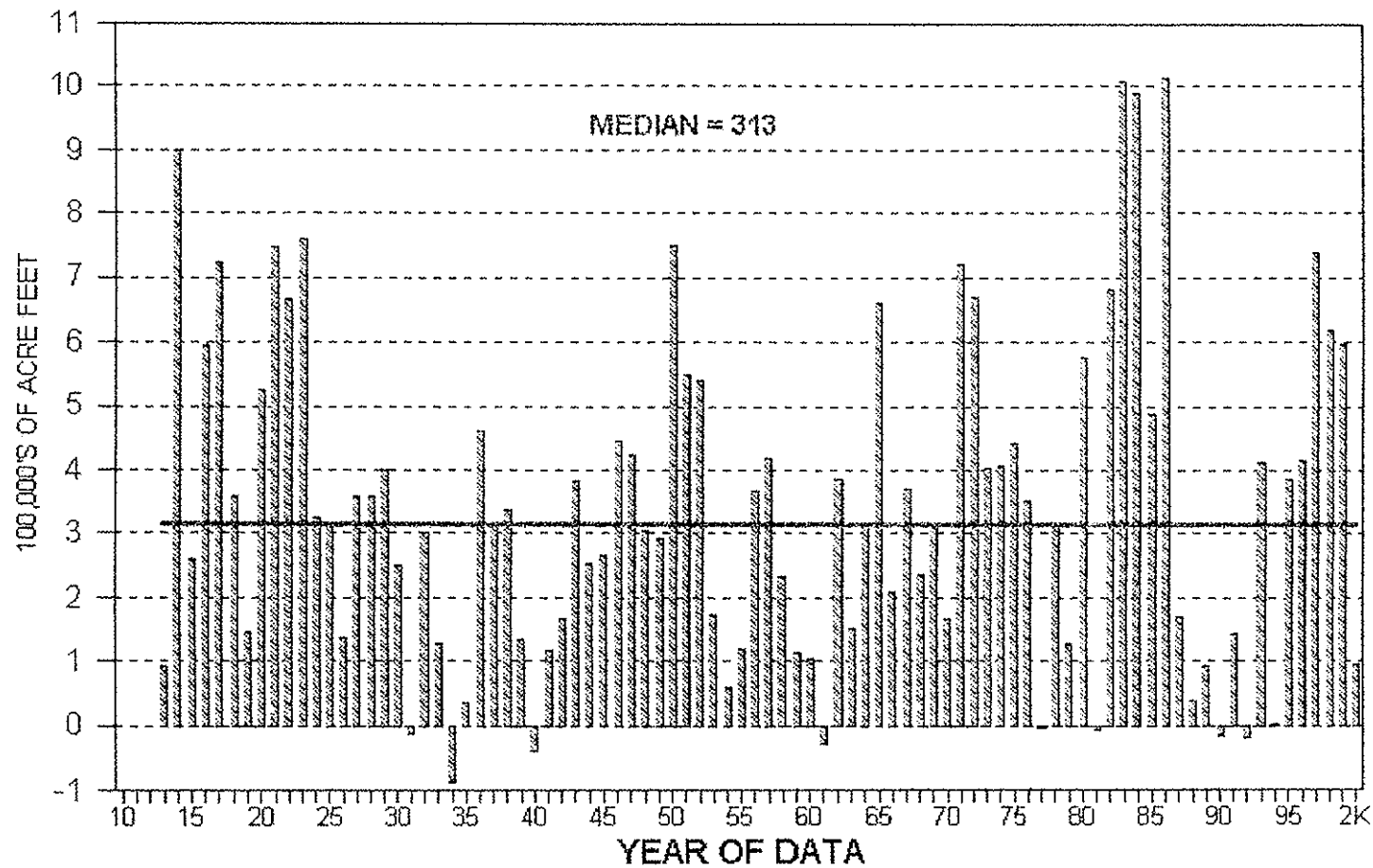
| <u>DATE</u> | <u>EVENT</u> | <u>BEAR LAKE ELEVATION</u> |
|-------------------|--|--------------------------------|
| Oct. 1, 1999 | End of Irrigation | 5921 |
| Jan. 5, 2000 | First Runoff Forecast Snowpack - 57% | 5919.23 |
| Jan. 18, 2000 | Bear Lake Pumping Stopped | 5919.15 |
| Feb. 5, 2000 | Second Runoff Forecast Snowpack - 75% | 5919.23 |
| March 6, 2000 | Third Runoff Forecast Snowpack - 87% | 5919.36 |
| March 31, 2000 | Rainbow Canal Diverted to Bear Lake | 5919.23 |
| April 5, 2000 | Fourth Runoff Forecast Snowpack - 80% | 5919.25 |
| May 6, 2000 | Commenced Releases for Irrigation | 5919.65 |
| May 22, 2000 | Bear Lake Peak Elevation | 5919.78 |
| October 1, 2000 | Outlet Canal Shut Off | 5915.67 |
| November 12, 2000 | | 5915.41 |

BEAR LAKE ELEVATION FROM 1916 TO 2000



BEAR LAKE NET RUNOFF

FROM 1913 - 2000



**PROVISIONAL
BEAR LAKE RELEASES AND ELEVATION
(RELEASES IN AC. FT.)
Irrigation Season 2000 -REVISED**

| <u>RELEASES</u> | | | | | <u>BEAR LAKE EL.</u> | | | |
|------------------|---------------------------|-----------------|------------------------------|---------------------------------|---|--|---------------------------------|-----------------------|
| Week Ending | Rainbow Inlet Canal | Outlet Canal | Adjusted Outlet Canal* | Estimated Storage Release | Estimated Total Storage Release to Date | Estimated Remaining Storage Available | Ending Elevation (ft MSL) | Weekly Change (ft) |
| July 9,2000 | 2,227 | 17,389 | 16,144 | 13,916 | 86,666 | 158,334 | 5918.25 | -0.33 |
| July 16,2000 | 1,971 | 18,332 | 17,063 | 15,092 | 101,758 | 143,242 | 5917.90 | -0.35 |
| July 23,2000 | 1,456 | 16,143 | 15,085 | 13,629 | 115,387 | 129,613 | 5917.66 | -0.24 |
| July 30,2000 | 808 | 15,278 | 14,259 | 13,451 | 128,838 | 116,162 | 5917.38 | -0.28 |
| August 6, 2000 | 403 | 14,683 | 13,805 | 13,402 | 142,240 | 102,760 | 5917.17 | -0.21 |
| August 13,2000 | 413 | 15,938 | 15,022 | 14,609 | 156,849 | 88,151 | 5916.87 | -0.30 |
| August 20,2000 | 492 | 14,575 | 13,721 | 13,228 | 170,078 | 74,922 | 5916.55 | -0.32 |
| August 27,2000 | 466 | 13,894 | 13,070 | 12,604 | 182,682 | 62,318 | 5916.28 | -0.27 |
| September 3,2000 | 498 | 11,124 | 10,425 | 9,926 | 192,608 | 52,392 | 5916.18 | -0.10 |
| September10,2000 | 531 | 6,065 | 5,594 | 5,063 | 197,671 | 47,329 | 5916.08 | -0.10 |
| September17,2000 | 347 | 4,303 | 3,910 | 3,563 | 201,234 | 43,766 | 5915.95 | -0.13 |
| September24,2000 | 367 | 3,033 | 2,698 | 2,331 | 203,566 | 41,434 | 5915.81 | -0.14 |
| October 1,2000 | 853 | 2,093 | 1,829 | 976 | 204,668 | 40,332 | 5915.66 | -0.15 |

1. Outlet Canal releases commenced on May 6, 2000.
2. Bear Lake elevation peaked at 5919.78 ft. on May 22, 2000.
3. Total estimated allocation available for water year 2000 is 245,000-acre feet.

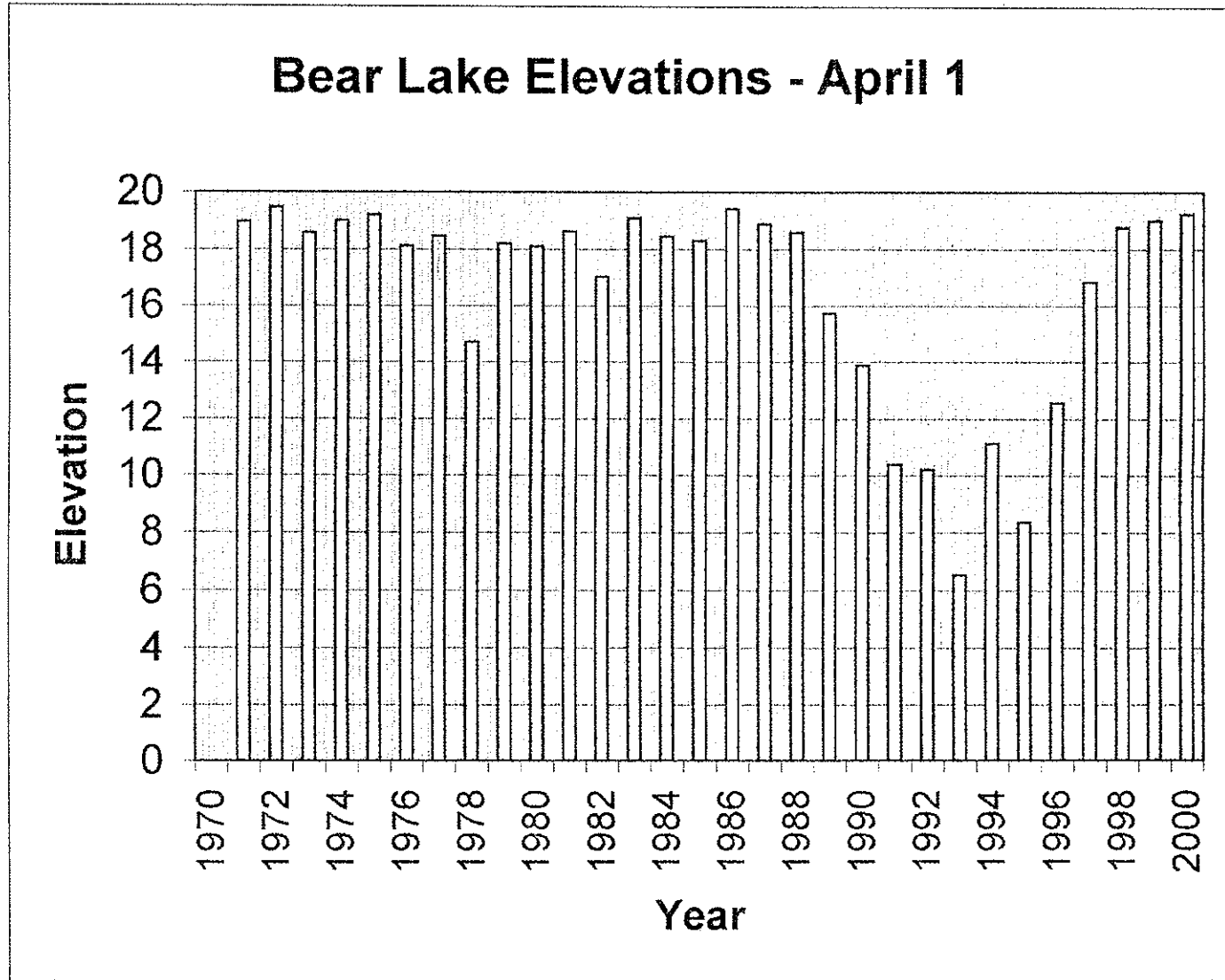
*Adjusted Outlet Canal releases include correction for natural flow according to the Dietrich Decree and transit losses of 4.5%.

Note – All values are from unofficial sources, provisional and subject to revision. Final records may be significantly different when published.

PacifiCorp
Hydro Resources
9/25/00

SUMMARY OF BEAR LAKE ELEVATIONS ON APRIL 1
1971 TO 2000

| YEAR | BEAR L. EL. ADD 5900 |
|------|-------------------------|
| 1970 | |
| 1971 | 18.97 |
| 1972 | 19.48 |
| 1973 | 18.59 |
| 1974 | 19.01 |
| 1975 | 19.21 |
| 1976 | 18.13 |
| 1977 | 18.46 |
| 1978 | 14.72 |
| 1979 | 18.2 |
| 1980 | 18.1 |
| 1981 | 18.62 |
| 1982 | 17.04 |
| 1983 | 19.09 |
| 1984 | 18.45 |
| 1985 | 18.3 |
| 1986 | 19.41 |
| 1987 | 18.89 |
| 1988 | 18.58 |
| 1989 | 15.75 |
| 1990 | 13.89 |
| 1991 | 10.4 |
| 1992 | 10.22 |
| 1993 | 6.53 |
| 1994 | 11.15 |
| 1995 | 8.36 |
| 1996 | 12.57 |
| 1997 | 16.86 |
| 1998 | 18.77 |
| 1999 | 19.02 |
| 2000 | 19.23 |



SUMMARY OF RUNOFF FORECASTS
1999 & 2000
VALUES IN 1000'S OF ACRE FEET

| <u>YEAR</u> | <u>JANUARY 1</u> | | <u>APRIL 1</u> | | <u>ACTUAL</u> | |
|-------------|------------------|------------|----------------|------------|---------------|------|
| | <u>AVG.</u> | <u>MAX</u> | <u>AVE</u> | <u>MAX</u> | | |
| 1999 | 200 (69%) | 315 | 215 (75%) | 307 | 346 | 121% |
| 2000 | 150 (52%) | 265 | 202 (70%) | 294 | 47 | 16% |

COMPARISON OF OUTLET RELEASES
FOR HISTORICAL DRY YEARS
(PERIOD OF RECORD 1930-2000)

| <u>YEAR</u> | <u>BEGIN RELEASE</u> | <u>RANK</u> | <u>END RELEASE</u> | <u>#DAYS RELEASE</u> | <u>RANK</u> |
|-------------|--------------------------|-------------|------------------------|--------------------------|-------------|
| 2000 | May 6 | 5T | September 30 | 148 | 2 |
| 1994 | May 11 | | September 21 | | |
| 1992 | April 24 | 2 | September 2 | 132 | 5 |
| 1991 | June 21 | | September 12 | | |
| 1990 | May 9 | | September 21 | | |
| 1989 | June 6 | | September 14 | | |
| 1988 | May 18 | | September 22 | | |
| 1987 | May 6 | 5T | September 29* | 136 | 4 |
| 1981 | May 6 | 5T | September 19* | 102 | 7 |
| 1977 | April 25 | 3 | September 16* | 111 | 6 |
| 1961 | May 4 | 4 | September 18 | 138 | 3 |
| 1934 | April 20 | 1 | September 24 | 158 | 1 |

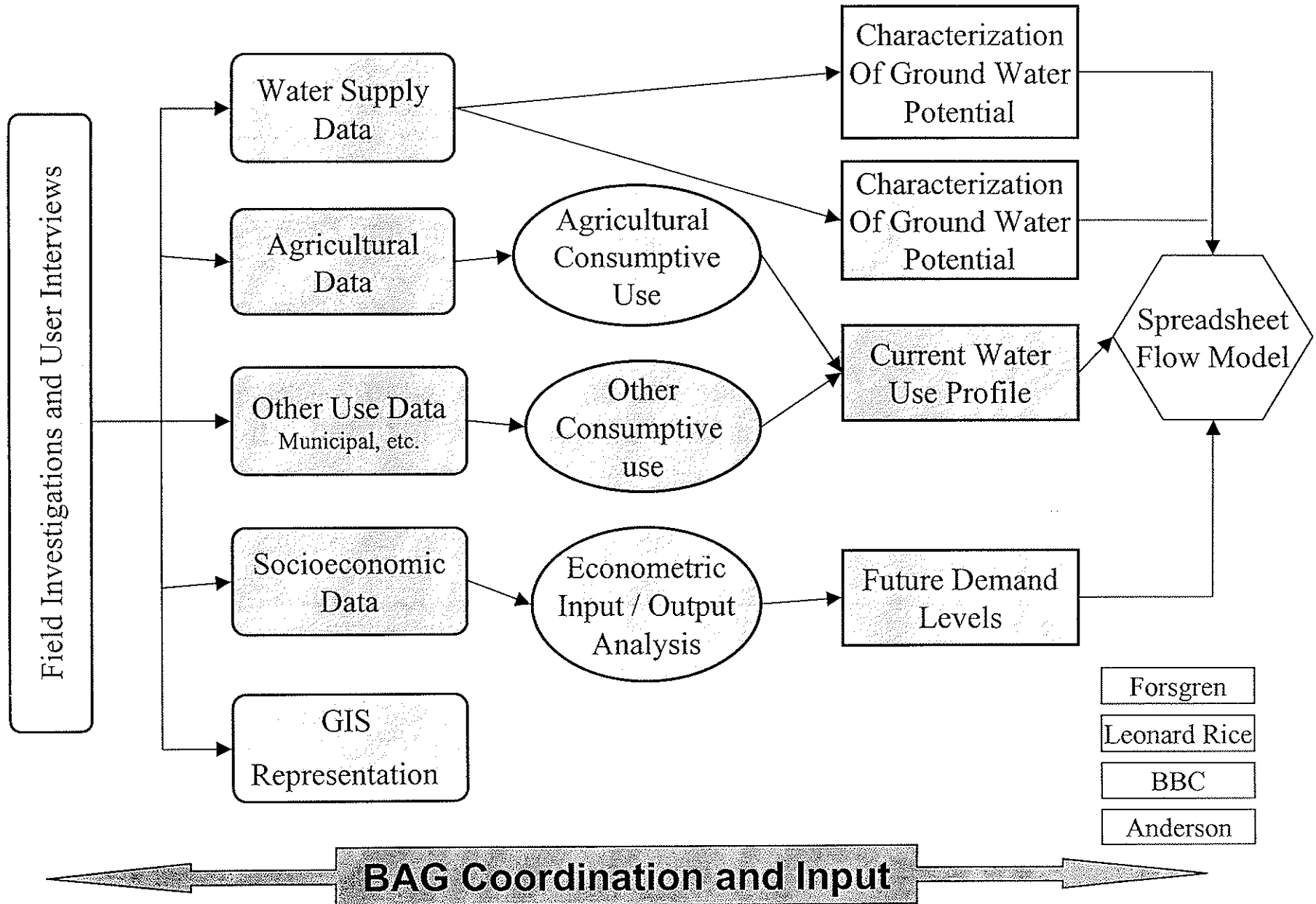
*Releases were curtailed during periods in May and June in response to spring rainfall

Wyoming's River Basin Planning Program

- ❖ Authorized by the 1999 Wyoming Legislature
- ❖ Five years to complete Wyoming's 7 major river basins at \$3.7M cost
- ❖ Majority of the planning work being completed by consultants to the Wyoming Water Development Commission
- ❖ Bear and Green River basins were the first basins, initiated July, 1999
- ❖ Bear River basin plan information will be on-line by January, 2001

<http://waterplan.state.wy.us>

BASIN PLANNING PROCESS



MEMORANDUM

Subject: Bear River Basin Plan
Key Structures and Diversions
HILLIARD EAST FORK DIVERSION

Date: September 10, 2000

Diversion Description: Diversion consists of a 7-foot wide wood structure with a single rectangular steel slide gate. Placing a rock dam across the main channel diverts river.



Hilliard East Fork diversion structure

Diversion Location: Diversion is on the East Fork of the Upper Bear in Utah. Irrigated lands are located in Wyoming as shown in the location map hereafter.

Latitude N 40 54' 12.5"
Longitude W 110 48' 53.3"

Conveyance Description: Open Channel Canal, approximately 47,520 feet in length.¹

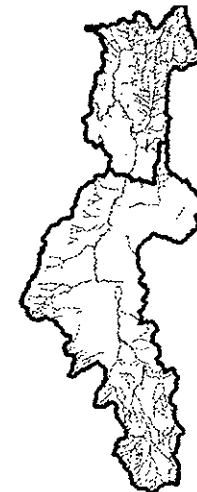
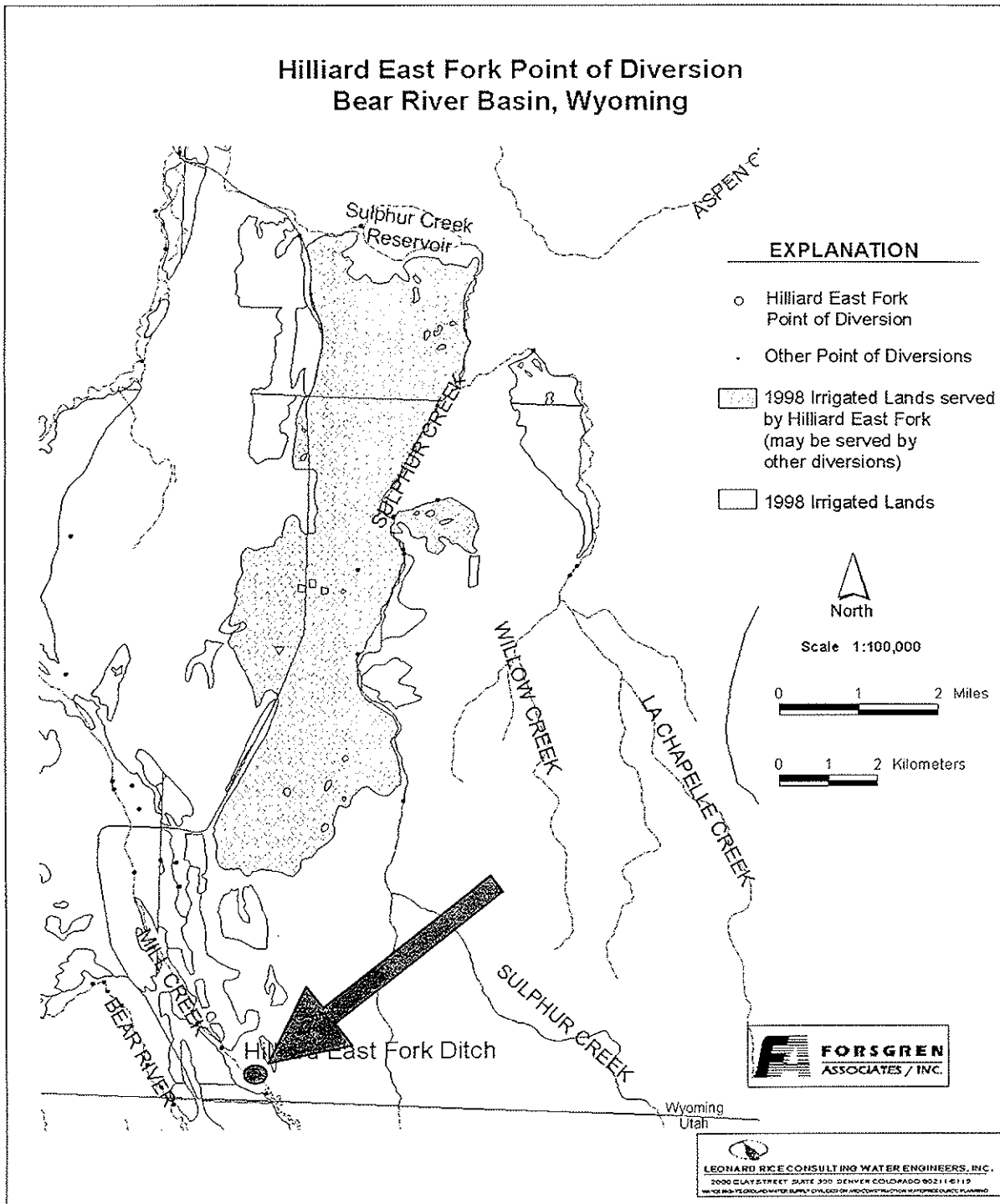
Direct Flow Water Rights:²

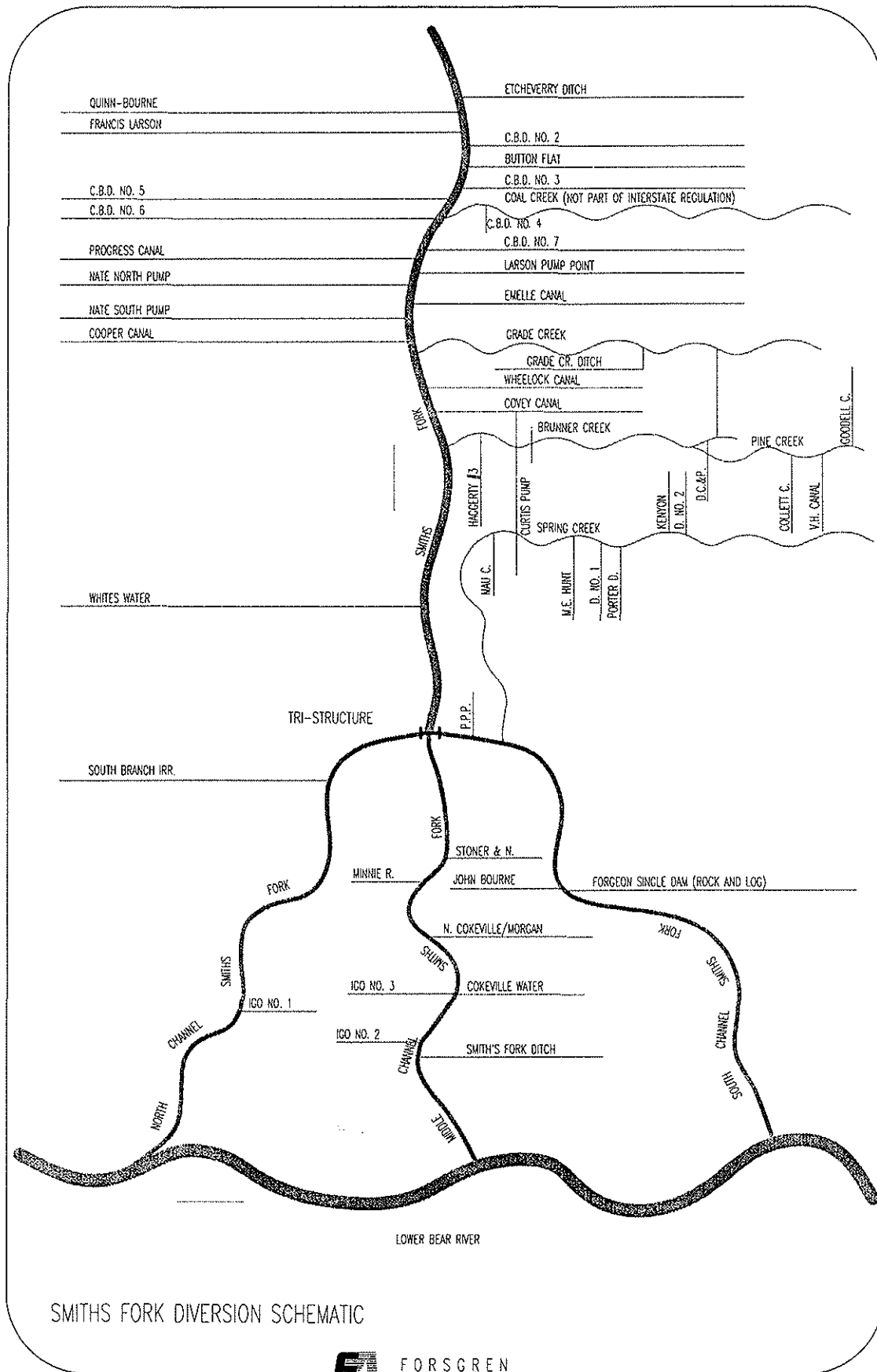
| Priority Date | Permit Number | Permitted Use | Permitted Acres | Flow (CFS) | Cumulative (CFS) | Comments |
|---------------|---------------|---------------|-----------------|------------|------------------|----------|
| - 1914 | U21-357 | Irrigation | 2644 | 28.00 | 28.00 | |

Key Diversion Documentation



Key Diversion Mapping





SMITHS FORK DIVERSION SCHEMATIC



FORSGREN
ASSOCIATES / INC.

FIGURE 4

Using GIS to Make Decisions

