



# IDAHO WATER RESOURCE BOARD

## **AGENDA**

### **MEETING NO. 3-11 OF THE IDAHO WATER RESOURCE BOARD**

**C.L. "Butch" Otter**  
Governor

May 13, 2011, at 8:30 a.m.  
immediately following Executive Session to be held at 7:30 a.m.

Best Western Coeur d'Alene Inn  
506 W. Appleway, Coeur d'Alene, Idaho 83814

**Terry T. Uhling**  
Chairman  
Boise  
District 2

**Bob Graham**  
Secretary  
Bonners Ferry  
District 1

**Charles "Chuck"  
Cuddy**  
Orofino  
At Large

**Leonard Beck**  
Burley  
District 3

**Roger W. Chase**  
Pocatello  
District 4

**Vince Alberdi**  
Kimberly  
At Large

**Jeff Raybould**  
St. Anthony  
At Large

**Peter Van Der Meulen**  
Hailey  
At Large

- .....
1. **EXECUTIVE SESSION** – The Board will meet at 7:30 a.m. pursuant to Idaho Code Section 67-2345(1)(c) and (f) to communicate with legal counsel regarding pending litigation. Executive Session is closed to the public.
  2. Roll Call
  3. Agenda and Approval of [Minutes 2-11](#)
  4. Public Comment – The Board will allocate a period of time (not to exceed 30 minutes) for the public to address the Board on subjects not specifically shown as an agenda item.
  5. IWRB Financial Program
    - a. [Status Report](#)
    - b. [Revenue Bond Request](#) – ESPA Ground Water Districts
    - c. [ESPA Managed Recharge](#)
      - 1) [Status Update](#)
      - 2) [Potential Participation by Ground Water Users](#)
    - d. [Water Transactions Program Update](#)
    - e. [Pristine Springs](#)
  6. Planning Activities
    - a. [Rathdrum Prairie CAMP](#)
    - b. [ESPA CAMP](#) / ESPA Activities
    - c. [Treasure Valley CAMP](#)
  7. [Water Storage Studies](#)
  8. [Minimum Stream Flow \(MSF\) Program](#)
  9. [IWRB Water Supply Bank \(WSB\) Update](#)
  10. [Wood River Basin Enhancement WSB](#)
  11. Director's Report
  12. [Western States Water Council](#) Update – John Simpson
  13. Other Items Board Members May Wish to Present
  14. Next Meeting and Adjourn

# IDAHO WATER RESOURCE BOARD

In Preparation for Meeting No. 3-11

May 12, 2011 at approximately 8:30 a.m.

Best Western Coeur d'Alene Inn  
506 W. Appleway, Coeur d'Alene, Idaho 83814

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## 8:30 am – IWRB Work Session

1. Financial Action Items
  - a. Revenue Bonds Briefing (see Tab 5.b in Board book)
  - b. IGWA Participation in Recharge Program (see Tab 5.c.2 in Board book)
  - c. Pristine Springs (see Tab 5.e in Board book)
2. Wood River Basin Enhancement Water Supply Bank (WSB) (see Tab 10 in Board book)
3. Rathdrum Prairie CAMP – Advisory Committee Update (see Tab 6.a in Board book)

## 11:30 am – Depart for Field Trip / Tour

Field Trip / Tour of Post Falls Dam – IWRB members & invited IDWR staff

## Open House / Public Hearing:

An open house and public hearing are scheduled for the evening of May 12, 2011, at the Best Western Coeur d'Alene Inn – Hayden Conf Rm, 506 W. Appleway, Coeur d'Alene, ID 83815. Schedule is as follows:

**6:00 pm – 7:00 pm** Informal open house to discuss draft Rathdrum Prairie CAMP document. IWRB members, staff, and RP Advisory Committee members will be available to answer questions prior to the formal public hearing.

**7:00 pm – 9:00 pm** Public hearing to receive written and oral public comments on the draft Rathdrum Prairie CAMP document.

## AMERICANS WITH DISABILITIES

The meeting will be held in facilities that meet the accessibility requirements of the Americans with Disabilities Act. If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Diana Ball, Administrative Assistant, by email [diana.ball@idwr.idaho.gov](mailto:diana.ball@idwr.idaho.gov) or by phone at (208) 287-4800.



# IDAHO WATER RESOURCE IWRB

## **MEETING MINUTES 2-11**

**C.L. "Butch" Otter**  
Governor

Idaho Water Center  
Boise, Idaho  
March 11, 2011

**Terry T. Uhling**  
Chairman  
Boise  
District 2

Chairman Uhling called the meeting to order at 8:30 a.m. and asked for roll call. All 7 members were present. Chairman Uhling stated that a quorum was present. Mr. Jerry Rigby's term expired and the vacant seat has not been filled as of this meeting date.

**Gary M. Chamberlain**  
Vice-Chairman  
Challis  
At Large

### **Agenda Item No. 1, Roll Call**

#### *Board Members Present*

**Bob Graham**  
Secretary  
Bonners Ferry  
At Large

Terry Uhling, Chairman  
Gary Chamberlain  
Chuck Cuddy  
Leonard Beck

Vince Alberdi  
Roger Chase  
Bob Graham

**Charles "Chuck" Cuddy**  
Orofino  
District 1

#### *Staff Members Present*

**Leonard Beck**  
Burley  
District 3

Brian Patton, Bureau Chief  
Rich Rigby, Federal Liaison  
Morgan Case, Biologist  
Neeley Miller, Planner  
Bill Quinn, Engineer

Helen Harrington, Section Manager  
Dan Nelson, Hydrologist  
Sandra Thiel, Planner  
Cynthia Bridge-Clark, Engineer  
Diana Ball, Administrative Assistant

**Roger W. Chase**  
Pocatello  
District 4

#### *Guests Present*

**Vince Alberdi**  
Kimberly  
At Large

Lynn Tominaga, IGWA  
Ben Hepler, Boise City Canal Company  
Bruce Smith, Moore Smith Buxton Law  
Gary Lemmon, Blind Canyon Aquaranch  
Jon Bowling, Idaho Power

Shelley Davis, Barker Rosholt  
Liz Paul, Idaho Rivers United  
Walt Poole, Idaho Fish and Game  
Dave Wilkins, Capital Press

**Vacant**  
At Large

### **Agenda Item No. 2, Agenda and Approval of Minutes 1-11**

Mr. Chamberlain moved to approve Minutes for Meeting 1-11 as submitted. Mr. Beck seconded the motion. All were in favor. Minutes for Meeting 1-11 were approved as submitted.

Chairman Uhling called for any changes to the Agenda. Mr. Brian Patton suggested removing Item 8, Policy Direction on Snake River Minimum Stream Flows and adding the Director's Report under Item 8. Mr. Chamberlain moved to amend the agenda as suggested. Mr. Beck seconded the motion. Chairman Uhling called for a

voice vote. All were in favor.

### **Agenda Item No. 3, Public Comment**

Chairman Uhling asked for public comment regarding any items not included on the agenda.

Ms. Liz Paul, Idaho Rivers United, addressed the IWRB regarding new storage facilities on the Boise River and water conservation measures. She provided a handout on conservation and a copy of the March 2011 Idaho Rivers United newsletter.

### **Agenda Item 4, Financial Items**

#### **a. Status Report**

Mr. Brian Patton presented the Financial Status Report. As of February 1, 2011, total IWRB funds committed but not disbursed totaled approximately \$13.9 million. The outstanding loan principal balance is \$19.2 million, and the total uncommitted balance is approximately \$2 million.

Mr. Patton summarized the following financial action items to be presented to the IWRB: 1) \$15,000 loan from the Revolving Development Account to Boise City Canal Company to repair a section of a buried canal, and 2) funding up to \$32,130 for a one-year extension of the Pole Creek project, which has been active the last 5 years.

Mr. Patton provided a brief summary of the annual rental pool reports for Water District 63 (Boise), Water District 65 (Payette), and Water District 01 (Upper Snake). Surcharge received from these major rental pools totaled \$248,155 for 2010, and the funds have been deposited into the IWRB's Revolving Development Account.

Chairman Uhling asked what the 5-year average was for surcharge funds received from the rental pools. Mr. Patton stated the average is \$300,000 to \$350,000. Mr. Chase asked if the 10% fee associated with the rental pool is comparable to other states. Mr. Patton replied that Idaho is unique in its water marketing program and isn't aware of other western states that have a similar program. Mr. Uhling stated that Idaho's program may become a banking model for other states. Mr. Beck asked what effort is needed by the IWRB and staff relating to the income from these rental pools. Mr. Patton replied that the IWRB oversees the program by appointing the local committees and reviewing and approving the procedures. He also stated that surcharges will generally be down in a full-water year. Mr. Patton stated that he maintains a running total of rental pool surcharges and will provide it at the next regular IWRB meeting.

Mr. Patton stated that there are quite a few loan applications that may come before the IWRB in the near future. Mr. Graham noted that several of the projects appear to be ones that have previously been before the IWRB. Mr. Patton stated that there are projects for several of the same entities however the new loan requests are for different project phases. Mr. Uhling commented that many of the projects would likely contribute towards water conservation.

Mr. Patton provided information on appropriate reserve funds for both Dworshak and Pristine Springs and stated that \$1 million would probably be adequate for Pristine Springs however they are still working on numbers for Dworshak. The key is in trying to establish an emergency reserve fund amount. There was a discussion about replacement costs and availability of parts in an emergency situation.



**b. Boise City Canal Company Loan**

Mr. Dan Nelson presented a loan application on behalf of Boise City Canal Company in the amount of \$15,000 for rehabilitation of an enclosed section of the Boise City Canal. The Boise City Canal Company has two current loans with the IWRB: 1) 2003 Phase 1 loan in the amount of \$89,865 with an annual payment of \$11,922, which will be paid in full in May 2014, and 2) 2004 Phase 2 loan in the amount of \$114,709 with an annual payment of \$14,852, which is scheduled to be paid in full June 2015.

Mr. Uhling suggested that rather than granting an additional loan in the amount of \$15,000 and to make the request more efficient for both the IWRB and the Boise City Canal Company, the IWRB could delay one annual payment of \$14,852 on the Phase 2 loan to satisfy the current loan amount of \$15,000 requested. The existing Phase 2 loan would be modified to allow for an additional year to repay the Phase 2 loan of \$114,709 in full, which would make the final Phase 2 loan payment due by June 2016.

Mr. Ben Hepler, Boise City Canal Company, addressed the IWRB regarding the option to delay the 2011 payment due on the Phase 2 loan and extending repayment of the loan in full to June 2016 rather than securing an additional loan with the IWRB in the amount of \$15,000. All parties were in agreement with this funding option. The Boise City Canal Company would not be required to make the annual payment of \$14,852 in June 2011 however the amount due in 2011 would be added to the end of the loan, thereby extending the final due date to June 2016.

Mr. Graham questioned the location of the buried canal as indicated on the map provided. There was discussion on whether the homeowner was aware of the buried canal when they purchased the property. Mr. Hepler stated that the homeowner disclosed that they were not aware of the buried canal when they purchased the home.

Mr. Chamberlain made a motion to extend the term date of the current Phase 2 loan to Boise City Canal Company with an annual payment due of \$14,852 to June 2016. The motion was seconded by Mr. Alberdi. Chairman Uhling called for a roll call vote.

Roll Call Vote: Mr. Graham: Aye; Mr. Alberdi: Aye; Mr. Cuddy: Aye; Mr. Chamberlain: Aye; Mr. Beck: Aye; Mr. Chase: Aye; Chairman Uhling: Aye. Roll Call Vote: 7 Ayes. Motion carried.

**c. Water Transaction Program – Pole Creek**

Ms. Morgan Case presented a resolution for a one-year minimum flow renewal agreement for Pole Creek with Salmon Falls Land and Livestock Company. Pole Creek has the potential to provide high quality habitat for threatened Chinook salmon and bull trout. For the past 5 years, the IWRB transaction maintained a flow of 5 cfs in Pole Creek. The water user renewal agreement requires that a minimum flow of 6 cfs be maintained in Pole Creek, as measured at the IDWR gage, through the 2011 irrigation season. Salmon Falls Land and Livestock will be compensated for every day that it is necessary to run a diesel generator to power the pivot irrigation system.

There was a discussion regarding the cost of diesel fuel to run the IWRB-owned diesel generator. Since diesel fuel is rising at a rapid rate, Mr. Chamberlain suggested increasing the total amount of the agreement for compensation from \$32,130 to \$50,000 to cover the water right owner's potential diesel costs.

There was a brief discussion regarding who is responsible for repairs and maintenance on the generator. Ms. Case stated that the landowner has been responsible in the past for routine maintenance such as oil changes. The IWRB would likely be responsible for a major overhaul of the generator. The long-term plan is for the landowner to convert to hydropower and eliminate the need for the generator.

Mr. Chamberlain made a motion that the Pole Creek Salmon Falls Land & Livestock water transaction resolution be accepted as modified, increasing the agreement amount to \$50,000.00 and subject to the condition that the IWRB receives the requested funding from the Bonneville Power Administration through the Columbia Basin Water Transaction Program in the amount of \$50,000.00. The motion was seconded by Mr. Cuddy. Chairman Uhling called for a roll call vote.

Roll Call Vote: Mr. Graham: Aye; Mr. Alberdi: Aye; Mr. Cuddy: Aye; Mr. Chamberlain: Aye; Mr. Beck: Aye; Mr. Chase: Aye; Chairman Uhling: Aye. Roll Call Vote: 7 Ayes. Motion carried.

**d. ESPA Managed Recharge Program Update**

Mr. Bill Quinn presented an update and stated that 2011 contracts have been prepared. The early season program is expected to be similar to last year's with several canal companies and irrigation districts participating. The plan is to equally divide recharge above and below American Falls, consistent with the Eastern Snake Plan Aquifer (ESPA) Comprehensive Aquifer Management Plan (CAMP). Because of limited funding, new provisions have been inserted into 2011 recharge contracts, specifying well defined volume and dollar "not to exceed" limits and conditions. Approximately \$217,000 remains in the recharge conveyance budget. Currently, Southwestern Irrigation District is the only one recharging, and they are recharging at approximately 21 cfs through several injection wells. To date, no other recharge has been reported.

Mr. Beck asked about Idaho Irrigation District, milepost 31, in the Egin Lakes area and what it would take to ramp them up for large amounts of recharge, specifically related to cost. Mr. Quinn replied that milepost 31 is an ideal site because of its location in the interior of the basin for maximized retention and its success at retaining water. He stated that this will likely be a policy decision due to cost.

There was discussion regarding potential for recharge at the three ESPA committee recommended sites. Mr. Uhling suggested that more information be prepared for the IWRB to consider when making policy decisions on future recharge, including costs, pros, cons, rankings, and data gaps. Mr. Patton stated that the three sites were recommended by the ESPA committee, and the IWRB has already allocated a portion of the \$2.4 million Legislature funds for recharge at Egin Lakes and for Idaho Irrigation District.

There was additional discussion on the financial and functional possibility of building large holding ponds. Mr. Uhling stated that different versions of storage are being considered, including aquifer, reservoir, and holding ponds. Mr. Patton stated that canal / re-regulation ponds are a great idea in most cases. They help canal companies in strategic locations. Canal re-regulation ponds are built into the current AWEP plan and have been successful in the past. Studies may be needed to consider capacities of existing canals for additional holding water, and precise numbers are needed to make good policy decisions.

Mr. Uhling recommended that staff identify long-term goals for the IWRB that make sense from an overall state perspective.

There was a short break in the meeting.

Staff provided a map showing the amount of water leaving the state and identifying the river basins.

**Agenda Item No. 5, Planning Activities**

**a. ESPA CAMP**

Mr. Rich Rigby provided a brief update on the current ESPA processes and meetings. Mr. Rigby recommended not having another ESPA CAMP Implementation Committee meeting at this point due to lack of new information. He stated that with respect to disposition of funds there are two ways to measure

benefits: 1) who gets paid for the use of the water, and 2) who gets the water. Progress needs to be made on separating these two issues.

There are other canal companies, including Aberdeen Springfield and the Great Feeder, who are interested in recharge. Mr. Rigby suggested that a "go-separately" approach be considered. Staff will work on identifying uses of the ESPA CAMP funds to present at the next regular IWRB meeting.

**b. Rathdrum Prairie CAMP**

Ms. Helen Harrington provided an update on the Rathdrum Prairie (RP) CAMP program. In January, the RP CAMP Advisory Committee submitted a Recommended Draft Management Plan for the IWRB's consideration. No additional comments have been received from the public or the IWRB since that time. The Advisory Committee has continued work compiling a list of projects and costs associated with implementing the recommended Draft Plan. The Draft Plan will likely be refined as public comment comes in and as the Advisory Committee considers different implementation concepts. Staff recommended moving forward in accepting the Draft Plan as submitted by the Advisory Committee through the resolution before the IWRB.

An additional action item was submitted to the IWRB to appoint Mr. Dale Peck, environmental director of the Panhandle Health District, to the RP Advisory Committee, as a replacement for Mr. Chris Beck whose term on the Board of Health for the Panhandle Health District ends March 2011. Mr. Peck has been an active participant and has attended almost all RP Advisory Committee meetings.

Mr. Graham made a motion that Mr. Dale Peck be appointed to the Rathdrum Prairie Advisory Committee as a replacement for Mr. Chris Beck. The motion was seconded by Mr. Cuddy. Chairman Uhling called for a voice vote. All were in favor.

In the matter of the IWRB resolution, staff recommends that the IWRB consider accepting the Draft Plan with the intent of taking it forward for public comment and public hearing, which would be held in conjunction with the regular IWRB meeting scheduled for May 12 and 13 in Coeur d'Alene, Idaho.

Ms. Harrington stated that there is a 60-day public comment period required with the IWRB's consideration of formally adopting the Draft Plan. It is expected that the public comment period will be set around the timeframe of the public hearing. The tentative plan is to hold an open house immediately prior to the formal hearing to provide for a question and answer period and to discuss the Draft Plan in an informal setting, followed by the public hearing to allow for public testimony.

Mr. Graham made a motion to accept the Draft Rathdrum Prairie Comprehensive Aquifer Management Plan and stressed that it is a "draft" plan. The motion was seconded by Mr. Cuddy. Chairman Uhling called for a voice vote. All were in favor.

**c. Treasure Valley CAMP**

Mr. Neeley Miller provided an update on the Treasure Valley CAMP process. The TV Advisory Committee held a two-day meeting on February 3 and 4, 2011. At those meetings, they established a drafting group responsible for drafting the CAMP document. The drafting group completed a preliminary draft outline as presented to the IWRB. A list of the drafting group committee members was provided. The RAFN (Reasonably Anticipated Future Needs) drafting group was also established and a list was provided to the IWRB. The Advisory Committee expects to present a Draft Plan to the IWRB by early summer.

Chairman Uhling commented that the Advisory Committee should include appropriate and adequate representation on both committees. He commended the drafting group on the draft outline and stated they appeared to be heading in the right direction.

#### **d. State Water Plan**

Ms. Harrington provided a brief update on the State Water Plan revision process and stated that the revision process is moving forward however no meetings have been held since the last IWRB meeting. Staff and the Office of the Attorney General are evaluating the degree to which the State Water Plan revision process can resolve outstanding issues surrounding water planning and management, including: 1) minimum stream flow water rights on the Snake River (mainstem), 2) management issues related to new water appropriations in the Salmon River basin, and 3) water flow issues related to the Owyhee Initiative.

#### **Agenda Item No. 6, Water Storage Studies**

Ms. Cynthia Bridge-Clark updated the IWRB on the three ongoing storage water studies: 1) Lower Boise River Interim Feasibility Study, 2) Henrys Fork Basin Study, and 3) the Weiser-Galloway Project.

##### Lower Boise River

In the Lower Boise River, the *Water Storage Screening Analysis* was published by the U.S. Corp of Engineers Corp) in August 2010 and presented to the IWRB in September 2010. The initial six sites were ranked and the IWRB selected the top three for evaluation based on future funding: Arrowrock, Alexander Flats, and Twin Springs. There is currently no funding in the Corp's budget for matched funding for Federal FY2011 and FY2012. The Corp is aware of the State's obligation to fulfill its mandate to complete an investigation of storage and is making an effort to secure even partial funding to support further study activities.

Chairman Uhling asked if this was under consideration that the Corp ranked this as the number one risk project related to flooding. Ms. Clark stated that it was, and Chairman Uhling extended the IWRB's offer to assist the Corp in seeking funding for these projects.

##### Henrys Fork Basin

In the Henrys Fork Basin, the Bureau of Reclamation (BOR) and the State of Idaho, in collaboration with a stakeholder working group, are conducting a study on water resources and development of alternatives to improve water supply conditions in the Eastern Snake Plain Aquifer and Upper Snake River basin. Stakeholder meetings continue in conjunction with the Henrys Fork Watershed Council monthly meetings held in Rexburg, Idaho. BOR staff has provided updates on study activities and presented information on existing and potential water development projects at these meetings. The March watershed council meeting was cancelled to allow for more time to get further along in their evaluations and are hoping to have a preliminary short list for the May meeting and then potentially reduce that list by June. Work will continue on those alternatives through the summer and then reconvene in September. The BOR has also offered to provide updates and presentations to the IWRB at any time.

Chairman Uhling commented that it looks like a diverse group, which is positive, and stated that if there is information generated that is transferable to other basins, ideas or concepts, the IWRB would be interested in reviewing that. Ms. Clark stated that it is a very diverse and engaged group and will take it under consideration to look at studies that may be applicable to other basins. Ms. Clark also provided a copy of an article published by the Rexburg Standard Journal regarding a poll taken on the rebuilding of Teton Dam, which was commissioned by American Rivers. Ms. Clark stated that Scott Bosse, American Rivers, has offered to present those results to the IWRB based on time and interest.

##### Weiser-Galloway Project

The IWRB and the Corp executed a cost-share agreement on June 3, 2010, to initiate the *Weiser-Galloway Gap Analysis, Economic Evaluation and Risk-Based Cost Analysis Project* the existing Galloway Dam site and Reservoir and to consider current conditions. The report is intended to be used by decision

makers in determining whether to move forward with a full feasibility study. The total costs associated with the study are estimated to be \$200,000 and will be shared equally between the Corp and the IWRB. At this point the report is complete and currently being printed and will likely be presented to the IWRB at the next possible IWRB meeting.

Chairman Uhling stated that the Weiser-Galloway report should be presented when the IWRB meets in Boise or could be presented at a Storage Subcommittee meeting with the full IWRB invited to attend. He also commented that there is always a concern that projects usually incur additional costs as questions continue to arise and encouraged staff to pursue getting answers to those questions sooner than later for efficient use of staff time and funds.

Mr. Graham stated that the printed report should initially be presented to the IWRB for review and then to the Storage Subcommittee to speed up the process in getting the full report out to the public. Chairman Uhling agreed that would be an efficient way to proceed.

#### **Agenda Item No. 7, Establishment of the Upper Snake River Advisory Committee**

Mr. Patton addressed the IWRB regarding the resolution introduced by Mr. Clive Strong, Deputy Attorney General, to form a standing IWRB Subcommittee known as the Upper Snake River Advisory Committee. Participants would include a representative of the IWRB, Bureau of Reclamation, Idaho Power Company, two representatives of the Committee of Nine (one member from the southern area of Water District 01 and one member from the northern area of Water District 01), and such other interested stakeholders as the IWRB may determine.

The new Committee would provide a collaborative forum for the review and exchange of relevant information on how the State, the Bureau of Reclamation, and the Water District 01 Committee of Nine, in the exercise of their respective authorities, can optimize the management of the water resources and operation of the reservoir system above Milner Dam to provide a reliable supply of water for existing and future beneficial uses.

Mr. Chamberlain made a motion that the IWRB accept the resolution to form the Upper Snake River Advisory Committee as written. The motion was seconded by Mr. Beck. Chairman Uhling called for a voice vote. All were in favor.

There was a brief discussion on the IWRB's appointment to this Committee. Mr. Beck made a motion to appoint Mr. Roger Chase as the IWRB representative to the Upper Snake River Advisory Committee. The motion was seconded by Mr. Chamberlain. Chairman Uhling called for a voice vote. All were in favor.

Mr. Chamberlain asked for clarification of the average amount of water flowing from Idaho to Oregon as measured near Rome, Oregon, as shown on the map that was distributed by staff after the break. Mr. Patton stated that the Rome Gage is only on the Owyhee River. There is no gage below Hells Canyon shown on the map. Mr. Patton stated that the Lower Granite Dam Gage would be representative of what leaves the State in the Snake River Basin. Mr. Patton stated that the Weiser Gage is just above the Hells Canyon Complex, which is not shown, but can be added, along with Milner. Chairman Uhling asked Mr. Patton to make those adjustments to the chart.

#### **Agenda Item No. 8, Director's Report**

Mr. Patton presented items to the IWRB on behalf of Interim Director Gary Spackman. The Western States Water Council fees were paid in full and full voting status has been restored. The State's representative, Mr. Jerry Rigby, has inquired about how the IWRB wants him to follow-up in reporting on

WSWC activities. Mr. Graham suggested that Mr. Rigby provide a brief written summary, as well as report back in person. Chairman Uhling suggested that the other State representatives to WSWC also report to the IWRB to provide a full view of WSWC activities.

Mr. Patton acknowledged that IWRB officer elections are needed and will be scheduled as soon as the remaining IWRB appointments have been made, likely by the May meeting.

Mr. Patton reported on the snowpack, which is above average in most parts of the State, and noted that the Department will be looking at the April 1 Heise forecast in terms of the Surface Water Coalition call.

Mr. Patton reported that the Department is moving forward working directly with the operator at Priest Lake while working with Avista over settlement of the existing agreement. The operator needs to be contracted directly by the Department.

In regards to the Department's budget, Mr. Patton stated that JFAC has addressed the Department's budget. He stated several members of that Committee spoke very highly of the Department and opposed efforts to make deeper cuts to the Department's budget. Several legislators spoke very highly of the Department and its work, including Representative Patrick, Representative Wood, Senator Bear, Senator Brackett, Senator Keough, Representative Bedke, Representative Jaquet, Representative Eskridge, and Senator Broadsword. JFAC recommended approval of the \$2.4 million fund transfer that the IWRB has committed to the ESPA CAMP process. Those funds will be deposited into the secondary aquifer fund to be spent on ESPA projects. The transfer will likely be completed as soon as the Legislature approves the Department's budget.

Several pieces of Department legislation are being considered, including fee bills for well drilling permits and water right application and transfer applications. Both of these have passed the House and are at the Senate. The IWRB also has a fee rule related to the IWRB's Water Supply Bank application fee, which passed both the House and Senate committees and has been included in the Senate concurrent resolution 107, which approves all rules not explicitly rejected. The resolution has passed the Senate and is now before the House.

Chairman Uhling discussed details surrounding the regular IWRB meeting in May, presently scheduled for May 12 and 13 in Coeur d'Alene to accommodate the Rathdrum Prairie Draft Plan public hearing. Staff will evaluate efficient use of time and costs associated with the public hearing, work session, and regular IWRB meeting.

Mr. Patton also stated that the July meeting is tentatively scheduled for Lewiston and was originally planned in conjunction with potential State Water Plan activities. Chairman Uhling stated that he has a direct conflict with the scheduled July meeting dates. Mr. Chamberlain suggested scheduling the July meeting for Boise in consideration of costs and delaying out-of-town meetings that are related to State Water Plan activities. After a brief discussion, the July meeting dates were changed to July 28 and 29, 2011, and will be held in Boise.

#### **Agenda Item No. 9. Other Items IWRB Members May Wish to Present**

Mr. Cuddy expressed his appreciation for the efforts of the IWRB, staff, and the facilitation team for their hard work in expediting the process on the Rathdrum Prairie CAMP draft document. He also commented that there has been an ongoing conflict between the State and the US Forest Service over a water right in the Clearwater Water District.

Mr. Beck expressed his appreciation for Diana organizing the retirement dinner for Patsy. Chairman Uhling also expressed his appreciation on behalf of the IWRB.

### Agenda Item No. 10, Next Meeting and Adjourn

Meeting was adjourned at approximately 11:00 a.m. The next regular IWRB meeting is scheduled for May 12 and 13, 2011, in Coeur d'Alene, Idaho.

Respectfully submitted this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

\_\_\_\_\_  
Bob Graham, Secretary

\_\_\_\_\_  
Diana Ball, Administrative Assistant II

#### Board Actions:

1. Mr. Chamberlain moved to approve Minutes for Meeting 1-11 as submitted. Motion was seconded by Mr. Beck. Voice Vote: 7 ayes. Motion carried.
2. Mr. Chamberlain made a motion to extend the term date of the current Phase 2 loan to Boise City Canal Company with an annual payment due of \$14,852 to June 2016. The motion was seconded by Mr. Alberdi. Chairman Uhling called for a roll call vote.

Roll Call Vote: Mr. Graham: Aye; Mr. Alberdi: Aye; Mr. Cuddy: Aye; Mr. Chamberlain: Aye; Mr. Beck: Aye; Mr. Chase: Aye; Chairman Uhling: Aye. Roll Call Vote: 7 Ayes. Motion carried.

3. Mr. Chamberlain made a motion that the Pole Creek Salmon Falls Land & Livestock water transaction resolution be accepted as modified increasing the proposed amount of \$32,130 to \$50,000 and subject to the condition that the IWRB receives the requested funding from the Bonneville Power Administration through the Columbia Basin Water Transaction Program in the amount of \$50,000. The motion was seconded by Mr. Cuddy. Chairman Uhling called for a roll call vote.

Roll Call Vote: Mr. Graham: Aye; Mr. Alberdi: Aye; Mr. Cuddy: Aye; Mr. Chamberlain: Aye; Mr. Beck: Aye; Mr. Chase: Aye; Chairman Uhling: Aye. Roll Call Vote: 7 Ayes. Motion carried.

4. Mr. Graham made a motion that Mr. Dale Peck be appointed to the Rathdrum Prairie Advisory Committee as a replacement for Mr. Chris Beck. The motion was seconded by Mr. Cuddy. Chairman Uhling called for a voice vote. All were in favor.
5. Mr. Graham made a motion to accept the Draft Rathdrum Prairie Comprehensive Aquifer Management Plan and stressed that it is a "draft" plan. The motion was seconded by Mr. Cuddy. Chairman Uhling called for a voice vote. All were in favor.
6. Mr. Chamberlain made a motion that the IWRB accept the resolution to form the Upper Snake River Advisory Committee as written. The motion was seconded by Mr. Beck. Chairman Uhling called for a voice vote. All were in favor.
7. Mr. Beck made a motion to appoint Mr. Roger Chase as the IWRB's representative to the Upper Snake River Advisory Committee. The motion was seconded by Mr. Chamberlain. Chairman Uhling called for a voice vote. All were in favor.





# MEMO

**To:** Idaho Water Resource Board  
**From:** Brian W. Patton  
**Subject:** Water Resource Projects Funding Program Status Report  
**Date:** April 30, 2011

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As of **April 1st** the IWRB's available and committed balances in the Revolving Development Account and Water Management Account are as follows:

*Revolving Development Account (main fund)*

|   |             |
|---|-------------|
| Committed but not disbursed                     |             |
| Loans for water projects                        | \$1,950,561 |
| Water storage studies                           | \$878,162   |
| Total committed but not disbursed               | \$3,624,069 |
| Loan principal outstanding                      | 9,986,049   |
| Uncommitted balance                             | 2,624,069   |
| Estimated revenues next 12 months               | 1,810,000   |
| Commitments from revenues next 12 months        | 0           |
| Estimated uncommitted funds over next 12 months | 4,424,069   |

*Rev. Dev. Acct. ESPA Sub-Account*

|   |             |
|---|-------------|
| Committed but not disbursed                     |             |
| CREP  | 2,419,581   |
| Aquifer recharge                                | 566,883     |
| Bell Rapids                                     | 361,620     |
| Palisades storage                               | 10,000      |
| Black Canyon Exchange                           | 317,485     |
| Loan for water project                          | 250,000     |
| Total committed but not disbursed               | \$3,925,569 |
| Loan principal outstanding                      | 474,681     |
| Uncommitted balance                             | 143,805     |
| Estimated revenues next 12 months               | 172,000     |
| Commitments from revenues over next 12 months   | 0           |
| Estimated uncommitted funds over next 12 months | 315,805     |

*Rev. Dev. Acct. Bell Rapids Sub-Account*

|   |           |
|---|-----------|
| Committed but not disbursed (finance costs)     | \$177,662 |
| Estimated revenues next 12 months (I)           | 2,000     |
| Commitments from revenues over next 12 months   | 2,000     |
| Estimated uncommitted funds over next 12 months | 0         |

*Rev. Dev. Acct. Dworshak Hydropower (2)*

|   |             |
|---|-------------|
| Committed but not disbursed (repair fund, etc.) | \$1,243,196 |
| Estimated revenues next 12 months (3)           | 200,000     |
| Commitments from revenues over next 12 months   | 200,000     |
| Estimated uncommitted funds over next 12 months | 0           |

*Rev. Dev. Acct. Pristine Springs Sub-Account*

|   |  |
|---|--|
| Committed but not disbursed                     |  |
| Repair fund                                     | \$913,550  |
| ESPA CAMP                                       | 2,465,579 (Being transferred to<br>Secondary Aquifer Fund) |
| Total committed but not disbursed               | \$3,379,129  |
| Loan principal outstanding                      | 8,652,165  |
| Uncommitted balance                             | 0  |
| Estimated revenues next 12 months               | 1,732,000  |
| Commitments from revenues over next 12 months   | 1,732,000  |
| Estimated uncommitted funds over next 12 months | 0  |

*Rev. Dev. Acct. Upper Salmon/CBWTP Sub-Account*

|   |             |
|---|-------------|
| Committed but not disbursed                     | \$1,999,190 |
| (Upper Salmon flow enhancement projects)        |             |
| Estimated revenues next 12 months (4)           | 30,000      |
| Commitments from revenues over next 12 months   | 30,000      |
| Estimated uncommitted funds over next 12 months | 0           |

*Water Management Account*

|   |           |
|---|-----------|
| Committed but not disbursed:                    | \$111,376 |
| Loan principal outstanding                      | 12,726    |
| Uncommitted balance                             | 3,182     |
| Estimated revenues next 12 months               | 2,000     |
| Commitments from revenues over next 12 months   | 0         |
| Estimated uncommitted funds over next 12 months | \$5,182   |

|  |                     |
|--|---------------------|
| <b>Total committed but not disbursed</b>                     | <b>\$13,664,848</b> |
| <b>Total loan principal outstanding</b>                      | <b>19,125,620</b>   |
| <b>Total uncommitted balance</b>                             | <b>2,771,056</b>    |
| <b>Total estimated uncommitted funds over next 12 months</b> | <b>4,745,056</b>    |

- (1) Exclusive of pass-through payments made by the U.S. Bureau of Reclamation.
- (2) Excess funds generated by the Dworshak Hydropower Project are deposited into the Revolving Development Account (Main Fund) on a monthly basis. To the date of this report this has totaled \$1,808,446.
- (3) This line item includes power sales and interest income after removing debt service. Debt service is paid prior to the funds being deposited in the Revolving Development Account.
- (4) Exclusive of project funds provided by Bonneville Power Administration or federal appropriation sources. These funds are provided to the Board based on individual project proposals.

**The following is a list of potential loans:**

| Potential Applicant                      | Potential Project  | Preliminary Loan Amount | Comment   |
|--|--|-------------------------|---|
| Lake Reservoir Company                   | Automate Payette Lake outlet gates                       | \$500,000               | Waiting on outcome of federal (BOR) grant request   |
| Marysville Canal Company                 | Phase 3 of gravity pressure pipeline project             | \$1,000,000             | Waiting on outcome of federal (NRCS) grant request; IWRB has financed Phases 1 & 2 with \$1.725M in loans   |
| Weiser Irrigation District               | Automate canal system                                    | \$100,000               | Waiting on outcome of federal (BOR) grant request   |
| Portneuf Irrigation Company              | Pipe canal   | \$1,000,000             | Waiting on outcome of federal (NRCS) grant request  |
| Jughandle Estates Homeowners Association | Community water supply                                   | \$800,000               | Forming LID and building project with interim financing. Once LID is complete and costs are known, may do this a Revolving loan or a as a stand-alone bond. |
| Point Springs Grazing District           | Pipeline replacement                                     | \$25,000                |   |
| Ohio Match Road Water District           | Back-up generator at well                                | \$35,000                |   |
| ESPA Ground Water Districts              | Acquisition of commercial hatcheries in Thousand Springs | ??                      | Anticipated to be a "conduit-issue" revenue bond  |

In addition we are still on track for a late spring/summer bond issuance for the Bear River Canals Bond Pool. The bond size would be \$2.2 million in order to match \$2,462,540 in federal stimulus grant funds for improvements to five Bear River-area canals.

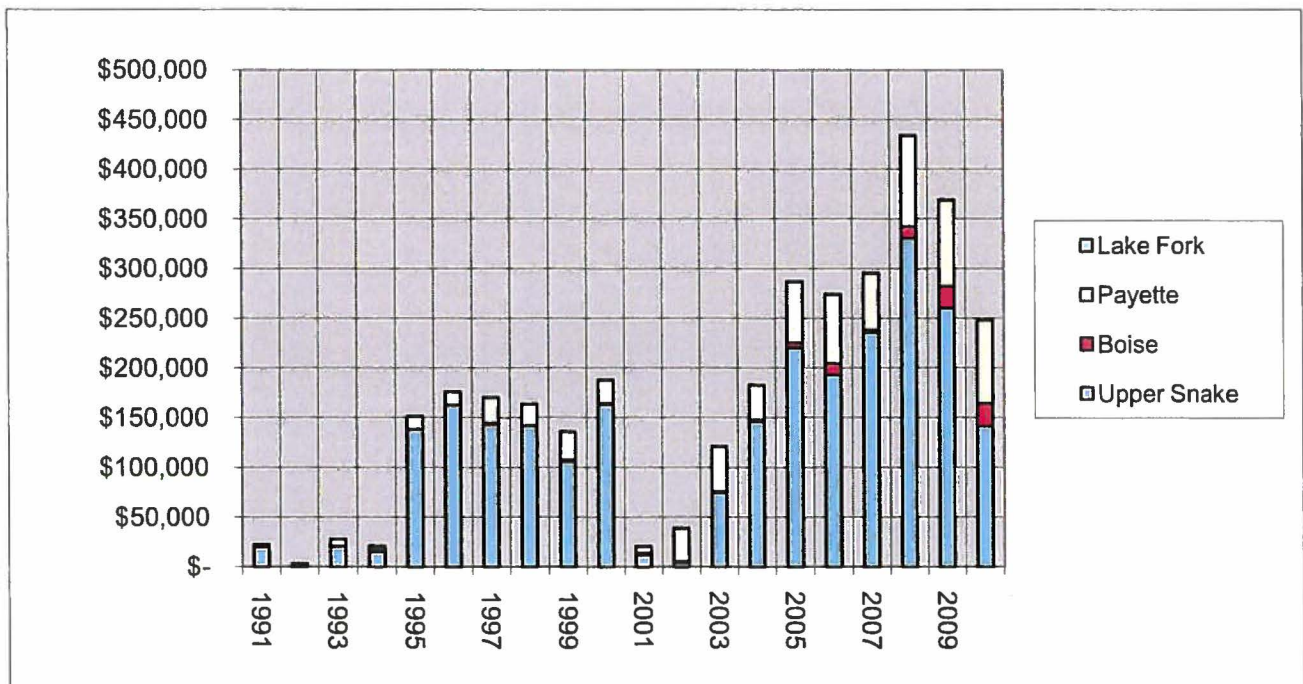
Over the past several months, the Fall River irrigation Company, Cougar Ridge Water & Sewer District, the Howe Water District, and the Point Springs Grazing Association have all repaid their Water resource Board loans in full.

Attached is a chart showing Rental Pool Surcharge Revenues received by the Water Resource Board from each rental pool since the surcharge was implemented in 1991. The Water Board surcharge is calculated at 10% of the return to the storage spaceholder when storage water is rented through a rental pool. Of the \$3.33 million received, \$841,800 was deposited into the Water Management Account, while the rest was deposited into the Revolving Development Account. Salmon flow augmentation rentals account for about 60% of the surcharge revenues.

### IWRB Rental Pool Surcharge Revenues

| Water Year    | WD01<br>Upper Snake | WD63<br>Boise    | WD65<br>Payette   | WD65-K<br>Lake Fork | TOTALS              |
|---------------|---------------------|------------------|-------------------|---------------------|---------------------|
| 1991          | \$ 20,147           | \$ 1,997         | \$ -              |                     | \$ 22,144           |
| 1992          | \$ 1,991            | \$ 1,206         | \$ -              |                     | \$ 3,197            |
| 1993          | \$ 20,795           | \$ 22            | \$ 7,000          |                     | \$ 27,817           |
| 1994          | \$ 15,178           | \$ 2,662         | \$ 3,241          |                     | \$ 21,081           |
| 1995          | \$ 138,086          | \$ 560           | \$ 12,651         |                     | \$ 151,297          |
| 1996          | \$ 162,850          | \$ 329           | \$ 13,208         |                     | \$ 176,387          |
| 1997          | \$ 143,338          | \$ 1,373         | \$ 25,865         | \$ -                | \$ 170,576          |
| 1998          | \$ 141,806          | \$ 311           | \$ 21,642         | \$ -                | \$ 163,759          |
| 1999          | \$ 105,705          | \$ 1,800         | \$ 28,161         | \$ 41               | \$ 135,707          |
| 2000          | \$ 163,022          | \$ 1,572         | \$ 23,256         | \$ -                | \$ 187,850          |
| 2001          | \$ 12,060           | \$ 1,757         | \$ 6,849          | \$ -                | \$ 20,666           |
| 2002          | \$ 4,204            | \$ 1,298         | \$ 33,083         | \$ 131              | \$ 38,716           |
| 2003          | \$ 74,446           | \$ 1,452         | \$ 45,088         | \$ 48               | \$ 121,034          |
| 2004          | \$ 146,298          | \$ 1,522         | \$ 34,776         | \$ 388              | \$ 182,984          |
| 2005          | \$ 220,608          | \$ 5,039         | \$ 61,398         | \$ 384              | \$ 287,429          |
| 2006          | \$ 193,225          | \$ 11,199        | \$ 69,495         | \$ 452              | \$ 274,371          |
| 2007          | \$ 235,724          | \$ 2,646         | \$ 56,854         | \$ 422              | \$ 295,646          |
| 2008          | \$ 330,876          | \$ 11,636        | \$ 91,369         | \$ 289              | \$ 434,170          |
| 2009          | \$ 260,668          | \$ 21,456        | \$ 86,733         | \$ 465              | \$ 369,322          |
| 2010          | \$ 141,816          | \$ 22,495        | \$ 83,844         | \$ 339              | \$ 248,494          |
| <b>TOTALS</b> | <b>\$ 2,532,843</b> | <b>\$ 92,332</b> | <b>\$ 704,513</b> | <b>\$ 2,959</b>     | <b>\$ 3,332,647</b> |

Note: 1991 was the first year the IWRB received a surcharge from Rental Pool operations.  
The Lake Fork Rental Pool was created prior to the 1997 water year.





5

IDAHO WATER RESOURCE BOARD  
Sources and Applications of Funds  
as of March 31, 2011  
**REVOLVING DEVELOPMENT ACCOUNT**

|   |                       |                |
|---|-----------------------|----------------|
| Original Appropriation (1969).....  |                       | \$500,000.00   |
| Legislative Audits.....   |                       | (\$37,814.45)  |
| IWRB Bond Program.....  |                       | (\$15,000.00)  |
| Legislative Appropriation FY90-91.....  |                       | \$250,000.00   |
| Legislative Appropriation FY91-92.....  |                       | \$280,700.00   |
| Legislative Appropriation FY93-94.....  |                       | \$500,000.00   |
| IWRB Studies and Projects.....  |                       | (\$249,067.18) |
| Loan Interest.....  |                       | \$4,940,648.55 |
| Interest Earned State Treasury (Transferred).....                                       |                       | \$1,517,170.15 |
| Filing Fee Balance.....   |                       | \$47,640.20    |
| Bond Fees.....  |                       | \$1,474,173.20 |
| Arbitrage Calculation Fees.....   |                       | (\$9,000.00)   |
| Protest Fees.....   |                       | (\$175.00)     |
| Series 2000 (Caldwell/New York) Pooled Bond Issuers fees.....                           |                       | \$43,657.93    |
| Water Supply Bank Receipts.....   |                       | \$2,580,656.38 |
| Legislative Appropriation FY01.....   |                       | \$200,000.00   |
| Pierce Well Easement.....   |                       | \$2,000.00     |
| Transferred to/from Water Management Account.....                                       |                       | \$317,253.80   |
| Legislative Appropriation 2004, HB843.....  |                       | \$500,000.00   |
| Legislative Appropriation 2009, SB 1511 Sec 2, Teton/Minidoka Studies.....              |                       | \$1,800,000.00 |
| Legislative Appropriation 2009, SB 1511 Sec 2, Teton/Minidoka Studies Expenditures..... |                       | (\$921,838.18) |
| Weiser Galloway Study - US Army Corps of Engineers.....                                 |                       | (\$90,608.49)  |
| <b>Bell Rapids Water Rights Sub-Account</b>   |                       |                |
| Legislative Appropriation 2005, HB392.....  | \$21,300,000.00       |                |
| Interest Earned State Treasury.....   | \$689,302.99          |                |
| Bell Rapids Purchase.....   | (\$16,006,558.00)     |                |
| Bureau of Reclamation Principal Amount Lease Payment Paid.....                          | \$8,294,337.54        |                |
| Bureau of Reclamation Interest Paid.....  | \$179,727.97          |                |
| Bureau of Reclamation Remaining Amount Lease Payment Paid.....                          | \$9,142,649.54        |                |
| First Installment Payment to Bell Rapids.....   | (\$1,313,236.00)      |                |
| Second Installment Payment to Bell Rapids.....  | (\$1,313,236.00)      |                |
| Third Installment Payment to Bell Rapids.....   | (\$1,313,236.00)      |                |
| Fourth Installment Payment to Bell Rapids.....  | (\$1,040,431.55)      |                |
| Interest Credit due to Bureau of Reclamation (Part of Fourth Installment).....          | (\$19,860.45)         |                |
| Fifth Installment Payment to Bell Rapids.....   | (\$1,055,000.00)      |                |
| Transfer to General Fund - Principal.....   | (\$21,300,000.00)     |                |
| Transfer to General Fund - Interest.....  | (\$772,052.06)        |                |
| BOR payment for Bell Rapids.....  | \$1,040,431.55        |                |
| BOR payment for Bell Rapids.....  | \$1,313,236.00        |                |
| BOR prepayment for Bell Rapids.....   | \$1,302,981.70        |                |
| BOR prepayment for Bell Rapids.....   | \$1,055,000.00        |                |
| BOR payment for Alternative Financing Note.....   | \$7,117,971.16        |                |
| Payment to US Bank for Alternative Financing Note.....                                  | (\$7,118,125.86)      |                |
| Payment for Ongoing Bell Rapids Finance Costs (trustee fees, etc.).....                 | (\$6,240.10)          |                |
| <b>Commitments</b>  |                       |                |
| Ongoing Bell Rapids Finance Costs (trustee fees, etc.).....                             | \$177,662.43          |                |
| Committed for alternative finance payment.....  | \$0.00                |                |
| <b>Total Commitments.....</b>   | <b>\$177,662.43</b>   |                |
| <b>Balance Bell Rapids Water Rights Sub-Account.....</b>                                | <b>(\$0.00)</b>       |                |
| <b>Pristine Springs Project Sub-Account</b>   |                       |                |
| Legislative Appropriation 2008, SB1511, Pristine Springs.....                           | \$10,000,000.00       |                |
| Legislative Appropriation 2006, HB870, Water Right Purchases.....                       | \$5,000,000.00        |                |
| Interest Earned State Treasury.....   | \$15,435.08           |                |
| Loan Interest.....  | \$779,431.25          |                |
| Transfer from ESP Sub-Account.....  | \$1,000,000.00        |                |
| Payment for Purchase of Pristine Springs (3).....                                       | (\$16,000,000.00)     |                |
| Payment from Magic Valley & Northsnake GWD for Pristine Springs.....                    | \$1,686,387.63        |                |
| Appraisal.....  | (\$15,000.00)         |                |
| Insurance.....  | (\$10,475.00)         |                |
| Recharge District Assessment.....   | (\$3,003.00)          |                |
| Property Taxes and other fee assessments (Jerome County).....                           | (\$5,598.99)          |                |
| Rental Payments.....  | \$773,634.32          |                |
| <b>Pristine Springs Hydropower Projects</b>   |                       |                |
| Net power sales revenues.....   | \$158,317.71          |                |
| <b>Pristine Springs Committed Funds</b>   |                       |                |
| ESPA CAMP.....  | 2,465,578.88          |                |
| Repair/Replacement Fund.....  | \$913,550.12          |                |
| <b>TOTAL COMMITTED FUNDS.....</b>   | <b>\$3,379,129.00</b> |                |
| <b>Loans Outstanding</b>  |                       |                |
| North Snake and Magic Valley Ground Water Districts.....                                | \$8,652,165.33        |                |
| <b>Total Loans Outstanding.....</b>   | <b>\$8,652,165.33</b> |                |
| <b>Balance Pristine Springs Sub-Account.....</b>  | <b>\$0.00</b>         |                |
| <b>Upper Salmon/CBWTP Sub-Account</b>   |                       |                |
| Water Transaction Projects Payment Advances from CBWTP.....                             | \$1,934,932.78        |                |
| PCSRF Funds for Administration of Non-Diversion Easements on Lemhi River.....           | \$161,079.26          |                |
| Interest Earned State Treasury.....   | \$53,096.50           |                |
| Transfer to Water Supply Bank.....  | (\$22,236.94)         |                |
| Payments for Water Acquisition.....   | (\$127,681.42)        |                |
| <b>Committed Funds</b>  |                       |                |
| Administration of Non-Diversion Easements on Lemhi River.....                           | \$160,557.92          |                |
| Alturas Lake Creek (Breckenridge).....  | \$2,092.42            |                |
| Beaver Creek (DOT LLP).....   | \$21,716.73           |                |
| Big Hat Creek.....  | \$363.97              |                |
| Big Timber Tyler (Leadore Land Partners).....   | \$474,732.47          |                |
| Fourth of July Creek (Vanderbilt).....  | \$18,675.89           |                |

|  |                  |                          |
|--|------------------|--------------------------|
| Iron Creek (Phillips).....   | \$240,939.85     |                          |
| Lower Eighteenmile Creek (Ellsworth Angus Ranch).....                        | \$7,753.87       |                          |
| Lower Lemhi M Olson (Mark Olson).....  | \$11,079.94      |                          |
| Lower Lemhi Thomas (Robert Thomas).....                                      | \$2,936.20       |                          |
| P-9 Bowles (River Valley Ranch).....   | \$306,429.48     |                          |
| P-9 Charlton (Sydney Dowton).....  | \$20,282.66      |                          |
| P-9 Dowton (Jim Dowton Ranch).....   | \$243,050.79     |                          |
| P-9 Elzinga (Elzinga).....   | \$300,633.94     |                          |
| Whitefish (Leadore Land Partners).....                                       | \$187,944.03     |                          |
| Total Committed Funds.....   | \$1,999,190.18   |                          |
| Balance CBWTP Sub-Account.....   |                  | \$0.00                   |
| <b>Eastern Snake Plain Sub-Account</b>                                       |                  |                          |
| Legislative Appropriation 2005, HB392.....                                   | \$7,200,000.00   |                          |
| Legislative Appropriation 2005, HB392, CREP Program.....                     | \$3,000,000.00   |                          |
| Interest Earned State Treasury.....  | \$1,822,189.94   |                          |
| Loan Interest.....   | \$125,249.53     |                          |
| Bell Rapids Water Rights Closing Costs.....                                  | (\$6,558.00)     |                          |
| First Installment Payment to Bell Rapids Irr. Co. (Partial).....             | (\$361,800.00)   |                          |
| Second Installment Payment to Bell Rapids Irr. Co. (Partial).....            | (\$361,800.00)   |                          |
| Third Installment Payment to Bell Rapids Irr. Co. (Partial).....             | (\$361,800.00)   |                          |
| Fourth Installment Payment to Bell Rapids Irr. Co. (Partial).....            | (\$614,744.00)   |                          |
| Fifth Installment Payment to Bell Rapids Irr. Co. (Final).....               | (\$1,675,036.00) |                          |
| Reimbursement from Commerce & Labor W-Canal.....                             | \$74,709.77      |                          |
| Transfer to Pristine Springs Sub Account.....                                | (\$1,000,000.00) |                          |
| Reimbursement from Magic Valley GWD - Pristine Springs.....                  | \$500,000.00     |                          |
| Reimbursement from North Snake GWD - Pristine Springs.....                   | \$500,000.00     |                          |
| Reimbursement from Water District 1 for Recharge.....                        | \$159,764.73     |                          |
| Palisades (FMC) Storage Costs.....   | (\$3,508,224.83) |                          |
| Reimbursement from BOR for Palisades Reservoir.....                          | \$2,381.12       |                          |
| W-Canal Project Costs.....   | (\$326,834.11)   |                          |
| Black Canyon Exchange Project Costs.....                                     | (\$35,840.00)    |                          |
| 2008 Recharge Conveyance Costs.....  | (\$14,580.00)    |                          |
| 2009 Recharge Conveyance Costs.....  | (\$355,253.00)   |                          |
| 2010 Recharge Conveyance Costs.....  | (\$210,906.82)   |                          |
| Pristine Springs Cost Project Costs.....                                     | (\$6,863.91)     |                          |
| <b>Loans and Other Commitments</b>   |                  |                          |
| Commitment - ESPA Comprehensive Aquifer Management Plan - CDR Contract.....  | \$0.00           |                          |
| Commitment - North Snake & Magic Valley GWD Loan - Mitigation Pipeline.....  | \$250,000.00     |                          |
| Commitment - Remainder of Bell Rapids Water Rights Purchase (1).....         | \$361,620.00     |                          |
| Commitment - CREP Program (HB392, 2005).....                                 | \$2,419,580.50   |                          |
| Commitment - Recharge Conveyance.....  | \$159,764.73     |                          |
| Commitment - Additional recharge projects preliminary development.....       | \$350,000.00     |                          |
| Commitment - Palisades Storage O&M.....                                      | \$10,000.00      |                          |
| Commitment - Black Canyon Exchange Project (fund with ongoing revenues)..... | \$317,484.95     |                          |
| Commitment - W-Canal Aquifer and Recharge Conveyance.....                    | \$57,118.36      |                          |
| Total Loans and Other Commitments.....                                       | \$3,925,568.54   |                          |
| <b>Loans Outstanding:</b>  |                  |                          |
| American Falls-Aberdeen GWD (CREP).....                                      | \$129,836.46     |                          |
| Bingham GWD (CREP).....  | \$77,168.10      |                          |
| Bonneville Jefferson GWD (CREP).....   | \$75,932.93      |                          |
| Magic Valley GWD (CREP).....   | \$124,102.03     |                          |
| North Snake GWD (CREP).....  | \$67,641.06      |                          |
| TOTAL ESP LOANS OUTSTANDING.....   | \$474,680.58     |                          |
| Uncommitted Balance Eastern Snake Plain Sub-Account.....                     |                  | \$143,805.30             |
| <b>Dworshak Hydropower Project</b>   |                  |                          |
| <b>Dworshak Project Revenues</b>   |                  |                          |
| Power Sales & Other.....   | \$4,977,791.87   |                          |
| Interest Earned State Treasury.....  | 417,252.27       |                          |
| Total Dworshak Project Revenues.....   |                  | \$5,395,044.14           |
| <b>Dworshak Project Expenses (2)</b>   |                  |                          |
| Transferred to 1st Security Trustee Account.....                             | \$148,542.63     |                          |
| Construction not paid through bond issuance.....                             | \$226,106.83     |                          |
| 1st Security Fees.....   | \$314,443.35     |                          |
| Operations & Maintenance.....  | \$1,241,497.33   |                          |
| Powerplant Repairs.....  | \$58,488.80      |                          |
| Capital Improvements.....  | \$318,366.79     |                          |
| FERC Payments.....   | \$35,956.16      |                          |
| Total Dworshak Project Expenses.....   |                  | (\$2,343,401.89)         |
| <b>Dworshak Project Committed Funds</b>                                      |                  |                          |
| Emergency Repair/Future Replacement Fund.....                                | \$1,213,195.00   |                          |
| FERC Fee Payment Fund.....   | \$30,001.49      |                          |
| Total Dworshak Project Committed Funds.....                                  |                  | \$1,243,196.49           |
| Excess Dworshak Funds into Main Revolving Development Account.....           |                  | \$1,808,445.76           |
| <b>TOTAL.....</b>  |                  | <b>\$15,438,842.67</b>   |
| <b>Loans Outstanding:</b>  |                  |                          |
|  | Amount<br>Loaned | Principal<br>Outstanding |
| Aberdeen-Springfield Canal Company (WRB-491; Diversion structure).....       | \$329,761        | \$240,942.00             |
| Bee Line Water Association.....  | \$157,500        | \$24,126.15              |
| Big Wood Canal Company (23-Jan-09; Thorn Creek Flume).....                   | \$90,000         | \$44,541.67              |
| Boise City Canal Company (WRB-492)...18th St Canal Rehab.....                | \$82,362         | \$41,216.39              |
| Boise City Canal Company (WRB-492)...Grove St Canal Rehab.....               | \$110,618        | \$62,125.33              |
| Bonnie Laura Water Corporation (14-Jul-06; Well repairs).....                | \$71,000         | \$52,584.38              |
| Caribou Acres Water Company.....   | \$88,769         | \$5,539.93               |
| Carlin Bay Property Owners Association.....                                  | \$115,609        | \$18,996.89              |
| Challis Irrigation Company (28-Nov-07; river gate replacement).....          | \$50,000         | \$39,679.15              |
| Chaparral Water Association.....   | \$90,154         | \$28,072.20              |
| Cloverdale Ridge Water Corp. (irrigation system rehab 25-sep-09).....        | 106,400.00       | \$106,400.00             |
| Conant Creek Canal Company.....  | \$239,615        | \$30,387.41              |
| Country Club Subdivision Water Association (18-May-07, Well Project).....    | \$102,000        | \$76,890.49              |

|  |              |                        |
|--|--------------|------------------------|
| Cub River Irrigation Company.....  | \$35,000     | \$4,280.22             |
| Cub River Irrigation Company (18-Nov-05; Pipeline project).....                              | \$1,000,000  | \$913,742.93           |
| Cub River Irrigation Company.....  | \$500,000    | \$454,549.88           |
| Dalton Water Association (14-Mar-08; Water main replacement).....                            | \$375,088    | \$155,836.20           |
| Deep Creek Property Owners Association.....  | \$25,115     | \$8,953.36             |
| Enterprise Irrigation District (14-Jul-06; Pipeline project).....                            | \$37,270     | \$27,962.68            |
| Enterprise Irrigation District (North Lateral Pipeline).....                                 | \$105,420    | \$68,572.64            |
| Evergreen Terrace Water Association (water study; 25-sep-09).....                            | 15,000.00    | \$13,683.91            |
| Firth, City of.....  | \$112,888    | \$55,700.46            |
| Garden Valley Ranchettes Homeowners Association (25-Jan-05).....                             | 2,716.00     | \$2,198.76             |
| Genesee, City of (Storage tank, 22-Jan-10).....  | 250,000.00   | \$250,000.00           |
| Georgetown, City of.....   | \$278,500    | \$134,933.77           |
| Harbor View Water & Sewer District (Combined Loans).....                                     | \$602,819    | \$286,143.24           |
| Harpster Water District.....   | \$9,000      | \$6,541.63             |
| Howe Water District (5-Aug-05).....  | \$10,000     | \$0.00                 |
| Hoyt Bluff Water Association (Rathdrum Prairie Well).....                                    | \$273,029    | \$97,239.96            |
| Jefferson Irrigation Company (well deepenings).....  | \$110,780    | \$10,046.16            |
| Jefferson Irrigation Company (well deepenings).....  | \$207,016    | \$116,155.38           |
| Jefferson Irrigation Company (9-May-2008 Well Replacement).....                              | \$81,000     | \$78,389.25            |
| King Hill Irrigation District (24-Sep-10; Pipeline replacement).....                         | 300,000.00   | \$175,000.00           |
| Kulleyspell Estates Property Owners Assoc.....   | \$219,510    | \$16,799.01            |
| Last Chance Canal Company (WRB-497).....   | \$500,000    | \$271,521.48           |
| Lakeview Water District.....   | \$45,146     | \$10,409.37            |
| Lava Hot Springs, City of.....   | \$347,510    | \$235,847.14           |
| Lindsay Lateral Association (22-Aug-03).....   | \$9,600      | \$20,483.28            |
| Live-More Lake Community (9-Jun-04).....   | \$42,000     | \$23,352.69            |
| Lower Payette Ditch Company (2-Apr-04; Diversion dam replacement).....                       | \$875,000    | \$550,550.34           |
| Marsh Center Irrigation Company (13-May-05; Hawkins Dam).....                                | \$236,141    | \$176,991.40           |
| Marysville Irrigation Company (18-May-07, Pipeline Project Phase 1).....                     | \$625,000    | \$467,024.71           |
| Marysville Irrigation Company (9-May-08, Pipeline Project Phase 2).....                      | \$1,100,000  | \$879,649.35           |
| Meander Point Subdivision Homeowners Association (7-Sep-07; comm).....                       | \$330,000    | \$99,942.16            |
| Meridian Heights Water & Sewer Association (18-May-07).....                                  | \$350,000    | \$335,939.89           |
| McGuire Estates Water Users Association (4-Mar-05).....                                      | \$60,851     | \$45,948.73            |
| Monument Ridge Homeowners Association (20-Mar-09; irrigation syst).....                      | \$360,000    | \$205,732.00           |
| Mores Creek Rim Ranches Water District.....  | \$221,400    | \$97,673.35            |
| New Hope Water Corporation.....  | \$42,000     | \$71,851.00            |
| New Plymouth Water Users Association.....  | \$7,450      | \$846.92               |
| Oakley Valley Water Company.....   | \$138,331    | \$41,764.52            |
| PPRT Water System.....   | \$70,972     | \$37,387.79            |
| Packsaddle Water Corporation.....  | \$49,600     | \$6,495.13             |
| Picabo Livestock Co (Picabo town water system new well).....                                 | \$38,000     | \$9,276.67             |
| Pinehurst Water District (14-mar-08; Water Storage tank).....                                | \$160,000    | \$112,619.43           |
| Point Springs Grazing Association.....   | \$9,768      | \$0.00                 |
| Powder Valley-Shadowbrook Homeowners Assoc.....  | \$201,500    | \$10,522.95            |
| Preston Riverdale & Mink Creek Canal Co.....   | \$400,000    | \$28,877.50            |
| Preston-Whitney Irrigation Company (29-May-09; Fairview Lateral Pipel).....                  | \$800,000    | \$800,000.00           |
| Producers Irrigation Company (17-Mar-06; well replacements).....                             | \$185,000    | \$94,249.70            |
| Ranch Subdivision Property Owners Assoc.....   | \$24,834     | \$16,229.15            |
| Riverside Independent Water District.....  | \$350,000    | \$243,353.19           |
| Robertson Ditch Co.....  | \$30,000     | \$7,333.20             |
| Shilo Ranch Estates Homeowners Association.....  | \$25,456     | \$1,310.12             |
| Skin Creek Water Association.....  | \$188,258    | \$133,463.21           |
| Sourdough Point Owners Association (23-Jan-07; water supply & treatr).....                   | \$750,000    | \$443,095.95           |
| Spirit Bend Water Association.....   | \$92,000     | \$62,866.82            |
| Thunder Canyon Owners Association (6-Feb-04).....  | \$92,416     | \$63,476.69            |
| Twenty-Mile Creek Water Association.....   | \$104,933    | \$14,743.81            |
| Twin Lakes Canal Company - Winder Lateral Pipeline Project (13-Jul-0).....                   | \$500,000    | \$425,448.20           |
| Twin Lakes Canal Company (2-Apr-04).....   | \$90,000     | \$64,090.95            |
| Twin Lakes-Rathdrum Fld Cont Dist (24-Oct-02; Twin Lakes Dam).....                           | \$399,988    | \$119,400.59           |
| Whitney-Nashville Water Company.....   | \$225,000    | \$108,047.71           |
| <b>TOTAL LOANS OUTSTANDING.....</b>  |              | <b>\$9,986,048.52</b>  |
| <b>Loans and Other Funding Obligations:</b>  |              |                        |
| Senate Bill 1511 - Teton Replacement and Minidoka Enlargement Studies.....                   | \$878,161.82 |                        |
| Weiser-Galloway Study (28-May-10).....   | \$12,000.00  |                        |
| Big Wood Canal Company (23-Jan-09; Thorn Creek Flume).....                                   | \$18,651.03  |                        |
| Canyon Creek Canal Company (14-Mar-08; Pipeline project).....                                | \$133,599.00 |                        |
| Chaparral Water Association (21-Jan-11; Well deepening & improvement).....                   | \$68,000.00  |                        |
| Clearwater Water District - pilot plant (13-Jul-07).....                                     | \$80,000.00  |                        |
| Dover, City of (23-Jul-10; Water Intake project).....  | \$194,063.00 |                        |
| Evergreen Terrace Water Association (water study; 25-sep-09).....                            | \$1,316.09   |                        |
| Garden Valley Ranchettes Homeowners Association (25-Jan-05).....                             | \$8,183.69   |                        |
| King Hill Irrigation District (24-Sep-10; Pipeline replacement).....                         | \$125,000.00 |                        |
| Kulleyspell estates Property Owners Association (water line replacements; 25-sep-09).....    | \$500,000.00 |                        |
| Jefferson Irrigation Company (9-May-2008; Well replacement).....                             | \$2,610.75   |                        |
| Lindsay Lateral Association.....   | \$19,800.00  |                        |
| North Snake & Magic Valley GWD Loan - Mitigation Pipeline.....                               | \$250,000.00 |                        |
| Meridian Heights Water & Sewer Association (18-May-07).....                                  | \$14,060.11  |                        |
| Monument Ridge Homeowners Association (20-Mar-09; irrigation system rehab).....              | \$0.00       |                        |
| New Hope Water Corporation (23-Jan-19; Well Project).....                                    | \$84,347.88  |                        |
| Preston-Whitney Irrigation Company (29-May-09; Fairview Lateral Pipeline).....               | \$0.00       |                        |
| Sourdough Point Owners Association (23-Jan-07; water supply & treatment).....                | \$225,431.47 |                        |
| South Liberty Irrigation Company (28-May-10; Pipeline project).....                          | \$200,000.00 |                        |
| Woodland heights Subdivision No. 2 Water Association, Inc (16-Nov-10; wtr sytm improv.)..... | \$13,500.00  |                        |
| <b>TOTAL LOANS AND OTHER FUNDING OBLIGATIONS.....</b>  |              | <b>\$2,828,724.84</b>  |
| <b>Uncommitted Funds.....</b>  |              | <b>\$2,624,069.31</b>  |
| <b>TOTAL.....</b>  |              | <b>\$15,438,842.67</b> |

(1) Actual amount needed may vary depending on final determination of water actually purchased and interest income received.  
(2) Debt service on the Dworshak Project bonds is paid before the Dworshak monies are deposited into the Revolving Development Account



Idaho Water Resource Board  
Sources and Applications of Funds  
as of March 31, 2011

WATER MANAGEMENT ACCOUNT

|  |                       |
|--|-----------------------|
| Original Appropriation (1978).....   | \$1,000,000.00        |
| Legislative Audits.....  | (\$3,145.45)          |
| IWRB Appraisal Study (Charles Thompson).....                                 | (\$5,000.00)          |
| Transfer funds to General Account 1101(HB 130, 1983).....                    | (\$500,000.00)        |
| Legislative Appropriation (6/29/1984).....                                   | \$115,800.00          |
| Legislative Appropriation (HB988, 1994).....                                 | \$75,000.00           |
| Turned Back to General Account 6/30/95, (HB988, 1994).....                   | (\$35,014.25)         |
| Legislative Appropriation (SB1260, 1995, Aquifer Recharge, Caribou Dam)..... | \$1,000,000.00        |
| Interest Earned.....   | \$118,967.24          |
| Filing Fee Balance.....  | \$2,633.31            |
| Water Supply Bank Receipts.....  | \$841,803.07          |
| Bond Fees.....   | \$277,254.94          |
| Funds from DEQ and IDOC for Glenss Ferry Water Study.....                    | \$10,000.00           |
| Legislative Appropriation FY01.....  | \$200,000.00          |
| Western States Wate Council Annual Dues.....                                 | (\$7,500.00)          |
| Tranfer to/from Revolving Development Account.....                           | (\$317,253.80)        |
| Legislative Appropriation (SB1239, Sugarloaf Aquifer Recharge Project).....  | \$60,000.00           |
| Legislative Appropriation (HB 843 Sec 6).....                                | \$520,000.00          |
| Legislative Appropriation (SB1496, 2006, ESP Aquifer Management Plan).....   | \$300,000.00          |
| Legislative Appropriation (HB 320, 2007, ESP Aquifer Management Plan).....   | \$849,936.99          |
| <b>TOTAL .....</b>   | <b>\$4,503,482.05</b> |

Grants Disbursed:

|   |                |
|---|----------------|
| Completed Grants.....   | \$1,291,110.72 |
| Arco, City of.....  | \$7,500.00     |
| Arimo, City of.....   | \$7,500.00     |
| Bancroft, City of.....  | \$7,000.00     |
| Bloomington, City of.....   | \$4,254.86     |
| Boise City Canal Company.....                                       | \$7,500.00     |
| Bonnerr's Ferry, City of.....                                       | \$7,500.00     |
| Bonneville County Commission.....                                   | \$3,375.00     |
| Bovill, City of.....  | \$2,299.42     |
| Buffalo River Water Association.....                                | \$4,007.25     |
| Butte City, City of.....  | \$3,250.00     |
| Cave Bay Community Services.....                                    | \$6,750.00     |
| Central Shoshone County Water District.....                         | \$7,500.01     |
| Clearwater Regional Water Project Study, City of Orofino et al..... | \$10,000.00    |
| Clearwater Water District.....                                      | \$3,750.00     |
| Cottonwood Point Water and Sewer Association .....                  | \$7,500.00     |
| Cottonwood, City of.....  | \$5,000.00     |
| Cougar Ridge Water & Sewer.....                                     | \$4,661.34     |
| Curley Creek Water Association.....                                 | \$2,334.15     |
| Downey, City of.....  | \$7,500.00     |
| Fairview Water District.....  | \$7,500.01     |
| Fish Creek Reservoir Company, Fish Creek Dam Study.....             | \$12,500.00    |
| Franklin, City of.....  | \$6,750.00     |
| Grangeville, City of.....   | \$7,500.00     |
| Greenleaf, City of.....   | \$3,000.00     |
| Hansen, City of .....   | \$7,450.00     |
| Hayden Lake Irrigation District.....                                | \$7,500.00     |
| Hulen Meadows Water Company.....                                    | \$7,500.00     |
| Iona, City of.....  | \$1,425.64     |
| Kendrick, City of.....  | \$7,500.00     |
| Kooskia, City of.....   | \$7,500.00     |
| Lakeview Water District.....  | \$2,250.00     |
| Lava Hot Springs, City of.....                                      | \$7,500.00     |
| Lindsay Lateral Association.....                                    | \$7,500.00     |
| Lower Payette Ditch Company.....                                    | \$5,500.01     |
| Maple Grove Estates Homeowners Association.....                     | \$5,020.88     |
| Meander Point Homeowners Association.....                           | \$7,500.00     |
| Moreland Water & Sewer District.....                                | \$7,500.00     |
| New Hope Water Corporation.....                                     | \$2,720.39     |
| North Lake Water & Sewer District.....                              | \$7,500.00     |

|   |                  |                          |
|---|------------------|--------------------------|
| Northside Estates Homeowners Association.....                         | \$4,492.00       |                          |
| North Tomar Butte Water & Sewer District.....                         | \$3,575.18       |                          |
| North Water & Sewer District.....                                     | \$3,825.00       |                          |
| Parkview Water Association.....                                       | \$4,649.98       |                          |
| Payette, City of.....   | \$6,579.00       |                          |
| Pierce, City of.....  | \$7,500.00       |                          |
| Potlatch, City of.....  | \$6,474.00       |                          |
| Preston Whitney Irrigation Company.....                               | \$7,500.00       |                          |
| Preston & Whitney Reservoir Company.....                              | \$3,606.75       |                          |
| Preston & Whitney Reservoir Company.....                              | \$7,000.00       |                          |
| Roberts, City of.....   | \$3,750.00       |                          |
| Round Valley Water.....   | \$3,000.00       |                          |
| Sagle Valley Water & Sewer District.....                              | \$2,117.51       |                          |
| South Hill Water & Sewer District.....                                | \$3,825.00       |                          |
| St Charles, City of.....  | \$5,632.88       |                          |
| Swan Valley, City of.....   | \$5,000.01       |                          |
| Twenty-Mile Creek Water Association.....                              | \$2,467.00       |                          |
| Valley View Water & Sewer District.....                               | \$5,000.02       |                          |
| Victor, City of.....  | \$3,750.00       |                          |
| Weston, City of.....  | \$6,601.20       |                          |
| Winder Lateral Association.....                                       | \$7,000.00       |                          |
| <b>TOTAL GRANTS DISBURSED.....</b>                                    |                  | <b>(\$1,632,755.21)</b>  |
| IWRB Expenditures   |                  |                          |
| Lemhi River Water Right Appraisals.....                               | \$31,000.00      |                          |
| Expenditures Directed by Legislature                                  |                  |                          |
| Obligated 1994 (HB988).....   | \$39,985.75      |                          |
| SB1260, Aquifer Recharge.....   | \$947,000.00     |                          |
| SB1260, Soda (Caribou) Dam Study.....                                 | \$53,000.00      |                          |
| Sugarloaf Aquifer Recharge Project (SB1239).....                      | \$55,953.69      |                          |
| ESPA Settlement Water Rentals (HB 843 2004).....                      | \$504,000.00     |                          |
| ESP Aquifer Management Plan (SB1496, 2006).....                       | \$300,000.00     |                          |
| ESP Aquifer Management Plan (HB320, 2007).....                        | \$801,077.75     |                          |
| <b>TOTAL IWRB AND LEGISLATIVE DIRECTED EXPENDITURES.....</b>          |                  | <b>(\$2,732,017.19)</b>  |
| <b>WATER RESOURCE BOARD RECHARGE PROJECTS.....</b>                    |                  | <b>(\$11,426.88)</b>     |
| <b>CURRENT ACCOUNT BALANCE.....</b>                                   |                  | <b>\$127,282.77</b>      |
| Committed Funds:  |                  |                          |
| Grants Obligated  |                  |                          |
| Cottonwood Point Water & Sewer Association.....                       | \$0.00           |                          |
| Preston - Whitney Irrigation Company.....                             | \$7,500.00       |                          |
| Water District No. 1 (Blackfoot Equalizing Reservoir Automation)..... | \$35,000.00      |                          |
| Legislative Directed Obligations                                      |                  |                          |
| Sugarloaf Aquifer Recharge Project (SB1239).....                      | \$4,046.31       |                          |
| ESPA Settlement Water Rentals (HB 843, 2004).....                     | \$16,000.00      |                          |
| ESPA Management Plan (SB 1496, 2006).....                             | \$0.00           |                          |
| ESP Aquifer Management Plan (HB320, 2007).....                        | \$48,829.24      |                          |
| <b>TOTAL GRANTS &amp; LOANS OBLIGATED &amp; UNDISBURSED.....</b>      |                  | <b>\$111,375.55</b>      |
| Loans Outstanding:  | Amount<br>Loaned | Principal<br>Outstanding |
| Arco, City of.....  | \$7,500          | \$0.00                   |
| Butte City, City of.....  | \$7,425          | \$1,969.94               |
| Roberts, City of.....   | \$23,750         | \$5,095.22               |
| Victor, City of.....  | \$23,750         | \$5,660.70               |
| <b>TOTAL LOANS OUTSTANDING.....</b>                                   |                  | <b>\$12,725.86</b>       |
| Uncommitted Funds.....  |                  | <b>\$3,181.36</b>        |
| <b>CURRENT ACCOUNT BALANCE.....</b>                                   |                  | <b>\$127,282.77</b>      |

**WATER RESOURCE BOARD CONDUIT DEBT 2010**

Question # 3

**Conduit Debt (Excludes Dworshak bonds issued 1999 and 2006)**

| Year | Issue                                  | Trustee                        | Original Amt | 2010 Amt          |
|------|--|--------------------------------|--------------|-------------------|
| 1997 | United Water                           | Wells Fargo                    | 20,000,000   | 19,755,000 **     |
| 2001 | United Water (Refunding of 1991 Bonds) | Bank of New York Western Trust | 26,775,000   | 26,775,000 ***    |
| 2005 | United Water 05                        | Wells Fargo                    | 19,975,000   | 18,815,000        |
| 2006 | North Lake Project (Tamarak)           | Wells Fargo                    | 9,465,000    | 7,985,000         |
| 2006 | Pooled Refunding 06                    | Wells Fargo                    | 2,415,000    | 975,000           |
| 2006 | BOR Bell Rapids                        | US Bank                        | 6,925,102    | 2,710,124         |
|      |  |                                |              | <u>77,015,124</u> |

\*\* These are Term Bonds. No annual principal payments. Principal will change only if a "death put" is received.

\*\*\*Per Michael Algranati, Treasurer, United Water: "Since there is no amortization or sinking fund, the principal balance will not change until the debt is redeemed or matures in 2031".



# MEMO

**To:** Idaho Water Resource Board  
**From:** Brian W. Patton  
**Subject:** Request to initiate process to issue revenue bonds  
**Date:** May 1, 2011

Three districts that represent ground water users on the Eastern Snake Plain are requesting that the Idaho Water Resource Board (IWRB) begin the process of issuing revenue bonds to finance the purchase of several commercial hatchery facilities.

## BACKGROUND

The Magic Valley Ground Water District, North Snake Ground Water District, and Southwest Irrigation District recently reached an agreement with the Blue Lakes Trout Company to acquire the water rights and facilities at the Blue Lakes, Rim View, and Clear Lake hatcheries (see attached press release). These are commercial trout hatcheries in the Thousand Springs area. This acquisition will assist the Districts in resolving conjunctive administration water calls in this area. The acquisition must be complete by the end of 2011.

## ANTICIPATED REVENUE BOND FINANCING

It is anticipated the Districts would finance this acquisition through a Water Resource Revenue Bond issued by the IWRB. The IWRB issues revenue bonds to finance certain types of projects that exceed the capacity of its dedicated water funds. This would be a "conduit issue" where the Districts would be assigned the responsibility to make the bond payments and the IWRB and State of Idaho would be held harmless. The IWRB has issued many of these "conduit issue" bonds over the years.

Because the Districts are currently evaluating a number of back-side lease and/or sale options for the facilities, the exact amount of financing required is not yet known. In fact, the Districts are still under a confidentiality agreement with regard to the purchase price.

The Districts are requesting that the IWRB proceed with having its staff and advisors begin the ground work of the bond issuance. Even though the exact amount of financing is not yet known, this initial work will assist the Districts and the IWRB in developing financing scenarios and assessing the marketability of the bonds under various scenarios.

The formal decision to actually issue the bonds would occur later in the process.

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LOUIS F. RACINE (1917-2005)  
 WILLIAM D. OLSON, OF COUNSEL

May 2, 2011

**IDAHO WATER RESOURCE BOARD:**

Terry T. Uhling, Chairman

Gary M. Chamberlain, Vice-Chairman

Bob Graham, Secretary

Board Members

P.O. Box 83720

Boise, Idaho 83720-0098

*Re: Initiating revenue bond process*

Dear Gentlemen:

As you may be aware, certain entities controlled by Kay Hardy have entered into a Purchase and Sale Agreement with the Magic Valley Ground Water District, North Snake Ground Water District and Southwest Irrigation District ("the Districts") pursuant to which the Districts plan to acquire water rights and other assets of the fish hatchery facilities commonly known as Blue Lakes Trout, Rim View Trout and Clear Lake Trout. These assets would be used by the Districts to resolve long-standing water disputes between spring users and ground water users pertaining to the Eastern Snake River Plain Aquifer. The Districts respectfully request the Idaho Water Resource Board start the process to enable issuance of revenue bonds in order to finance the purchase.

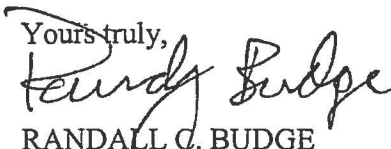
The Agreement between the Hardy entities and the Districts benefits the Districts by acquiring ownership of substantial spring water rights to avoid ongoing risks of curtailment of thousands of acres of irrigated farm land in southeastern Idaho, but also provides a water supply to permanently solve potential delivery calls from other aquaculture facilities in the area.

The Districts ask the Board proceed now with all necessary action to facilitate the issuance of the revenue bonds necessary to enable the Districts to finance the purchase on or before the year-end closing date. The exact amount is unknown at this time due to various backside lease and sale combinations the Districts are exploring, but will be determined over the next few months.

May 2, 2011  
Page 2 of 2

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Your timely attention and effort regarding this matter is greatly appreciated. Please contact me on behalf of the Districts if you have any questions.

Yours truly,  
  
RANDALL C. BUDGE  
*Attorney for the Districts*

CMM:mt

cc: North Snake Ground Water District  
Magic Valley Ground Water District  
Southwest Irrigation District  
Blue Lake Trout Farm, Inc.

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## PRESS RELEASE

### Blue Lakes Trout Company and Ground Water Districts Reach Historic Accord for Solving Eastern Snake Plain Aquifer Water Disputes

Boise, Idaho—March 31, 2011


Blue Lakes Trout Farm and its President, Kay Hardy, together with the North Snake and Magic Valley Ground Water Districts and the Southwest Irrigation District today announced that they have reached an agreement to allow the Districts to acquire water rights and other assets that can be used to address pending water issues in the Eastern Snake River Plain Aquifer (ESPA). Potentially, the agreement would allow resolution of pending litigation and most, if not all, of the disputes that have disrupted water use in the ESPA. The agreement puts the Districts in a position to address threatened curtailment of thousands of acres of irrigated farmland in southeastern Idaho. The agreement also helps solve critical water shortages for aquaculture facilities and mitigation for various water issues throughout the ESPA.



The ongoing legal battles between ground water users and surface water users in the area have intensified in the past years as orders from the Idaho Department of Water Resources indicated that ground water pumping was injuring surface water users whose water rights were senior to those of the ground water users.

The agreement reached between the Districts and Ms. Hardy, daughter of Earl Hardy, a pioneer of the trout industry in Idaho and namesake of the Earl M. Hardy Box Canyon Springs Nature Preserve near Hagerman, Idaho, provides the Districts with water rights to meet potential water shortages and allows for resolution of water conflicts between spring and groundwater users.

According to Ms. Hardy, “This agreement is the culmination of years of working to address the disputes which have jeopardized the trout farming industry, family farms, and the overall economic well-being of the southeastern part of the state. My Dad and I have long understood the relationships among the various users of water in this area. We watched with sorrow as friendships and livelihoods were under constant pressure due to never-ending litigation that often produced no clear solutions. Today I am pleased and encouraged because on the horizon I see fair and permanent solutions to many divisive issues.”



Asked how, after so many years of legal and political disputes, a solution is now foreseeable, Ms. Hardy and Mr. Lynn Carlquist, Chairman of the North Snake Ground Water District both acknowledged that “We decided to talk to one another in a different way. We based our discussions on sound business principles and a healthy dose of mutual respect. The mutual respect allowed us to have conversations that were long overdue. We were able to focus on solutions.”



Mr. Orlo Maughn of the Magic Valley Groundwater District pointed out that “With this agreement, we will be able to address the issues that have caused us much concern. We can help protect the economic viability of the area, the long-term sustainability of family farms, and a resource upon which all depend.”

Ms. Hardy, questioned about how her dad would feel about the pivotal role his family has played in resolving the issues, responded “Proud. My dad was farsighted and loved this area and its people. He would be pleased.”

The timing of the agreement could not have been more fortuitous. On March 17, 2011, the Idaho Supreme Court upheld an Idaho Department of Water Resource Department order that addressed the injuries being alleged by the surface water users. The Supreme Court decision suggested more years of litigation. The Districts and Ms. Hardy believe their agreement moves towards cooperation and resource management rather than litigation.

Contacts:

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Racine, Olson, Nye, Budge & Bailey, Chtd.  
208-232-6101

Bruce Smith  
Moore Smith Buxton & Turcke, Chtd.  
208-331-1800

# MEMO



**To:** Idaho Water Resource Board

**From:** Bill Quinn, Recharge Coordinator

**Subject:** 2011 Early Season Eastern Snake Plain Aquifer Managed Recharge Summary

**Date:** May 3, 2011

This memorandum summarizes the Board's Early Season Eastern Snake Plain Aquifer Managed Recharge Program. Six canal companies or irrigation districts are participating in the program this season. Recharge began on February 28<sup>th</sup> and due to abundant Snake and Wood River flows is expected to continue into June.

Through May 3, 2011, the early season recharge program has resulted in a total recharge volume of approximately 33,000 acre-feet and conveyance fees of approximately \$90,000. Details are summarized in the table below.

Because of limited funding for calendar year 2011 it has been necessary to impose limits on how much recharge the participating canals can accomplish. There is approximately \$127,000 remaining in the revolving fund to pay for recharge for the remainder of the year. A map indicating recharge retention in the aquifer and a summary table of all recharge from 2008 to 2011 to date are included below.

## 2011 ESPA Managed Recharge Results (Early Season)

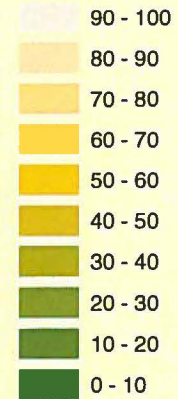
| 2011 ESPA Recharge<br>Summary February 28 through May 2 |                             |                         |                        |
|---|-----------------------------|-------------------------|------------------------|
| Canal   | cumulative<br>volume<br>a-f | conveyance<br>fee<br>\$ | notes                  |
| Aberdeen-Springfield                                    | 2,123                       | 6,350                   | start 4/20<br>end      |
| AFRD2<br>(Milner-Gooding)                               | 6,524                       | 19,571                  | start 4/21<br>end      |
| Big Wood  | 3,025                       | 9,075                   | start 4/19             |
| Fremont-Madison   | 17,304                      | 45,000                  | start 3/10<br>end 4/13 |
| Southwest   | 1,707                       | 5,121                   | start 2/28<br>end 4/18 |
| United  | 2,740                       | 5,000                   | start 4/6<br>end 4/25  |
| <b>TOTAL</b>  | <b>33,423</b>               | <b>90,117</b>           |                        |

above American Falls 22,167 a-f, 66%  
below American Falls 11,256 a-f, 34%  
cost per acre-foot, \$2.40



## 5 Year ESPA Response Functions

Percent Retained  
in the Aquifer



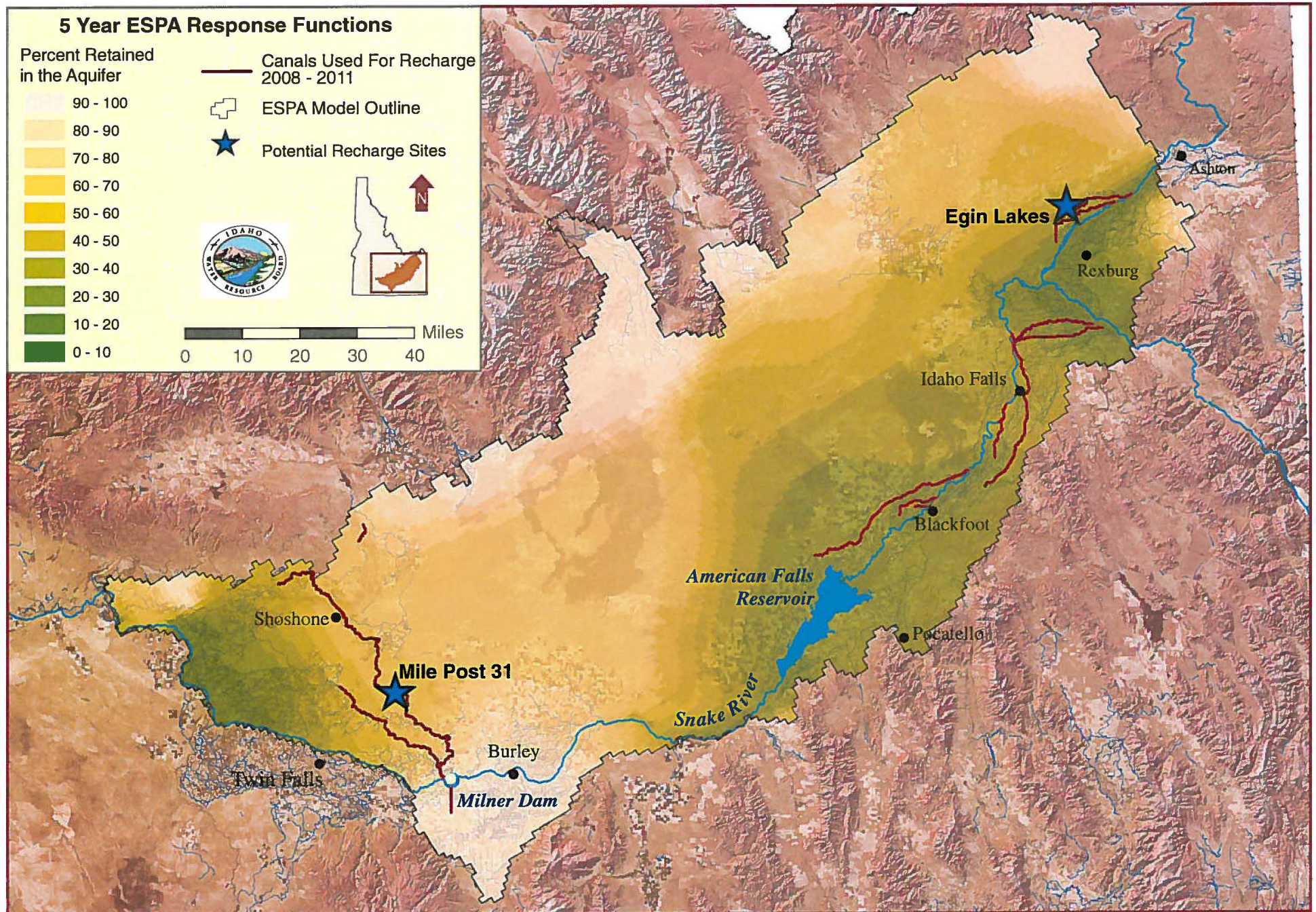
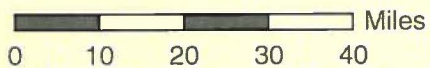
Canals Used For Recharge  
2008 - 2011



ESPMA Model Outline



Potential Recharge Sites



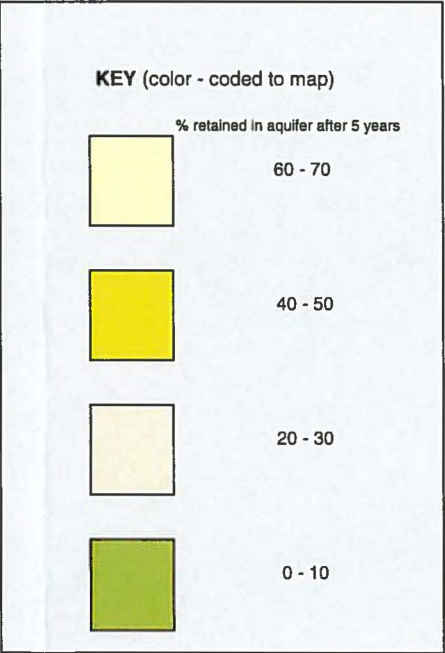


| ESPA Managed Recharge and Yearly Totals, 2008 - 2011(through 5-3-11) |        |        |        |         |       |       |         |         |         |        |       |       |       |        |       |       |       |        |        |       |         |         |                |         |                |         |                  |     |                  |    |
|--|--------|--------|--------|---------|-------|-------|---------|---------|---------|--------|-------|-------|-------|--------|-------|-------|-------|--------|--------|-------|---------|---------|----------------|---------|----------------|---------|------------------|-----|------------------|----|
| Year   | ASCC   |        | AFRD2  |         | BWCC  |       | FMID    |         | Grt Fdr |        | IID   |       | NSCC  |        | SRVID |       | SWID  |        | UNITED |       | Total   |         | above Am Falls |         | below Am Falls |         | % above Am Falls |     | % below Am Falls |    |
|  | a-f    | \$     | a-f    | \$      | a-f   | \$    | a-f     | \$      | a-f     | \$     | a-f   | \$    | a-f   | \$     | a-f   | \$    | a-f   | \$     | a-f    | \$    | a-f     | \$      | a-f            | \$      | a-f            | \$      | a-f              | \$  | a-f              | \$ |
| 2008   | 0      | 0      | 0      | 0       | 0     | 0     | 4,860   | 14,580  | 0       | 0      | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0      | 0      | 0     | 4,860   | 14,580  | 4,860          | 14,580  | 0              | 0       | 100              | 100 | 0                | 0  |
| 2009   | 18,563 | 40,438 | 38,698 | 116,094 | 0     | 0     | 37,317  | 30,878  | 20,944  | 62,966 | 1,004 | 3,012 | 6,519 | 19,557 | 0     | 0     | 1,491 | 4,473  | 0      | 0     | 124,536 | 277,418 | 77,828         | 137,294 | 46,708         | 140,124 | 62               | 49  | 38               | 51 |
| 2010   | 5,322  | 15,966 | 2,002  | 6,006   | 157   | 460   | 49,466  | 148,398 | 0       | 0      | 0     | 0     | 0     | 0      | 1,125 | 3,375 | 3,436 | 10,308 | 0      | 0     | 61,508  | 184,513 | 55,913         | 167,739 | 5,595          | 16,774  | 91               | 91  | 9                | 9  |
| 2011   | 2,123  | 6,350  | 6,524  | 19,571  | 3,025 | 9,075 | 17,304  | 45,000  | 0       | 0      | 0     | 0     | 0     | 0      | 0     | 0     | 1,707 | 5,121  | 2,740  | 5,000 | 33,423  | 90,117  | 22,167         | 56,350  | 11,256         | 33,767  | 66               | 63  | 34               | 37 |
| Total AF   | 26,008 |        | 47,224 |         | 3,182 |       | 108,947 |         | 20,944  |        | 1,004 |       | 6,519 |        | 1,125 |       | 6,634 |        | 2,740  |       | 224,327 |         | 160,768        |         | 63,559         |         |                  |     |                  |    |
| % of total AF  | 12     |        | 21     |         | 1.4   |       | 49      |         | 9       |        | 2     |       | 3     |        | 1     |       | 3     |        |        |       |         |         |                |         |                |         | 72               |     | 28               |    |
| Total \$   |        | 62,754 |        | 141,671 |       | 9,535 |         | 238,856 |         | 62,966 |       | 3,012 |       | 19,557 |       | 3,375 |       | 19,902 |        | 5,000 |         | 566,628 |                | 375,963 |                | 190,665 |                  |     |                  |    |
| % of total \$  |        | 11     |        | 25      |       | 1.7   |         | 42      |         | 11     |       | 1     |       | 3      |       | 1     |       | 4      |        |       |         |         |                |         |                |         |                  | 66  |                  | 34 |

all recharge listed above sponsored by Idaho Water Resource Board

all figures except percentages in acre-feet or dollars

- ASCC
- Aberdeen-Springfield Canal Co.
- AFRD2
- American Falls Res. Dist. No. 2 (Milner-Gooding Canal)
- BWCC
- Big Wood Canal Co.
- FMID
- Fremont-Madison Irr. Dist. (includes 562 a-f from Silkey Canal)
- Grt Fdr
- Great Feeder Canals
- IID
- Idaho Irr. Dist
- NSCC
- North Side Canal Co.
- SRVID
- Snake River Valley Irr. Dist.
- SWID
- Southwest Irr. Dist.
- UNITED
- United Canal Co.



## State water board offers contracts to canal companies to recharge aquifer

State and local water officials hope to turn this year's plentiful precipitation into a boon for the underground aquifer that provides water to much of southern Idaho.

The Idaho Water Resource Board has offered contracts to seven canal companies and irrigation districts to send 72,000 acre-feet of surface water back into the Lake Erie-sized Eastern Snake Plain Aquifer. An acre-foot is enough water to flood one acre by one foot. The water is absorbed back into the ground through canal and ditch bottoms, and at designated recharge sites.

In south-central Idaho, the North Side Canal Co., Big Wood Canal Co. and Southwest Irrigation District have been identified as aquifer recharge partners. On Tuesday, neither of the canal companies had an estimate of how much water they could provide to the effort, as officials said water demand and weather will be determining factors.

But Big Wood General Manager Lynn Harmon expects to contribute 400 cubic feet per second of water to a recharge site north of Shoshone. After years of declining aquifer levels coupled with Idaho's population growth, Harmon said efforts to bolster the aquifer are vital to its continued health.

"You've got more people and more usages, so any time you have a chance to contribute back, it's pretty important," he said.

This year marks the fourth straight that the water board has been involved in the recharge project. Though its \$217,000 for the work will keep it from providing the average of 93,000 acre-feet it helped put into the ESPA during each of the last two years, the project will take advantage of above-average snowpack and reservoir levels bolstered by a wet winter and spring.

"When surface water flows are plentiful, ground water recharge is one of the best tools to improve ground water levels," Idaho Department of Water Resources Interim Director Gary Spackman stated in a press release. "All signs point to an ample water supply in 2011, particularly early in the season. Water that seeps into the aquifer in the spring will benefit the aquifer and river later in the year."

IDWR has also started discussions to provide canal companies incentives to start diverting aquifer recharge water earlier than normal.

North Side Manager Ted Diehl called aquifer recharge "important to everybody," saying his company's recharge water will be provided through seepage from its system.

"It's going down every day because of the water use and the dry years," he said of aquifer levels. "When you use (water for recharge), it benefits everybody. If you don't have any water in the aquifer, you're going to have some problems."

And while the Comprehensive Aquifer Management Plan to repair the ESPA received \$2.46 million in state funding from legislators for next year, recharge efforts like these have existed before CAMP's recent genesis. Harmon said his district's recharge site was developed in 1983.

"I hope that we've made some difference," he said.

Eric Larsen may be reached at [elarsen@magicvalley.com](mailto:elarsen@magicvalley.com) or 735-3246.



# MEMO

**To:** Idaho Water Resource Board  
**From:** Brian W. Patton  
**Subject:** ESPA Managed Recharge – Funding Commitment by Idaho Ground Water Appropriators  
**Date:** April 30, 2011

---

The Idaho Ground Water Appropriators (IGWA) has offered to provide up to \$80,000 to the Idaho Water Resource Board (IWRB) to supplement the funds the IWRB has allocated for 2011 ESPA managed recharge operations. IGWA has also offered to provide up to \$20,000 to the Aberdeen-Springfield Canal Company for infrastructure improvements to assist recharge in that canal system.

## BACKGROUND

The IWRB operates a program of managed recharge for the Eastern Snake Plain Aquifer (ESPA) per direction in HB 373 passed by the 2005 Legislature. An average annual target of 100,000 AF of managed recharge was included in the Comprehensive Aquifer Management Plan for the ESPA, which was approved as a component of the State Water Plan by the 2009 legislature through HB 264. In 2009, about 125,000 AF of managed recharge was accomplished, and 61,000 AF was done in 2010. So far in 2011 about 30,000 AF has been done.

For 2011 managed recharge operations, the IWRB has made \$217,000 available. At the current wheeling payment of \$3/AF this would result in about 70,000 AF of managed recharge. However, in this high run-off year much more recharge could be accomplished.

## FUNDING COMMITMENT BY IGWA

In order to supplement to supplement to IWRB's recharge funds, IGWA has offered to provide up to \$80,000 for managed recharge operations, subject to conditions as shown in their attached letter. In addition, IGWA is offering to provide up to \$20,000 to the Aberdeen-Springfield Canal Company for infrastructure improvements that will allow earlier diversions for recharge.

The primary conditions from IGWA are that their funds be used for recharge in areas that assist them with their water calls in Districts 120 and 130, and that the IWRB not oppose the IDWR Director in providing mitigation credit to IGWA and its members from recharge activities.

The funds would be deposited in the IWRB's Secondary Aquifer Planning, Management, and Implementation Fund until used for the specified purpose.

## POTENTIAL FUNDING FROM OTHERS

Preliminary discussions with representatives of the Lower Snake River Recharge District, which encompasses the Thousand Springs area below the rim, have indicated they may be willing to provide \$15,000-to-\$30,000 annually for recharge operations in the lower part of the ESPA area. Staff is currently working to schedule a meeting with their full board to continue these discussions.

## ATTACHED RESOLUTION

The attached resolution authorizes the IWRB to enter into a funding agreement with IGWA and to expend the provided funds, subject to the attached conditions.

## BEFORE THE IDAHO WATER RESOURCE BOARD

|                                    |   |                          |
|------------------------------------|---|--------------------------|
| IN THE MATTER OF 2011 ESPA MANAGED | ) | A RESOLUTION TO ACCEPT   |
| RECHARGE OPERATIONS                | ) | FUNDING AND TO AUTHORIZE |
| _____                              | ) | AN EXPENDITURE OF FUNDS  |

WHEREAS, House Bill 373 passed and approved by the 2005 Legislature directed the Idaho Water Resource Board (IWRB) to establish a program of managed recharge of the Eastern Snake Plain Aquifer (ESPA); and

WHEREAS, managed recharge of the ESPA is one of the aquifer management goals laid out in the Comprehensive Aquifer Management Plan for the ESPA, which was approved as part of the State Water Plan by the 2009 Legislature through House Bill 264; and

WHEREAS, the Idaho Ground Water Appropriators, Inc., (IGWA) by letter dated April 27, 2011, has offered to provide up to \$80,000 to the IWRB to supplement the limited funds the IWRB has allocated for managed recharge operations in 2011; and

WHEREAS, IGWA by letter dated April 27, 2011, has also offered to provide up to \$20,000 to the Aberdeen-Springfield Canal Company for infrastructure improvements to help facilitate additional managed recharge in that canal system; and

WHEREAS, the 2010 legislature created the Secondary Aquifer Planning, Management, and Implementation Fund (Secondary Aquifer Fund) to be used by the IWRB to accomplish aquifer management objectives, and which may accept funds from water users; and

WHEREAS, other organizations have also expressed interest in providing funds to the IWRB to accomplish additional ESPA managed recharge; and

WHEREAS, further accomplishment of aquifer management objectives is in the public interest and in compliance with the State Water Plan.

NOW THEREFORE BE IT RESOLVED that the IWRB approves the acceptance of funds from IGWA and expenditure of those funds to supplement the limited funds the IWRB has allocated for 2011 ESPA managed recharge operations, and provides authority to the Chairman or his designee to enter into agreements with IGWA on behalf of the IWRB.

BE IT FURTHER RESOLVED that this resolution is subject to the following conditions:

- 1) The funds provided by IGWA shall be deposited into the Secondary Aquifer Fund until expended for the specified purpose; provided, however, that any funds provided for the above purposes that are unused during 2011 will be returned to IGWA.
- 2) IGWA requests that managed recharge using their funds shall occur in



locations that would be most likely to achieve mitigation credits from the Department of Water Resources in response to delivery calls from the Surface Water Coalition in Water District 120 and Spring Users in Water District 130. IGWA also identified Water District 110 recharge that could also occur through the Fremont-Madison Irrigation District. Accordingly, the IWRB will provide IGWA with modeled estimates of potential benefits to recharge on existing water calls and through FMID in order that IGWA may advise the IWRB specifically how its funds should be allocated.

- 3) The IWRB will not take any action to oppose or prevent the Director of the Department of Water Resources from providing mitigation credit to IGWA and its members.
- 4) IGWA will be provided with a report reflecting the results of 2011 ESPA aquifer recharge including expenditures, locations, quantities, and other relevant information.
- 5) The IWRB also authorizes the acceptance and expenditure of funds from other organizations for ESPA managed recharge.

DATED this 13th day of May, 2011.

---

TERRY UHLING, Chairman  
Idaho Water Resource Board

ATTEST

---

BOB GRAHAM, Secretary

APR 29 2011

DEPARTMENT OF  
WATER RESOURCES

## IDAHO GROUND WATER APPROPRIATORS, INC.

## Officers:

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American Falls, Idaho 83211  
208-226-2562

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Rexburg, Idaho 83440  
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IGWA  
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## Members:

American Falls-Aberdeen GW District  
Bingham GW District  
Bonneville-Jefferson GW District  
Jefferson-Clark GW District  
Madison GW District  
Magic Valley GW District  
North Snake GW District  
Southwest Irrigation District  
Busch Agricultural Resources, Inc.  
Jerome Cheese  
United Water, Inc.  
City of American Falls  
City of Blackfoot  
City of Chubbuck  
City of Heyburn  
City of Jerome  
City of Paul  
City of Post Falls  
City of Rupert

April 27, 2011

## IDAHO WATER RESOURCE BOARD:

Terry T. Uhling, Chairman  
Gary M. Chamberlain, Vice-Chairman  
Bob Graham, Secretary  
Board Members

P.O. Box 83720  
Boise, Idaho 83720-0098

*Re: Funding Commitment – 2011 Recharge*

Dear Board:

This letter represents the Idaho Ground Water Appropriators, Inc.'s ("IGWA's") commitment to pay up to \$80,000 to the Idaho Water Resource Board ("Board") to supplement and support the Board's funding of recharge to the Eastern Snake Plain Aquifer ("Aquifer"); and further to pay up to \$20,000 to Aberdeen-Springfield Canal Company to "cost-share" in the construction of diversion structure improvements to facilitate recharge this year and in future years. These financial contributions to support Aquifer recharge have been approved by the IGWA Board at its meeting on April 27, 2011, upon the following conditions:

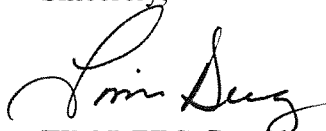
1. Recharge will occur in identified locations that would be most likely to achieve mitigation credits from the Department in response to delivery calls from the Surface Water Coalition in Water District 120 and Spring Users in the Thousand Springs Area in Water District 130. In Water District 110 recharge could be through Fremont-Madison Irrigation District. In Water District 120 recharge

could occur through the Aberdeen-Springfield Canal Company. In Water District 130 and 140 recharge could occur through Southwest Irrigation District, North Side Canal Company, AFRD 2 and other locations that would result in improvements of spring discharges in the Thousand Springs reach.

2. The Board will not take any action to oppose or prevent the Director from providing mitigation credit to IGWA and its members.
3. Any funds provided for the above purposes that are unused during 2011 will be returned to IGWA.
4. IGWA will be provided with a report or summary reflecting the results of the 2011 Aquifer recharge projects including expenditures, locations, quantities, etc.

Upon acceptance of this commitment and the conditions, IGWA is prepared to promptly remit checks for these funds.

Sincerely,



TIM DEEG, President

cc: Director Gary Spackman  
Aberdeen-Springfield Canal Company  
Val Whalen, President  
Steve Howser, Manager  
IGWA Members

# Memorandum

To: Idaho Water Resource Board  
From: Morgan Case  
Date: 5/12/2011  
Re: Idaho Water Transactions Program



## Columbia Basin Water Transactions Program Spring Check-In Meeting

Each spring, the Columbia Basin Water Transactions Program (CBWTP) visits Qualified Local Entities (QLE) to discuss how the previous year went and make a plan for moving forward. Andrew Purkey and Molly Whitney of the National Fish and Wildlife Foundation and Chris Furey from the Bonneville Power Administration met with Board staff in Boise on April 19<sup>th</sup>.

CBWTP staff was pleased with the transactions we have implemented to date (see attached map, chart, and table). We discussed how the proportion of transaction funding has changed since the BPA Accords funds became available for use in the Lemhi and Pahsimeroi basins (Figure 1). Board staff intends to explore transaction potential outside of the Lemhi and Pahsimeroi with Upper Salmon basin partners to maximize funding opportunities.

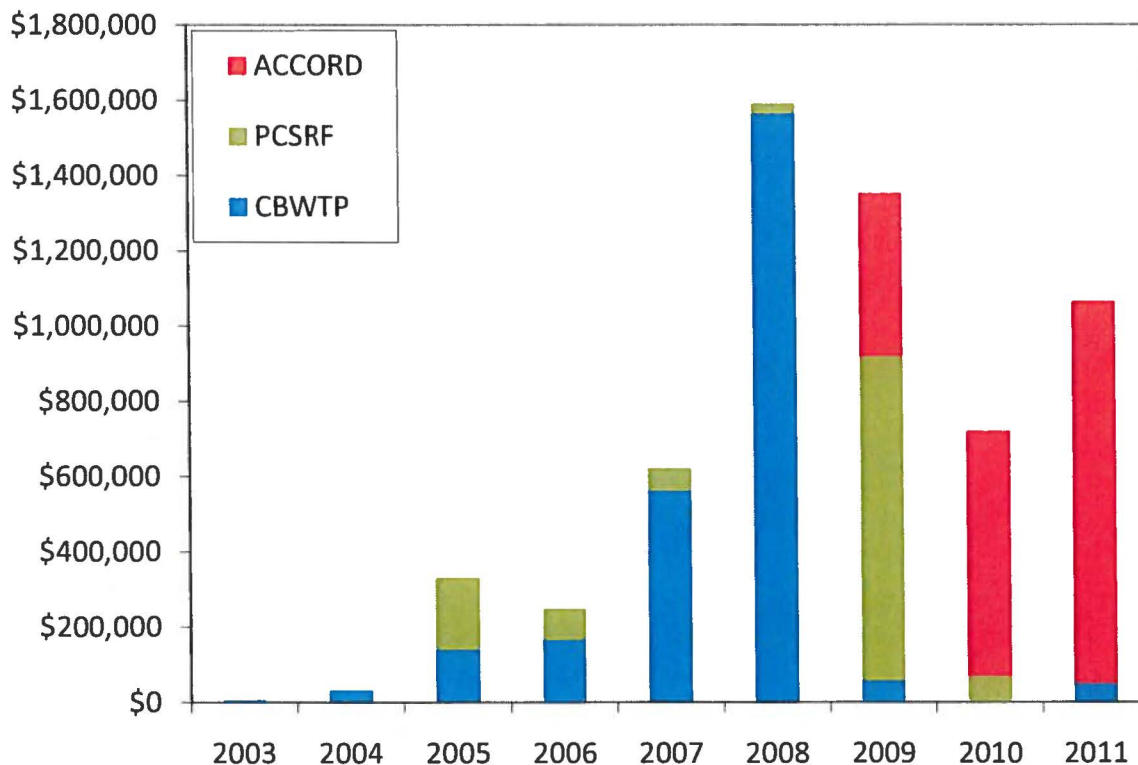


Figure 1. Idaho Water Transaction Funding by Source

Programmatic funding from CBWTP, which covers staff time, travel, gaging, and other WTP-related expenses, will continue at the current level in 2012 (Figure 2). Project deliverables will remain similar to FY 2011, with some increased expectations for compliance monitoring. Lemhi basin transactions may become test cases for implementation of new biological monitoring criteria in 2013 due to the existing level of monitoring by IDFG.

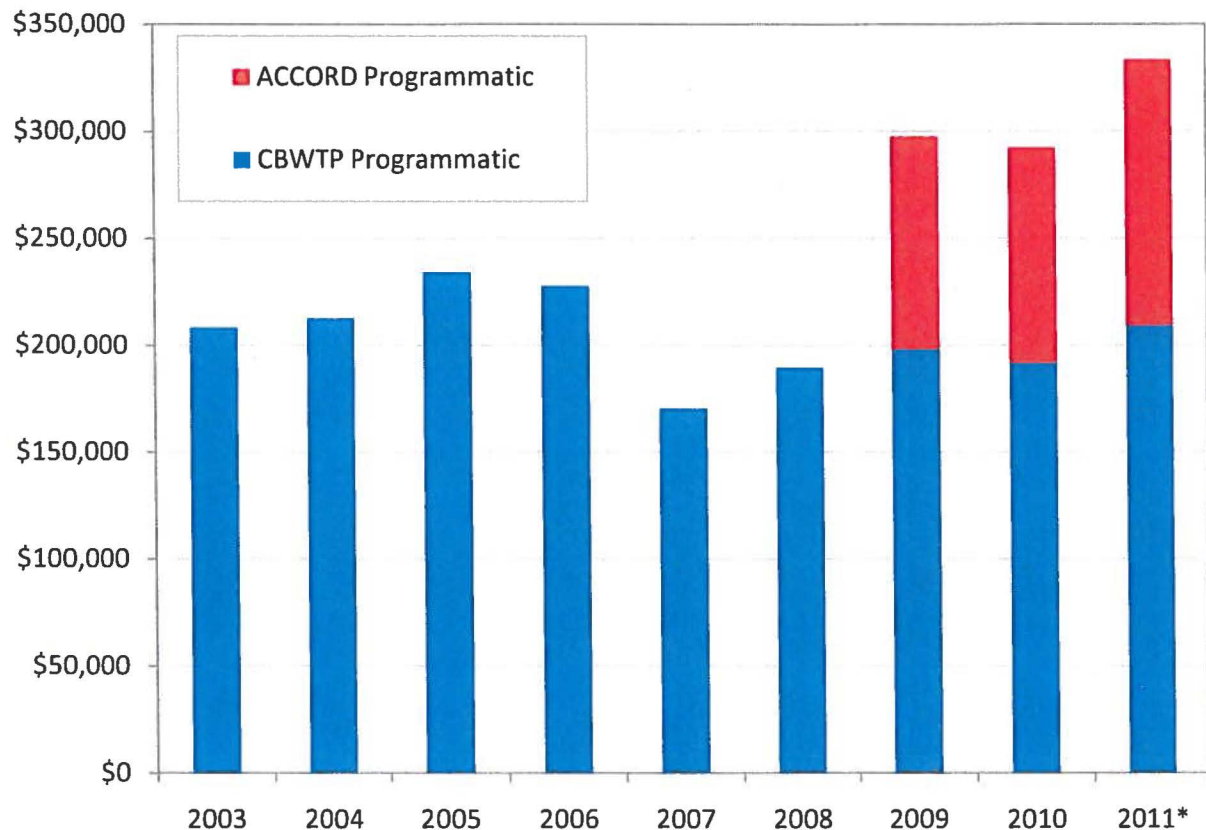


Figure 2. Idaho Water Transaction Programmatic Funding by Source.

\*Anticipated expenditures

### Columbia Basin Water Transactions Program Fall QLE Meeting

The CBWTP will hold its fall QLE meeting in the Upper Salmon Basin from September 12-14. Representatives from Montana, Oregon, and Washington will spend 1 night in Stanley and 2 nights in Salmon while touring Board transaction locations and learning about the water transaction process in Idaho.

Potential agenda items include:

- Idaho WTP process and policy
  - Water Bank
  - IDWR vs. IWRB
  - Policy of State (OSC)
  - New WR Applications
- Pole Creek transaction development and site visit
- Upper Lemhi Transactions

- Big Timber Creek
- Little Springs Creek
- Canyon Creek
- Monitoring – IDFG
- Restoration – TU, USBWP, IDFG
- Partnerships
- Visit/Tour - Sawtooth Hatchery
- P-9 Transaction site visit

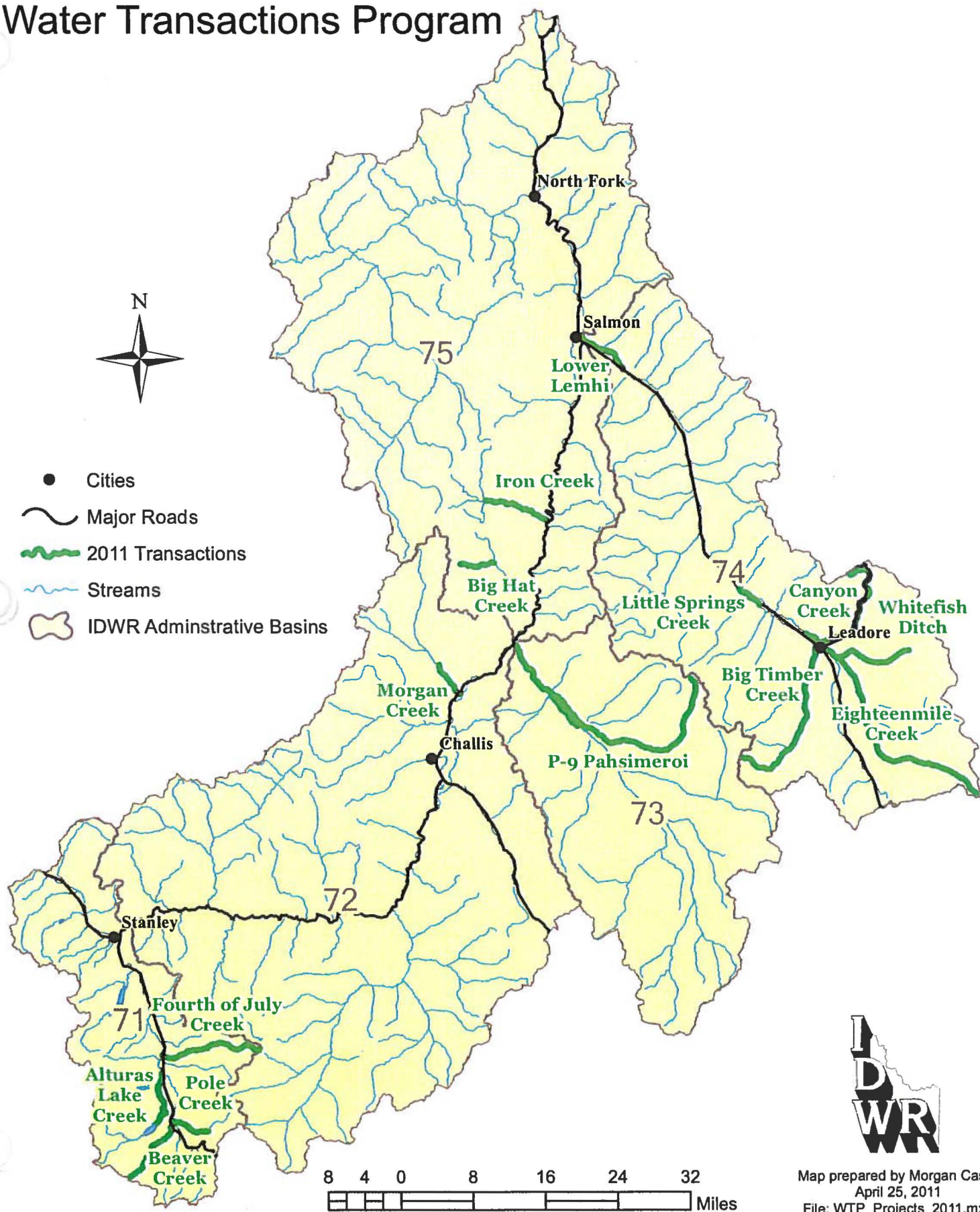
### **IDWR Water Right Application Processing in the Upper Salmon**

The IDWR Water Rights Section will resume processing of water right applications in the Upper Salmon Basin, after a period of inactivity following the lifting of the moratorium. IDWR was developing a process to ensure that the local public interest, including issues related to Endangered Species Act-listed fish species, was appropriately considered during the application process. IDFG has identified tributaries and stream reaches that are currently flow-limited or functioning marginally for ESA-listed species.

Several of the active water right applications are proposed for stream reaches where the IWRB has used water transactions to address flow limitations. Significant funding from the Bonneville Power Administration has been expended in these efforts. Once the applications are advertised, the IWRB will have an opportunity to protest in order to protect those investments and flow restoration activities. Board staff will need direction how to proceed at that time. It is likely that the current applications will be advertised by early summer.

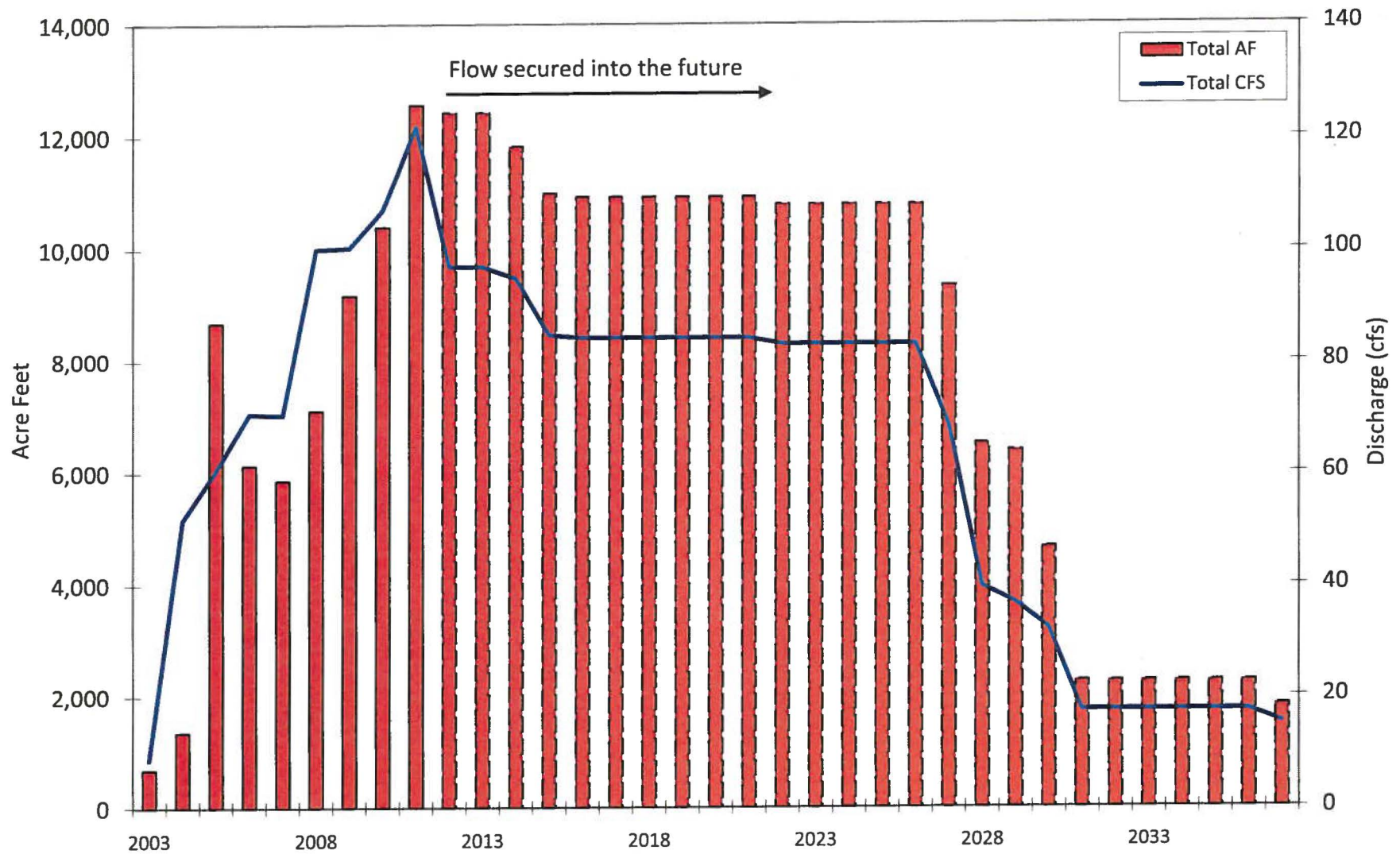


# Upper Salmon River Basin Water Transactions Program



Map prepared by Morgan Case  
April 25, 2011  
File: WTP\_Projects\_2011.mxd

## Idaho Water Transactions 2003-2011





# Idaho Water Transaction 2003-2011

| Year | Name   | Type                    | Duration<br>(years) | CFS  | AF/Year | AF Total | Price        | Average Price<br>Per Acre Foot |
|------|--|-------------------------|---------------------|------|---------|----------|--------------|--------------------------------|
| 2003 | Big Hat Reconnect                                      | Full Season Lease       | 1                   | 0.52 | 91      | 91       | \$2,500.00   | \$27.47                        |
| 2003 | Fourth of July Stream Flow Reconnect                   | Agreement not to Divert | 1                   | 4.15 | 291.6   | 291.6    | \$0.00       | \$0.00                         |
| 2003 | Otter Creek  | Lease                   | 1                   | 4    | 297.5   | 297.5    | \$6,375.00   | \$21.43                        |
| 2004 | Big Hat Creek Stream Flow Reconnect                    | Lease                   | 1                   | 0.52 | 91      | 91       | \$1,850.00   | \$20.33                        |
| 2004 | Fourth of July Phase II Stream Flow Reconnect          | Lease                   | 2                   | 2.97 | 129.3   | 258.6    | \$2,155.00   | \$8.33                         |
| 2004 | Beaver Creek-Salmon River above Alturas Lake Creek     | Lease                   | 1                   | 9.45 | 560.4   | 560.4    | \$4,818.00   | \$8.60                         |
| 2004 | Kenney Creek Ranch and Land LLC Partial Year Lease     | Partial Season Lease    | 1                   | 3.72 | 221.3   | 221.3    | \$9,613.00   | \$43.44                        |
| 2004 | Lemhi River Water Transaction                          | Agreement not to Divert | 1                   | 35   | 347.32  | 347.32   | \$14,129.89  | \$40.68                        |
| 2005 | Big Hat Creek  | Lease                   | 2                   | 0.52 | 91      | 182      | \$1,850.00   | \$10.16                        |
| 2005 | Kenney Creek Ranch and Land LLC Partial Year Lease     | Partial Season Lease    | 1                   | 3.72 | 221.3   | 221.3    | \$9,613.00   | \$43.44                        |
| 2005 | Beaver Creek and Salmon River above Alturas Lake Creek | Lease                   | 10                  | 9.38 | 834.6   | 8346     | \$55,640.00  | \$6.67                         |
| 2005 | Lemhi River Early Season Instream Flow                 | Agreement not to Divert | 1                   | 35   | 1695.9  | 1695.9   | \$68,959.12  | \$40.66                        |
| 2005 | Lower Eighteenmile Creek                               | Lease                   | 1                   | 0.51 | 89.6    | 89.6     | \$2,000.00   | \$22.32                        |
| 2005 | Lemhi Near Baker                                       | Lease                   | 1                   | 3.36 | 238     | 238      | \$3,272.00   | \$13.75                        |
| 2005 | Lemhi Late Season Instream Flow                        | Lease                   | 1                   | 24.5 | 4472    | 4472     | \$184,600.00 | \$41.28                        |
| 2005 | Pole Creek   | Agreement not to Divert | 1                   | 5    | 911     | 911      | \$4,992.00   | \$5.48                         |
| 2006 | Lower Lemhi - 2006                                     | Agreement not to Divert | 1                   | 35   | 2711    | 2711     | \$110,230.81 | \$40.66                        |
| 2006 | Lower Eighteenmile - Ellsworth                         | Partial Season Lease    | 10                  | 0.52 | 63.4    | 634      | \$16,000.00  | \$25.24                        |
| 2006 | Alturas Lake Creek                                     | Lease                   | 1                   | 8.52 | 435     | 435      | \$7,250.00   | \$16.67                        |
| 2006 | Pole Creek   | Agreement not to Divert | 5                   | 5    | 744     | 3720     | \$93,750.00  | \$25.20                        |
| 2006 | Lower Eighteenmile - Kruckeberg                        | Partial Season Lease    | 1                   | 1.8  | 142.2   | 142.2    | \$4,500.00   | \$31.65                        |
| 2006 | Morgan Creek - 2006                                    | Agreement not to Divert | 1                   | 2    | 591     | 591      | \$8,865.00   | \$15.00                        |
| 2006 | Iron Creek - Phase I                                   | Agreement not to Divert | 1                   | 4.81 | 388.5   | 388.5    | \$6,000.00   | \$15.44                        |
| 2006 | Fourth of July - 2006                                  | Lease                   | 2                   | 2.97 | 129.3   | 258.6    | \$2,155.00   | \$8.33                         |
| 2007 | Alturas Lake Creek - Pivot                             | Lease                   | 1                   | 5.86 | 300.8   | 300.8    | \$5,000.00   | \$16.62                        |
| 2007 | Alturas Lake Creek - Non-Pivot                         | Lease                   | 5                   | 2.66 | 135.4   | 677.0    | \$11,250.00  | \$16.62                        |
| 2007 | Morgan Creek - 2007                                    | Agreement not to Divert | 1                   | 2    | 591     | 591.0    | \$8,865.00   | \$15.00                        |
| 2007 | Big Hat Creek  | Lease                   | 1                   | 0.52 | 182     | 182.0    | \$1,850.00   | \$10.16                        |
| 2007 | Iron Creek 2007 - Phase II                             | Agreement not to Divert | 20                  | 7.08 | 572.6   | 11,452.0 | \$364,552.14 | \$31.83                        |
| 2007 | Badger Creek Tributary Reconnect Project               | Agreement not to Divert | 30                  | 2.28 | 430.5   | 12,915.0 | \$150,000.00 | \$11.61                        |
| 2007 | Lower Lemhi 2007                                       | Agreement not to Divert | 1                   | 35   | 1971    | 1,971.0  | \$80,154.02  | \$40.67                        |

# Idaho Water Transaction 2003-2011

| Year | Name                           | Type                            | Duration<br>(years) | CFS   | AF/Year | AF Total | Price        | Average Price<br>Per Acre Foot |
|------|--------------------------------|---------------------------------|---------------------|-------|---------|----------|--------------|--------------------------------|
| 2008 | Whitefish Ditch 2007           | Agreement not to Divert         | 19                  | 7.54  | 877     | 16,663.0 | \$275,767.21 | \$16.55                        |
| 2008 | Lower Lemhi 2008               | Agreement not to Divert         | 1                   | 35    | 837.2   | 837.2    | \$34,039.16  | \$40.67                        |
| 2008 | Pahsimeroi P-9 Dowton          | Agreement not to Divert         | 20                  | 15.99 | 1331.8  | 26,636.0 | \$348,687.10 | \$13.09                        |
| 2008 | Pahsimeroi P-9 Elzinga         | Agreement not to Divert         | 20                  | 9.87  | 842.1   | 16,842.0 | \$431,297.43 | \$25.61                        |
| 2008 | Pahsimeroi P-9 Charlton        | Agreement not to Divert         | 20                  | 0.75  | 23.1    | 462.0    | \$29,098.04  | \$62.98                        |
| 2008 | Pahsimeroi P-9 Bowles          | Agreement not to Divert         | 20                  | 3.14  | 633.9   | 12,678.0 | \$439,611.86 | \$34.68                        |
| 2008 | Fourth of July 2008            | Lease                           | 1                   | 2.97  | 129.3   | 129.3    | \$0.00       | \$0.00                         |
| 2008 | Big Hat 2008                   | Lease                           | 1                   | 0.52  | 182     | 182.0    | \$1,850.00   | \$10.16                        |
| 2008 | Morgan Creek 2008              | Agreement not to Divert         | 1                   | 2     | 297.5   | 297.5    | \$4,462.50   | \$15.00                        |
| 2009 | Lemhi Permanent - Fisher       | Permanent Conservation Easement | Permanent           | 5     | 574.7   | 57,470.0 | \$430,000.00 | \$7.48                         |
| 2009 | Lemhi Permanent - B Thomas     | Permanent Conservation Easement | Permanent           | 1.81  | 211.05  | 21,105.0 | \$155,660.00 | \$7.38                         |
| 2009 | Lemhi Permanent - K Thomas     | Permanent Conservation Easement | Permanent           | 0.33  | 38.5    | 3,850.0  | \$28,380.00  | \$7.37                         |
| 2009 | Lemhi Permanent - Wolters      | Permanent Conservation Easement | Permanent           | 2.25  | 280     | 28,000.0 | \$193,500.00 | \$6.91                         |
| 2009 | Lemhi Permanent - Bird         | Permanent Conservation Easement | Permanent           | 0.73  | 85.05   | 8,505.0  | \$62,780.00  | \$7.38                         |
| 2009 | Lemhi Permanent - Cheney       | Permanent Conservation Easement | Permanent           | 2.52  | 299.95  | 29,995.0 | \$216,720.00 | \$7.23                         |
| 2009 | Lemhi Permanent - Demick       | Permanent Conservation Easement | Permanent           | 1.33  | 155.4   | 15,540.0 | \$114,380.00 | \$7.36                         |
| 2009 | Fourth of July 2009            | Lease                           | 20                  | 2.97  | 129.3   | 2,586.0  | \$23,705.00  | \$9.17                         |
| 2009 | Lower Lemhi 2009               | Agreement not to Divert         | 1                   | 17.46 | 173.2   | 173.2    | \$7,040.75   | \$40.67                        |
| 2009 | Morgan Creek                   | Agreement not to Divert         | 5                   | 2     | 591     | 2,955.0  | \$34,612.55  | \$11.71                        |
| 2009 | Big Hat Creek                  | Lease                           | 1                   | 0.83  | 152.6   | 152.6    | \$0.00       | \$0.00                         |
| 2010 | Lemhi Permanent - Olson        | Permanent Conservation Easement | Permanent           | 0.96  | 121.45  | 12,145.0 | \$82,560.00  | \$6.80                         |
| 2010 | Big Timber - Tyler             | Agreement not to Divert         | 20                  | 4.5   | 1707.3  | 34,146.0 | \$626,672.49 | \$18.35                        |
| 2010 | Lower Lemhi 2010               | Agreement not to Divert         | 1                   | 17.46 | 173.2   | 173.2    | \$7,040.75   | \$40.65                        |
| 2010 | Lower Lemhi - Thomas 2010      | Agreement not to Divert         | 12                  | 1.14  | 132.65  | 1,591.8  | \$3,600.00   | \$2.26                         |
| 2010 | Big Hat 2010                   | Lease                           | 5                   | 1.23  | 125.6   | 628.0    | \$0.00       | \$0.00                         |
| 2011 | Big Timber/Canyon-Beyeler      | Agreement not to Divert         | 20                  | 5.04  | 1309    | 130900   | \$551,727.27 | \$4.21                         |
| 2011 | Lower Lemhi 2011               | Agreement not to Divert         | 1                   | 16.21 | 2025.2  | 2025.2   | \$82,343.65  | \$40.66                        |
| 2011 | Lemhi and Little Springs-Kauer | Agreement not to Divert         | 20                  | 4.06  | 427     | 8540     | \$26,452.76  | \$3.10                         |
| 2011 | Little Springs -Snyder         | Agreement not to Divert         | 20                  | 5.69  | 676.9   | 13538    | \$353,805.71 | \$26.13                        |
| 2011 | Pole Creek 2011                | Agreement not to Divert         | 1                   | 6     | 893     | 893      | \$50,000.00  | \$55.99                        |
| 2011 | TNC Donation                   | Lease                           | Permanent           | 0.3   | 75      | 7500     | \$0.00       | \$0.00                         |



# MEMO

**To:** Idaho Water Resource Board  
**From:** Brian W. Patton  
**Subject:** Request to consent to sale of 0.2 cfs of Pristine Springs Water Right 36-2603C  
**Date:** May 1, 2011

---

The North Snake Ground Water District and the Magic Valley Ground Water District are requesting that the Idaho Water Resource Board (IWRB) consent to the sale of 0.2 cfs of Pristine Springs Water Right 36-2603C to the Carey Valley Ground Water District.

## **BACKGROUND**

In 2008 the IWRB acquired the Pristine Springs Aquiculture and Hydropower Facility in cooperation with the City of Twin Falls and the North Snake and Magic Valley Ground Water Districts. Through their participation, the two ground water districts received the ability to use 10 cfs from Water Right 36-2603C for their mitigation needs. This use occurs through the Water Trust for Water Right 36-2603C. These two districts are currently making 10 annual loan payments of about \$1.232 million each to the IWRB to finance their participation.

The IWRB's consent is required because 1) of the loan contract between the IWRB and the two districts, and 2) because the IWRB is the trustee for the Water Trust for Water Right 36-2603C.

When this acquisition was being structured, it was contemplated that these two districts would "market" pieces of this water to other ground water users who may have mitigation obligations in District 130. This is the first proposed sale to any of these other ground water users.

Staff has been working with these districts and their attorneys to structure this sale. From the IWRB's perspective, it was important that the existing loan agreement with the North Snake and Magic Valley Ground Water Districts remain unchanged, keeping these two districts accountable to the IWRB for the remaining loan payments. It was also important that the terms of the Trust for Water Right 36-2603C remains unchanged.

## **ATTACHED CONSENT TO SALE**

The attached consent was developed by council to the North Snake and Magic Valley Ground Water Districts. It has been reviewed by the IWRB staff and the Attorney General's Office and been found to meet the needs of the IWRB. The Carey Valley Ground Water District will make its payments to the North Snake and Magic Valley Ground Water Districts, while the North Snake and Magic Valley District remain responsible for making their payments to the IWRB.

LAW OFFICES OF

**RACINE OLSON NYE BUDGE & BAILEY  
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RECEIVED

MAR 25 2011

DEPARTMENT OF  
WATER RESOURCESSENDER'S E-MAIL ADDRESS: [rcb@racinelaw.net](mailto:rcb@racinelaw.net)

March 22, 2011

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 JOHN R. GOODELL  
 JOHN B. INGELSTROM  
 DANIEL C. GREEN  
 BRENT O. ROCHE  
 KIRK B. HADLEY  
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 ERIC L. OLSEN  
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 RICHARD A. HEARN, M.D.  
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 WILLIAM D. OLSON, OF COUNSEL

Brian Patton  
 Water Planning Bureau Chief  
 Idaho Water Resource Board  
 P.O. Box 83720  
 Boise, Idaho 83720-0098

Re: *Consent to Sale of 0.2 cfs of Pristine Springs Water Right 36-2603C*

Dear Brian:

Thank you for your letter dated January 24, 2011 notifying me of the Idaho Water Resource Board's ("Board") requested modifications to the Consent to Sale and Transfer ("Consent") and the Pristine Springs Water Right Agreement ("Agreement") for the sale of 0.2 cfs of Pristine Springs Water Right No. 36-2603C from North Snake Ground Water District ("North Snake") and Magic Valley Ground Water District ("Magic Valley") to the Carey Valley Ground Water District ("Carey Valley"). The requested changes have now been made to the Consent and the Agreement. North Snake and Magic Valley therefore again request the Board's approval of the sale.

Enclosed please find the original and two copies of a proposed Consent which would be made subject to the Board's Loan Contract Agreement, Promissory Note, and Assignment of Water Rights with North Snake and Magic Valley, each dated September 10, 2008, together with the Pristine Springs Trust for Water Right No. 36-2603C dated April 28, 2008. The following exhibits are attached to the proposed Consent:

Exhibit A: Pristine Springs Water Right Agreement.

March 22, 2011  
Page 2

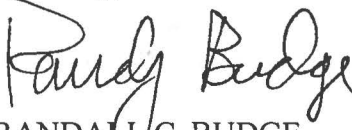
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Exhibit B: Water Resource Board Loan Contract Agreement.  
Exhibit C: Water Resource Board Promissory Note.  
Exhibit D: Water Resource Board Assignment of Water Rights.  
Exhibit E: Pristine Springs Trust for Water Right No. 36-2603C.

Once consent has been obtained and the transaction closed, Carey Valley will make payments for \$200,000 or 2% of the Loan Contract Agreement directly to North Snake and Magic Valley. North Snake and Magic Valley will remain accountable for the entire outstanding debt of the Board's Promissory Note dated September 10, 2008, and will make all payments on such Promissory Note directly to the Board.

Thank you for your assistance. Please contact me if you have any questions.

Sincerely,



RANDALL C. BUDGE

RCB:rr

Enclosures

cc: North Snake Ground Water District (w/encls.)  
Magic Valley Ground Water District (w/encls.)  
Carey Valley Ground Water District/Atty Dana L. Hofstetter (w/encls.)

### CONSENT TO SALE AND TRANSFER

The Idaho Water Resource Board ("Board") hereby gives consent to North Snake Ground Water District and Magic Valley Ground Water District ("Districts") to sell 0.2 cfs of Pristine Springs Water Right No. 36-2603C to Carey Valley Ground Water District pursuant to the terms of that certain Pristine Springs Water Right Agreement, a copy of which is attached hereto as Exhibit A, SUBJECT TO the Board's Loan Contract Agreement, Promissory Note, and Assignment of Water Rights, each dated September 10, 2008, and the Pristine Springs Trust for Water Right No. 36-2603C dated April 28, 2008, copies of which are attached hereto as Exhibits B, C, D, and E. Notwithstanding such consent, the Districts shall remain accountable for the entire outstanding debt of the Board's Promissory Note dated September 10, 2008 and attached hereto as Exhibit C, and shall remain responsible for the annual payments payable to the Board pursuant to the Promissory Note.

DATED this \_\_\_\_ day of \_\_\_\_\_, 2011.

IDAHO WATER RESOURCE BOARD

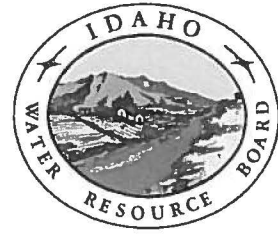
By: \_\_\_\_\_  
TERRY UHLING, Chairman

ATTESTED:

\_\_\_\_\_  
Secretary



# Memorandum



To: Idaho Water Resource Board  
From: Helen Harrington  
Date: May 2, 2011  
Re: Rathdrum Prairie CAMP Status Update

Preparations are in place to hold a public hearing on the draft Rathdrum Prairie Comprehensive Aquifer Management Plan (CAMP) on May 12, 2011. A news release was issued prior to the beginning of the public comment period. The public comment period was opened on April 10, through notice in the Coeur d'Alene Press and by publication of a notice on the RP CAMP web page. The public comment period will extend through June 10. Following the close of the comment period, comments and testimony will be compiled for consideration by the RP CAMP subcommittee and the IWRB.

During the week of April 25-29, local legislators and other interested parties were briefed by Helen Harrington and others on the RP CAMP and upcoming activities. The briefings included background information about the RP CAMP purpose, advisory committee process and highlights of the draft plan. Chuck Cuddy, Bob Graham and Bob Haynes participated as their schedules allowed. The following officials were briefed:

Senators Hammond, Goedde, Broadsword  
Representatives Harwood, Nonini, Henderson, Eskridge, Anderson  
Benewah County Commissioner Jack Beull  
Kootenai County Commission  
Aquifer Protection District Board  
Pend Oreille Basin Commission  
Post Falls Mayor, City Administrator and staff

The public hearing on May 12 at 7:00 p.m. will be preceded by an open house from 6-7 p.m. Board members, IDWR staff and advisory committee members will be available during the open house to provide information and answer questions about the draft plan. At the hearing, a short overview of the plan will be presented following by the acceptance of testimony and written comments. A copy of the draft plan is attached.

# Memorandum

To: Idaho Water Resource Board

From: The Rathdrum Prairie Comprehensive Aquifer Management Plan (CAMP)  
Advisory Committee

Date: January 10, 2011

Subject: Transmittal of Recommended CAMP

---

The Rathdrum Prairie CAMP Advisory Committee is pleased to recommend the attached CAMP for the Idaho Water Resource Board's consideration.

At your request, our eighteen-member Advisory Committee deliberated on water supply and demand issues looking out 50 years into the future. This Committee represented a variety of water interests, including local business leaders, elected officials, environmental representatives, government representatives, and local water providers. The Rathdrum Prairie Aquifer's abundant high quality is the lifeblood of our communities and we believe that this CAMP addresses our mutual goals to:

1. Provide reliable sources of water, projecting 50 years in to the future
2. Develop strategies to avoid conflicts over water resources
3. Prioritize future state investments in water
4. Bridge the gaps between future water needs and supply

Before submitting this final, recommended plan to you, we collected feedback and advice from the public through several mechanisms: (1) an open house on November 18, 5 p.m.- 9 p.m., at the Coeur d'Alene public library, (2) an online survey, and (3) various written and emailed comments submitted to the Idaho Department of Water Resources.

This Committee has appreciated participating in the development of the Rathdrum Prairie CAMP. Engagement of the larger community will be essential in the implementation of the Rathdrum Prairie CAMP. We suggest that you continue to support this Advisory Committee as you move forward with implementation. We look forward to continuing this important work with you into the future.

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DRAFT

# Rathdrum Prairie Aquifer

## Comprehensive Aquifer Management Plan

*Vision: Provide a sustainable source of high-quality groundwater for current and future economic, social, and environmental benefits, and preserve the exceptional quality and reliability of the Rathdrum Prairie Aquifer.*



Recommended plan from the Rathdrum Prairie CAMP Advisory Committee



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# 1. Executive Summary

The Rathdrum Prairie Aquifer in Northern Idaho is a valuable and significant resource to the region and the state of Idaho. Lying under parts of Kootenai and Bonner counties, the aquifer is a key part of the regional water resources which make the area a magnet for economic growth and an attractive place to live and work. The region produces approximately 8 percent of goods and services in the state of Idaho resulting in an estimated value of \$4 billion. Beyond the economic value to the state, the region provides cultural and social benefits throughout the bi-state Spokane Valley-Rathdrum Prairie in Washington and Idaho.

The Rathdrum Prairie Comprehensive Aquifer Management Plan (Plan) provides a framework for long-range management of the aquifer. The Plan describes the overarching goals and recommended actions which can be implemented to successfully accomplish the stated goals for local residents, the state of Idaho, and to promote productive regional cooperation to benefit the area over the next 50 years.

This document presents a Comprehensive Aquifer Management Plan (CAMP) for the Rathdrum Prairie Aquifer. At the direction of the Idaho Water Resource Board (IWRB) and Idaho Legislature, the Plan was developed collaboratively by the Rathdrum Prairie CAMP Advisory Committee. The committee submitted a recommended Plan to the Board for their consideration and adoption. Once adopted by the Board, the Plan will be submitted to the Idaho Legislature for final action.

The IWRB developed the following goals for the statewide Comprehensive Aquifer Planning and Management Program are:

- Provide reliable sources of water, projecting 50 years into the future

- Develop strategies to avoid conflicts over water resources
- Prioritize future state investments in water
- Bridge the gaps between future water needs and supply

Based on the four goals, the Rathdrum Prairie Comprehensive Aquifer Management Plan Advisory Committee (AC) developed the following vision for the Plan:

*“Provide a sustainable source of high-quality groundwater for current and future economic, social, and environmental benefits, and preserve the exceptional quality and reliability of the Rathdrum Prairie Aquifer.”*

The Committee developed the action items in Figure 1 to accomplish their vision.

## Meet Future Demand for Water

Projecting future water demand is an integral part of the Rathdrum Prairie CAMP process. The sufficiency of existing water resources cannot be determined without understanding the potential magnitude of future water demand.

The Rathdrum Prairie Aquifer Water Demand Projections report provides projections of Rathdrum Prairie water demand over the next 50 years. The water demand study was conducted for (and funded by) the IWRB as part of the Rathdrum Prairie CAMP process. The study was conducted by SPF Water Engineering, LLC (SPF), AMEC Earth and Environmental (AMEC), Idaho Economics (John Church), and Taunton Consulting (Taunton), with guidance from the IWRB, IDWR, and the Rathdrum Prairie CAMP Advisory Committee. The following conclusions were drawn from that report.

Annual water demand by the year 2060 could rise from estimated current withdrawals of approximately 74,000 acre-feet to between 77,000 acre-feet (based on a low population-



## SUMMARY OF KEY ACTION ITEMS

(not ranked or placed in order of priority):

### **Objective #1: Meet Future Demand for Water**

Enact water conservation measures that promote water efficiency and reduced use.

Establish municipal water rights to ensure that they are available for future needs.

Identify local water use improvement strategies and develop partnerships to implement them.

Hydrologic and social impacts of exportation of water from the basin must be considered carefully.

Update the Rathdrum Prairie Future Water Demand Study.

### **Objective #2: Prevent and Resolve Water Conflicts**

Develop a framework for regional discussion and cooperation for SVRPA water issues.

IDWR should develop criteria for artificial recharge projects in Idaho.

Identify local water use improvement strategies and develop partnerships to implement them.

Redefine the IDWR GWMA boundaries so they are consistent with the bi-state USGS hydrologic boundaries.

### **Objective #3: Protect the Aquifer**

Assess all CAMP activities to ensure projects implemented through CAMP protect aquifer water quality.

Support and encourage the Aquifer Protection District to work with Panhandle Health District, Idaho Department of Environmental Quality, and others to address overlapping jurisdictions with the goal of improving efficiency.

The most likely 2060 water demand projection ranges from approximately 101,000 to 163,000 acre-feet, depending on the level of water conservation. This projection is based on a moderate level of population growth (averaging approximately 2.3% per year) over the next 50 years.

The Rathdrum Prairie Aquifer is a highly prolific aquifer which fully satisfies the existing water needs and it is anticipated to meet future needs. However, to ensure that the water resources are put to optimum use to benefit the state of Idaho, this plan identifies actions which will protect the resource for future generations.

### **Prevent and Resolve Water Conflicts**

The Plan addresses the long-term planning and management objectives and actions for the Rathdrum Prairie Aquifer located in Idaho. The Rathdrum Prairie Aquifer is a part of the larger regional aquifer which is shared with the state of Washington. Additionally, the regional hydrological system is a dynamic interrelationship between the aquifer and the Spokane and Little Spokane Rivers in Washington.

Although state authorities and

planning programs do not cross the state and tribal boundaries, the larger regional interests and needs should be considered. The benefits of cooperation and coordination among the sovereigns in the region far outweigh the potential costs of conflict.

Figure 1. Summary of Key Action Items

growth rate of 1.6% per year and aggressive water conservation) and 223,000 acre-feet (based on a higher population growth rate of approximately 3% per year and no water conservation). The area over the Rathdrum Prairie Aquifer has experienced both of these population-growth rates over multi-year periods in past decades.

## **Protect the Aquifer**

The Rathdrum Prairie Aquifer is a part of the larger Spokane Valley-Rathdrum Prairie Aquifer (SVRPA). The SVRPA is the sole source of drinking water for the residents living over the aquifer, and many who do not live over the aquifer also receive benefits. The aquifer is vulnerable to water quality degradation which could influence the availability for local communities and residents. The protection of the aquifer from contamination is undertaken through a number of programs and authorities of local, regional and state entities.

The implementation of the Plan and all actions associated with the Plan will be assessed to ensure that water quality is maintained and aquifer protection efforts are coordinated with other responsible agencies and programs.

## **Plan Implementation**

To ensure that the valuable input of stakeholders continues during the implementation of these actions, this Plan should be implemented by IWRB staff with guidance and advice from the Advisory Committee. The Committee will assist IWRB staff by providing recommendations and feedback.

## **Summary**

Although the Plan is built upon a substantial base of technical information and stakeholder guidance, it is recognized that present-day solutions may be refined and improved as new information, regional activities, and technologies are developed. Accordingly, the Plan includes an adaptive management component which requires ongoing coordination between the IWRB staff and Advisory Committee. The Plan provides for continued effort to identify and address all water use needs affected by this Plan, including environmental considerations.

The Plan also recognizes that successful implementation requires sufficient funding. The Committee expects that the preliminary funding recommendations and structure may be refined or modified as further information is developed about funding needs.

## 2. Glossary

### Abbreviations and Terms

|                            |  |
|----------------------------|--|
| acre-foot                  | A volume of water equivalent to one acre covered in water one foot deep. One acre-foot (af) equals 325,851 gallons   |
| afa                        | Acre-foot per annum. Rate of water flow equivalent to 1 acre-foot of water flowing in a 1 year period.   |
| aquifer                    | A water-bearing layer of rock that will yield water in a usable quantity to a well or spring   |
| CAMP                       | Comprehensive Aquifer Management Plan  |
| cfs                        | Cubic feet per second. A rate of flow equal to one cubic foot of water passing a point each second. One cfs equals approximately 7.48 gallons per second, or 449 gallons per minute.   |
| consumptive use            | Consumptive use is water that is actually consumed and not returned to the immediate water environment. It is the portion of water that evaporates, is used in products or crops, or consumed by humans or livestock.  |
| GWMA                       | Ground Water Management Area   |
| M&E                        | Monitoring and Evaluation  |
| mgd                        | Million gallons per day  |
| the Plan                   | Rathdrum Prairie Comprehensive Aquifer Management Plan   |
| RPA                        | Rathdrum Prairie Aquifer, Idaho  |
| RP CAMP                    | Rathdrum Prairie Comprehensive Aquifer Management Plan   |
| Sensitive Resource Aquifer | A sensitive resource aquifer is considered to have good water quality, is highly vulnerable to contamination and an irreplaceable source. Activities that could degrade the aquifer shall be managed in a manner which maintains or improves existing water quality through the use of best management practices and best available methods. The Rathdrum Prairie Aquifer is Idaho's only sensitive resource aquifer. Sensitive Resource aquifers require the strongest level of protection. |
| SVRPA                      | Spokane Valley Rathdrum Prairie Aquifer, Idaho and Washington  |

### Key Agencies

|      |   |
|------|---|
| APD  | Rathdrum Prairie Aquifer Protection District (jurisdiction by Kootenai County); see Chapter 5 of Title 39 Idaho Code. |
| IDEQ | Idaho Department of Environmental Quality   |
| WDOE | Washington Department of Ecology  |
| EPA  | Environmental Protection Agency   |
| IDWR | Idaho Department of Water Resources (also abbreviated as "Department")  |
| PHD  | Panhandle Health District   |
| IWRB | Idaho Water Resource Board (also abbreviated as "Board")  |
| USGS | United States Geological Survey   |



## Conversion table for units of water

|                                 |                              |                                |
|---------------------------------|------------------------------|--------------------------------|
| 1 acre-foot                     | 43,560 cubic feet            | 325,851 gallons                |
| 1 cubic foot per second         | 7.48 gallons per second      | 448.8 gallons per minute (gpm) |
| 1 cfs for 1 year                | 235,889,280 gallons per year | 728 acre-feet per year         |
| 1 million gallons               | 133,689 cubic feet           | 3.07 acre-feet                 |
| 1 million gallons per day (mgd) | 3.07 acre-feet per day       | 1,120 acre-feet per year       |
| 1,000 gallons per minute        | 2.2 cfs                      | 4.4 acre-feet per day          |



Figure 2. Rathdrum Prairie Aquifer Map

### 3. Introduction

In 2008, the Idaho Legislature passed House Bills 428 and 644, establishing the statewide comprehensive aquifer planning and management effort and creating a fund to support the effort. The Idaho Water Resource Board (IWRB) and the Idaho Department of Water Resources (IDWR) initiated work in the Rathdrum Prairie to establish a framework and path forward which will lead to sustainable water supplies, optimum use of the aquifer and develop strategies to avoid future conflicts.

This effort was conducted under the leadership of the IWRB. The IWRB is the constitutionally established agency responsible for formulating and implementing the state water plan for optimum development of the water resources in the public interest. This plan is a component of the state water plan, which

guides the development, use, conservation and management of water resources in Idaho.

The specific goals of the statewide CAMP program, and this specific CAMP, are to:

- Provide reliable sources of water, projecting 50 years into the future
- Develop strategies to avoid conflicts over water resources
- Prioritize future state investments in water
- Bridge the gaps between future water needs and supply

The IWRB recognizes that the long-term management of the water resources of the Rathdrum Prairie must be acceptable to the local community and take into account the social and economic interests of the residents and public interest. The long-range plan must

also be consistent with the legal constraints and laws of Idaho. The Idaho Water Resource Board appointed an Advisory Committee to consider these interests and develop recommendations for this plan. For a list of Advisory Committee members, see Appendix 1.

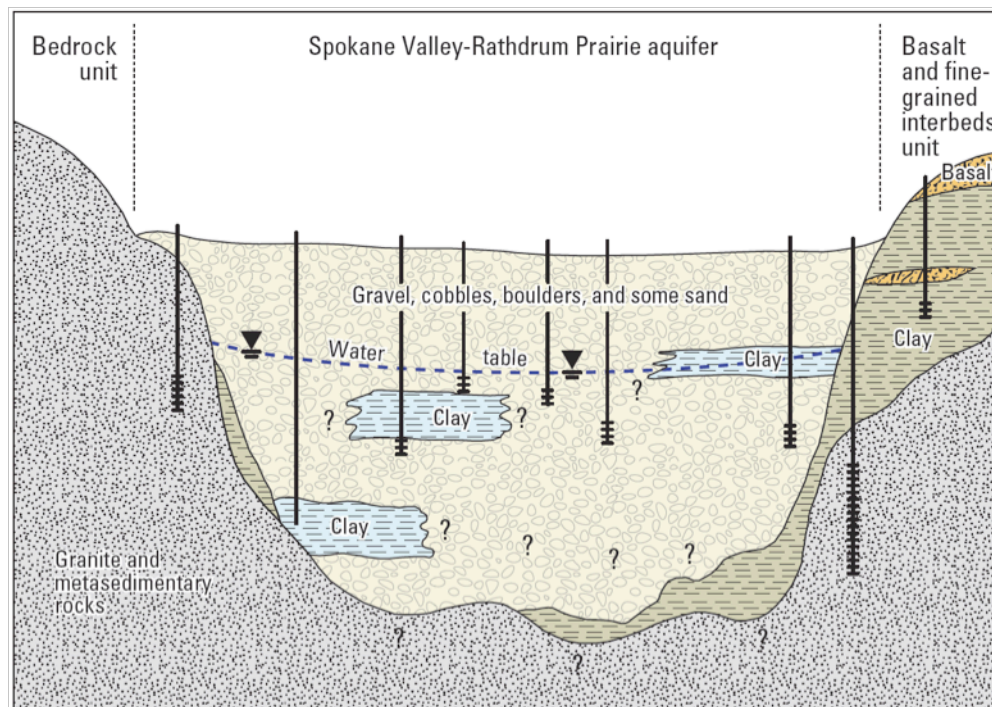


Figure 3. Simplified conceptual model of hydrologic conditions in the Spokane Valley-Rathdrum Prairie aquifer and surrounding hydrogeologic units.

Source: Hydrogeologic Framework and Ground-Water Budget of the Spokane Valley-Rathdrum Prairie Aquifer, Spokane County, Washington, and Bonner and Kootenai Counties, Idaho. Scientific Investigations Report 2007-5041.



## 4. Background

### Regional Setting and Hydrological System

The Rathdrum Prairie Aquifer (RPA) is the Idaho portion of the regional Spokane Valley-Rathdrum Prairie Aquifer (SVRPA) in Northern Idaho and Eastern Washington (Figure 1). The RPA underlies approximately 250 square miles in Kootenai and Bonner Counties. Approximately two-thirds of the entire aquifer lies under Idaho. A population of over 500,000 live above the SVRPA, with the Idaho population accounting for approximately 128,000 or about 25%. Approximately 8% of Idaho's economy is generated within the Rathdrum Prairie area.

The RPA consists primarily of thick layers of coarse-grained sediments deposited during a series of massive floods from ancient Glacial Lake Missoula. These floods deposited sands, gravels, cobbles, and boulders across the landscape. The nature of the Rathdrum Prairie Aquifer has created one of the most productive and transmissive aquifers in the world. See Figure 3 for a simplified conceptual model of hydrologic conditions found throughout the SVRPA.

#### Studies

This plan references several studies and reports on the RPA, and various planning processes which precede the work conducted for this CAMP. Please see Appendix 2 for a Chronology of Studies and Events relevant to the Rathdrum Prairie Aquifer.

#### Rathdrum Prairie Aquifer – By the Numbers

The Spokane Valley-Rathdrum Prairie Hydrologic Project completed in 2007 developed a region-wide water budget for the hydrologic system. The average annual inflow to the aquifer is approximately 1,470 cubic feet per second (cfs), of which approximately

900 cfs flows from Idaho, based on the 10-year average (1995-2005).

In recent years, approximately 99 cfs of water was annually withdrawn from the Rathdrum Prairie Aquifer. Community water systems used 47 cfs (47.7%); agricultural irrigation accounted for 34 cfs (34.3%); individual domestic wells used 12 cfs (12.2%); and commercial/industrial (self-supplied) totaled 6 cfs (5.8%). The estimated aggregate consumptive use (water lost from the local hydrologic system) was approximately 53 cfs.

#### Ground-water surface water interaction

There is a strong relationship between the Spokane River and the SVRPA. From the outlet of Coeur d'Alene Lake to its confluence with the Little Spokane River, the Spokane River alternatively transitions between reaches that lose to the SVRPA and reaches that gain from the SVRPA. The Spokane River is perched above the aquifer through its entire reach in Idaho from the outlet of Coeur d'Alene Lake to beyond the border between Idaho and Washington. In Idaho, there is no direct connection between groundwater pumping in Idaho and the Spokane River flows due to the perched condition of the river over the aquifer. In Washington, however, there is a direct connection with several gaining and losing reaches of the river which result in water seeping from the river into the aquifer (losing reaches) or water discharging from the SVRPA into the river.

#### Water Quality

The overall quality of the RPA is very good. The highly permeable soils and gravels over the RPA make it susceptible to contamination. In 1978, the RPA was designated by the Environmental Protection Agency as a Sole Source Aquifer under the Safe Drinking Water Act. This designation subjects all federally funded projects that have the potential to contaminate the aquifer to EPA review. In



1997, the RPA received additional protection from the state of Idaho and is now designated a Sensitive Resource Aquifer.

Due to the vulnerability of the aquifer to contamination, ongoing protection programs have been implemented by local and state agencies. These programs have resulted in protecting or improving the groundwater quality despite a significant increase in population over the RPA.

### Future demand for water

Critical to the development of the RP CAMP is estimation of future water demands. Water demand overlying the Rathdrum Prairie Aquifer was projected for a 50-year time horizon (2060). This study included consideration of the potential impacts of climate variability during this time frame on water supply and demand in the area. A qualitative estimate of conservation and water demand was also included in the study. A basic assumption in the calculation is that the service area remains centered over the aquifer without additional exportation of water to outlying areas. See Appendix 3 for the executive summary of this study.

The primary conclusions from this analysis include the following:

The Rathdrum Prairie Aquifer area population is projected to grow from approximately 128,000 people to approximately 400,000 people by the year 2060, reflecting an average growth rate of approximately 2.3% per year. If population growth for the next 50 years is at the same 1.6% annual rate experienced between 1980 and 1990, the 2060 population overlying the aquifer will be approximately 286,000 people. If the population grows at a rate of 3% per year (which is less than the 3.7% annual growth between 1970 and 2007), the 2060 population overlying the Rathdrum Prairie Aquifer will be approximately 581,000

people.

Water demand by the year 2060 could rise from estimated current withdrawals of approximately 74,000 acre-feet to between 77,000 acre-feet (based on a low population-growth rate of 1.6% per year and aggressive water conservation) and 223,000 acre-feet (based on a higher population growth rate of approximately 3% per year and no water conservation). The Rathdrum Prairie Aquifer area has experienced both of these population-growth rates over multi-year periods in past decades.

The most likely 2060 water demand projection ranges from approximately 101,000 and 163,000 acre-feet, depending on the level of water conservation. This projection is based on a moderate level of population growth (averaging approximately 2.3% per year) over the next 50 years (see Figure 4).

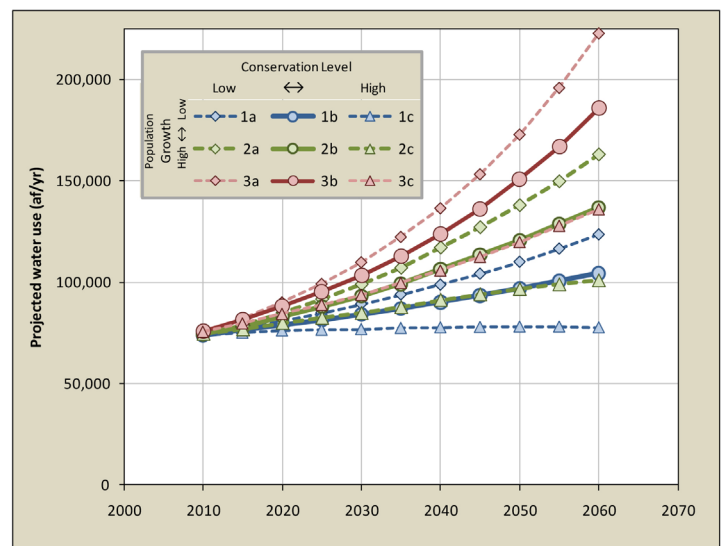


Figure 4. Future demand projections

The consumptive use is water that is actually consumed and not returned to the immediate water environment (i.e., aquifer and Spokane River) occurs mostly through evapotranspiration. The consumptive use is projected to increase from approximately

40,000 acre-feet in 2010 to between 59,000 and 76,000 acre-feet in the year 2060 under moderate population- and employment-growth rates (See Figure 5). This range reflects the effects of different water conservation levels.

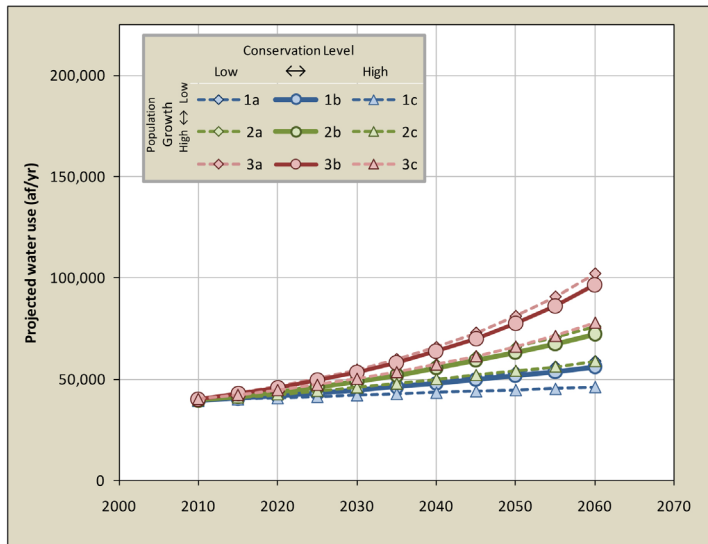


Figure 5. Consumptive use projections

The water use for agricultural irrigation will likely decrease in time as irrigated agricultural land is replaced by more urban and suburban land uses. However, development of new residential and municipal irrigation on land (i.e. lawns) that is currently non-irrigated will likely lead to an overall increase in total irrigation demand. The full report from the Future Water Demand study can be found at [http://www.idwr.idaho.gov/waterboard/WaterPlanning/CAMP/RP\\_CAMP/RathdrumCAMP.htm](http://www.idwr.idaho.gov/waterboard/WaterPlanning/CAMP/RP_CAMP/RathdrumCAMP.htm).

The IDWR conducted a modeling exercise to assess the potential impact on the Spokane River of additional water use in Idaho. Using the medium growth prediction from the Future Water Demand study, the model estimated a maximum flow reduction of 31 cfs in late summer and early fall. Additionally, the model showed an impact on Lake Coeur d'Alene, which would result in an indirect impact on the Spokane River. A summary memo is attached in Appendix 4.

## Climate Variability

The Board contracted with Boise State University to evaluate potential changes to water supply and demand which might result from climate variability on a watershed scale. The executive summary of this report is in Appendix 5. Additionally, SPF Water Engineering, LLC (SPF) includes a discussion of regional impacts from climate variability in their Future Water Demand study. These two studies, which were both seriously considered by the Advisory Committee, suggest the following observations.

Climate variability adds another element of uncertainty to planning for future water needs. Studies based on climate models and emission scenarios indicate that the overall temperature in the Rathdrum Prairie Aquifer region may increase over the next 50 years. The precipitation forecast is less certain. The northwest United States is expected to see some increase in annual precipitation; the expected change over the Rathdrum Prairie is inconclusive. Increased temperatures may mean that more winter precipitation may fall as rain instead of snow.

Temperature increases may also alter the timing of snowmelt, potentially shifting peak runoff from May to April. Any additional precipitation is expected to occur during the fall, winter and spring, rather than the summer months. Increases in temperature would lead to increased evapotranspiration. This could translate into increased irrigation demands during the summer months when there may also be less precipitation. Earlier runoff, combined with decreased precipitation during the summer, may also result in decreased flows in the Spokane River. Another likely impact of climate change is an increase in extreme events such as droughts and floods.

## Water Conservation Potential

The Future Water Demand study evaluated the potential of water conservation to reduce future demand. Based on a review of literature and other information, the study reflected three future conservation scenarios:

- No conservation – no new measures or programs would be implemented during the 50-year period, though ongoing adoption of newer appliances is assumed
- Intermediate conservation – voluntary water conservation measures would be implemented throughout the period
- Aggressive conservation – government-mandated measures require conservation measures above and beyond current codes

These scenarios covered indoor and outdoor residential use, commercial use, and agricultural use. They were applied to the three primary water demand projection scenarios to

estimate the potential impact of conservation over the study period. Figure 6 demonstrates the impacts conservation scenarios are projected to have on water demand and consumptive use, respectively.

The Future Water Demand study found that water conservation can help mitigate projected future water use. The study described a range of conservation measures and projected assumed conservation outcomes that could be achieved by a combination of various potential water conservation measures and programs.

Water conservation will be an important part of managing future demand and ensuring the viability of the aquifer. While all conservation measures are important, reduced outdoor irrigation, both residential and agricultural, presents the largest conservation opportunity. Water reuse has the potential to reduce groundwater pumping and meet other goals, but does not bear directly on future aquifer demands.

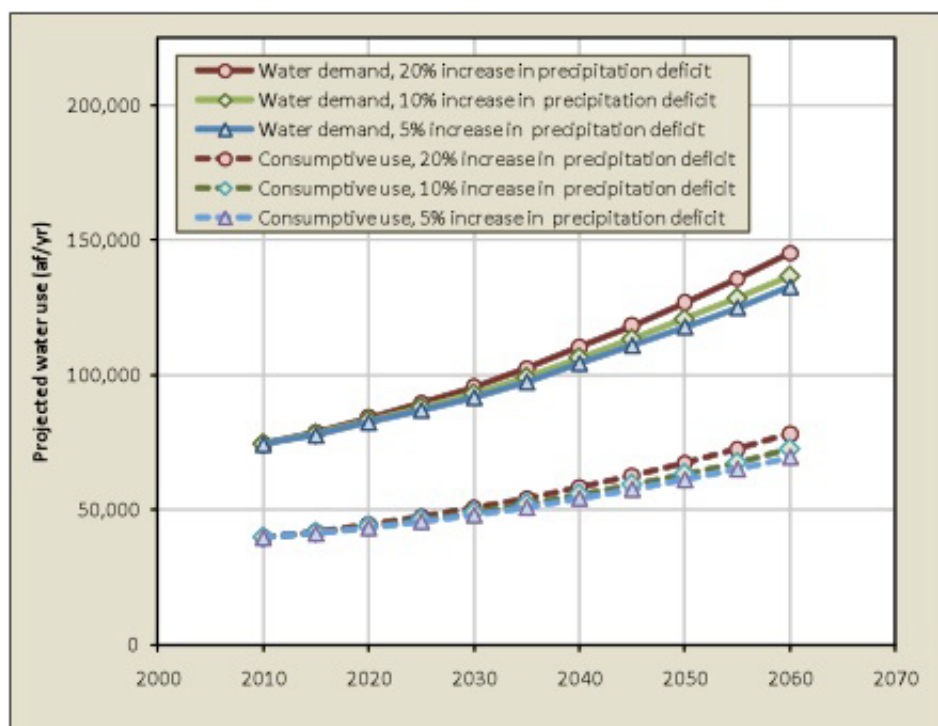


Figure 6. Future demand and consumptive use comparison chart

## 5. Recommendations

The specific goals of the statewide CAMP program, and this specific CAMP, are to:

- Provide reliable sources of water, projecting 50 years into the future
- Develop strategies to avoid conflicts over water resources
- Prioritize future state investments in water
- Bridge the gaps between future water needs and supply

Based on the four CAMP goals adopted by the IWRB, the Advisory Committee developed the following vision for the RP CAMP:

*“Provide a sustainable source of high-quality groundwater for current and future economic, social, and environmental benefit, and preserve the exceptional quality and reliability of the Rathdrum Prairie Aquifer.”*

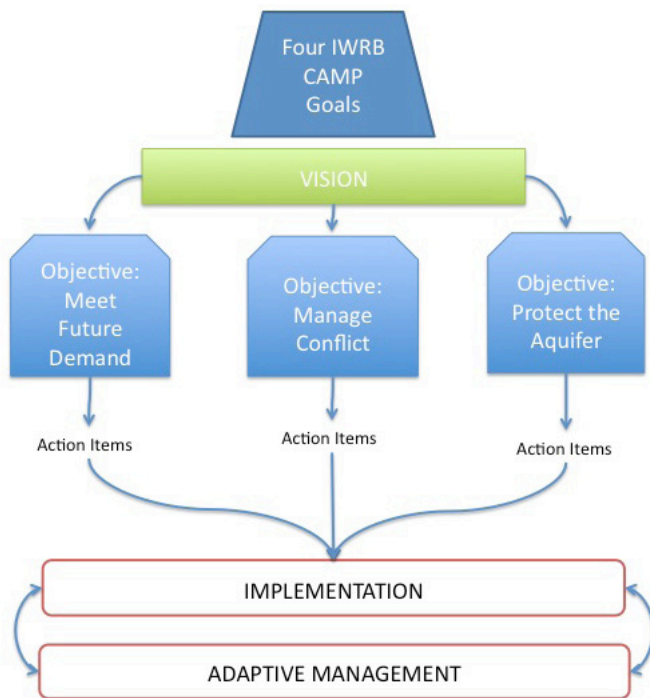


Figure 7. Moving from CAMP goals to adaptive management

Using the four CAMP goals and this vision, the Advisory Committee developed three main objectives and several recommendations for achieving the goals and vision. Figure 7 illustrates how the Committee moved from CAMP goals to Vision to Objectives to Recommendations.

The following recommendations are not ranked or placed in order of priority.

### Objective # 1: Meet Future Demand for Water

The Future Water Demand study completed in 2010 shows that projected growth over the RPA is not expected to exceed the aquifer’s annual recharge rate. However, as the aquifer supplies communities in Idaho and Washington, meeting this objective should reflect regional implications.

In the face of all of the uncertainties relative to future water demand – for example, growth and climate change, the Board recognizes that water conservation is one approach that the region can control. Conservation is an important strategy to make more efficient use of groundwater and reduce the need for future water supplies. The CAMP includes a broad-based, voluntary, incentive-based approach to enacting a water conservation program designed to meet a part of the projected future water needs.

The CAMP also includes a strategy of moving ahead with Reasonably Anticipated Future Needs (RAFN) water right applications for municipal water providers.

The Board adopts the water demand projections of moderate population growth and moderate level of conservation (scenario 2b) as the target on which to evaluate CAMP performance and to meet the goal established by the Board of having a sustainable aquifer. At least once every five years, annual



consumptive use will be calculated, water demand projections updated, and progress evaluated against this target. The level of effort in each of the action items should be reviewed and modified as necessary to meet the overall objective of a sustainable aquifer. The Board believes that if Idaho demand meets the established target, the jurisdictional conflicts with Washington will be minimized.

The Board recognizes the variability in growth and future water needs predictions and recommends periodic reviews and updates to the Rathdrum Prairie Aquifer Future Water Demand study.

**Action Item #1: Enact water conservation measures that promote water efficiency and reduced use.**

Conservation should be an ongoing goal to improve wise use of water. IWRB should encourage water conservation through incentive programs to achieve conservation today and in the future. Voluntary programs and actions can be implemented which focus on reducing current water consumption by use of best practices. Programs should also be developed which target new and changing uses. For example, the following steps could be taken, cooperatively with funding partners:

- Develop partnerships to establish demonstration conservation projects.
- Establish incentive programs directed at targeted water use categories (residential, commercial, agricultural, etc.).
- Enhance water conservation education programs through partnerships with governmental and private interests.

In compliance with Idaho water law, water conservation should be a consideration in the IDWR review processes for new and transferred water appropriations. In the event additional measures are found necessary to

maintain a sustainable aquifer; the Board recommends consideration of regulatory measures through support of legislation that addresses conservation.

**Action Item #2: Establish municipal water rights to ensure that they are available for future needs.**

In partnership with the municipal water providers in the Rathdrum Prairie area, studies necessary to support Reasonably Anticipated Future Needs (RAFN) water right applications should be undertaken.

This action item applies to the first goal of providing a reliable source of water in the future as well as preventing conflict over water resources.

**Action Item #3: Identify local water use improvement strategies and develop partnerships to implement them.**

To accomplish Action Item #3:

Assess local ordinances and land–use plans that may have an effect on water resources. Examples of strategies are:

- Use the city and county comprehensive land use plans, GWMA, conservation plans, agency education and aquifer studies as tools to encourage growth in areas to minimize impacts.
- Encourage all land use policies to retain topsoil where possible over the RPA. This will enhance the conservation of water use, as well as provide additional buffer for contaminant travel.

**Action Item #4: Carefully consider hydrologic and social impacts of exportation of water from the basin.**

Exporting water from the Rathdrum Prairie Aquifer to areas outside the basin can potentially impact the hydrologic system, local economies and local public interest. Idaho

Code (42-203A(5)) describes the conditions and considerations when proposals for appropriations for water when the place of use is outside of the watershed or local area where the source water originates. Extending water service to new areas outside the watershed should be carefully evaluated.

The Director will consider if proposed uses are in conflict with local public interest, contrary to conservation of water resources within the state of Idaho, or will adversely affect the local economy of the watershed or local area.

**Action Item #5: Assess the Rathdrum Prairie Future Water Demand study on a regular basis.**

The Board recognizes the uncertainty in predicting future growth and water needs and recommends periodic reviews and updates to the Rathdrum Prairie Aquifer Future Water Demand study.

**Action Item #6: Fully fund implementation of the Groundwater Management Plan.**

In 2005, the IDWR Director adopted the Rathdrum Prairie Ground Water Management Plan. This plan was developed by a collaborative advisory group and reflects locally supported actions. The plan sets forth goals and actions which guide the water resource management “to balance the protection of existing ground water uses and water quality with the opportunity for future development while encouraging water conservation.” The plan has not been fully implemented. The following actions must be implemented to complement the implementation of the RP CAMP:

- Implement monitoring protocols for all water users
- Collect and analyze data to refine knowledge of water supply and water use
- Establish a water district upon completion

of the Northern Idaho Adjudication

- Finalize Water Conservation Measures and Guidelines document

A summary of the status of the Groundwater Management Plan is attached in Appendix 6.

**Objective # 2: Prevent and Resolve Water Conflicts**

The Rathdrum Prairie Aquifer is part of the Spokane Valley Rathdrum Prairie Aquifer, a regional water resource shared with the state of Washington. While studies show there is adequate water for Idaho needs for the duration of the current planning horizon, Idaho recognizes that cooperation by stakeholders and governments from both states and tribes on water issues is necessary to avoid future conflict that may compromise or complicate water management.

A hydrologic analysis by IDWR determined that the most likely Idaho future water need projection could potentially reduce flow in the Spokane River at the Spokane gage by approximately 31 cfs by 2060 due to reduction of aquifer discharge to the river. This could result in additional attention and scrutiny from downstream interests. See Allan Wylie’s hydrologic analysis in Appendix 4.

One of the prominent features of the SVRPA is the connectivity to surface water. The interaction between the ground and surface water dictate that long-term management and planning must integrate both sources of water. Any surface water conflict issues that arise in the future will also relate to groundwater. As communities over the SVRPA grow, so will the potential for these conflicts. Figure 8 shows a map of the SVRPA.



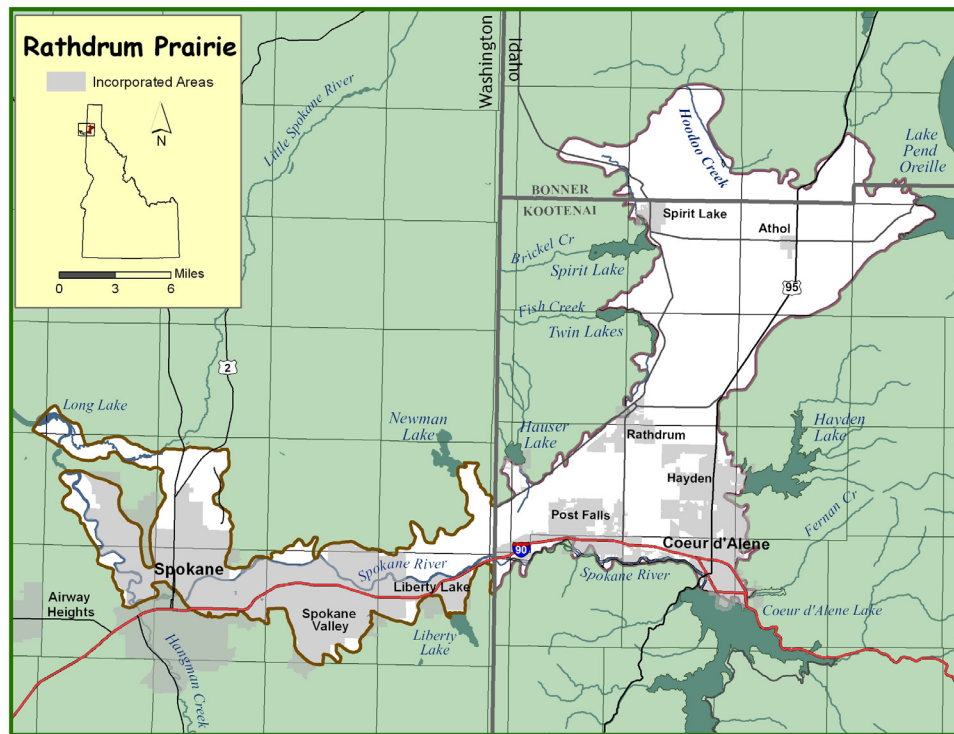


Figure 8. SVRP Aquifer Map

**Action Item #1: Develop a framework for regional discussion and cooperation for SVRPA water issues.**

Building on the history of bi-state relationships, studies, and efforts to work together, the IWRB, in cooperation with the State of Washington and tribal governments, should convene an official bi-state Advisory Committee to develop a bi-state regional cooperative forum for the SVRPA.

The framework should respect the sovereignty of Idaho, Washington, and the Coeur d'Alene and Spokane Tribes.

The Idaho contingent of the Bi-State Advisory Committee should include local interests along with tribal, local, state government and others. It should report periodically to the appropriate state agencies and implement the framework within two years of the adoption of this CAMP.

The particular type of legal or institutional instrument to initiate the Advisory Committee, and to implement the framework itself,

should be determined through a collaboration among the states and the tribal governments.

For more details on how this framework might be developed, please see Appendix 7.

**Action Item #2: IDWR should develop criteria to evaluate artificial recharge projects in Idaho.**

Idaho should anticipate future requests or applications for artificial recharge projects and determine what values need to be considered in the application review process. Criteria or guidelines for future projects will protect Idaho's interests and may provide a more predictable process for those wishing to implement artificial recharge projects.

**Action Item #3: Encourage mechanisms that resolve local issues before they become conflicts. For example, by assembling local water purveyors, tribes, municipalities, and state agencies on a regular basis.**

Support a venue for local jurisdictions to

discuss and coordinate local water needs, as well as articulate local needs to IDWR and other relevant agencies.

This group should:

1. Provide a forum to consider whether local jurisdictions should coordinate and apply for a Reasonably Anticipated Future Needs water right.
2. Assess the effectiveness of recharge options to increase aquifer beneficial use to support aquifer sustainability while meeting non-degradation standards
3. Maintain communication with IDWR so that all entities stay current on issues at the local and state level.

**Action Item #4: Redefine the IDWR GWMA boundaries so they are consistent with the bi-state USGS hydrologic boundaries.**

The director of IDWR should redefine the RPA boundaries in the GWMA so that they are consistent with the bi-state USGS hydrologic boundaries in Idaho. This will promote cohesive management, which should reduce future conflict over water resources.

### **Objective # 3: Protect the Aquifer Quality**

The Rathdrum Prairie Aquifer can be characterized as having sufficient quantity for Idaho's needs and good quality. However, the aquifer is vulnerable to contamination and the region must be vigilant in protecting this valuable resource. There are many threats to the water quality of the aquifer, and a number of agencies and authorities exist to protect and improve the water quality.

The aquifer provides high quality water to all of its users. The health of the aquifer is of paramount importance to the region.

Working within existing authorities and

programs to protect and enhance the water quality of the RPA is the appropriate and cost-effective way to protect the water resources to meet future water needs.

**Action Item #1: The Board should assess all CAMP activities to ensure projects implemented through CAMP protect aquifer water quality.**

**Action Item #2: The Board should support and encourage the Aquifer Protection District to work with Panhandle Health District, Idaho Department of Environmental Quality, tribal governments and others to address overlapping jurisdictions with the goal of improving efficiency.**

The Aquifer Protection District may consider funding the following strategies to address current water quality protection:

1. Mitigate the impacts of stormwater runoff.
2. Promote practices that prevent accidental or incidental releases of contaminants over the RPA.
3. Encourage accounting of wellheads over RPA and proper abandonment of unused wellheads.
4. Support continued monitoring and management of potential water quality issues contained in RPA source lakes and rivers.
5. Encourage wastewater disposal methods that benefit the RPA.
6. Prepare for emerging or unknown threats.

For a full description of the suggested funding agenda for the Aquifer Protection District, please see Appendix 8.

Figure 9 is a summary of the key action items.

## SUMMARY OF KEY ACTION ITEMS

(not ranked or placed in order of priority):

### **Objective #1: Meet Future Demand for Water**

Enact water conservation measures that promote water efficiency and reduced use.

Establish municipal water rights to ensure that they are available for future needs.

Identify local water use improvement strategies and develop partnerships to implement them.

Hydrologic and social impacts of exportation of water from the basin must be considered carefully.

Update the Rathdrum Prairie Future Water Demand Study.

### **Objective #2: Prevent and Resolve Conflicts**

Develop a framework for regional discussion and cooperation for SVRPA water issues.

IDWR should develop criteria for artificial recharge projects in Idaho.

Identify local water use improvement strategies and develop partnerships to implement them.

Redefine the IDWR GWMA boundaries so they are consistent with the bi-state USGS hydrologic boundaries.

### **Objective #3: Protect the Aquifer**

Assess all CAMP activities to ensure projects implemented through CAMP protect aquifer water quality.

Support and encourage the Aquifer Protection District to work with Panhandle Health District, Idaho Department of Environmental Quality, and others to address overlapping jurisdictions with the goal of improving efficiency.

Figure 9. Summary of Key Action Items

## 6. Additional Plan Components

In addition to the objectives and action items listed in the Plan, additional actions are included to enhance coordination, decision-making, and aquifer management.

### Plan Implementation

Management of the Rathdrum Prairie Aquifer affects numerous stakeholders, tribal nations, and the States of Idaho and Washington. Effective implementation of the Plan will require the participation and cooperation of stakeholders and governmental entities with jurisdictional authorities and responsibilities.

Board staff will provide leadership and coordinate activities for the implementation of this plan.

The Board will continue to convene the Advisory Committee to guide and make recommendations concerning the implementation of management strategies and review of goals and objectives. The Advisory Committee will provide a forum for discussing implementation, establishing benchmarks for evaluating the effectiveness of actions, coordinating with water users and managers, evaluating and addressing environmental issues and identifying and pursuing funding opportunities.

The Advisory Committee will continue to include interest groups currently represented, and may expand to include other interested people, per the Board's direction. In addition, the Board will appoint at least one of its members to serve as a liaison between the Committee and the Board. The Advisory Committee will serve at the pleasure of the Board and provide a forum for public participation. Board's staff will facilitate the work of the Advisory Committee and provide the technical information needed for its deliberations. The Board will make all final decisions concerning Plan project priorities,

implementation, and funding.

As various programs are implemented, additional monitoring or modifications will likely be needed. Specific projects may require site specific measurement and analysis which are not currently available. Additional analysis will likely be required to assist the Board and the Advisory Committee.

### Outreach and Education

During implementation of RP CAMP, the Advisory Committee will help develop and recommend funding mechanisms for a broad water education and outreach effort, building on existing outreach efforts and programs. Emphasis will be placed on education efforts that promote conservation and a reduction in consumptive use.

### Implementation Plan and Funding

Implementation of new CAMP actions will be a partnership among the state, local and federal governments, tribes, stakeholders, water users and non-governmental organizations. The costs of implementation are anticipated to be shared among partners. As the implementation plan is developed, the funding needs for the plan components will be evaluated and potential funding sources, including federal grants, will be identified.

The many existing activities for protecting the Rathdrum Prairie Aquifer reflect the value and importance the aquifer and water resources have to the region. These existing activities are undertaken by a myriad of governments, agencies, and others. These activities are funded through various sources and through various programs. The Board supports existing programs which protect and enhance the water resources of the area. Opportunities to combine resources and leverage existing programs with CAMP implementation will be encouraged and supported.



## 7. Adaptive Management

This section sets forth an adaptive management strategy for implementation of the Plan. The goal of adaptive management is to support improved decision-making and performance of water management actions over time.

Key principles fundamental to this approach include:

1. Anticipating possible future uncertainties and contingencies during planning.
2. Employing science-based approaches to build knowledge over time.
3. Designing projects that can be adapted to uncertain or changing future conditions.

Adaptive management involves taking actions, testing assumptions, and then monitoring and adapting/adjusting the management approach as necessary. It is a way of taking action in a complex system with many variables and constant change. Developing perfect knowledge concerning any system, including the Rathdrum Prairie Aquifer, is impossible. Therefore an adaptive management approach is critical to the successful attainment of the qualitative and quantitative goals set forth in the Plan. Successful adaptive management requires patience and long term commitment, just as acquiring enough data to make decisions about program changes takes time.

The adaptive management strategy will allow the Board to:

- Develop protocols for revising management actions and/or quantitative targets as necessary.
- Compare costs and impacts of different actions in the Rathdrum Prairie Aquifer.
- Adjust funding allocation between projects to get the most “bang for the buck.”
- Concentrate funding on management

actions that show results.

- Make adjustments and revisions to the Plan as new information becomes available or in response to changing water supply and demand needs.
- Proceed with flexibility depending on results and analysis of monitoring and measurement data.

## Coordination & Implementation

Management of the RPA affects numerous stakeholders within Idaho and requires coordination with other interests including the state of Washington and tribes. The Advisory Committee will be charged with providing guidance and recommendations concerning the implementation of management strategies and review of objectives. The Advisory Committee will provide a forum for discussing implementation, establishing benchmarks for evaluating the effectiveness of actions, coordinating with water users and managers, evaluating and addressing environmental issues and identifying and pursuing funding opportunities.

## Monitoring and Data Gathering

With data gathered through the monitoring process, the Advisory Committee and the Board’s staff will be able to assess the impacts of each management activity. In some cases, it may take a number of years to obtain sufficient data to achieve a comprehensive understanding of the effects of particular actions. Regardless, the success of the Plan depends upon the development and maintenance of state-of-the-art monitoring and evaluation tools that provide the information necessary to make sound planning decisions for the future.



## **Legislative Reporting and Plan Revision**

The Board will provide periodic reports to the legislature documenting the progress made on the implementation of the Plan. The Board will evaluate the Plan after five years of implementation, and make planning recommendations to the legislature and Governor's office. The 50-year horizon will be considered at each revision so that the Plan will remain a relevant planning document without expiration.

# Appendices

## Appendix 1: Advisory Committee members

Chris Beck, AllWest Testing and Engineering

Phil Cernera, Coeur D’Alene Tribe

Mike Clary, Hecla Mining

Bruce Cyr, Jacklin Land Company

Andy Dunau, Spokane River Forum

Mike Galante, North Kootenai Water District

Bruce Howard, Avista Utilities

Allen Isaacson, Sierra Club

Hal Kever, Stimson Lumber Co.

Kermit Kiebert, North Idaho Chamber of Commerce

Paul Klatt, JUB Engineers

Kevin Lewis, Idaho Rivers United (resigned)

Jim Markley, City of Coeur d’Alene

Alan Miller, Hayden Lake Irrigation District

Jonathan Mueller, Landmark/Architects West

Michael Neher, City of Post Falls

Todd Tondée, Kootenai County

Ron Wilson, East Greenacres Irrigation District

Ken Windram, Hayden Area Regional Sewer Board

## Appendix 2: Chronology of Studies & Events relevant to the Rathdrum Prairie Aquifer

**1908** City of Spokane switches water source from the Spokane River to the Aquifer due to typhoid concern from sewage in river and private wells near cesspools

**1900's** There were few water wells on the Rathdrum Prairie until drilling and pumping technology improved in the 1930's. A history of Prairie water use can be found at: [http://www.deq.idaho.gov/water/prog\\_issues/ground\\_water/rathdrum\\_prairie\\_aquifer/index.cfm#history](http://www.deq.idaho.gov/water/prog_issues/ground_water/rathdrum_prairie_aquifer/index.cfm#history)

**1976** Washington Department of Ecology adopts instream flows standards for the Little Spokane River

**1976** The Federal Clean Water Act §208 spawned completion of local studies to identify sources of pollution for the Rathdrum Prairie region

**1977** Panhandle Health District adopts enhanced septic system regulations for the Rathdrum Prairie Aquifer, creating the “5-acre rule” limiting development to one residential septic system per five acres without connection to a public sewer system. This rule led directly to Sewage Management Agreements with surrounding communities and the sewerage of Coeur d’Alene, Fernan, Hayden, Hayden Lake, Post Falls, and Rathdrum.

**1978** EPA sole source aquifer designation SVRP Aquifer was the first aquifer in Idaho and the second in the nation to receive this designation. <http://yosemite.epa.gov/r10/water.NSF/Sole+Source+Aquifers/SSA>

**1978** USGS publishes Spokane Valley-Rathdrum Prairie Aquifer, Washington and Idaho by Drost and Seitz

**1978** IDEQ adopts Water Quality

Management Plan for Rathdrum Prairie. This plan was developed under CWA §208.

**1979** Spokane County and the City of Spokane adopt Water Quality Management Plan consistent with Section 208, Clean Water Act and begin septic tank elimination program

**1980** IDEQ “special resource water” designation

**1980** Spokane County and Panhandle Health District initiate a groundwater monitoring program

**1986-1988** PHD’s Sewer Management Agreements result in sewerage of the Cities of Hayden, Hayden Lake, Post Falls and Rathdrum with the construction of the regional treatment plants in Post Falls and HARSB.

**1988** IDEQ publishes Rathdrum Prairie Aquifer Technical Report

[http://www.deq.state.id.us/water/data\\_reports/ground\\_water/rathdrum\\_prairie\\_aquifer\\_beg\\_thru\\_chap2.pdf](http://www.deq.state.id.us/water/data_reports/ground_water/rathdrum_prairie_aquifer_beg_thru_chap2.pdf)

**1997** Sensitive Resource Aquifer designation for the Rathdrum Prairie Aquifer in Idaho creates non-degradation standard

**2000** Original Spokane Valley-Rathdrum Prairie (SVRP) Atlas published as an educational and outreach tool.

**2001** Newport Generation, Cogentrix Energy, and Avista Utilities apply for water rights to drill wells to extract about 18 million gallons per day of cooling water for natural gas turbine power plants

**2001** CDA Basin Environmental Improvement Project Commission was created by Idaho Legislature under the Basin Environmental Improvement Act of 2001 (Idaho Code Title 39, Chapter 81 to provide a system for environmental remediation, natural resource restoration and related measures to address heavy metal contamination in the

Coeur d'Alene Basin.

**2002** Idaho Department of Water Resources denies moratorium on permits from the aquifer and designates the Rathdrum Prairie Groundwater Management Area.

**2003** Spokane Valley-Rathdrum Prairie Aquifer Study began. The major product of the study is a numerical groundwater model that Washington and Idaho can use to cooperatively manage the SVRP aquifer and adjacent rivers and lakes. Information gathered by partner agency scientists and contractors has expanded and refined our understanding of the aquifer and its interaction with local lakes and the Spokane and Little Spokane rivers, and water use region wide.

The three main agencies involved in this project/study has references listed here along with the way that each agency refers to the project:

IDWR – Spokane-Valley Hydrological Project  
<http://www.idwr.idaho.gov/WaterInformation/projects/svrp/>

DOE – Spokane Valley-Rathdrum Prairie Aquifer Study [http://www.ecy.wa.gov/programs/wr/ero/svrp\\_summit.html](http://www.ecy.wa.gov/programs/wr/ero/svrp_summit.html)

USGS – Spokane Valley-Rathdrum Prairie Aquifer Study <http://wa.water.usgs.gov/projects/svrp/>

**2004** SVRP Aquifer Atlas updated  
<http://www.spokaneaquifer.org/aq.htm#atlas>

**2005** IDWR adopts Groundwater Management Plan – 2005  
[http://www.idwr.idaho.gov/WaterInformation/GroundWaterManagement/RathdrumPrairie/rp\\_gwma.htm](http://www.idwr.idaho.gov/WaterInformation/GroundWaterManagement/RathdrumPrairie/rp_gwma.htm)

**2005** Avista files application to FERC to relicense their Spokane River hydroelectric projects, including Post Falls Dam.

**2006** Aquifer Protection District legislation approved in Idaho and Kootenai County voters overwhelmingly approve its formation to fund aquifer protection efforts overseen by the Kootenai County Commission <http://www.phd1.idaho.gov/environmental/rathdrum/protectionprogram.cfm>

**2007** USGS publishes “Hydrogeologic Framework and Water Budget of the SVRP Aquifer” and “Groundwater flow model for SPVRP Aquifer” – 2007

**2007** Spokane River Forum is a non-profit organization created with WDOE seed funding to facilitate informed and non-partisan dialogue on important water issues in the region. <http://www.spokaneriver.net/>

**2007** Idaho Department of Water Resources and Washington Department of Ecology sign a Memorandum of Agreement to preserve and maintain the SVRP Aquifer and Groundwater Flow Model created by the US Geological Survey.

**2008** Legislature approves House Bill 428 and 644

This legislation establishes CAMP program and funding for aquifer management plan development by the IWRB. The legislation authorizes and funds characterization and planning efforts for priority aquifers, including the Rathdrum Prairie and the Treasure Valley Aquifers. <http://www.idwr.idaho.gov/waterboard/WaterPlanning/CAMP/CAMP.htm>

**2008** Rathdrum Prairie Wastewater Master Plan (JUB Engineers)  
[http://www.postfallsidaho.org/pzdept/RathPrairieMasterPln/RPWWMP08/TM3\\_Final\\_Draft.pdf](http://www.postfallsidaho.org/pzdept/RathPrairieMasterPln/RPWWMP08/TM3_Final_Draft.pdf)

**2008** North Idaho Adjudication begins. The purpose of the general adjudication of water

rights is to make a complete and accurate determination of all existing water rights.

<http://www.idwr.idaho.gov/WaterManagement/NorthIdAdju/>

**2009** Idaho Water Resources Board starts the process to development the RP CAMP

**2009** Based on settlement agreements with Coeur d'Alene Tribe and State of Idaho, among others, FERC issues new 50-year license for Avista's Spokane River hydro project, including the Post Falls dam.

**2009** Coeur d'Alene Lake Management Plan. The Coeur d'Alene Tribe and the Idaho Department of Environmental Quality collaboratively developed the 2009 Lake Management Plan to protect and improve lake water quality by limiting basin-wide nutrient inputs that impair lake water quality conditions, which in turn influence the solubility of mining-related metals contamination contained in lake sediments.  
[http://www.deq.state.id.us/WATER/data\\_reports/surface\\_water/water\\_bodies/cda\\_lake\\_mgmt\\_plan.cfm](http://www.deq.state.id.us/WATER/data_reports/surface_water/water_bodies/cda_lake_mgmt_plan.cfm)

**2010** Spokane River and Lake Spokane Dissolved Oxygen Total Maximum Daily Load Water Quality Improvement Report approved by WDOE and EPA but disputed by Idaho communities.

[http://www.ecy.wa.gov/programs/wq/tmdl/spokaneriver/dissolved\\_oxygen/status.html](http://www.ecy.wa.gov/programs/wq/tmdl/spokaneriver/dissolved_oxygen/status.html).

**2009** Kootenai County Comprehensive Land Use Plan - Prior update was in 1994. 'The final plan was adopted by the County Commissioners in December of 2010. It was signed on 12-30-10



### **Appendix 3: Rathdrum Prairie Aquifer Water Demand Projections, SPF Water Engineering, LLC, July 2010.**

Water demand overlying the Rathdrum Prairie Aquifer (the Idaho portion of the Spokane Valley-Rathdrum Prairie Aquifer) was projected for 5-year increments between 2010 and 2060. The projections were made for the Idaho Water Resource Board (IWRB) and the Idaho Department of Water Resources (IDWR) as part of the Idaho Statewide Comprehensive Aquifer Planning and Management Program (CAMP).

#### **Approach**

The approach for projecting future water demand consisted of

1. Reviewing historic population growth trends and growth rates;
2. Estimating existing water demand based on community water system data, water right information, USDA crop data, and other information;
3. Reviewing climate projections from the University of Washington Climate Impacts Group relative to the northern Idaho area;
4. Quantifying water conservation potential;
5. Evaluating selected potential water demand constraints;
6. Projecting future population and employment growth;
7. Projecting future water demand for indoor domestic, municipal, commercial, industrial, and irrigation uses; and
8. Developing “water demand scenarios” to evaluate possible future water demand outcomes that take into account various population growth rates, levels of water conservation, and the potential impact of

climate variability.

There are two general categories of factors that will shape future water demand: (1) exogenous factors over which local policies have limited influence and (2) local factors over which public policy and private incentives can have substantial influence. Exogenous factors include the strength of the national or global economy and national demographic trends that strongly influence regional population and job growth. Although local governmental policy can have some influence over these factors, the local economy is largely driven by national or global factors. One needs to look only at the recent economic recession to see that some of these national or global factors are difficult to control at the local level. Exogenous factors also include potential effects of climate variability, over which local policy-making will have very little direct influence.

In contrast, regional land-use policies, building codes, governmental policies, water delivery pricing, and other local measures can have substantial influence on future water demand. Local and state government, local water purveyors, and area residents have substantial influence over these factors.

Thus, future water demand scenarios were constructed to reflect the effect of both exogenous (external realm) and local influences (policy realm) on future water use. First, three primary scenarios were developed to reflect three different population growth scenarios: low population growth, medium-level (“baseline”) population growth, and high population growth. Then, three sub-scenarios were constructed within each of the population-growth scenarios to reflect various water conservation levels. The three primary population-growth scenarios, each with three water conservation sub-scenarios, result in nine different projections of potential future water demand. Finally, the effects of potential

climate variability were illustrated with a scenario representing baseline population growth and moderate water-conservation.

### **Conclusions**

The primary conclusions from this analysis include the following:

1. Water demand by the year 2060 could rise from estimated current withdrawals of approximately 74,000 acre-feet to between 77,000 acre-feet (based on a low population-growth rate of 1.6% per year and aggressive water conservation) and 223,000 acre-feet (based on a higher population growth rate of approximately 3% per year and no water conservation). The Rathdrum Prairie Aquifer area has experienced both of these population-growth rates over multi-year periods in past decades.
2. The most likely 2060 water demand projection ranges from approximately 101,000 to 163,000 acre-feet, depending on the level of water conservation. This projection is based on a moderate level of population growth (averaging approximately 2.3% per year) over the next 50 years.
3. The consumptive use is water lost from the local hydrologic system (i.e., aquifer and Spokane River), mostly through evapotranspiration. The consumptive use is projected to increase from approximately 40,000 acre-feet in 2010 to between 59,000 and 76,000 acre-feet in the year 2060 under moderate population- and employment-growth rates. This range reflects the effects of different water conservation levels.
4. The water use for agricultural irrigation will likely decrease in time as irrigated agricultural land is replaced by more urban and suburban land uses. However, development of new residential and municipal irrigation on land that is currently non-irrigated will likely lead to an overall increase in total irrigation demand.

### **Population and Employment Projections**

5. The Kootenai County population grew from approximately 22,300 people in 1940 to 134,400 people in 2007. Bonner County grew from 15,700 people in 1940 to approximately 41,000 people in 2007.

6. Annual population growth rates in Kootenai County (most of which overlies the Rathdrum Prairie Aquifer) have ranged from 1.6% (between 1980 and 1990) to 5.4% (between 1970 and 1980). The average annual growth rate between 1970 and 2007 was 3.7%.

7. The Rathdrum Prairie Aquifer area population growth is projected to grow from approximately 128,000 people to approximately 400,000 people by the year 2060, reflecting an average growth rate of approximately 2.3% per year. If population growth for the next 50 years is at the same 1.6% annual rate experienced between 1980 and 1990, the 2060 population overlying the aquifer will be approximately 286,000 people. If the population grows at a rate of 3% per year (which is less than the 3.7% annual growth between 1970 and 2007), the 2060 population overlying the Rathdrum Prairie Aquifer will be approximately 581,000 people.

8. Employment over the aquifer area is projected to increase from approximately 53,000 employees in the year 2010 to 183,000 employees in the year 2060. The largest employment sector will likely continue to be wholesale and retail trade.

### **Existing Water Use**

9. Existing water use was estimated with data from 20 community water systems ranging in size from approximately 39 to 46,000 people; these 20 community water systems serve approximately 72% of the total Rathdrum Prairie population. Data from the 20 community water systems were used to extrapolate water use to 70

additional community water systems that serve approximately 19% of the study area population. Estimates of self-supplied domestic water use for the remaining 9% of the population were made based on household domestic use rates estimated from community water system data. Self-supplied industrial water use estimates were based on IDWR water right information. Agricultural water use rates were estimated based on irrigated acreage, USDA crop information, and precipitation-deficit data.

10. Approximately 72,000 acre feet of water were withdrawn annually from the Rathdrum Prairie Aquifer in recent years. Of this, an estimated 34,400 acre-feet were withdrawn by community water systems, 8,800 acre-feet were withdrawn by individual domestic wells, 4,200 acre-feet were withdrawn for self-supplied commercial and industrial uses, and 24,700 acre-feet were used for agricultural irrigation. The estimated aggregate consumptive use (water that is lost from the local hydrologic system) was approximately 38,400 AFA.

11. Approximately 67% of the projected 2010 groundwater withdrawals are used for the irrigation of residential, commercial, institutional, and agricultural lands. Other residential uses (14%), commercial, industrial, and institutional uses (14%), and unaccounted water (5%) constitute the balance.

### **Water Supply Characteristics**

12. The Rathdrum Prairie Aquifer, part of the larger Spokane Valley-Rathdrum Prairie Aquifer, consists of unconsolidated sediments that are primarily coarse-grained sand, gravel, cobbles, and boulders deposited by immense floods.

13. The highly transmissive nature of the Rathdrum Prairie Aquifer means that the impact of water use in one portion of the aquifer will rapidly propagate throughout the

entire aquifer.

14. Recharge to the entire Spokane Valley-Rathdrum Prairie Aquifer is approximately 1,000,000 acre feet per year.

15. The existing Rathdrum Prairie Aquifer consumptive water use (consumptive use is a measure of aquifer impact) is approximately 38,000 AFA, or approximately 3.8% of the 1,000,000 acre feet of aggregate Spokane Valley-Rathdrum Prairie Aquifer recharge.

16. It is unlikely that groundwater availability in most portions of the Rathdrum Prairie Aquifer will limit future water demand over the next 50 years. A projected consumptive use of approximately 71,000 AFA in the year 2060 (based on medium population and employment growth and medium levels of water conservation) represents only about 7% of the Spokane Valley-Rathdrum Prairie Aquifer recharge (although, recharge rates are not equivalent to water available for use). Given the transmissive nature of the Rathdrum Prairie Aquifer sediments, it is likely that this amount of water could be withdrawn from the aquifer (except for, perhaps, along the basin margins where the aquifer is less thick than in central portions of the Rathdrum Prairie).

### **Potential Environmental Constraints**

17. Aquifer water quality is good in most areas and does not presently pose a constraint on future groundwater demand.

18. Future water demand may, however, be limited by the ability to discharge treated municipal effluent.

19. A portion of the Rathdrum Prairie agricultural land will almost certainly be maintained for the land application of treated municipal effluent. Residential or municipal irrigation, to the extent that it occurs on currently non-irrigated land, will contribute to a likely increase in overall irrigation demand.

## **Climate Variability**

20. Annual average temperatures are projected to increase by approximately 3.2°F by 2040 and about 5.3°F by 2080.

21. Evapotranspiration may increase by approximately 6% per degree centigrade over 2010 values. This could lead to potential evapotranspiration increases of between 12% and 19% by the years 2040 and 2080, respectively. Another study suggests possible potential evapotranspiration increases of 5% to 9% by the year's 2040 and 2080, respectively. Based on these predictions, irrigation demand could increase by 5% to 20% in the next 50 years.

22. For most of the projections in this study, we assumed a 10% increase in future irrigation demand as a result of increased evapotranspiration. However, the effects of a 5% increase and a 20% increase in future irrigation demand were also evaluated for a moderate population-growth and conservation-level, scenario. A 5% increase in irrigation demand would result in an overall water demand that is approximately 3% less than the demand projected based on a 10% increase in irrigation demand. A 20% increase in future irrigation demand would result in an overall aquifer demand that is approximately 6% greater than the demand projected based on a 10% increase in irrigation demand.

23. Annual precipitation may increase by approximately 2.3% by the year 2040, and by approximately 3.8% by the year 2080. The Rathdrum Prairie Aquifer area is expected to become wetter in the fall and winter and dryer in the spring and summer. Additional precipitation, to the extent it occurs in the fall, winter, and spring, will not reduce irrigation demand during summer months.

24. Extreme temperature and precipitation events will likely increase in frequency. Extreme and/or extended drought periods will increase annual irrigation demands.

## **Water Conservation Potential**

25. Aggressive water conservation can help mitigate some of the projected future water use. Aggressive conservation can result in aggregate water demand that is approximately 60% of the non-conservation demand for a given population growth outcome in 2060.

26. Aggressive water conservation could lead to a 52% reduction in per-household domestic water demand by the year 2060 (from 2010 levels).

27. Per-household outdoor residential irrigation use could be reduced by up to approximately 33% from 2010 levels.

28. Commercial and industrial use could likely be reduced by up to approximately 40% over the next 50 years compared to 2010 per-employee use rates.

29. Specific water conservation measures are outlined in the report.

30. Water reuse is a potential method to extend water supply, but does not bear directly on future Rathdrum Prairie water demands or aquifer withdrawals.



## Appendix 4: Impact of Projected 2060 Demand on Spokane River

# MEMO

### State of Idaho

### Department of Water Resources

322 E Front Street, P.O. Box 83720, Boise, Idaho 83720-0098

Phone: (208) 287-4800 Fax: (208) 287-6700

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**Date:** 27 May 2010  
**To:** Helen Harrington and Sandra Thiel  
**From:** Allan Wylie  
**cc:** Rick Raymondi and Sean Vincent  
**Subject:** Impact of projected 2060 demand on Spokane River

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Helen and Sandra:

The Rathdrum Prairie CAMP Committee asked me to conduct a transient analysis of the impact of the SPF 2b population growth and consumptive use prediction (medium growth with moderate conservation efforts) on the Spokane River and present my findings at the June 4 meeting. I am preparing this memo because I will probably be either involved in a hearing regarding an Eastern Snake Plain Aquifer water call, or ensnared in the aftermath of the hearing and unable to attend the June 4 meeting.

### Method

The SPF scenarios provide average projected consumptive use for 2060, not monthly projections, so I needed to shape the steady state scenario I presented at the April 16 meeting into a monthly transient file for use in the Spokane Valley Rathdrum Prairie (SVRP) Model. To accomplish this, I apportioned the 2060 steady state file to match the Idaho portion of the 2005 consumptive use for the SVRP Model. Table 1 shows the Idaho portion of the 2005 consumptive use from the SVRP aquifer model along with the shaped SPF 2060 consumptive use estimate and the difference between the two files.

**Table 1. 2005 water budget for SVRP model and the 2060 monthly water budget.**

| Month     | 2005 (ac-f) | Projected 2060 (ac-f) | Difference (ac-f) |
|-----------|-------------|-----------------------|-------------------|
| January   | 1,161       | 1,638                 | 476               |
| February  | 975         | 1,337                 | 363               |
| March     | 1,180       | 1,641                 | 461               |
| April     | 4,318       | 6,762                 | 2,445             |
| May       | 4,189       | 6,518                 | 2,328             |
| June      | 7,119       | 11,365                | 4,246             |
| July      | 11,829      | 18,985                | 7,156             |
| August    | 7,658       | 12,222                | 4,564             |
| September | 3,316       | 5,216                 | 1,900             |
| October   | 1,512       | 2,228                 | 716               |



|          |        |        |        |
|----------|--------|--------|--------|
| November | 981    | 1,370  | 389    |
| December | 943    | 1,284  | 341    |
| SUM      | 45,181 | 70,566 | 25,385 |

The impacts of the projected growth on the Spokane River can be simulated either by running the model with the 2005 consumptive use and again with the 2060 consumptive use and then differencing the outputs, or by running the model with the difference between the 2005 and 2060 consumptive use. I chose to work with the difference.

## Results

Figure 1 shows the direct impact on the river. The direct impact is a result of the change between the 2005 aquifer model consumptive use and the SPF estimate for year 2060. The additional water use lowers the water table causing either increased seepage from or decreased gains to the Spokane River. The maximum change in impact is about 31 cfs in late summer and early fall. Late summer or early fall is when the seven day low flow typically occurs in the Spokane River.

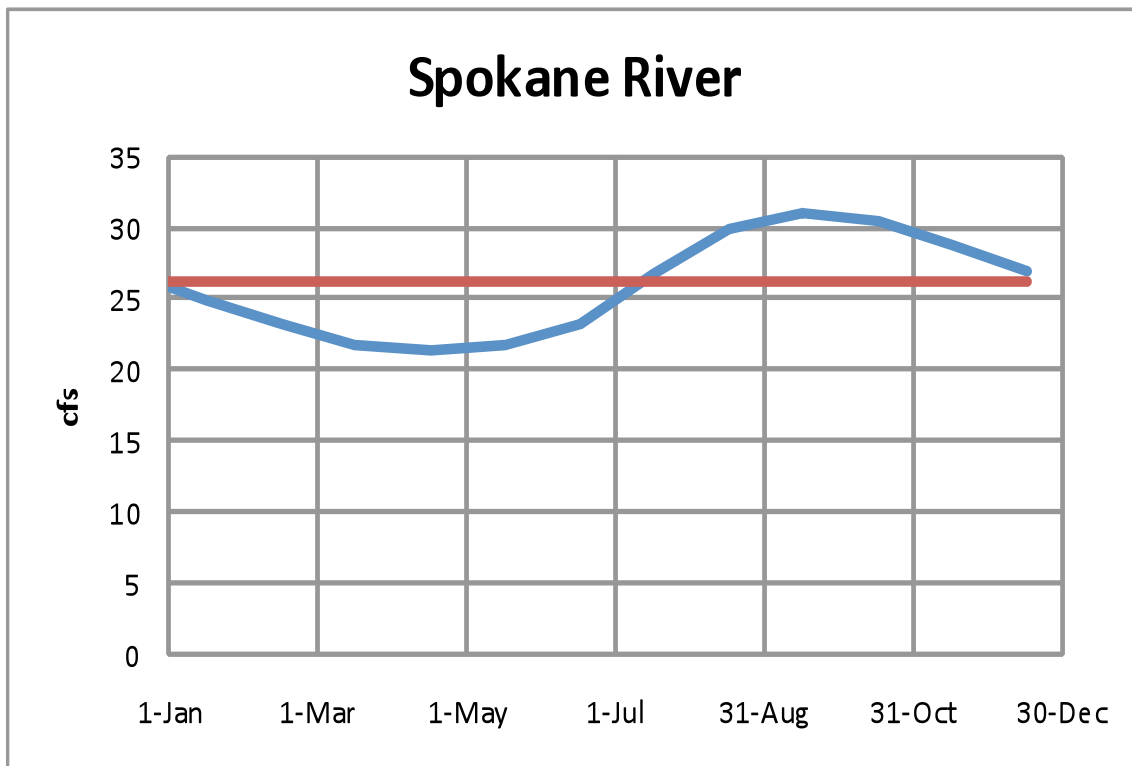
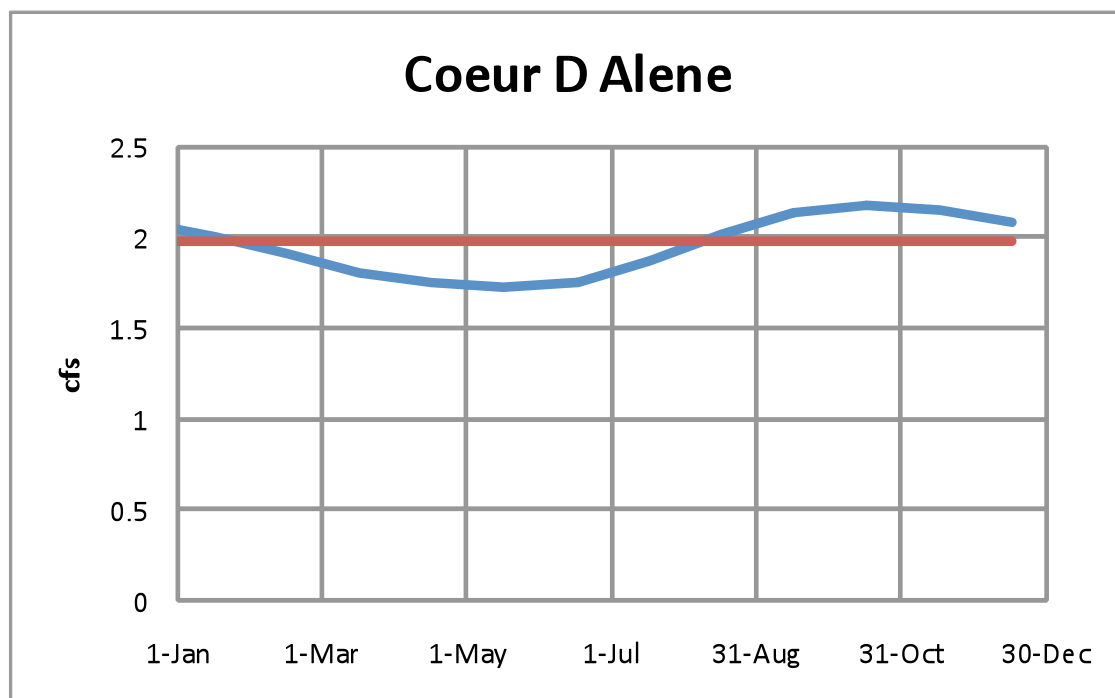


Figure 1. Direct impact on the Spokane River; red=steady state, blue=transient.

Figure 2 presents an impact on Lake Coeur D' Alene that results in an indirect impact on the Spokane River. This is where increased water use in Idaho lowers the water table resulting in increased seepage from Lake Coeur D' Alene. This water leaks from the lake into the aquifer to replace water that has been consumptively used, the water that leaked out of the lake can't be discharged through Post Falls Dam into the Spokane River. Because discharge from the lake is controlled at Post Falls Dam, the timing of this impact

does not appear to be critical. Although the magnitude of the impact is small and would be difficult to quantify, it does represent a decrease in the supply of water that can be released to mitigate downstream impacts.



**Figure 2. Impact on Lake Coeur D' Alene that results in an indirect impact on the Spokane River; red=steady state, blue=transient.**

### Conclusion

The transient impacts of SPF scenario 2b were estimated by shaping the 2060 annual consumptive use similar to the consumptive use for 2005 used in the SVRP aquifer model. The difference between the 2005 consumptive use in the SVRP aquifer model and shaped scenario 2b was input into the ground water model. The resulting simulation indicates that the maximum direct impact on the Spokane River would be about 31 cfs and should occur during late August and early September.

The model indicates that Lake Coeur D' Alene will also be impacted by growth in Idaho. Although the impact is small and on a large lake, it does represent a decrease in water than can be released to mitigate downstream impacts.

Allan Wylie

## **Appendix 5 Climate Variability Impact Studies in the Rathdrum Prairie and Treasure Valley Regions, Venkat Sridhar and Zin Jin, October 2010.**

(This executive summary contains information on the Rathdrum Prairie and Treasure Valley Basins.)

This project covered many tasks including the evaluation of climate models, climate model output downscaling, SWAT model calibration and validation, simulation of climate change in the basin's hydrology and assessment.

We identified five climate models that are relevant to capturing the future trends in precipitation and temperature. The models include CCSM3 (warmer and dry summer through 2020), HADCM3 (warmer and dry summer through 2040), IPSL CM4 (wetter winter), MIROC 3.2 (warmer and wetter winter) and PCM (cooler and dry summer). They represented a wide range of conditions and also change by time.

After identifying the models, we downloaded the spatially downscaled climate model data from CMIP3 source developed by Bureau of Reclamation and other collaborators and subsequently temporally disaggregated them from monthly to daily to run the hydrology model.

The precipitation forecast is less certain. In other words, some models predicted a slightly increased precipitation between 2010 and 2060 while other models predicted a decrease in precipitation. However, the temperature increase is found to be consistent.

For the Treasure Valley region, changes in precipitation ranged between -3.8 % and 36%. Changes in temperature are expected to be between 0.02 and 3.9 °C. In the Rathdrum Prairie region, changes in precipitation are

expected to be between -6.7% and 17.9 %.

Changes in temperature will likely be ranging between 0.1 and 3.5 °C. Overall, the chosen climate models showed a rise in temperature (0.31 °C to 0.42 °C/decade for Rathdrum Prairie and 0.34 °C to 0.46 °C/decade) and an increase in annual precipitation (4.7% to 5.8% for Rathdrum Prairie and 5.3% to 8.5% for Treasure Valley) over a period of next five decades between 2010-2060.

In order to study the response of the hydrology model due to changes in precipitation, we implemented the Soil Water Assessment Tool (SWAT) hydrology model to simulate the basin scale hydrologic response to changing climate. However, it is critical to calibrate the model based on the observed flow for multiple sub-basins in each basin. Therefore, we first calibrated the SWAT model for the Spokane River basin using the flows from Post Falls and Spokane. Similarly, we calibrated the model for the Boise River basin using the flows from Parma, Lucky Peak, Arrowrock, Twin Springs and Anderson Ranch. This calibration exercise resulted in 16 parameters adjusted for various processes within the basin including snowmelt, vegetation, groundwater and surface runoff. In both basins the model performance was evaluated using the R2 values and we obtained a value of 0.6 or higher and that is considered to be good in the modeling environment for extending the simulation framework with selected parameters to another period.

The SWAT hydrology model was implemented under future climate conditions using the newly calibrated parameters. Considering a wide range of precipitation and temperature outlook, we expected that predictions on the basin hydrology to express a broad range in streamflows, evapotranspiration and recharge during the simulation period of the entire 50 year period between 2010 and 2050. This was observed for the three emission scenarios

(A1B, A2 and B1).

We calculated the increase or decrease in flows from historic average flow. Therefore, when we state a decrease or an increase by certain flow rate, it is the difference in flows when compared with historic flows. Based on the average of eight sites (Twin Springs, Anderson Ranch, Arrowrock, Lucky Peak, Glenwood, Middleton, Caldwell and Parma) in the Boise River basin, the peak flows (March through June) appear to increase by 4117 cfs (A2), 3285 cfs (A1B) and 3917 cfs (B1). An eight site average of decrease in peak flows for the Boise River basin revealed the flows as 1223 cfs (A2), 1693 cfs (A1B) and 1366 cfs (B1) due to some scenarios where precipitation is predicted to be decreasing. Overall, the peak flow averages expected to increase by 621 cfs (A2), 300 cfs (A1B) and 436 cfs (B1). Thus, the high flows in the future will probably be higher than historic high flows.

We averaged the two site predictions (Post Falls and Spokane) in the Rathdrum Prairie basin to understand the peak flow trends. It was found that increases are expected to be about 2525 cfs (A2), 610 cfs (A1B) and 1899 cfs (B1) based on the two site average flows predicted by the model. The decreases in peakflows were higher than the flows predicted in the Boise River Basin. For example, a decrease in peak flows by 7303 cfs (A2), 7590 cfs (A1B) and 6029 cfs (B1) are also simulated by some scenarios that predict a decrease in precipitation. Again, the high flows in the future will probably be higher than historic high flows.

The low flows (July-Oct) predicted by the model have projected an average increase in the summertime flows by 195 cfs (A2), 77 cfs (A1B) and 336 cfs (B1) scenarios. Minimum low flows predicted by the model have projected decreasing flows by 622 cfs (A2), 662 cfs (A1B) and 607 cfs (B1). Overall, the

low flow averages declined in the future by 281 cfs (A2), 303 cfs (A1B) and 328 cfs (B1).

In the Rathdrum Prairie basin, for instance, a decrease in flow by 1037 cfs (A2), 903 cfs (A1B) and 6029 cfs (B1) is predicted. The maximum low flows are increasing by 1848 cfs (A2), 954 cfs (A1B) and 1635 cfs (B1). A minimal increase in the average low flows, rather than a decrease as in the Treasure Valley region, by 98 cfs (A2), 56 cfs (A1B) and 95cfs (B2) is simulated by these models. For both basins, the low flows are lower than (Treasure Valley) or about the same as that of the historic low flows.

We computed the volume of flow changes in the Boise River basin at Lucky Peak by integrating the area under the hydrograph. The expected increase in flow volumes are 201896 ac-ft (A2), 120547 ac-ft (A1B) and 265384 ac-ft (B1). The overall average when combining all of these flow volumes results in the flow volume increase by 195942 ac-ft.

We also anticipate a shift in the timing of snowmelt and this shift is advancing from the current peak melt period of May to April, by about 3-4 weeks. This has been consistent for both the basins. This is pretty typical of many regions in the Western U.S. which is expected to cause some management problems related to the water resources in the region. An earlier melt, if not stored, might cause some shortages in the system thereby possibly impacting various sectors including irrigated agriculture, hydro power and domestic as well as municipal water supply.

In the Boise River basin, depending on the climate scenario, a range in precipitation between 23 and 35 inches is probable and it has the cascading effect on the hydrological water balance components. This precipitation is subsequently partitioned into different water balance components, such as streamflow, evapotranspiration, soil moisture and recharge.

For instance, streamflows predicted by the model were between 10 and 19 inches and recharge from 4 to 8 inches. The other two components, evapotranspiration and soil water storage although are expected to change, under natural condition (without any human influence) as predicted by these models have shown lesser variability.

In the Rathdrum Prairie basin, precipitation is expected to range between 32 and 40 inches over the next decades, which in turn appeared to cause a range in streamflow (14-20 inches) and recharge (2-4 inches) estimates. Evapotranspiration varied between 15 and 19 inches under natural vegetation conditions. Soil water projections are between 6-8 inches.

It is also important to recognize that there are some uncertainties in our estimates and that can be attributed to GCM-produced precipitation and temperature, model parameters and structure (for instance reach gain or loss, residence time of aquifer recharge) and measured regulated flow, computed natural flow and its year-to-year variability.



## **Appendix 6: Summary of Groundwater Management Plan Status**

On September 15, 2005, the Director of the Idaho Department of Water Resources adopted the Rathdrum Prairie Groundwater Management Plan. The plan was based on a recommended plan developed by the Rathdrum Prairie Groundwater Management Advisory Group. The plan set forth goals and actions which were intended to guide water resource management “to balance the protection of existing groundwater uses and water quality with the opportunity for future development, while encouraging water conservation.” (A copy of the full plan is available at: <http://www.idwr.idaho.gov/WaterInformation/GroundWaterManagement/RathdrumPrairie/PDFs/Final%20Order%20Rathdrum%20GWMA.pdf>.)

Since the plan was adopted, some actions have been accomplished, others await implementation. As a part of the RP CAMP, the management plan provides a framework for management actions which would benefit the RP CAMP implementation. The following review of the goals and actions set out in the plan is intended to guide the recommendations for implementing CAMP.

### **Goal 1: Technical Data and quantification of water availability.**

Actions to meet this goal included participation in the SVRP Hydrologic Project; continuing data acquisition; and adaptation of permitting conditions as new data was analyzed. Additionally, IDWR was directed to obtain hydrogeologic data as new wells are completed. All actions have either been accomplished or are in place.

### **Goal 2: Technical Data and quantification of water use.**

Two actions defined under this goal were the

establishment of a water measurement district and investigation of starting an adjudication. Since the Northern Idaho Adjudication was initiated successfully, IDWR determined that the establishment of a water measurement district, as an interim measure prior to the adjudication, was not practical. Upon completion of the adjudication, establishment of a permanent area-wide water district will be established.

### **Goal 3: Manage groundwater resources efficiently and fairly for all users.**

Two actions identified included the establishment of a water district and evaluation of transfer applications to ensure consistency with local public interest and conservation of the resource. Both these actions are or will be implemented. As stated above, a permanent area-wide water district will be established once the adjudication is completed.

### **Goal 4: Encourage water purveyors, regulatory agencies and local and regional governments to plan and incorporate planning principles.**

This goal did not lay out actions which IDWR could implement but to show support and encouragement. Elements within this goal included encouragement for municipal water providers to undertake long term plan under the Growing Communities Doctrine statute. Local jurisdictions were encouraged to require community water systems over individual wells.

### **Goal 5: Encourage water conservation efforts by all users of the resource.**

Two action items were identified: conservation plans required for municipal purveyors and support for establishment of an aquifer-wide water conservation advisory committee. An additional list of measures was compiled for IDWR encouragement and assistance. This list included economic support for developing

conservation plans; water conservation demonstration projects and educational activities; support for price structures to encourage water conservation; and, investigating strategies for using reclaimed wastewater. IDWR has implemented the requirement for conservation plan submission, but a final guidance document has not been completed. Draft Water Conservation Measures and Guidelines for Preparing Water Conservation Plans has been prepared and is available on the IDWR web pages, but has never been finalized. No actions have been taken to implement the other actions or suggestions.

### **Additional Actions**

Seven additional actions were identified:

1. New domestic wells required to be authorized through permit (no Start Card). Implemented.
2. Protection against loss or forfeiture if non-use is due to conservation plan. Implemented, but unused.
3. Proper abandonment of wells, with consideration of use as monitoring well. Implemented.
4. Monitoring required for new wells, if deemed appropriate. Implemented.
5. Investigation of managed recharge. Not implemented.
6. Continued advisory committee activity. Regular meetings not held.
7. Annual review of plan and 5-year report to IDWR Director. Not implemented.

## Appendix 7: Full description of ideas for the Framework for Regional Discussion

Develop a plan for regional engagement to promote collaborative bi-state SVRP aquifer management. While the specific elements of such a framework would be determined by Idaho and Washington, the study effort has helped highlight some principles that may be useful. Several are noted below, along with specific considerations for the Board.

- The initial effort should be to assemble a manageable-sized regional framework planning group from both states to develop the fuller framework itself (this could include ground rules, process definition, goals, etc.).
- The USGS aquifer study effort provides a possible template, along with strong working relationships, for future collaboration, as well as funding sources.
- A regional framework should be equitable for each state, and be inclusive of tribal governments as well as stakeholders across the region.
- A regional framework should acknowledge the range of economic, environmental and other interests related to the SVRPA and seek to find ways to support that range of interests.
- The focus of a regional framework should begin with issues and efforts that are currently possible with existing governance: working toward common definitions, measurement standards, water use data, mutual conservation and efficiency goals, and further refinement, where needed, of the aquifer as well as groundwater and surface water interactions.
- A regional framework may or may not need to result in formal governance mechanisms;

it should be flexible in considering different approaches for collaborative water management. The Moscow-Pullman aquifer effort may provide useful examples in this regard.

- A regional framework should look for ways to constructively integrate with other local and regional efforts, such as water system planning, watershed planning, ongoing adjudication, and similar efforts.

## **Appendix 8: Full description of strategies that should be addressed by the Aquifer Protection District.**

### **Strategy # 1: Encourage the support and development of existing and future applicable programs to monitor, enhance, and model water quality concerns.**

- Emphasize continuance and expansion of existing programs and plans, which have been successful in protecting and enhancing the quality of the aquifer. In some cases, we need either to bolster or enforce plans that have not been implemented to their full potential; or develop new plans to fill voids or identify areas that need to be addressed.
- Continue funding for long term monitoring to provide for trend analysis of RPA health.
- Encourage development of fate and transport models to enhance response to contamination events and long term planning to avoid contamination.
- Explore whether there are opportunities to adapt existing models, or develop new models, to determine when and where quality problems will occur. This may require modifying the models so they can be applied at a micro level.
- Develop and expand existing aquifer programs to include basin-wide consideration, such as threats to water quality on a watershed basis.
- Ensure programs relating to water quality and aquifer protection should not be subject to short-term changes in departmental or administrative leadership. Create programs that support long-term vision.

### **Strategy # 2: Mitigate the impacts of stormwater run off. Stormwater runoff from developed lands can contain a variety of pollutants that can adversely affect water quality. As land development increases,**

**the Advisory Committee recognizes that mitigating the impacts of stormwater run off is essential to protecting the quality of water in the aquifer.**

- Promote pretreatment methods for stormwater.
- Encourage permitting agencies to review and improve stormwater permits at regular intervals. Review operations and maintenance overview of systems, and ensure they are maintained as intended.
- Promote the use of best management practices in development design. Although this is not a comprehensive treatment mechanism, the Advisory Committee believes this alternative is more desirable than mere collection in urban areas, which is difficult to deal with.
- Monitor for an increase of chloride or other contaminants in runoff. Develop strategies to address the timing issue of chloride increases following a freeze and use of road salts.
- Consider how to assess and approach the effects of nutrient pollution from both developed and agricultural lands.
- Develop incentives to retrofit non-conforming systems.
- Identify pollutions that create serious problems and identify programs that help reduce and eliminate those pollutants.
- The Advisory Committee encourages utilization of future technologies that enhance the stormwater treatment strategies for the RPA.

### **Strategy # 3: Promote practices that prevent accidental or incidental releases of contaminants over the RPA.**

- Support and expand regular monitoring programs with vigilance to the risk of

incidental releases of industrial pollution. Encourage coordination and communication between those regulatory groups to enhance the protection of the aquifer.

- Where applicable, require increased monitoring and reporting of petroleum pipelines by owner and operation entities.

**Strategy # 4: Develop a program to account for wellheads over RPA and proper abandonment of unused wellheads. Wellhead contamination is possible if well head construction lacks a seal and allows for contamination.**

- Include consideration of wellhead contamination in continued or enhanced regulations and in periodic water quality threat assessments.
- Support proper decommissioning of private wells that should no longer be in use. Support creation of incentives for decommissioning.
- Evaluate unused wells to see if they can and/or should be used for other purposes before sealing against potential contamination (instead of decommissioning).
- Create an educational program to support public awareness of the issue through a coordinated effort with local jurisdictions as a health and safety issue.

**Strategy # 5: Support continued monitoring and management of potential water quality issues contained in RPA watershed.**

- Determine whether monitoring of lake metals is being completed at the appropriate scale and time intervals (both length and frequency of testing).
- Encourage support or increased resources for monitoring of lake metals.
- Ensure that the prospect of catastrophic

events involving the Lake are considered, such as a sudden shift from aerobic to anaerobic conditions.

- Ensure that potential contamination due to dredging is considered in light of potential problems with heavy metal migration.
- Apply for grants to study the potential for mobilization of contaminants in CDA lake.
- Encourage support or increased resources for monitoring of lake contamination.

**Strategy # 6: Encourage wastewater disposal methods that benefit the RPA.**

- Develop strategies to maintain standards of nondegradation that can include wastewater reuse such as purple pipe.
- Conduct study to determine cumulative effects of wastewater disposal methods, including septic systems.
- Determine the permissible land use and density that would not degrade the RPA greater than existing regulations. Account for the aggregate impact of contamination.
- Avoid damaging the water quality with wastewater disposal systems.
- Develop better monitoring or consider study on impacts from septic systems.

**Strategy # 7: Prepare for emerging or unknown threats. Traces of personal care products and pharmaceuticals in our water systems are a growing concern, and issues may emerge in the edges of the aquifer where there is less dilution due to the slow movement of water. The Advisory Committee is also concerned about activities beyond the regulatory boundary of the aquifer that may threaten water quality in the future. To address this issue, the Advisory Committee proposes the following:**

- Expand regulations beyond aquifer boundaries to maintain water quality at a



watershed scale.

- Develop strategy to address overarching federal regulations that may conflict with regional or local needs. (i.e. Pipeline Safety Act)
- Encourage testing for and regulating new compounds that may be proven or suspected of causing potential harm.
- Continue or enhance existing water quality monitoring programs.
- Encourage modification of existing, or development of new models to assist in determining or predicting water quality impacts on the RPA. Continue funding for long-term monitoring to provide trend analysis of RPA health and for the development of fate and transport models to enhance the response to contamination events.







C. L. "BUTCH" OTTER  
GOVERNOR

April 14, 2011

The Honorable Ben Ysursa  
Secretary of State  
State Capitol  
Boise, ID 83720

**VIA HAND DELIVERY**

Dear Mr. Secretary,

I hereby advise you that I have signed the following House Bill into law:

**H 318**

I have initiated actions over the past several years, through the Idaho Water Resource Board, to create a foundation to ensure the sustainability of one Idaho's most valuable resources – water. Every region of Idaho benefits from the continued flow of water in our rivers and aquifers. The Board was entrusted, through comprehensive management statutes and the assistance of water users, to formulate plans for sustaining the incredible and unique water resources we enjoy and on which we depend.

This legislation is another step towards achieving the goal of sustainability because it helps ground water districts secure funding at competitive rates. That capital can be used to implement measures to ensure a sustainable water supply. H 318 empowers ground water users to fund solutions and provides a great tool to ensure existing and future water users benefit from the continued sustainability of one of our greatest resources.

I appreciate the wisdom of the Legislature in providing this tool for ground water districts and commend Representative Bedke and Senator Bair for their hard work on this issue.

As Always – Idaho, "Esto Perpetua"

A handwritten signature in black ink, appearing to read "C.L. Butch Otter".

C.L. "Butch" Otter  
Governor of Idaho

Cc: The Honorable Lawrence Denney  
Speaker of the House

# Memorandum



To: Idaho Water Resource Board  
From: L. Neeley Miller  
Date: May 2, 2011  
Re: Treasure Valley Comprehensive Aquifer Management Plan (TV CAMP)

---

## Status Report and Background

The Treasure Valley Comprehensive Aquifer Management Plan Advisory Committee has been meeting since last April. A copy of the current advisory committee membership is attached.

In early February, the full Advisory Committee established a drafting group to develop the language for the CAMP plan. The drafting subgroup consists of Rex Barrie (Boise River Watermaster WD #63), Russ Dane (Keller Williams Realty), Matt Howard (Bureau of Reclamation), Chris Jones (Trout Unlimited), Brian Patton (IDWR), Kathy Peter (former Director Of USGS Idaho Water Science Program), Rick Ward (Idaho Dept of Fish and Game), Paul Woods (Boise City Public Works Dept), and Mark Zirschky (Pioneer Irrigation). At the direction of the IWRB, Mark Zirschky was added to the drafting group.

The Drafting Group completed a preliminary draft TV CAMP outline (see attached) and has begun drafting language for the Background, Challenges, Actions and Implementation sections.. These sections are being continually revised, but will be based upon the concepts and general structure of the attached outline.

The TV CAMP Advisory Committee anticipates having a draft plan ready for Board review by July. Staff and drafting group would appreciate feedback from the Board on the attached outline.



| TV CAMP ADVISORY COMMITTEE |  |
|----------------------------|--|
| <u>MEMBER</u>              | <u>AFFILIATION</u>   |
| Abramovich, Ron            | NRCS   |
| Adamson, Brent             | Boise County Assessor  |
| Amick, Doug                | City of Greenleaf Public Works Director  |
| Anderson Jamie             | Boise County Commissioner  |
| Atkinson, Michelle         | Micron Technology, Inc.  |
| Barrie , Rex               | Boise River Watermaster WD #63   |
| Batt, Gayle (Vern Case)    | Wilder Irrigation District   |
| Berggren, Ellen            | Army Corps of Engineers  |
| Bowling, Jon               | Idaho Power Company  |
| Burnell, Barry             | Idaho Dept of Environmental Quality  |
| Dane, Russ                 | Keller Williams Realty   |
| Decker, Kevin              | Idaho Wildlife Federation, Treasurer   |
| Deveau, Paul               | Boise Project Board of Control   |
| Dixon, Dave                | Owner, Greenleaf Farms Inc.  |
| Duspiva, Gary              | Canyon County P&Z Commission   |
| Echeita, Mike              | City of Eagle Public Works Director  |
| Funkhouser, Allen          | Drainage District # 2  |
| Fuss, Michael              | Nampa Public Works Director  |
| Goodson, Stephen           | Governor's Office  |
| Howard, Matt               | Bureau of Reclamation  |
| Jones, Chris               | VP Ted Trueblood Chapter, Trout Unlimited  |
| Larson, Bill               | Treasure Valley Partnership  |
| Leatherman, Megan          | Ada County   |
| McKee, Lynn                | Vice Chair, Ada Cty. SWCD  |
| Nelson, Greg               | Farm Bureau member, former mayor of Kuna   |
| Patton , Brian             | Idaho Department of Water Resources  |
| Peter, Kathy               | Unaffiliated, former Dir. Of USGS Idaho Water Science Program                              |
| Pline, Clinton             | Board, Nampa-Meridian Irrigation District  |
| Prigge, John               | Sorrento Lactalis, Wastewater Treatment Manager  |
| Rhead, Scott               | Director Engineering for United Water  |
| Ronk, Jayson               | VP of Idaho Assn of Commerce & Industry  |
| Schmillen, Bob             | City of Middleton Public Works Director  |
| Shoemaker, Gary            | City of Caldwell Water Dept.   |
| Stewart, Lon               | Sierra Club  |
| Stewart, Warren            | Engineering Manager, City of Meridian Public Works Dept                                    |
| Telford, Craig             | Mayor of Parma   |
| Thornton, John             | N. Ada Cty. GW users; N. Ada Co Foothills Assoc; Member of N. Ada Cty. Tech. Working Group |
| Ward, Rick                 | Idaho Dept of Fish and Game  |
| Woods, Paul                | Boise City Public Works Dept.  |
| Yerton, Janice             | Water System Operator, Kuna  |
| Zirschky, Mark             | Pioneer Irrigation District  |

## **TV CAMP – Preliminary Draft Outline**

- 1. Executive Summary**
  - 2. Introduction**
  - 3. Background**
  - 4. Future Challenges to Providing for Reliable Sources of Water and Avoiding Conflict Over Water Resources**
  - 5. Actions Needed to Provide Reliable Sources of Water and Avoid Conflict over Water Resources**
  - 6. Implementation**
- 

## **TV CAMP – Preliminary Draft Outline**

- 1. Executive Summary (concise description of challenges ahead and recommended actions)**
  - a. This is important because . . .
  - b. The following actions needed to meet these future challenges include . . .
    - i. (insert after; synthesize Actions)
- 2. Introduction**
  - a. Creation of TV CAMP by legislature/IWRB
  - b. Goals of TV CAMP
- 3. Background and Current Conditions**
  - a. Introduction
    - i. Surface water and ground water both supply water to the Treasure Valley
    - ii. Recognizing the interconnection (do not have a clear understanding timing/extent/location)
    - iii. Recognizing the contribution of surface water to ground water

b. Ground water system

- i. Regional setting
- ii. Hydrogeology
- iii. TVAS recharge
- iv. TVAS discharge
- v. Water levels
- vi. Ground water areas of concern
- vii. Water quality
- viii. Well construction
- ix. Ground water flow direction
- x. Limitations and Gaps

c. Surface water system

- i. Primary source of water for TV
- ii. Watershed – description, drainage area 2650 square miles, tributaries, etc.
  - 1. Fisheries/biological flows
  - 2. Recreation
  - 3. Aesthetics values
  - 4. Surface water quality
- iii. Reservoir system
  - 1. Operated cooperatively by USBR and ACOE
  - 2. Capacity - ~1maf – space to irrigation entities and limited DCMI;
  - 3. Irrigation for ~225,000 acres
  - 4. Flood control
  - 5. 152,000 af of space to maintain winter flows in the Boise River downstream of Lucky Peak
  - 6. Hydropower
- iv. Canal/drain system – miles, acres served, etc.
  - 1. Canal, lateral, and drain system
- v. Flows
  - 1. 30-year average -- ~2maf flow past Lucky Peak into valley; ~1maf flows out of valley.
  - 2. Variability
    - a. Historical annual: 658,000 in 1977 to 3,500,000 af in 1997.
      - i. Insert hydrograph (30 year average, volume, carryover storage)
    - b. Average seasonal: ~700 cfs low summer flows to ~20,000 cfs peak spring flows

- i. Display variability (seasonally and annually) of flows (summary hydrograph)\

- vi. Limitations and Gaps

- d. Water Use

- i. Ground water (TVHP)
- ii. Surface water
- iii. Charts/maps (historical use pattern maps, population changes over time)
- iv. Limitations and Gaps

- e. Water Management and Administration

- i. Water Organizations/jurisdictions

- 1. Responsibilities of major entities [IDWR, IWRB, District #63, Irrigation districts/canal companies/lateral associations, Boise Project Board of Control, Municipal providers, Bureau of Reclamation (ACOE not included in water management and administration) self-supplied DCMI]
- 2. State law associated with requiring the continued use of irrigation water for landscaping

- ii. Flows regulated to Star

- 1. Fully appropriated during irrigation season
- 2. Winter maintenance flows - paraphrase language from decree

- iii. Below Star demand typically met by return flows

- 1. Water available for appropriation below Star

- iv. Stewart (senior) and Bryan (flood) decree rights and step down priorities carried over into SRBA decrees.

- 1. Step-down priority system. (see Water Master Report)

- v. Rental Pool and Water Supply Bank

- 1. Water Bank

- a. History
- b. Activity

- 2. Rental Pool

- a. History
- b. Activity
- c. Flow Augmentation /Nez Perce Term Sheet (~40kaf)

- vi. Ground water rights not currently administered

- 1. See language from 1995 Ground Water District Legislation (2452?) – disorganization of various entities and bringing them into an organized group.

- vii. Finalization of SRBA in TV will allow for administration of both surface and ground water rights in the future if necessary.
- viii. Limitations and Gaps

f. Conclusion/wrap-up/transition into next section

#### **4. Future Challenges to Providing for Reliable Sources of Water and Avoiding Conflict Over Water Resources**

- a. Fragmented ground water user community
  - i. No current umbrella organization for municipal ground water providers
  - ii. Challenges with funding, setting priorities, and creation of a ground water district
  - iii. Need a mechanism for coordination within the ground water community
- b. Increased variability of surface water supply
  - i. Increased variability means drought periods will increase in frequency and severity from historical norms.
  - ii. Wetter years that yield water that exceeds available ground water/surface water storage space does not provide supply for future demand.
  - iii. Inter-year seasonal variability: highs and lows will change
  - iv. Change in hydrograph due to earlier runoff due to warmer temperatures in early spring (Intra-year)
- c. Predictability and reliability of ground water supply
  - i. Studies to date indicate ground water supply and availability vary by location and predictability of future capacity is limited.
  - ii. Ground water as a future supply for DCMI may face limitations in various locations.
- d. Interconnectivity
  - i. Timing, extent, location...etc
  - ii. Management of conflict
- e. Increased population and economic growth triggering transition from ag to DCMI use
  - i. 650 KAF could change from Ag to DCMI (WRIME)
  - ii. Demand projections show a wide range of possible scenarios for future water demand.
  - iii. Geographic variations (higher in basin more difficult, lower in basin not as big of an issue), trends associated with geography of recent water right applications
  - iv. hydrographs
- f. Ability of water infrastructure to meet existing and future needs
  - i. Aging and deteriorating systems (broad discussion)
    - 1. Agricultural, municipal



- ii. Funding issue – who pays
  - iii. Modernization
- g. Maintaining Quality of Life
  - i. Aesthetics
  - ii. Recreational needs
  - iii. Property values, economic development, socio-economic values
- h. Limited understanding of the system hydrology
  - i. Difficulties associated with planning, management, forecasting, etc.
  - ii. Lack of data, weaknesses in the model(s)
- i. Meeting Environmental Needs
  - i. Biological concerns
  - ii. Water Quality
- j. Consolidated information Gaps

## **5. Actions Needed to Provide Reliable Sources of Water and Avoid Conflict Over Water Resources**

- a. Enhance Water Planning and Management to maximize economic, environmental, monetary and non-monetary benefits to Idaho.
  - i. Improve ground water models and technical tools to meet administrative purpose and to facilitate decision making.
  - ii. Support water supply modeling and stream flow monitoring
  - iii. Measure water usage changes, reporting demand trends to IWRB
  - iv. Support drought planning to increase the resiliency of the water supply specific to the Boise drainage
  - v. Create a mechanism for coordination within the ground water community (e.g. creation of ground water district, or a hybrid ground water district incorporating all users including self-supplied domestic)
  - vi. Continue to increase transparency of planning process
- b. Additional storage and supply
  - i. Continue the study of the feasibility of potential surface water storage projects in a manner that comprehensively addresses supply options and avoids conflict
  - ii. Investigate the feasibility of Managed Recharge for meeting future water demands.
  - iii. Support the exchange of Reclamation's flow augmentation space in Lucky Peak (excluding stream flow maintenance) with replacement water supply consistent with the Nez Perce term sheet.
  - iv. Cloud Seeding

c. Demand Reduction (“water conservation”)

- i. Use education to encourage conservation
- ii. Encourage conservation and efficient use of groundwater in all cases.
- iii. Encourage conservation and efficient use of surface water, where a viable/sensible opportunity exists taking into consideration the benefits of incidental recharge. Including encouraging the retrofitting neighborhoods with pressurized irrigation
- iv. Encourage and support wastewater/gray water reuse
- v. Encourage or support incentives for conservation
- vi. Develop guidelines for conservation programs
- 1. Consider conservation requirements for new water appropriations

d. Conversion of Water Use from Agriculture to DCMI

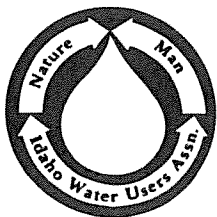
- i. Continue to support the use of surface water on those lands that convert from agriculture to DCMI utilizing the existing irrigation entities.
- ii. Support voluntary cooperative arrangements between irrigation entities and municipal providers to deliver surface water recognizing the long-term challenges associated with maintaining HOA-owned systems.
- iii. Encourage the use of Water Marketing to meet new DCMI needs including the use of rental pool and water supply bank

e. Reasonably Anticipated Future Needs (RAFN)

f. Ensuring Viability of Water Delivery Infrastructure

- i. Support voluntary arrangements between irrigation entities and municipalities to ensure long-term maintenance of new residential irrigation systems.
- ii. Ensure easements/access to canals for maintenance in face of growth.
- iii. Continue to support considerations of security, both in terms of infrastructure and on water quality.
- iv. Support the rehabilitation and modernization of water delivery infrastructure.
- v. Explore opportunities to minimize fish entrainment in the canal systems.

## 6. TV CAMP Implementation



# Idaho Water Users Association, Inc.

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MAY 02 2011

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WATER RESOURCES

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President  
LYNN KEETCH  
1st Vice President  
DAN DARRINGTON  
2nd Vice President  
NORMAN M. SEMANKO  
Executive Director &  
General Counsel

April 28, 2011

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DEAN STEVENSON  
Paul - District 18  
SCOTT BREEDING  
Hazelton - At-Large  
BILLY R. THOMPSON  
Rupert - At-Large  
DAVE SHAW  
Boise - Associate  
ROGER WARNER  
Idaho Falls - Associate

Idaho Water Resource Board  
322 East Front Street  
P.O. Box 83720  
Boise, ID 83720-0098

Re: Treasure Valley Comprehensive Aquifer Management Plan (TV CAMP)

Dear Members of the Idaho Water Resource Board:

This letter is provided on behalf of the Board of Directors of the Idaho Water Users Association (IWUA), pursuant to a motion adopted at its regular quarterly board meeting in Twin Falls on April 14, 2011.

IWUA has been, and continues to be, a supporter of the statewide CAMP process. Our organization supported authorizing and funding legislation before the Idaho State Legislature in 2008 (House Bill Nos. 428 and 644). IWUA has many members participating in the various CAMP processes around the state. We believe strongly in the need to diagnose the health of our state's aquifers and to prescribe plans as necessary to provide for their management and to assure adequate water supplies.

We have grown increasingly concerned about the direction and scope of the TV CAMP process and, frankly, the use of appropriated tax dollars for these purposes. Many of these concerns have been detailed during public comment before the Board. We have been assured that our concerns will be taken into consideration before adoption of any final plan. However, our concerns continue to mount.

IWUA has specific concerns with the "reasonably anticipated future needs" (RAFN) component of the current TV CAMP draft outline, as developed by the RAFN subcommittee. Version 04/01/2011 includes the following language: "Develop Rules which will provide standard criteria and guidelines for RAFN applications". We have also reviewed a document titled "Reasonably Anticipated Future Needs (RAFN)" (Draft 2011 02 22) which includes an appendix of detailed "elements to consider in RAFN Rules". This is clearly a document with potential statewide regulatory application.

#### COMMITTEE CHAIRS

TED DIEHL  
Legislative  
LYNN KEETCH  
Resolutions  
TERRELL SORENSEN  
Education  
LARRY PENNINGTON  
Water Quality  
JULIE SIEVERS  
Nominating & Awards  
JOHN ANDERSON  
Rural/Urban Affairs

#### NWRA DELEGATES

NORMAN M. SEMANKO  
NWRA Director  
DALE SWENSEN  
NWRA Director  
JOHN SIMPSON  
Policy Committee

The proposed RAFN component of the TV CAMP is beyond the scope of anything that was intended by the Idaho State Legislature when it authorized and funded the statewide comprehensive aquifer management and planning effort. It is also outside the authority conferred upon the Idaho Water Resource Board by any statute or constitutional provision. We believe it is an unwise use of the dollars appropriated for aquifer planning.

RAFN is a matter of statewide importance; it is not specific to the Treasure Valley. In addition, rulemaking authority for this matter lies with the Idaho Department of Water Resources (IDWR), not the Board. The CAMP process is not, and was never intended to be, a regulatory process. In addition, it was designed to focus on the long-term health of individual ground water basins – not statewide regulatory and water policy questions. In short, the TV CAMP process is headed in the wrong direction on this matter.

Pursuant to a motion agreed to by unanimous vote of the board of directors present on April 14, 2011, IWUA opposes inclusion of the RAFN component in the TV CAMP. As necessary, we will oppose it during the public comment period, before the Idaho Water Resource Board, and before the Idaho State Legislature.

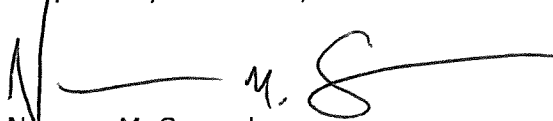
We will urge the Legislature to reject any amendments to the State Water Plan that include the RAFN component as part of the TV CAMP and to oppose funding for the development or implementation of any such plan.

We urge you to provide direction to staff, the facilitator and the TV CAMP Advisory Committee during the remainder of the CAMP process to exclude the proposed RAFN component from the TV CAMP. We further request that you reject any recommendation to include the RAFN component in any final plan.

We plan to be in attendance at the May 13 meeting of the Idaho Water Resource Board in Coeur d'Alene and look forward to having the opportunity to discuss this matter with you during the public comment portion of your agenda.

Thank you for your attention to this matter.

Respectfully submitted,



Norman M. Semanko  
Executive Director & General Counsel  
on behalf of the Board of Directors

cc: Governor Butch Otter  
Interim Director Gary Spackman  
Senate Resources and Environment Committee  
House Resources and Conservation Committee  
Joint Finance and Appropriations Committee

# Memorandum



To: Idaho Water Resource Board  
From: Cynthia Bridge Clark  
Date: April 29, 2011  
Re: Status of Ongoing Storage Water Studies

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## Lower Boise River Interim Feasibility Study

A *Water Storage Screening Analysis* was completed by the U.S. Corps of Engineers in August 2010 which identified the top three ranked sites as a raise of Arrowrock Dam, Alexander Flats, and Twin Springs. The IWRB recommended the top three ranked sites be carried forward for more in-depth analysis as called for in the Interim Feasibility Study agreement. Study activities are currently suspended until Federal match funding becomes available.

## Henrys Fork Basin Study

The Bureau of Reclamation and the State of Idaho are conducting a study of water resources in the Henrys Fork River basin to develop alternatives to improve water supply conditions in the Eastern Snake Plain aquifer and Upper Snake River basin. The study will identify opportunities for development of water supplies and improvement of water management while sustaining environmental quality. Ongoing study activities include the following:

- A water needs assessment for the Henrys Fork Watershed has been drafted to support the Basin Study and has been distributed to participating stakeholders for comment.
- A working list of surface water storage alternatives has been developed to identify new potential storage sites and to document sites investigated in previous studies. The list of 26 storage sites will be reduced to a short list of sites appropriate for reconnaissance level evaluation.
- Reclamation is compiling information about potential conservation and water management alternatives which provide for development of water supply and improvement of water management.

Reclamation continues to work with stakeholders to obtain relevant data and to address concerns about study content and process. The most recent newspaper article about the study is attached for reference.

## Weiser-Galloway Project

A 50:50 cost-share agreement between the IWRB and the U.S. Army Corps of Engineers (Corps) was executed on June 3, 2010 to complete the *Weiser-Galloway Gap Analysis, Economic Evaluation and Risk-Based Cost Analysis Project* (Weiser-Galloway Project). The Project is a reexamination of specific components of the previously identified Galloway Dam and Reservoir site (Corps studies from 1987-1994) based on current conditions, and is intended to be used by decision makers in determining whether to move forward with a full feasibility level study.

The project was completed in early March on schedule. The \$150,000 final cost was \$50,000 under the total estimated project budget of \$200,000. Approximately \$21,000 of credit was approved by the Corps for in-kind services provided by IDWR staff on behalf of the IWRB, resulting in a net cash contribution of an estimated \$54,000 by the IWRB. The IWRB was therefore able to leverage a \$200,000 joint Corps/IWRB project, which would have cost \$750,000 if contracted, for only \$54,000 cash.



Members of the project development team, including staff from the Corps, IDWR, and Senior Advisor Jack Peterson, are prepared to present results of the study at a future meeting as directed by the IWRB.

#### Minidoka Dam Raise Special Study

The U.S. Bureau of Reclamation completed the Minidoka Dam Raise Special Study in May 2010, evaluating the structural raising of Minidoka Dam to accommodate a 5-foot rise in normal reservoir water surface elevation. Results from the study indicate the proposed dam raise is feasible and would result in an additional storage capacity of approximately 67,115 acre-feet and an average annual yield of 33,000 acre-feet. The estimated cost in today's dollars to construct the dam raise after the completion of the spillway repair is \$205 million.

Further action is on hold pending changes in economic or other conditions, at which time the IWRB will consider further action.

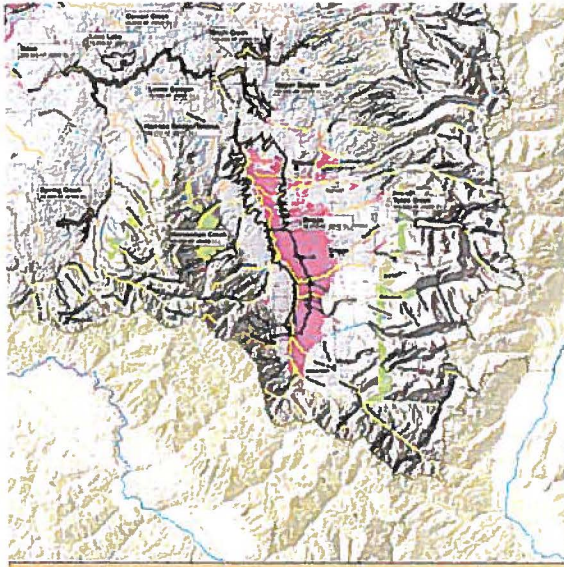
Water storage alternatives all over the map

April 16, 2011

By Hope Strong

[ShareThis](#)

on Dam one of many alternatives for future management



*The pink represents areas that could flood with one water storage plan offered by the Bureau of Reclamation. Some believe that 26 storage options on the table are meant to distract from the possibility of a controversial new Teton Dam. Map courtesy of the BLM*

The construction of a dam at Harrop's Bridge along the Teton River would result in nearly 600K Acre Feet of additional water storage in eastern Idaho.

That's three times the storage promised to the region by the Teton Dam that failed in the early 70s.

Damming the river west of Tetonville would flood a significant portion of the valley and displace hundreds of residents, but it is just one of 26 alternative storage options being considered by the Bureau of Reclamation. Damming Bitch, Badger, Horseshoe and Conant Creek are other alternatives considered by the Bureau as a part of the Henry's Fork Basin Study.

"They've thrown the spaghetti on the wall and every last thing has stuck," said Kim Trotter in reference to storage alternatives throughout the region.

As the director of the Idaho Water Project for Trout Unlimited, Trotter has tenaciously fought against the notion to rebuild the Teton Dam, but she battles against a well-funded effort. Between Idaho Department of Water Resources and Bureau of Reclamation, \$800K has been put toward a water study.

Initially called the Teton Dam Study, public input is now being solicited by the state under the moniker of the Henry's Fork Basin Study. After meeting with such federal officials as the Bureau Commissioner Michael Connor and his boss, Anne Castle, the Assistant Secretary of Interior for Water and Science, conservation groups felt like they were getting some traction after getting a lot of lip service at the state level, Trotter said, but storage alternatives are just the tip of the iceberg and a red herring of sorts, diverting attention away from the controversial notion of rebuilding the Teton Dam.

"One of the things we really want to see is something useful for irrigators," Trotter said of the Henry's Fork Basin Study. "But the focus has just been on storage. Can we talk aquifer recharge or water markets? How about credits or piping projects? There are a lot of other alternatives."

Meeting since the beginning of this year, the Henry's Fork Watershed Council is the forum in which the public has been encouraged to be involved in the process of evaluating alternatives for water management in the region, but Trotter and other conservation groups question the progress and process of these meetings.

"You don't begin designing and building a house without knowing what your goal is," Trotter said. "By determining your needs, you begin to define your goals. The wants for water are infinite. The needs, however, are simply not."

In the slow-moving bureaucratic process, Reclamation is required to receive public input. The federal agency's \$400K contribution was funded through a Water Smart grant and warrants following specific process.

As Reclamation develops a matrix to map the pro and cons of different water management solutions, it solicited comments from organizations such as Trout Unlimited. Trotter's response reiterated a desire for goals.

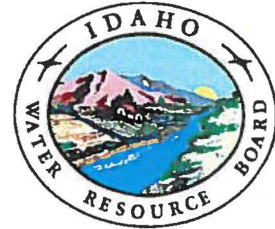
"Our first suggestion is that Reclamation identify tentative water supply 'needs' as part of its ranking criteria, a point that we have raised on multiple occasions since the inception of this study," stated a letter penned last month that was cosigned by other conservation groups like Friends of the Teton River and American Rivers, along with TU. "This could be as simple as identifying general locations, amounts and timing of water needs in the Upper Snake River Basin. It is impossible to appropriately screen options without knowing the problems you are trying to solve."

Bob Schattin with the Bureau of Reclamation has been conducting much of the Henry's Fork Basin Study, including the first draft of a needs assessment.

And while the water needs of the region may have changed over the years, Schattin has been compiling data from studies over the past decades that considered water storage specifically. His goal is to take the next step by identifying a handful of site specific alternatives and engage in a reconnaissance level study. At the cost of \$20K per study, Schattin has budgeted for approximately 10. The next step is an appraisal level analysis. At a cost of \$100K per study, Schattin has budgeted for two appraisals, but he stressed that these are only studies.



# Memorandum



To: Idaho Water Resource Board

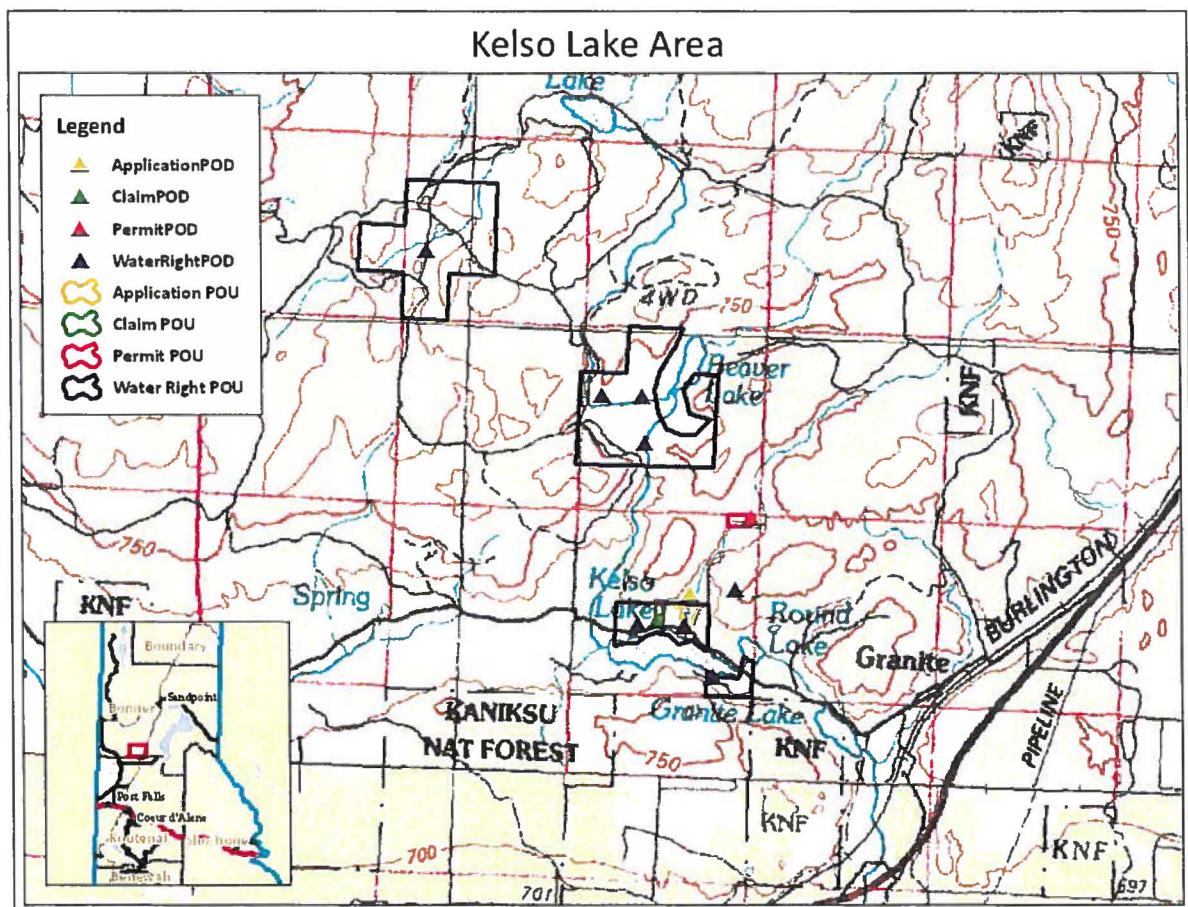
From: Morgan Case

Date: May 13, 2011

Re: Minimum Stream Flows – Kelso Lake MLL & Pack River Administration

## Kelso Lake Minimum Lake Level

Board staff met with landowners near Kelso Lake (see map) to discuss their request for establishment of a minimum lake level water right. There are no historic lake level measurements on which to support a minimum lake level application. Staff recommended that the landowners install a staff plate and monitor levels of the lake throughout the year to determine the level that is capable of being maintained. The landowners have formed a group that is working on installation of the gage and building local support for the minimum lake level.

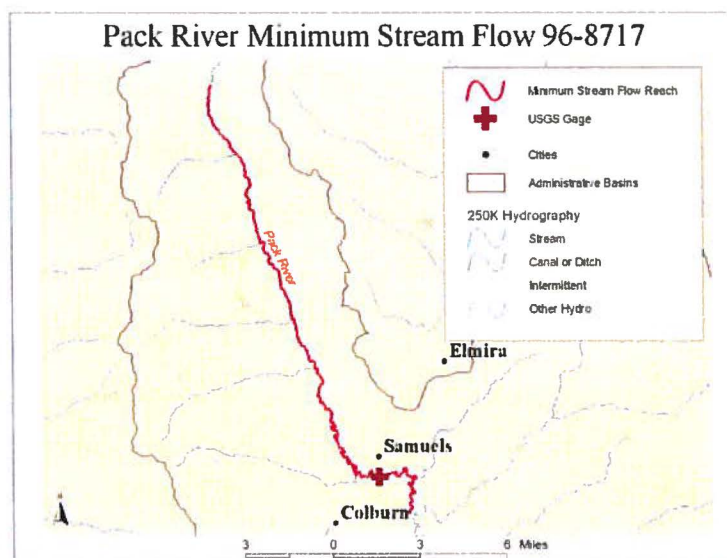


## Pack River Minimum Stream Flow 96-8717

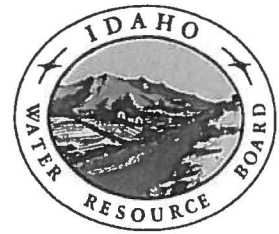
IDWR received an email on August 2, 2010 from a resident whose property is adjacent to the Pack River, tributary to Lake Pend Oreille. The landowner expressed concerns that her neighbor was diverting a water right for irrigation out of priority, thereby injuring the Board's Pack River minimum stream flow right.

| IWRB MSF Water Right 96-8717 |   |
|------------------------------|---|
| Source:                      | Pack River  |
| Owner:                       | Idaho Water Resource Board  |
| Purposes:                    | To preserve fish, wildlife, scenic and recreational values and to protect and enhance water quality.                                |
| Priority Date:               | June 15, 1992   |
| Reach Description:           | Pack River beginning at the confluence with Zunick Creek and extending downstream for 24 miles to the confluence with Grouse Creek. |
| Rates of Flow:               | 129 cfs    November 1 to July 31<br>54 cfs     August 1 to October 31   |

The resident requested information on whether the minimum stream flow was being met and whether her neighbor's irrigation was diverting out of priority. There is not an active gage on the Pack River, so the Department and the Board cannot determine whether there was any injury to the minimum stream flow. With the Board's current efforts to protect the minimum stream flows on the Big Wood River, the Board may wish to review how to protect minimum flow rights in other areas, like the Pack River.



# MEMO



**To:** Idaho Water Resource Board  
**From:** Helen Harrington  
**Subject:** Kootenai River Minimum Stream Flow Application No. 98-7705  
**Date:** May 2, 2011

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The IWRB applied for a minimum stream flow of 5,340 cfs on the Kootenai River on June 15, 1992. The affected reach is approximately 18.5 miles long from the Idaho/Montana state line to the highway bridge at Bonners Ferry (map attached). The purpose is for the protection of fish and wildlife habitat, aquatic life and recreational values.

The appropriation of 5,340 cfs was based on 40% of the mean annual flow through the reach as measured at the USGS gage at Leonia. The 40% request was based on the Montana Method, and would provide a "good" flow for summertime needs and an "outstanding" flow for wintertime needs. According to the original documentation supporting the application, this flow approximates the minimum flow necessary for fish and wildlife habitat, aquatic life, and recreational values. The Montana Method is based on field studies of stream conditions at varying flow rates. The optimum flow for fish, wildlife, recreation, and related environmental resources ranges from 60% to 100% of the mean annual flow.

In 1993, 2009 and again in 2010, the IWRB requested a delay in processing the application. The basis for the requested delays has been to provide time to gather information regarding the necessity and technical merits of the application. Prior to 2009, IDWR had not been enforcing Rule 40.02.d which limited requests for delay to one year. Since 2009, IDWR has been requesting the IWRB submit requests as each delay expires. The enforcement of this rule has resulted in frequent requests and is anticipated to be an ongoing activity unless other guidance to staff is provided from the IWRB.

In 1993 when the IWRB requested the first delay in processing, there were several studies underway which would bear on the flow needs for white sturgeon and the IWRB needed to await the results of those studies. Since that time, much has occurred in the region associated with the protection of white sturgeon. In 1994, the US Fish and Wildlife Service listed the Kootenai River White Sturgeon as an endangered species. Impacts of the management of Libby Dam in Montana are The Kootenai Tribe has actively studies the species and manages a hatchery and raises and releases juvenile sturgeon in an ongoing program.

## Issues to Consider

### *Changed Conditions and Public Interest*

Since the application was filed in 1992, several protection efforts have been instituted in the basin and there are many interests pursuing activities in the basin. The IWRB should consider what role or value a minimum stream flow water right has in relation to the other efforts.

### *Priority Date*

The delays protection the priority date (June 15, 1992) established by the initial application filing. However, if there is a change to the application, such as a change in the flows, that the priority date could be advanced.



### *Impacts on other water users*

According to the order approving the delay in 2009, there are two groups who could potentially be injured by the continued delays: Junior water right holders (junior appropriators) and water right applicants with proposed diversion with priority dates junior to the proposed minimum stream flow (junior applicants).

Junior appropriators could be affected by the introduction of a new senior water right that receives water the junior appropriators have become accustomed to using. In the current situation, they have an uncertain future water supply. Junior applicants could theoretically be affected by the continued delay in processing because it perpetuates the level of uncertainty about the water supply available for the proposed projects. Continuing to request delays does not increase the uncertainty for either group but does not decrease the uncertainty either.

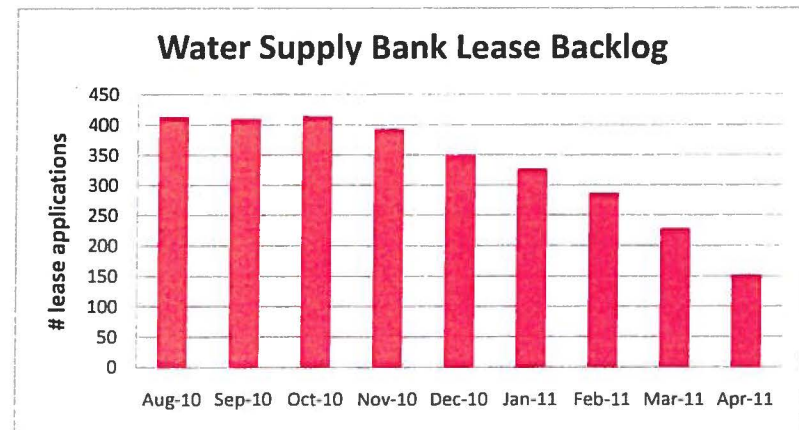
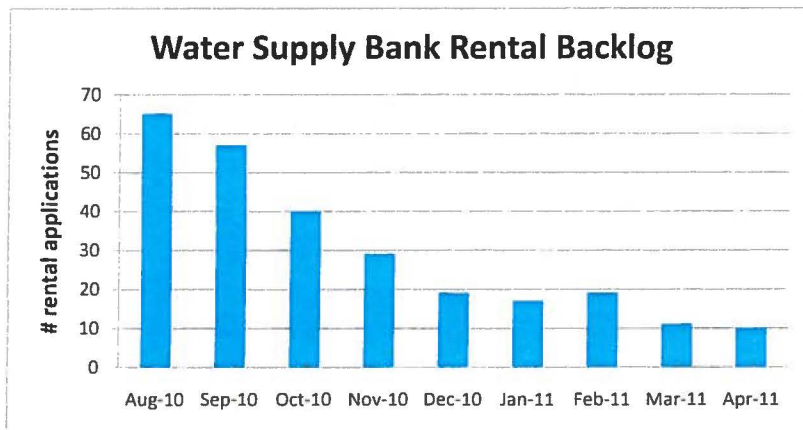
### **Options:**

Discussion with IDWR staff suggested several options which might be available for consideration:

1. Withdraw the application. The IWRB can pursue a MSF water right at a future date when the information necessary is available.
2. Request another delay, and evaluate the resources and funding needed to obtain necessary data or undertake studies.
3. Request change in Idaho Code to allow for unlimited delays on applications, similar to the current allowance to IWRB for permit extensions.

|   | Aug-10 | Sep-10 | Oct-10 | Nov-10 | Dec-10 | Jan-11 | Feb-11 | Mar-11 | Apr-11 | May-11 | Jun-11 | Jul-11 | Aug-11 | Sep-11 | Oct-11 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Rental Applications -- The Backlog</b> | 65     | 57     | 40     | 29     | 19     | 17     | 19     | 11     | 10     |        |        |        |        |        |        |
| <b>Rental Applications Received</b>       | 0      | 4      | 2      | 1      | 4      | 4      | 0      | 12     |        |        |        |        |        |        |        |
| <b>Rentals Approved</b>                   |        |        | 12     | 8      | 6      | 0      | 3      | 11     |        |        |        |        |        |        |        |
| <b>Rental Applications Denied</b>         | 0      | 3      | 2      | 3      | 0      | 0      | 1      | 0      |        |        |        |        |        |        |        |
| <b>Lease Applications -- The Backlog</b>  | 412    | 408    | 413    | 392    | 348    | 326    | 286    | 227    | 151    |        |        |        |        |        |        |
| <b>Lease Applications Received</b>        | 13     | 18     | 4      | 2      | 2      | 9      | 7      | 4      |        |        |        |        |        |        |        |
| <b>Leases Approved</b>                    |        |        | 28     | 30     | 34     | 26     | 33     | 54     |        |        |        |        |        |        |        |
| <b>Lease Applications Denied</b>          | 3      | 9      | 0      | 21     | 1      | 10     | 14     | 30     |        |        |        |        |        |        |        |

Total Applications queries are first of the month unless noted otherwise



# Memorandum



To: Idaho Water Resource Board  
From: Helen Harrington  
Date: May 2, 2011  
Re: Wood River Basin Enhancement Water Supply Bank

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## Action Item

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Consider attached resolution to amend Local Operating Procedures for Wood River Basin Enhancement Water Supply Bank.

### Background

In 2007, legislation was passed that directed the IWRB to appropriate two minimum stream flows and establish a local rental pool to facilitate the donated water rights to meet the flows. Idaho Code 42-1508 stated that these minimum flows would be satisfied through donation of water rights. Idaho Code 42-1508 directed the following appropriations:

- Big Wood River, 60 cfs, in the reach immediately below the Bellevue diversion (45 district canal) downstream to the USGS gag station number 13140800, located below Stanton Crossing and above Magic Reservoir, and
- Little Wood River, 74 cfs, from the confluence of Silver Creek downstream to the USBLM diversion located near the city of Richfield.

The Wood River Basin Enhancement Water Supply Bank is the local rental pool established to carry out the Wood River Legacy Project. In September 2007, the IWRB appointed a local committee comprised of the Water District 37/37M advisory committee, as directed in legislation. In February 2008, the IWRB approved operating procedures. An amendment to the procedures was approved in July 2010.

The local committee has requested an amendment to the local operating procedures to address canal loss issues by adding section 5.5 as shown on the attached resolution.

Also attached is a list of the donated rights currently in the bank.

**Wood River Basin Enhancement Water Supply Bank  
Currently Held Donations**

| Water Right Number | Donor                     | Donation Begin Date | Expiration Date | Source                                  | Priority  | Nature of Use | Total Volume of Water Right (cfs) | Donated Volume (cfs) | Delivered Volume prior to 1886 shutoff (cfs) | Volume after 1886 shutoff (cfs) | Comments          |
|--------------------|---------------------------|---------------------|-----------------|---|-----------|---------------|-----------------------------------|----------------------|--|---------------------------------|-------------------|
| 37-21855           | Richard and Barbara Boyer | 5/12/2009           | 12/31/2012      | Big Wood River Tributary to Malad River | 3/24/1883 | Irrigation    | 0.09                              | 0.090                | 0.059  | 0.045                           | Accepted in 2008. |
| 37-21872           | Richard and Barbara Boyer | 5/12/2009           | 12/31/2012      | Big Wood River Tributary to Malad River | 7/10/1884 | Irrigation    | 0.005                             | 0.005                | 0.0032                                       | 0.0025                          | Accepted in 2008. |
| 37-21889           | Richard and Barbara Boyer | 5/12/2009           | 12/31/2012      | Big Wood River Tributary to Malad River | 9/18/1885 | Irrigation    | 0.05                              | 0.050                | 0.033  | 0.025                           | Accepted in 2008. |
| 37-21906           | Richard and Barbara Boyer | 5/12/2009           | 12/31/2012      | Big Wood River Tributary to Malad River | 6/12/1886 | Irrigation    | 0.005                             | 0.005                | 0.032  | 0                               | Accepted in 2008. |
| 37-21923           | Richard and Barbara Boyer | 5/12/2009           | 12/31/2012      | Big Wood River Tributary to Malad River | 6/15/1891 | Irrigation    | 0.14                              | 0.140                | 0.092  | 0                               | Accepted in 2008. |

**Wood River Basin Enhancement Water Supply Bank  
Accepted Donations for Water Year 2011**

|          |                 |           |           |   |           |            |       |       |       |       |   |
|----------|-----------------|-----------|-----------|---|-----------|------------|-------|-------|-------|-------|---|
| 37-21514 | Scott C. Porter | 4/15/2011 | 4/15/2012 | Big Wood River Tributary to Malad River | 3/24/1883 | Irrigation | 0.158 | 0.125 | 0.083 | 0.063 | Donating 79.2% of full water rights for 1 year. |
| 37-51525 | Scott C. Porter | 4/15/2011 | 4/15/2012 | Big Wood River Tributary to Malad River | 7/10/1884 | Irrigation | 0.01  | 0.008 | 0.005 | 0.004 | Donating 79.2% of full water rights for 1 year. |
| 37-21536 | Scott C. Porter | 4/15/2011 | 4/15/2012 | Big Wood River Tributary to Malad River | 9/18/1885 | Irrigation | 0.1   | 0.079 | 0.053 | 0.04  | Donating 79.2% of full water rights for 1 year. |
| 37-21547 | Scott C. Porter | 4/15/2011 | 4/15/2012 | Big Wood River Tributary to Malad River | 6/12/1886 | Irrigation | 0.01  | 0.008 | 0.005 | 0     | Donating 79.2% of full water rights for 1 year. |
| 37-21558 | Scott C. Porter | 4/15/2011 | 4/15/2012 | Big Wood River Tributary to Malad River | 6/15/1891 | Irrigation | 0.26  | 0.206 | 0.136 | 0     | Donating 79.2% of full water rights for 1 year. |

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE )  
WOOD RIVER BASIN ENHANCEMENT ) RESOLUTION  
WATER SUPPLY BANK )  
\_\_\_\_\_ )

WHEREAS, Section 42-1765B, Idaho Code, authorizes the Idaho Water Resource Board (IWRB) to appoint a local committee whose responsibilities include, among other responsibilities, adoption of local procedures to implement the Wood River Basin Water Enhancement Water Supply Bank, and such procedures must be approved by the IWRB; and

WHEREAS, the local committee submitted procedures to the IWRB which were approved on March 14, 2008 and amended on July 23, 2010; and

WHEREAS, the local committee is proposing an additional amendment to Section 5 of the procedures based on experience and additional information in operating the Wood River Basin Water Enhancement Water Supply Bank; and

WHEREAS, the Department of Water Resources has reviewed the proposed amendment and has determined it to be in substantial compliance with the IWRB's Water Supply Bank Rules, IDAPA 37.02.03.040; and

WHEREAS, the IWRB has determined that Section 5 of the procedures should be amended.

NOW THEREFORE BE IT RESOLVED that the existing Section 5 of the Wood River Basin Water Enhancement Water supply Bank Procedures shall be amended to add the following:

5.5

Based on system losses identified by Allen Merritt of the Idaho Department of Water Resources from his conversations with Mr. Jim Eakin (Transfer 4920 May 29, 1997), delivery losses within the District 45 Canal will be calculated as follows:

- A) Up until the 1886 priorities are cut, a 15% loss will be taken from the Big Wood River to the first big divide in the canal (approximately 1 ½ mile). In addition to the 15% loss, an additional 5% loss per mile is charged. Since the delivery point is 5 miles below the give divide, there is a total loss of 40%.
- B) After the 1886 priorities are cut, a loss of 100% will be charged to all water rights.

NOW THEREFORE BE IT FURTHER RESOLVED that this amendment be utilized effective this current year in the Wood River Basin Water Enhancement Water Supply Bank.

DATED this 13<sup>th</sup> day of May, 2011.

\_\_\_\_\_  
TERRY T. UHLING, Chairman  
Idaho Water Resource Board

ATTEST: \_\_\_\_\_  
BOB GRAHAM, Secretary



April 25, 2011

Dear Governor:

I am writing to report on the Western States Water Council (WSWC) 165th meetings held in Santa Fe, New Mexico on April 13-15, 2011. The State of New Mexico hosted a pre-meeting tour of the Buckman Direct Diversion Project, which pumps water from the Rio Grande River and transfers, treats and delivers it to water users in the City of Santa Fe and Santa Fe County.

At the Full Council meeting on April 15, the WSWC adopted two positions: (1) supporting the development of a national program of safety standards for levees and flood water conveyance canals, but specifying that it should not apply to water supply canals which are subject to separate requirements (#329); and (2) calling for adequate appropriations for the Clean Water State Revolving Fund (SRF) and the Drinking Water SRF, and urging greater flexibility and fewer restrictions on state SRF management (#330). The latter combines and revises two prior SRF positions (#295 and #296), which were allowed to sunset.

New Mexico State Engineer and WSWC member John D'Antonio discussed his state's water resources. He reported that most of the state is experiencing its second driest year on record and that statewide precipitation through March is 30% of average. New Mexico has been engaged in an extensive effort to meter surface and ground water usage, and John noted that the state is almost 100% metered in key basins. He also said there are currently twelve active adjudications in New Mexico and that the state has created an Indian water rights settlement fund to provide direct spending for the state's portion of authorized federal settlements.

The Full Council meeting also included a panel discussion on water resources leadership. Peter Carlson, a governmental relations consultant with Will & Carlson in Washington, D.C., said there is a need for state, local, and tribal governments to better collaborate to make the best use of existing tools and available federal funding. Next, National Waterways Conference Chairman Fred Caver, who served previously as the Deputy Director of Civil Works for the U.S. Army Corps of Engineers, said federal policy is changing toward a paradigm of greater, centralized federal control over water resources planning in which environmental restoration interests take precedence over economic development. Caver also said a coordinated effort among water resources interests is needed to be effective in the Congress.

Following the panel, WSWC Chair Weir Labatt also proposed that the Western Governors' Association (WGA) and WSWC work with other water organizations to develop a "shared water vision" as a means to elevate water as a critical national issue. Three possible and overarching principles for such a vision include: (1) a recognition of the importance of an integrated, comprehensive, and collaborative approach to water resources management, development, and protection; (2) support for an approach that balances economic and environmental needs; and (3) recognition that any water policy, plan, or planning process must recognize, defer to, and support state, tribal, and local government water plans and planning processes. As a first step, Weir proposed that the WSWC agree on principles that it would use in working with other organizations to develop a shared vision. A possible second step would involve holding a water summit with other organizations next Spring in Washington, DC to raise awareness of the importance of water.

Mike Fallon, with the U.S. Army Corps of Engineers, and a member of our Western Federal Agency Support Team (WestFAST) reported on 2010 accomplishments and highlighted action items from its 2011 work plan. WestFAST will focus generally on interagency collaboration, activities to support the WSWC's work plan, and implementing recommendations from the WGA's 2008 Next Steps report. Mike also mentioned that the Corps has placed a liaison in the Kansas Water Office to improve regional collaboration.

During the Water Resources Committee meeting, Avra Morgan, Dave Raff, Chris Perry, Jim Keys, and Dean Marrone with the Bureau of Reclamation discussed various grant programs, including WaterSMART, Title XVI projects and basin studies. Keys also said Reclamation has met with the National Committee on Levee Safety to express its concerns regarding the national levee safety program, which it does not believe was intended to apply to water delivery canals. Water Resources Committee Vice-Chair Alex Davis of Colorado and Tom Iseman, WGA staff, discussed efforts under a Department of Energy grant to address considerations regarding water demand and availability in energy

resources planning. Working with Sandia National Laboratories, we are: (1) identifying and collecting available water data; and (2) developing an integrated Energy-Water Decision Support System (DSS). Stephanie Moore, with Daniel B. Stephens and Associates, described aquifer recharge efforts in New Mexico's Middle Rio Grande Basin, encompassing the cities of Albuquerque and Rio Rancho. The basin has experienced groundwater declines since the 1960s, and there are four recharge projects operating or planned that range in volume from 700 to 3,000 acre-feet per year. The projects use infiltration or injection recharge techniques.

In the Water Quality Committee, Environmental Protection Agency (EPA) representatives reported on current rule making efforts. First, Allison Wiedeman, Office of Water, discussed the development of a general permit that will require National Pollutant Discharge Elimination System (NPDES) permits for pesticide applications in response to the Sixth Circuit's decision in *National Cotton Council v. EPA*. Second, Holly Galavotti, with EPA's Water Permits Division, said EPA will consider developing performance standards for stormwater discharges from new and redeveloped sites that promote green infrastructure. The new rule would expand the areas subject to regulation. Marcy Leavitt, New Mexico Department of the Environment, discussed their water quality issues, followed by John Calkins, Arizona Department of Environmental Quality, who reported on possible EPA efforts to address threats to drinking water from arsenic, fluoride, total chromium, and perchlorate. Sarah Johnson, Colorado Water Quality Control Division, described her state's antidegradation program. Lastly, Andrew Bartlett, Florida Department of Environmental Quality, discussed EPA's nutrient standards for his state, which are the first in the Nation to establish numeric criteria for nitrogen and phosphorus discharges.

The Legal Committee listened to former Oklahoma Water Resources Board Director Duane Smith, a prior WSWC Chair, and Barney Austin with Intera, discuss working as consultants for Oklahoma's Choctaw and Chickasaw Tribes to develop a regional water plan for Southeast Oklahoma, where they claim water rights, building on Oklahoma's Comprehensive Water Plan. Next, DL Sanders reported on the *Bounds* and *Tri-State* cases, on appeal to the New Mexico Supreme Court, which address the constitutionality of the state's domestic well statute and its Active Water Resource Management regulations. John Utton of New Mexico provided an update on the implementation of the Claims Resolution Act of 2010. Then Tom Iseman with WGA described a proposal to work with WSWC states and others to identify innovative ways of mitigating the adverse impacts of water transfers on agricultural and environmental values. Jennifer Gimbel of Colorado reported that a newly formed WSWC subcommittee will address ways to improve federal-state collaboration with respect to federal non-tribal water rights.

Of note, WestFAST coordinated a pre-meeting data exchange workshop intended to begin the discussion of how states and federal agencies can better share water data. It focused on water use estimation, as well as data sharing methodologies and concepts. The workshop included participation from a number of representatives from state, federal, and other entities, including: David Maidment with the University of Texas; Jeff Simley and Eric Evenson with the U.S. Geological Survey; Kansas Chief Engineer Dave Barfield; Vince Tidwell with Sandia National Lab; Tommy Dewald, EPA, Dave Wunsch, the National Groundwater Association; and Wayne Sleep, the Natural Resources Conservation Service.

The WSWC will next meet in Bend, Oregon on July 27-29. The WSWC and the Native American Rights Fund will also hold their biennial Symposium on the Settlement of Indian Reserved Water Rights Claims on August 23-25, in Billings, Montana. The Council's fall meetings are planned for early October in Idaho Falls, Idaho.

If you have any questions regarding these matters, you may wish to contact your appointed Council representatives, who are.... Alternatively, I would be happy to be of assistance.

Sincerely,

Tony Willardson  
Executive Director

Enclosures

**POSITION  
of the  
WESTERN STATES WATER COUNCIL  
regarding  
THE NATIONAL LEVEE SAFETY ACT OF 2007  
and the  
INTERPRETATION OF LEVEES AND WATER SUPPLY CANALS**

**Santa Fe, New Mexico  
April 15, 2011**

**WHEREAS**, Congress enacted the National Levee Safety Act of 2007 (the Act) in the aftermath of Hurricane Katrina and the failure of the levees and flood water conveyance canals in New Orleans, Louisiana;<sup>1</sup> and

**WHEREAS**, the Act created the “National Committee on Levee Safety” (NCLS) to develop recommendations for a national levee safety program, including a strategic plan for implementation of the program; and

**WHEREAS**, in January 2009, the NCLS released a draft report, “Recommendations for a National Levee Safety Program – A Report to Congress from the National Committee on Levee Safety;” and

**WHEREAS**, the report’s core recommendation calls for the creation of an independent National Levee Safety Commission to: (1) develop national safety standards for levees for common, uniform use by all federal, state, and local agencies; (2) inventory and inspect all levees on a periodic basis; and (3) develop national tolerable risk guidelines for levees; and

**WHEREAS**, Section 9002(3) of the Act defines the term “levee” as embankments that provide protection from weather events and are subject to water loading for only a few days or weeks a year, but also includes “structures along canals that constrain water flows and are subject to more frequent water loadings that do not constitute a barrier across a watercourse;” and

**WHEREAS**, the NCLS concluded that water supply canals are “... canals that constrain water flows and are subject to more frequent water loadings [than are levees] ...” and therefore treats the embankment sections of water supply canals as “structures along canals;” and

**WHEREAS**, the NCLS’s recommendations for a national program of safety standards and tolerable risk guidelines for levees would therefore apply to water supply canals throughout the West, including both non-federal facilities and federal facilities managed by the U.S. Bureau of Reclamation and state and local agencies; and

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<sup>1</sup> 121 Stat. 1288, P.L. 110-114.,

**WHEREAS**, Reclamation already has authority under the Aging Water Infrastructure and Maintenance Act, which Congress enacted as part of the Omnibus Public Lands Management Act of 2009,<sup>2</sup> to address the canals it owns, and inspections of those embankment sections of canals located in urban areas are in process; and

**WHEREAS**, the NCLS is now in the process of drafting proposed legislation that would implement the recommendations in its report; and

**WHEREAS**, the Act's definition of the term "levee" in no way binds the NCLS, which is free to recommend new definitions in any legislation it may propose; and

**WHEREAS**, all 50 states confront levee issues, but the issues associated with water supply canals are essentially confined to the 17 western states; and

**WHEREAS**, there are major institutional differences between levees and water supply canals and the "political systems" commonly used to govern levees that warrant treating them separately; and

**WHEREAS**, water supply canals are essentially standalone features whose integrity is not dependent on the performance of other canals, and therefore do not share the potential for systemic failure; and

**WHEREAS**, levees are designed to provide protection from flooding and make development behind them possible, while water supply canals serve a separate and distinct purpose; and

**WHEREAS**, the stakeholder communities and interests involved in addressing the issues related to levees and water supply canals are different, and addressing them jointly through a single national program would not be conducive to effectively addressing either set of issues; and

**WHEREAS**, potential public safety problems involving water supply canals do not often involve a lack of engineering expertise or design standards, but the ability to finance necessary improvements; and

**WHEREAS**, Reclamation and the states are in the best position to address the public safety issues presented by water supply canals because such issues are localized and minor in comparison to the risks associated with inadequately designed and maintained levees.

**NOW, THEREFORE, BE IT RESOLVED**, that the Western States Water Council supports the development of a national program of safety standards for levees and flood water conveyance canals; and

**BE IT FURTHER RESOLVED**, that any proposed legislation creating a national program of safety standards for levees and flood water conveyance canals should not apply to federal or non-federal water supply canals; and

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<sup>2</sup> 123 Stat. 991, P.L. 111-11.

**BE IT FURTHER RESOLVED**, that the Administration should request and Congress should appropriate adequate funding for the Aging Water Infrastructure and Maintenance Act; and

**BE IT FURTHER RESOLVED**, that the Administration and Congress should work together to encourage implementation of Title II of the Rural Water Supply Act of 2006,<sup>3</sup> and provide for the use of federal loan guarantees for addressing extraordinary maintenance needs related to the operation of federal Reclamation projects.

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<sup>3</sup> 120 Stat. 3345, P.L. 109-451.



**POSITION  
of the  
WESTERN STATES WATER COUNCIL  
regarding the  
CLEAN WATER STATE REVOLVING FUND  
and the  
DRINKING WATER STATE REVOLVING FUND**

**Santa Fe, New Mexico  
April 15, 2011**

**WHEREAS**, the economies of every state and the Nation as a whole depend upon sufficient water supplies of suitable quality, which require adequate water and sewer infrastructure; and

**WHEREAS**, the Environmental Protection Agency's (EPA) Clean Water State Revolving Fund and Drinking Water State Revolving Fund (SRF programs) provide states with capitalization grants that are leveraged with state contributions to offer financial assistance to cities, towns, communities, and others for the planning, design, construction and rehabilitation of drinking water and wastewater-related infrastructure; and

**WHEREAS**, both SRF programs are administered by each State in coordination with EPA, and these programs are one of the principal tools that states use to pursue the goals of the Clean Water Act and Safe Drinking Water Act; and

**WHEREAS**, the Nation's wastewater and drinking water infrastructure is aging and in need of repair and replacement; and

**WHEREAS**, public investment in water infrastructure yields significant economic benefits, as evidenced by U.S. Department of Commerce estimates that one dollar invested in water infrastructure generates \$2.62 in economic output in other industries and that each job created in the local water and sewer industry creates 3.68 jobs in the national economy; and

**WHEREAS**, the Environmental Protection Agency (EPA) estimates a total capital investment need of \$298.1 billion for water quality infrastructure and \$334.8 billion for drinking water infrastructure nationwide over the next 20 years; and

**WHEREAS**, the EPA has identified a significant funding gap under current spending and operation practices; and

**WHEREAS**, federal budget requests that propose significant reductions in SRF funding ignore the multitude of needs as identified by EPA, particularly given that many states and communities are struggling to meet their water and wastewater challenges in the face of growing populations and aging infrastructure; and

**WHEREAS**, to the extent federal law has established certain nationwide levels of treatment for drinking water and wastewater, the federal government has an obligation to provide states with the necessary financial and technical assistance needed to comply with such requirements, including the appropriation of adequate funding for SRF capitalization grants; and

**WHEREAS**, EPA's Clean Water and Drinking Water Infrastructure Sustainability Policy burdens state SRF programs with the exclusive responsibility of promoting sustainable systems; and

**WHEREAS**, the SRF Programs already have measures in place to ensure system sustainability and which account for individual state needs and priorities, making the SRF programs one of the most successful delivery mechanisms for federal assistance; and

**WHEREAS**, every federal dollar that EPA directs away from addressing the primary goal of the SRF programs – addressing public health and water quality protection – reduces the capacity of a state to leverage their programs and address infrastructure needs; and

**WHEREAS**, the more federal requirements that are placed on State SRF programs the less attractive the SRFs become to local entities.

**NOW, THEREFORE, BE IT RESOLVED**, that the Administration and Congress should work together to ensure that stable and continuing federal appropriations, increased annually by a construction inflation index, are made to the SRF capitalization grants at funding levels that are adequate to help states address their water infrastructure needs; and

**BE IT FURTHER RESOLVED**, that the SRF programs should provide for greater flexibility and fewer restrictions on state SRF management.