AGENDA
IDAHO WATER RESOURCE BOARD
MEETING NO. 5-13
March 22, 2013 at 7:30 am
Idaho Water Center
Conf. Rm. 602 B, C, D
322 E. Front St., Boise, ID 83702

1. Roll Call
2. Executive Session – Board will meet pursuant to Idaho Code § 67-2345 subsection (1)(f), for the purpose of communicating with legal counsel regarding legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. Executive Session is closed to the public.
3. Agenda and Approval of Minutes 9-12, 10-12, 1-13, and 2-13
4. Committee Appointments and Scheduling
5. Committee Reports
   a. Upper Snake River Advisory Committee
   b. Water Supply Bank
6. Public Comment
7. Director’s Report
8. Legislative Update
9. Financial Update
   a. Status Update
   b. Harvest Valley HOA Loan
10. Rental Pools
    a. Rental Pools 2012 Annual Summary
    b. Water District 01 Rental Pool Procedures
11. Water Supply Bank
12. Pristine Springs
13. Storage Studies Update
14. ESPA Management Update
15. Planning Programs Update
16. IWRB Northern Idaho Adjudication Activity
17. Other Non-Action Items for Discussion
18. Next Meeting and Adjourn

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 Department staff by email Mandi.Pearson@idwr.idaho.gov or by phone at (208) 287-4800.
Work Session in Preparation for
IWRB Meeting No. 5-13

March 21, 2013 at 8:00 am
Idaho Water Center
6th Floor, Conf Rms 602 B, C & D
322 E. Front St., Boise, Idaho  83702

WORK SESSION AGENDA

1. Weiser-Galloway Project
2. Water Supply Conditions
3. ESPA Recharge Modeling
4. Cloud Seeding
5. Pristine Springs
6. Treasure Valley Aquifer Investigations
7. Lewiston Area Ground Water Management Activities

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 Mandi Pearson, Administrative Assistant, by email mandi.pearson@idwr.idaho.gov or by phone at (208) 287-4800.
January 3, 2013

Chairman Roger Chase called the meeting to order at approximately 10:00 am. There were six Board members present. Mr. Bob Graham and Mr. Terry Uhling were absent. A quorum was present.

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

*Board Members Present*

Roger Chase, Vice-Chairman
Leonard Beck
Vince Alberdi
Chuck Cuddy
Jeff Raybould
Peter Van Der Meulen

*Staff Members Present*

Brian Patton, Planning Bureau Chief
Gary Spackman, Director
Clive Strong, Deputy Attorney General
Matt Weaver, Engineer
Mandi Pearson, Administrative Assistant
Rich Rigby, Federal Liaison
Neeley Miller, Water Resource Planner
Helen Harrington, Planning Section Manager
Harriet Hensley, Deputy Attorney General
Stephen Goodson, Special Assistant to the Governor
Shasta Kilminster-Hadley, Deputy Attorney General

*Guests Present*

Carlton Parker, HydroLogic Inc
Alan Kelsch, Committee of Nine
Peter Anderson, Trout Unlimited
Walt Poole, Idaho Fish and Game
Lynn Tominaga, Idaho Ground Water Association
Hal Anderson, Idaho Water Engineering
Scott Magnuson, Barker Rosholt & Simpson

**Agenda Item No. 2, Executive Session**

At approximately 10:00 am the Board resolved into Executive Session by unanimous consent pursuant to Idaho Code Section 67-2345 subsection (1)(f), for the purpose of communicating with legal counsel regarding legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. No action was taken by
the Board during the Executive Session. The Board resolved out of Executive Session and into Regular Session at approximately 11:15 am.

**Agenda Item No. 3, Equitable Adjustment Agreement (Clive Strong, Deputy Attorney General)**

Mr. Clive Strong provided a general overview of the Blackfoot Equitable Adjustment Settlement Agreement and the Blackfoot River Water Management Plan. He requested the Board’s authorization to allow him to move forward and submit these two documents to the court. Mr. Alan Kelsch expressed his appreciation for Mr. Strong and the Attorney General’s office for their work on this document. There was further discussion regarding the parties involved in this agreement and plan.

Mr. Raybould made a motion to approve the resolution in the matter of the Blackfoot River Equitable Adjustment Settlement Agreement. Mr. Van Der Meulen seconded the motion. Voice Vote. All in favor. Motion carried.

**Agenda Item No. 4, TV CAMP (Neeley Miller, Water Resource Planner)**

Mr. Neeley Miller addressed the Board regarding the Treasure Valley Comprehensive Aquifer Management Plan (TV CAMP). The Water Resource Planning Committee met on December 13, 2013 and recommended that the Board hold the plan and not submit it to legislature in 2013. The committee recommended that all comments on the plan will be reconsidered and revisions to the plan will be brought to the Board this year prior to legislature in 2014.

Mr. Chuck Cuddy made a motion to accept the committee’s recommendation regarding the TV CAMP. Mr. Vince Alberdi seconded the motion. Voice Vote. All were in favor. Motion carried.

**Agenda Item No. 5, Recharge Water Rights Applications (Matt Weaver, Engineer)**

Mr. Matt Weaver discussed the recharge water rights applications. Mr. Weaver requested that the Board authorize staff to finalize the amendment of those applications for managed aquifer recharge. Mr. Weaver discussed the principles that will guide staff in the amendments to those water rights applications. Mr. Weaver also requested that the Board authorize the Chairman to sign those applications on behalf of the Board.

Mr. Jeff Raybould made a motion to authorize staff to finalize the amendments of the recharge water rights applications according to the discussed principles and to authorize the Chairman to sign the applications on behalf of the Board. Mr. Vince Alberdi seconded the motion. Voice Vote. All were in favor. Motion carried.

**Agenda Item No. 6, Next Meeting and Adjourn**

Mr. Patton stated the next meeting will be on January 24-25, which will be the same week as the Annual IWUA convention. Mr. Patton discussed new Board appointments that will be made by the Governor, and the confirmation hearings on the afternoon of the 25th. The Governor’s office is requesting that the Board report to the Senate Resources and Environment Committee at the same time.

Mr. Cuddy made a motion to Adjourn, and Mr. Raybould seconded the motion. Voice Vote. All were in favor. Motion Carried.

The IWRB Meeting 1-13 adjourned at approximately 11:30 am.
Respectfully submitted this _____ day of March, 2013.

________________________________________
Bob Graham, Secretary

________________________________________
Mandi Pearson, Administrative Assistant II

Board Actions:

1. Mr. Raybould made a motion to approve the resolution in the matter of the Blackfoot River Equitable Adjustment Settlement Agreement. Mr. Van Der Meulen seconded the motion. Voice Vote. All in favor. Motion carried.

2. Mr. Chuck Cuddy made a motion to accept the committee’s recommendation regarding the TV CAMP. Mr. Vince Alberdi seconded the motion. Voice Vote. All were in favor. Motion carried.

3. Mr. Jeff Raybould made a motion to authorize staff to finalize the amendments of the recharge water rights applications according to the discussed principles and to authorize the Chairman to sign the applications on behalf of the Board. Mr. Vince Alberdi seconded the motion. Voice Vote. All were in favor. Motion carried.
January 24, 2013

**Work Session**

Chairman Roger Chase called the meeting to order at approximately 1:00 pm. Mr. Bob Graham was absent. All other Board members were present.

During the Work Session the following items were discussed: Training on Open Meeting Law, Ethics, and Public Records by Garrick Baxter; Water Supply Conditions by Rick Raymondi; Pristine Springs by Brian Patton; Bell Rapids by Brian Patton; ESPA Update by Matt Weaver; Aquifer Planning and Management Background by Helen Harrington; and Storage Studies Update by Cynthia Bridge-Clark. No action was taken by the Board during the Work Session.

January 25, 2013

**IWRB Meeting**

Chairman Roger Chase called the meeting to order at approximately 7:30 am. Mr. Bob Graham and Mr. Chuck Cuddy were absent at the beginning of the meeting. Mr. Cuddy joined the meeting at a later time. All other Board members were present.

**Agenda Item No. 1, Executive Session**

At approximately 7:30 am the Board resolved into Executive Session by unanimous consent pursuant to Idaho Code Section 67-2345(1)(f), for the purpose of communicating with legal counsel regarding legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. No action was taken by the Board during the Executive Session. The Board resolved out of Executive Session and into Regular Session at approximately 8:45 am.

**Agenda Item No. 2, Roll Call**

**Board Members Present**

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<thead>
<tr>
<th>Roger Chase, Chairman</th>
<th>Chuck Cuddy</th>
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<tr>
<td>Vince Alberdi</td>
<td>Peter Van Der Meulen</td>
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<td>Jeff Raybould</td>
<td>Bert Stevenson</td>
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<td>Albert Barker</td>
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**Staff Members Present**

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<th>Brian Patton, Planning Bureau Chief</th>
<th>Helen Harrington, Planning Section Manager</th>
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<td>Cynthia Bridge Clark, Engineer</td>
<td>Mat Weaver, Engineer Tech II</td>
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<td>Gary Spackman, Director</td>
<td>Mandi Pearson, Administrative Assistant</td>
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Agenda Item No. 3, Elections

Mr. Van Der Meulen nominated Roger Chase for Chairman. Mr. Cuddy seconded. Mr. Raybould moved for a unanimous ballot for Mr. Chase. Voice vote. All were in favor. Mr. Chase was elected Chairman.

Mr. Barker nominated Peter Van Der Meulen for Vice-Chairman. Mr. Alberdi seconded. Mr. Raybould moved for a unanimous ballot for Mr. Van Der Meulen. Voice Vote. All were in favor. Mr. Van Der Meulen was elected Vice-Chairman.

Mr. Raybould nominated Bob Graham for Secretary. Mr. Barker seconded. Voice Vote. All were in favor. Mr. Graham was elected Secretary.

Agenda Item No. 4, Agenda and Approval of Minutes

Mr. Patton noted that there were four sets of minutes: 5-12, 6-12, 7-12, and 8-12, submitted for review and approval. Mr. Raybould moved that all of minutes would be approved as printed. Mr. Cuddy seconded that motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Chairman Chase: Aye; Mr. Stevenson: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Barker: Aye. Motion carried.

Agenda Item No. 5, Public Comment

Mr. Harvey Walker addressed the Board regarding Basin 22 water transactions. He requested more transparency on transitions in that area. He requested a committee of water users in that basin be established for the purpose of informing the public regarding water issues in that basin.

Ms. Liz Paul of Idaho Rivers United addressed the Board. She expressed pleasure that the State Water Plan was at the legislature, and disappointment that the Treasure Valley Aquifer Management Plan was not ready to go to legislature this session. She encouraged a continued commitment to the Treasure Valley Aquifer Management Plan.

Mr. John Williams of Bonneville Power Administration addressed the Board. He congratulated the new Board members on their appointments. Mr. Williams gave an update on current BPA proceedings, including the selection of Bill Drummond as the new CEO Administrator and issues surrounding the Columbia River Treaty. There was further discussion among the parties regarding the Board’s involvement with this issue.

Agenda Item No. 6, Director’s Report (Gary Spackman, IDWR Director)

Director Spackman spoke about the Water Supply Bank. The Department has hit the ceiling on its spending authority to issue checks. The Director and the Chairman will be speaking to JFAC on Tuesday to hopefully remedy the situation. Director Spackman also gave the Board an update on recharge legislation. There was further discussion among the parties regarding recharge legislation. He also spoke about the status of the Injection Well Program rules revision and the upcoming budget presentation to the Joint Finance and Appropriations Committee. There was further discussion among the parties regarding the Department’s spending authority.

Agenda Item No. 7, Committee Reports

  a. Upper Snake Operations Forum (Matt Weaver, Staff)
Mr. Weaver updated the Board on the last committee meeting. The majority of the committee discussion was regarding water supply and climate and weather forecasts. Mike Beus (Bureau of Reclamation) and Lyle Swank (Water District 01) provided a status report on water supply. Jon Bowling of Idaho Power discussed current cloud seeding activities. Mr. Weaver provided a summary of recharge for 2012 and status of the IWRB recharge applications. There was discussion among the parties regarding the cloud seeding activities and the water supply outlook.

**Agenda Item No. 8, Rental Pool Procedures (Helen Harrington, Staff)**

**a. Water District 63**

Ms. Harrington discussed amendments to the Water District No. 63 Rental Pool Procedures as submitted by the Advisory Committee of Water District No. 63. The revised procedures are intended to bring the Boise River Rental Pool Procedures into compliance with the Nez Perce Settlement Term Sheet. If requested changes are approved, the Rental Pool Administrative Fee will increase to $1.30 and the Rental Price per acre-foot of storage rented from the Rental Pool will be $17.00. Staff recommends approval of the amended Water District No. 63 Rental Pool Procedures. Mr. Rex Barrie, the Watermaster of Water District No. 63 added additional information.

Mr. Barker moved that changes to the Rental Pool Procedures for Water District No. 63 be approved. Mr. Raybould seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Chairman Chase: Aye; Mr. Stevenson: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Barker: Aye. Motion carried.

**b. Water District 65**

Ms. Harrington discussed requested revisions to the Water District No. 65. There are four significant changes. The first is the reorganization and modification of the rules to be consistent with the structure and format of other rental pool procedures, including the addition of the “Arbitrage” section. The second is an increase in the in-base rental rate from $3.20 to $3.50. The third is an out-of-basin rental rate increase from $14.00 to $17.00. The fourth is an increase in the Rental Pool Administration Fee from $1.00 to $1.30. Staff recommends approval of the amended Water District 65 Rental Pool Procedures. There was further discussion among the parties regarding arbitrage in this basin, as well as the rate increases.

Mr. Raybould moved that the Board adopt the resolution approving the Water District No. 65 Rental Pool Procedures. Mr. VanDerMeulen seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Chairman Chase: Aye; Mr. Stevenson: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Barker: Aye. Motion carried.

**c. Water District 37- Wood River Enhancement**

Ms. Harrington provided an update to the Board regarding the Wood River Basin Enhancement Water Supply Bank and Minimum Stream Flow water rights. In 2007, the Idaho Legislature passed Idaho Code 42-1508, which directed the Board to appropriate two minimum stream flow water rights in the Bog Wood and Little Wood rivers. The Board filed these water right applications, which were approved on May 10, 2010. The permits have been pending submission of Proof of Beneficial Use with no action by the Board. The legislation passed in 2007 included a “sunset clause” which implemented the legislation effective through December 31, 2012. The permits included a condition which states that the water rights shall be null and void as of December 31, 2012 unless the act is extended by the Legislature. No action was taken by the Idaho Legislature prior to this date, so the water right permits are null and void and the local rental pool known as the Wood River Basin Enhancement Water Supply Bank has been deactivated.

**Agenda Item No. 9, Water Supply Bank Annual Report (Monica Van Bussum, Staff)**

Ms. Van Bussum provided an annual report for the Water Supply Bank (Bank). She clarified the purposes of the Bank, and discussed 2012 basin activity, volume, rental agreements and improvements. Ms. Van Bussum also discussed changes that are currently being made in the program to improve process. There was discussion among the parties regarding ways to improve the process. Ms. Van Bussum discussed the Bank’s 2012 rental
revenue, lessor payments, and lease revenue, as well as the overall revenue picture. There was further discussion among the parties regarding the fees and revenue, as well as staff resources.

**Agenda Item No. 10, Water District 2 (Tim Luke and Neeley Miller, Staff)**

Mr. Tim Luke provided a background on Water District 2 and discussed the WaterSmart grant application recently submitted to the US Bureau of Reclamation. The grant money will be used to install measuring devices. Mr. Neeley Miller provided further details regarding the WaterSmart grant application as well as the Board’s obligations per the grant application. A requirement of the grant application is an official resolution adopted by the applicant’s governing body in support of the application. Due to the deadline, staff submitted a draft resolution with the application. Should the Board approve the resolution, an approved resolution will be submitted to the US Bureau of Reclamation. Mr. Patton commented on staff’s diligence in completing the application by the deadline. There was further discussion among the parties regarding, among other things, the advisory committee for Water District 02, grant funding, and support for the creation of the Water District.

Mr. VanDerMeulen moved to approve the resolution in the matter of the proposed WaterSmart application for measurement devices in Water District 02. Mr. Alberdi seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Chairman Chase: Aye; Mr. Stevenson: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Barker: Aye. Motion carried.

Director Spackman commended the staff for their effort on this matter. He discussed Mr. Luke’s role in the creation and organization of water districts, and current issues surrounding water districts.

**Agenda Item No. 11, IWRB Financial Program**

**a. Status Report (Brian Patton, Staff)**

As of December 1, the Board has approximately $16.9 million in funds committed but not yet disbursed, approximately $15.7 million in loan principle outstanding, and a total uncommitted balance of approximately $5.9 million. The Monument Ridge Home Owner’s Association has repaid its loan in full and ahead of schedule. There was further discussion among the parties regarding details of the status report.

**b. North Fremont Canal Systems (Stuart VanGreuningen, Staff)**

Mr. VanGreuningen discussed the loan application from North Fremont Canal System. They are applying for a water project construction loan in the amount of $2,500,000 to construct Phase 4 of Marysville project to convert open canals to gravity-pressurized pipelines. Mr. Maupin thanked the Board for their participation in this project and discussed further details regarding the project. There was further discussion among the parties regarding a reserve account.

Mr. VanDerMeulen moved to approve the resolution to make a funding commitment in the matter of the North Fremont Canal System. Mr. Stevenson seconded the motion. Mr. Raybould commented that he would abstain from voting due to a potential conflict.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Chairman Chase: Aye; Mr. Stevenson: Aye; Mr. Raybould: abstain; Mr. Van Der Meulen: Aye; Mr. Barker: Aye. Motion carried.

**c. Water Transactions (Helen Harrington, Staff)**

Ms. Harrington discussed the progress report for the Idaho Water Transactions Program. There was further discussion among the parties regarding the success of the program and the longevity of the transactions.

**Agenda Item No. 12, Planning Activities (Helen Harrington, Staff)**

**a. State Water Plan Update**

Ms. Harrington provided an update on the State Water Plan. The plan adopted by the Board in November 2012 was transmitted to the Idaho Legislature, the Governor, and Director Spackman. The bill, HB38, has been assigned to the House Resources and Conservation committee. Board members will be notified when the committee presentations are scheduled and would be welcome to attend committee meetings. Ms. Harrington commented that the Governor mentioned the Comprehensive State Water Plan in his State of the State Address on
January 7, 2013, and that he also referenced the plan at the Annual Idaho Water Users Association Convention. There was discussion among the parties regarding scrutiny of the plan by legislature. Ms. Harrington recognized the Attorney General’s office for their work and support on this plan, and the Chairman recognized others who have also worked on this plan. There was further discussion regarding assessment of the implementation of the plan.

b. Rathdrum Prairie CAMP Implementation Funding Request

Ms. Harrington discussed a request from the Spokane River Forum for $3,000.00 to support the Spokane River Conference scheduled for March 26th and 27th, 2013. The conference supports several RP CAMP objectives including: preventing and resolving water conflicts; protecting the aquifer; and adaptive management, monitoring and data gathering. They have requested funding from a number of different entities. The funding request and supporting documents were circulated to the RP CAMP Advisory Committee via email for their recommendation. From the responses received, there is unanimous support for funding this proposal. There was further discussion regarding the number of participants.

Mr. Cuddy moved to adopt the resolution to allocate funds in the matter of the Spokane River Conference. Mr. Stevenson seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Chairman Chase: Aye; Mr. Stevenson: Aye; Mr. Raybould: abstain; Mr. Van Der Meulen: Aye; Mr. Barker: Aye. Motion carried.

Agenda Item No. 13, Discussion of Board Committees

Mr. Patton discussed the current committees and the need to assign members to each committee. There was discussion among the parties regarding combining the Water Supply Bank Committee and the Mitigation Bank committee. Chairman Chase asked the Board members to think about which committees they would like to serve on. There was discussion among the parties regarding teleconferences for the committee meetings and assigning members to committees.

Agenda Item No. 14, Other Non-Action Items for Discussion

There were no other items for discussion.

Agenda Item No. 15, Next Meeting and Adjourn

There was discussion among the parties about scheduling meetings for the rest of the year and locations at which meetings should be held and the Bear River Basin. Meetings are currently scheduled through May. The Board decided to meet in Twin Falls for the May 2013 meeting, and to schedule a going-away dinner for Leonard Beck at the same time. Additional meetings were scheduled for July 18-19, September 17-18 in the Bear River Basin area, and November 21-22. Mr. Patton discussed the Board’s schedule for the rest of the day, as well as an upcoming meeting with the Commander for the US Army Corps of Engineers Walla Walla District on March 1, 2013.

The IWRB Meeting 2-13 adjourned at approximately 11:30 am.

Respectfully submitted this _____ day of March, 2013.

________________________________________
Bob Graham, Secretary

________________________________________
Mandi Pearson, Administrative Assistant II
Board Actions:

1. Mr. Van Der Meulen nominated Roger Chase for Chairman. Mr. Cuddy seconded. Mr. Raybould moved for a unanimous ballot for Mr. Chase. Voice vote. All were in favor. Mr. Chase was elected Chairman.

2. Mr. Barker nominated Peter Van Der Meulen for Vice-Chairman. Mr. Alberdi seconded. Mr. Raybould moved for a unanimous ballot for Mr. Van Der Meulen. Voice Vote. All were in favor. Mr. Van Der Meulen was elected Vice-Chairman.

3. Mr. Raybould nominated Bob Graham for Secretary. Mr. Barker seconded. Voice Vote. All were in favor. Mr. Graham was elected Secretary.

4. Mr. Raybould moved that all of minutes would be approved as printed. Mr. Cuddy seconded that motion. Roll Call Vote. Motion carried.

5. Mr. Barker moved that changes to the Rental Pool Procedures for Water District No. 63 be approved. Mr. Raybould seconded the motion. Roll Call Vote. Motion carried.

6. Mr. Raybould moved that the Board adopt the resolution approving the Water District No. 65 Rental Pool Procedures. Mr. VanDerMeulen seconded the motion. Roll Call Vote. Motion carried.

7. Mr. VanDerMeulen moved to approve the resolution in the matter of the proposed WaterSmart application for measurement devices in Water District 02. Mr. Alberdi seconded the motion. Roll Call Vote. Motion carried.

8. Mr. VanDerMeulen moved to approve the resolution to make a funding commitment in the matter of the North Fremont Canal System. Mr. Stevenson seconded the motion. Mr. Raybould commented that he would abstain from voting due to a potential conflict. Roll Call Vote. Motion carried.

9. Mr. Cuddy moved to adopt the resolution to allocate funds in the matter of the Spokane River Conference. Mr. Stevenson seconded the motion. Roll Call Vote. Motion carried.
November 27, 2012

Work Session

Chairman Terry Uhling called the meeting to order at approximately 8:00 am. Mr. Beck was absent during roll call, but joined the meeting at a later time. All other Board members were present.

Executive Session

At 8:00 am the Board resolved into Executive Session by unanimous consent pursuant to Idaho Code Section 67-2345(1)(f), for the purpose of communicating with legal counsel regarding legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. No action was taken by the Board during the Executive Session. The Board resolved out of Executive Session and into Regular Session at approximately 10:00 am.

Work Session

During the Work Session the following items were discussed: ESPAM Recharge Modeling by Mike McVay, the Idaho State Water Plan by Helen Harrington, Treasure Valley CAMP by Neeley Miller, Water Right Accounting Update by Mathew Weaver, Big Wood Basin Model Development by Sean Vincent, Underground Injection Control Rules Revision by Tom Neace, Sustainability Policy Discussion by Brian Patton, Water Transactions Program by Helen Harrington, and Canyon County Drainage District No. 2 Loan by Stuart VanGreuningen. No action was taken by the Board during the Work Session.
**Staff Members Present**

- Brian Patton, Planning Bureau Chief
- Cynthia Bridge Clark, Engineer
- Mandi Pearson, Administrative Assistant
- Neal Farmer, Projects Coordinator
- Tom Neace, Ground Water Protection Section Manager
- Helen Harrington, Planning Section Manager
- Mat Weaver, Engineer Tech II
- Gary Spackman, Director
- Neeley Miller, Water Resource Planner

**Guests Present**

- Peter Anderson, Trout Unlimited
- Amanda Buchanan
- Walt Poole, IDFG
- Janelle Faroque, BNY Mellon
- Jo Anne Smith, Canyon County Drainage Dist No 2
- Alan Kelsch, Committee of Nine
- Sarah Rupp, Friends of the Teton River
- Ray Houston, Legislative Services Office
- Gary Chamberlain, Challis Irrigation Company
- Shelley Davis, Barker, Rosholt & Simpson
- Rob Wood
- John J. Williams, Bonneville Power Administration
- Justin Hayes, Idaho Conservation League
- Michael Jones, BNY Mellon
- William (Bill) Ford, Canyon County Drainage Dist No 2
- Renee Fisher
- Jon Bowling, Idaho Power
- Lynn Tominaga, Idaho Ground Water Association
- Teresa Molitor, Great Feeder Canal Co
- Jerry Rigby, Western States Water Council
- Heather Smith, Western Organization of Resource Councils

**Agenda Item No. 2, Agenda and Approval of Minutes**

Mr. Patton stated that there are no minutes to be approved at this time. He requested that Agenda Item No. 7, Blackfoot Equitable Adjustment, be removed from the agenda. No other changes were made.

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

Mr. Peter Anderson from Trout Unlimited (TU) addressed the Board. He discussed TU’s position regarding forfeiture of water rights. They completed a study that was published in Idaho Law Review, titled “Why does Idaho’s Water Law Regime Provide Forfeiture of Water Rights?” Mr. Anderson discussed the findings of the study with the Board.

Mr. Gary Chamberlain conveyed his interest in the Twin Lakes Canal Project, which entails building a storage site on the Bear River, and his disappointment that the Department of Water Resources denied their application. Mr. Chamberlain discussed the importance of storage in Idaho. He also discussed his frustration regarding Warm Springs Creek water right applications.

Mr. Hal Anderson of Idaho Water Engineering addressed the Board on behalf of Recharge Alliance Inc. He gave a brief history of Recharge Alliance Inc and provided an update on the private recharge effort. He expressed the organizations desire to partner with the Board in recharge efforts. There was discussion among the parties regarding.

Mr. John Williams of Bonneville Power Administration (BPA) addressed the Board. He provided an update on current proceedings of BPA, including a lawsuit regarding erosion at Albany Falls, management protocol regarding oversupply of generation, a power rate increase, and the Columbia River Treaty. Mr. Graham asked Mr. Williams if the lawsuit regarding erosion is specific to Albany Falls. Mr. Williams confirmed this and provided further detail on the topic.

Mr. Tony Edmonson, a resident of Weiser, addressed the Board regarding his concerns of the Underground Injection Control (UIC) Rules revision, especially regarding the Director’s discretionary authority and water quality issues. Chairman Uhling reminded the public that the public comment period for the UIC Rules Revision is closed.

Ms. Amanda Buchanan, also a resident of Weiser, addressed the Board with concerns regarding the UIC Rules Revision, especially regarding baseline testing and monitoring and the Director’s discretionary authority.

Ms. Liz Paul of Idaho Rivers United thanked the Chairman for his service on the Board, and also expressed appreciation for the staff’s diligence on the Treasure Valley Comprehensive Aquifer Management Plan. Ms. Paul also expressed appreciation for the Department’s attention to water quality issues.
Ms. Renee Fisher, a resident of New Plymouth, addressed the Board with concerns regarding the UIC Rules Revision, especially regarding water quality issues.

Mr. David Fisher, a resident of New Plymouth, also addressed the Board with concerns regarding the UIC Rules Revision, especially regarding baseline monitoring and testing of the injection wells.

**Agenda Item No. 4, Director’s Report** *(Gary Spackman, IDWR Director)*

Director Spackman discussed the denial of the Twin Lakes Canal Co application for storage water rights. Director Spackman discussed upcoming legislation. IDWR is not sponsoring legislation regarding municipal water rights this year. There is some legislation regarding the licensing of water rights for power projects. He mentioned pending legislation related to the Board’s authorities with respect to managed recharge. The pending legislation would vest the Board with exclusive authority to hold water rights for managed recharge. There is an upcoming IWUA legislative committee meeting during which many of these topics will be discussed. Director Spackman will be speaking on licensing of water rights at the IWUA convention this week. He discussed the efforts by Department staff to address the backlog of water rights that need to be licensed. The Chairman and the Director further discussed the licensing backlog. Director Spackman also noted that there has been some discussion about the use of the Water Supply Bank for authorizing irrigation that may not be represented by a water right.

**Agenda Item No. 5, IWRB Committee and Other Reports**

*a. Water Resource Planning Committee* *(Helen Harrington, Staff)*

Ms. Harrington provided an update on the Water Resource Planning Committee. The committee has met four times over the last few months, and has been reviewing the State Water Plan as well as the Treasure Valley Comprehensive Management Plan. Ms. Harrington expressed her appreciation of the Board members who serve on the committee. There was some discussion among the parties regarding the Big Wood update that was presented at the Work Session.

*b. Streamflow Enhancement and Minimum Streamflow Committee* *(Helen Harrington, Staff)*

Ms. Harrington also provided an update on the Streamflow Committee. The committee met most recently on October 4th to review a number of proposed projects and transactions. These transactions, recommended by the committee, will be discussed individually later in the meeting.

*c. Upper Snake Operations Forum* *(Matt Weaver, Staff)*

Mr. Weaver provided an update on the Upper Snake Operations Forum. During the most recent meeting, Mike Beus discussed water supply conditions and Lyle Swank reported on flows in the system. Conditions are comparable to 2008. Jon Bowling gave a briefing on Idaho Power Operations which included discussion on weather modifications. Liz Cresto gave a presentation on reach gains in the Upper Snake. Reach gains are currently low but are up from previous years, which may be due in part to recharge and largely due to a good water year in 2011. Mr. Weaver discussed late season recharge and the need to develop more off-site capacity.

**Agenda Item No. 6, Underground Injection Control Rules Revision** *(Tom Neace, Staff)*

Mr. Neace discussed the current Underground Injection Control (UIC) Rules Revision including modification of the existing Class V rules and new rules for the Class II program for oil and gas injection wells. Five negotiated rule-making meetings have been held and were well attended. Staff also had a public hearing and a public comment period. Mr. Neace stated that the Department is requesting that the Board approve the pending injection well rules and authorize the Department to submit them to the Office of Administrative Rules in preparation of the 2013 legislature. There was discussion among the parties regarding water quality issues concerning the oil and gas injection wells.

Mr. Raybould made a motion to approve the resolution adopting the UIC Rules Revision. Mr. Cuddy seconded the motion. Voice Vote. All were in favor. Motion carried.

**Agenda Item No. 7, Blackfoot Equitable Adjustment**

This item was struck from the agenda.
Agenda Item No. 8, IWRB Financial Program

a. Status Report (Brian Patton, Staff)

As of September 1, the Board has approximately $17.5 million in funds committed but not yet disbursed, approximately $16.2 million in loan principle outstanding, and a total uncommitted balance of approximately $4.2 million. The Board will be considering a loan application from Canyon County Drainage District No. 2. This is challenging because there is no clear path in statute that allows a drainage district to incur debt except for original construction. They have petitioned the court for permission to incur debt, which was granted. This has provided a path forward for other drainage districts who may wish to incur debt. There was further discussion among the parties regarding this issue as well as regarding funding for Pristine Springs in comparison to Dworshak.

b. Bond Trustee (Jim Wrigley, Staff; Michael Jones & Jannelle Farooque, BNY Mellon)

Mr. Wrigley proposed an appointment of the successor trustee for several bond issues that the Board has put in place over the last couple of years. He recommended BNY Mellon, whom the Board has worked with previously with great success. He introduced Mr. Jones and Ms. Farooque as representatives of BNY Mellon. There was some discussion among the parties regarding the process of changing trustees.

Mr. Jones expressed his appreciation for this opportunity. He provided history and information regarding BNY Mellon. Ms. Farooque described the systems they have in place in order to provide the best services, as well as the role of BNY Mellon as the trustee and the timeline of the transition. There was discussion among the parties regarding the transition process.

Mr. Graham made a motion to approve the resolution to appoint BNY Mellon as the new trustee. Mr. Chase seconded the motion. Voice Vote. All were in favor. Motion carried.

c. Other Revenue Bond Updates (Jim Wrigley, Staff)

Mr. Wrigley provided an update on the Bear River bonds. He has been communicating with them frequently regarding the debt service and believes that issues are being settled. There was discussion among the parties regarding the issues surrounding the Bear River bonds and how to proceed in the future with fewer problems.

d. Canyon County Drainage District No. 2 Loan (Stuart VanGreuningen, Staff)

Mr. VanGreuningen introduced the loan application from Canyon County Drainage District No. 2 for a Drainage Tile project. The loan would be for $35,000 at 5% interest with a 10 year repayment term.

Mr. Raybould made a motion to approve the resolution to make a funding commitment in the matter of Canyon County Drainage District No. 2. Mr. Alberdi seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Mr. Chase: Aye; Mr. Beck: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Graham: Aye; Chairman Uhling: Aye. Motion carried.

Mr. Bill Ford and Ms. Joanne Smith thanked the Board for their approval of the loan and the parties further discussed the judicial proceedings as well as the project details.

Agenda Item No. 9, Water Transactions Program (Helen Harrington, Staff)

a. Pole Creek

Ms. Harrington discussed a contract extension in the matter of the Pole Creek/Salmon Falls Land & Livestock Company annual agreements. Project partners have been moving forward with construction of the monitoring and test well. Staff recommends extending the existing Pole Creek minimum flow agreement to maintain 6 cfs instream through the 2013 irrigation season. Funds are available from the Columbia Basin Water Transactions Program to cover the maximum payment of $50,000.

Mr. Chase made a motion to approve the contract extension with Salmon Falls Land & Livestock Company. Mr. Raybould seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Mr. Chase: Aye; Mr. Beck: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Graham: Aye; Chairman Uhling: Aye. Motion carried.
b. Kenney Creek

Ms. Harrington discussed a water transaction with the Andrews Family regarding Kenney Creek. In September 2012, the Board approved a resolution regarding this transaction based on cost estimates of $9,919.79. Power bills incurred by the Andrews revealed that the actual costs were almost 3 times the estimate. Staff proposes to resubmit the transaction with the updated figures. If the Board concurs, the funding resolution would be for $28,106.06. There was discussion among the parties regarding the cost estimates in comparison with actual costs and the reason for the difference.

Mr. Raybould made a motion to approve the resolution to make a funding commitment in the matter of the Kenney Creek transaction. Mr. Chase seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Mr. Chase: Aye; Mr. Beck: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Graham: Aye; Chairman Uhling: Aye. Motion carried.

c. 2013 Lemhi Annual

Ms. Harrington discussed the Lower Lemhi 2013 Annual Water Transaction and Minimum Flow Administration contracts. The purpose of this transaction is to cover the gap between the permanent flows that have been protected and unmet flow target at L6. These agreements have been administered according to a contract between the Board and Water District 74. The agreements not to divert will cost no more than $82,343.65, and the administrative costs will not exceed $12,800.

Mr. Alberdi made a motion to approve the resolution to make a funding commitment in the matter of the Lower Lemhi Transaction. Mr. Chase seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Mr. Chase: Aye; Mr. Beck: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Graham: Aye; Chairman Uhling: Aye. Motion carried.

d. Spring Creek

Ms. Harrington introduced Ms. Sarah Rupp of Friends of the Teton River. Ms. Rupp provided information regarding Spring Creek, including the fish and wildlife habitat and low flow conditions which prevent out-migration to the Teton River in the early fall. Ms. Rupp has worked with four water right owners who are committed to working through Idaho’s water transactions program for a term of five years. Two of the owners (the City of Tetonia and Mitchell Smaelie) propose donating their rights to the IWRB to put into the Water Supply Bank for a term of five years. If approved, the IWRB can then rent the water rights out for delivery to the Teton River minimum stream flow right. A proposal to fund these donations has been submitted to the Columbia Basin Water Transactions program in the amount of $3,480.63. The other two water right owners (Richard LaVere Beard and Richard & Ella Beard) propose leasing their rights into the Water Supply Bank for a term of five years. If approved, the IWRB can then rent the water rights out for delivery to the Teton River minimum stream flow right. A proposal to fund these transactions has been submitted to the Columbia Basin Water Transaction Program in the amount of $7,463.31. The Streamflow Enhancement and Minimum Stream Flow Committee reviewed these water transactions and recommended these transactions for approval. There was discussion among the parties regarding the transaction.

Mr. Chase made a motion to approve the resolution to make a funding commitment in the matter of the Spring Creek Rental Water Transaction Agreement. Mr. VanDerMeulen seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Mr. Chase: Aye; Mr. Beck: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Graham: Aye; Chairman Uhling: Aye. Motion carried.

Mr. Raybould made a motion to approve the resolution to make a funding commitment in the matter of the Spring Creek Water Donation Transactions. Mr. Alberdi seconded the motion.

Roll Call Vote: Mr. Cuddy: Aye; Mr. Alberdi: Aye; Mr. Chase: Aye; Mr. Beck: Aye; Mr. Raybould: Aye; Mr. Van Der Meulen: Aye; Mr. Graham: Aye; Chairman Uhling: Aye. Motion carried.

Ms. Harrington recognized Ms. Rupp for the amount of dedication she put towards moving these transactions forward.
**Agenda Item No. 10, Idaho State Water Plan** *(Helen Harrington, Staff)*

Ms. Harrington discussed the proposed revisions to the Idaho State Water Plan. She provided a brief history of the committee work, public hearings and public comment period relating to the proposed revisions. The current amendments to the State Water Plan address issues surrounding the Nez Perce Agreement, Snake River Basin Adjudication, and the Swan Falls Reaffirmation Agreement. There was discussion among the parties regarding recent textual changes.

Mr. Beck made a motion to approve the resolution to adopt the Idaho State Water Plan. Mr. Cuddy seconded the motion. Voice Vote. All were in favor. Motion carried.

**Agenda Item No. 11, Treasure Valley CAMP** *(Neeley Miller, Staff)*

Mr. Miller provided an update on the Treasure Valley Comprehensive Aquifer Management Plan (TV CAMP). The Water Resource Planning Committee has reviewed the plan and recommended suggested revisions. The Board scheduled a 60-day public comment period from August 1, 2012 through September 30, 2012 and public hearings were held on September 10th and 11th. Testimony and comments were considered by the Board’s Water Resource Planning Committee meetings on October 25th, November 3rd, and November 12th. The committee recommended several revisions to the proposed Plan prior to the adoption by the Board. A final version of the plan was available for the Board members to review, as well as a resolution to adopt the Treasure Valley CAMP. There was discussion among the parties regarding issues discussed in the advisory committee and issues causing dissension in the local community. There was further discussion among the parties regarding changes that may need to be made to the plan and the time needed in order to make those changes.

Mr. Beck made a motion that the Water Resource Planning Committee should take time not to exceed 30 days and resubmit a recommendation to the Board. Mr. Cuddy seconded the motion. Voice Vote. All in favor. Motion carried.

**Agenda Item No. 12, ESPA Management Update** *(Neal Farmer, Staff; Mat Weaver, Staff)*

Mr. Farmer first provided the Board with a document regarding oil and gas wells drilled in the state. He did this in response to a question asked by a Board member during the discussion regarding the UIC Rules Revision. There was discussion among the parties regarding the information on the document.

Mr. Farmer provided an update on Late Season Recharge. North Side Canal Company and Big Wood Canal Company recharged a total of 17,293 total acre feet this fall. The year to date total is 124,664 acre feet, for a total cost of $294,842 so far this year. North Side Canal Company is delivering some recharge water to an off canal pilot test recharge site northwest of Wendell referred to as the “W40” site. Another pilot test site is the Neilson site. Mr. Farmer also provided an update on the Mile Post 31 Recharge Site.

Mr. Weaver provided an update on ESPA related activities. He discussed pending water right applications for recharge. Staff members are still analyzing the best locations for recharge, as well as considerations regarding water supply and availability. He discussed legal and scientific considerations that define or limit the scope of recharge in the Snake River above Milner Dam, and practical considerations that influence recharge decisions. There was discussion among the parties regarding the 2100 cfs water right held by the US Bureau of Reclamation. Mr. Weaver also discussed current AWEP projects including conversion projects and the end gun removal project. He also provided an update on weather modification activities.

**Agenda Item No. 13, Water Storage Studies Update** *(Cynthia Bridge-Clark, Staff)*

Ms. Bridge Clark provided an update on the Weiser-Galloway Project. The US Bureau of Reclamation (BOR) has completed drilling and is in the process of demobilizing and clearing equipment from the site. Strength and materials testing is being performed by the BOR on selected core samples and the US Army Corps of Engineers (Corps) plans to test potential embankment materials identified near the project area. A final report on the geologic analysis is expected in the spring of 2013. The Operational Analysis is underway. The Corps is also coordinating with the Idaho Power Company and the BOR to identify study priorities, get consensus on baseline conditions, and coordinate data sets and modeling assumptions. Completion is scheduled for the spring of 2014.
Lower Boise River Interim Feasibility Study

Ms. Bridge Clark also updated the Board on the Lower Boise River Interim Feasibility Study. A planning charrette is required to revise the study scope and to update the feasibility study agreement between the IWRB and the Corps. The charrette is scheduled for December 3-7, 2012 at the Corps Walla Walla District office and will include a technical team from the Corps and IDWR to detail the alternatives to be studied.

Henrys Fork Basin Study

The IWRB and the US Bureau of Reclamation (BOR) 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. In August 2012, BOR staff presented results of the technical analyses to the IWRB Storage committee. BOR is finalizing an interim report which documents the process of identifying and screening water management alternatives. IDWR and BOR provided a progress report to the Natural Resources Interim Legislative Committee in September. BOR will report back to the IWRB as the Appraisal analysis progresses. Completion is scheduled for October 2013.

Agenda Item No. 14, Western States Water Council Update (Jerry Rigby, Western States Water Council)

Mr. Rigby presented an update to the Board regarding the Western States Water Council (WSWC). He discussed the important role that WSWC plays as a representative of the Western states in federal issues and national water policy. Mr. Rigby discussed activities that WSWC is engaged in, including climate adaptation research and modeling, national water assessment, stream gauging, and NASA infrared sensing. He discussed other states’ aggressive attitude towards recharge. He also discussed the reports that WSWC generates with data received from western states, as well as agriculture to urban uses of water. There was discussion among the Board regarding the availability of the reports coming from WSWC, the Board’s relationship with the Council, other states’ recharge activities, and the possibility of new storage.

Agenda Item No. 15, Other Items IWRB Members May Wish to Present

Mr. Cuddy thanked Mr. Beck for his work on two issues. Mr. Beck stated that he appreciated the subcommittee members and staff members involved in these issues. Mr. Patton discussed the Bell Rapids water rights and recent water rights activities in that area with the Board members. He also discussed the creation of Water District 02 and issues surrounding the cost of the measurement devices.

Agenda Item No. 16, Next Meeting and Adjourn

The next regular IWRB Meeting is scheduled for January 24-25 in Boise, Idaho. There was discussion about the potential for a teleconference or short meeting in early January. The Board members decided to schedule a meeting on January 3, 2013 at 10 am.

The IWRB Meeting 9-12 adjourned at approximately 2:00 pm.

Respectfully submitted this _____ day of March, 2013.

________________________________________
Bob Graham, Secretary

________________________________________
Mandi Pearson, Administrative Assistant II
Board Actions:

1. Mr. Jeff Raybould made a motion to approve the resolution adopting the UIC Rules Revision. Mr. Chuck Cuddy seconded the motion. Voice Vote. All were in favor. Motion carried.

2. Mr. Bob Graham made a motion to approve the resolution to appoint BNY Mellon as the new trustee. Mr. Chase seconded the motion. Voice Vote. All were in favor. Motion carried.

3. Mr. Jeff Raybould made a motion to approve the resolution to make a funding commitment in the matter of Canyon County Drainage District No. 2. Mr. Vince Alberdi seconded the motion. Roll Call Vote. Motion carried.

4. Mr. Roger Chase made a motion to approve the contract extension with Salmon Falls Land & Livestock Company. Mr. Jeff Raybould seconded the motion. Roll Call Vote. Motion carried.

5. Mr. Jeff Raybould made a motion to approve the resolution to make a funding commitment in the matter of the Kenney Creek transaction. Mr. Roger Chase seconded the motion. Roll Call Vote. Motion carried.

6. Mr. Vince Alberdi made a motion to approve the resolution to make a funding commitment in the matter of the Lower Lemhi Transaction. Mr. Chuck Cuddy seconded the motion. Roll Call Vote. Motion carried.

7. Mr. Roger Chase made a motion to approve the resolution to make a funding commitment in the matter of the Spring Creek Rental Water Transaction Agreement. Mr. Peter VanDerMeulen seconded the motion. Roll Call Vote. Motion carried.

8. Mr. Jeff Raybould made a motion to approve the resolution to make a funding commitment in the matter of the Spring Creek Water Donation Transactions. Mr. Vince Alberdi seconded the motion. Roll Call Vote. Motion carried.

9. Mr. Leonard Beck made a motion to approve the resolution to adopt the Idaho State Water Plan. Mr. Chuck Cuddy seconded the motion. Voice Vote. All were in favor. Motion carried.

10. Mr. Leonard Beck made a motion that the Water Resource Committee should take time not to exceed 30 days and resubmit a recommendation to the Board. Mr. Chuck Cuddy seconded the motion. Voice Vote. All in favor. Motion carried.
Chairman Terry Uhling called the meeting to order at approximately 8:39 am. There were seven Board members present. Mr. Bob Graham was absent. A quorum was present.

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

*Board Members Present*

Terry Uhling, Chairman
Vince Alberdi
Jeff Raybould
Leonard Beck

Roger Chase, Vice-Chairman
Chuck Cuddy
Peter Van Der Meulen

*Staff Members Present*

Brian Patton, Planning Bureau Chief
Helen Harrington, Planning Section Manager
Clive Strong, Deputy Attorney General
Harriet Hensley, Deputy Attorney General
Mandi Pearson, Administrative Assistant
Stephen Goodson, Special Assistant to the Governor

*Guests Present*

No guests attended.

**Agenda Item No. 2, Executive Session**

At approximately 8:40 am the Board resolved into Executive Session by unanimous consent pursuant to Idaho Code Section 67-2345 subsection (1)(f), for the purpose of communicating with legal counsel regarding legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. No action was taken by the Board during the Executive Session. The Board resolved out of Executive Session and into Regular Session at approximately 9:30 am.
**Agenda Item No. 3, Adjourn**

Mr. Beck made a motion to Adjourn, and Mr. Chase seconded the motion. Voice Vote. All were in favor. Motion Carried.

The IWRB Meeting 10-12 adjourned at approximately 9:30 am.

Respectfully submitted this _____ day of March, 2013.

________________________________________
Bob Graham, Secretary

________________________________________
Mandi Pearson, Administrative Assistant II
<table>
<thead>
<tr>
<th>Financial Programs</th>
<th>Water Storage Projects</th>
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<tbody>
<tr>
<td><strong>Purpose:</strong> Develops policy and direction for the IWRB’s financial programs including loans, grants, revenue bonds, and project expenditures. Develops guidance for standard interest rates and terms for loans. Oversees revenue generating features of IWRB’s programs. Recommends loan approvals to full Board.</td>
<td><strong>Purpose:</strong> Develops policy and direction for Idaho’s efforts to increase water storage capacity, including surface storage and underground storage. Oversees studies of potential storage projects, and considers future steps for potential storage projects. Oversees IWRB’s operational managed recharge program on ESPA, and investigations of managed recharge in Treasure Valley and other areas.</td>
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<tr>
<td>• Bob Graham, Chairman</td>
<td>• Chuck Cuddy, Chair</td>
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<td>• Chuck Cuddy</td>
<td>• Bert Stevenson</td>
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<td>• Vince Alberdi</td>
<td>• Jeff Raybould</td>
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<td>• Roger Chase</td>
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<td>• Pete Van Der Meulen</td>
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<tr>
<th>Water Resource Planning</th>
<th>Streamflow Enhancement and Minimum Streamflow</th>
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<tr>
<td><strong>Purpose:</strong> Develops policy and direction for the IWRB’s planning programs, including State Water Plan, Basin Plans, and CAMPs. Oversees progress and completion of State Water Plan, Basin Plans, and CAMPs. Oversees plan implementation progress. Makes recommendations about new planning efforts and approaches.</td>
<td><strong>Purpose:</strong> Develops policy and direction for the Upper Salmon Streamflow Enhancement (Water Transactions) Program together with program partners, including review of project proposals. Develops policy and direction for the IWRB’s minimum streamflow program, including development of new MSF water rights and protection and administration of existing MSF water rights.</td>
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<tr>
<td>• Jeff Raybould, Chair</td>
<td>• Pete Van Der Meulen, Chair</td>
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<td>• Al Barker</td>
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<td>• Pete Van Der Meulen</td>
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<tr>
<th>Water Supply Bank and Mitigation Bank</th>
<th>Upper Snake Operation Forum</th>
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<tbody>
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<td><strong>Purpose:</strong> Develops policy and direction for the Water Bank. Recommends changes, and oversees operations. Oversees operation of rental pools in cooperation with local committees appointed by IWRB. Reviews proposed changes to rental pool procedures. Makes recommendations about establishment of new rental pools. Develops framework for potential mitigation credit bank</td>
<td><strong>Purpose:</strong> A committee chaired by a Water Board member to discuss Upper Snake Basin reservoir, river, and recharge operations with relevant parties that make up the committee.</td>
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<tr>
<td>• Vince Alberdi, Chairman</td>
<td>• Roger Chase</td>
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<td>• Bert Stevenson</td>
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<td>• Jeff Raybould</td>
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<td>• Roger Chase</td>
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## IDAHO CODE PROPOSED LEGISLATION

<table>
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<tr>
<th>HB</th>
<th>TITLE</th>
<th>I.C.</th>
<th>STATEMENT OF PURPOSE/ SUMMARY</th>
<th>STATUS</th>
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</thead>
</table>
• 2012 State Water Plan will supersede the 1996 State Water Plan. | • 1/23/13 Introduced, Read 1st Time  
• 1/24/13 Reported, Printed and Referred to H R&C  
• 2/27/13 H R&C Committee Meeting  
• 3/1/13 H R&C Committee Meeting  
• 3/2/13 H R&C Committee Meeting  
• 3/8/13 Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading  
• 3/11/13 Read 2nd Time, Filed for 3rd Reading  
• 3/13/13 Read 3rd Time  
• 3/18/13 U.C. to Be referred to H R&C Committee  
• Plan became effective after 60th day of session. |
| H0047| Watermaster Appointment | 42-605      | • Provide legislative authority for the director of IDWR to appoint a watermaster in the event a duly elected watermaster resigns or passes away during the term elected and/or appointed.  
• Upon the recommendation of a water district advisory committee if a committee is elected, and that the watermaster's compensation be the same as the duly elected watermaster as set by the water district budget adopted at the annual meeting.  
• The proposed legislation would not preclude the opportunity to schedule a special water district meeting to elect a new watermaster and/or consider a new or amended water district budget. | • 1/24/13 Introduced, Read 1st Time  
• 1/25/13 Reported, Printed and Referred to H R&C  
• 2/11/13 H R&C Committee Meeting  
• 2/13/13 H R&C Committee Meeting  
• 2/14/13 Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading  
• 2/15/13 Read 2nd Time, Filed for 3rd Readings  
• 2/18/13 Read 3rd Time, Passed 69-0-0, Title apvd – to Senate  
• 2/19/13 Received from House, Introduced, Read 1st Time, and Referred to S R&E  
• 2/25/13 S R&E Committee Meeting  
• 2/26/13 Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading  
• 2/27/13 Read 2nd Time, Filed for 3rd Reading  
• 2/28/13 Read 3rd Time in full, Passed 33-0-2, Title apvd – to House |
### 2012-2013 IDWR LEGISLATIVE ACTION SUMMARY
Current as of 3/21/13, 10:00 a.m.

<table>
<thead>
<tr>
<th>HB</th>
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</table>
| H0048 | Class II Injection Well    | 42-3908  | - Provide legislative authority for bonding of Class II injection wells. IDWR is currently in the process of updating rules for construction and use of injection wells; including Class II injection wells associated with production of oil and natural gas (existing rules prohibit Class II injection wells).  
- IDWR has determined that Class II injection wells should have a bonding provision to decommission a Class II well in the event an owner or operator is financially unable to do so.  
- The bonding proposed by IDWR in its new rules are consistent with bonding required by the Idaho Lands Department for oil and gas production wells. | 1/24/13 Introduced, Read 1st Time  
1/25/13 Reported, Printed and Referred to H R&C  
2/7/13 HR&C Committee Meeting  
2/8/13 Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading  
2/11/13 Read 2nd Time, Filed for 3rd Reading  
2/13/13 Read 3rd Time, Passed 62-7-1, Title apvd - to Senate  
2/14/13 Received from House, Introduced, Read 1st Time, and Referred to S R&E  
2/19/13 Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading  
2/20/13 Read 2nd Time, Filed for 3rd Reading  
2/28/13 Read 3rd Time in full, Passed 31-1-3, Title apvd - to House  
3/1/13 Returned from Senate Passed  
3/4/13 Reported Enrolled, Signed by Speaker, Transmitted to Senate  
3/5/13 Received from the House enrolled/signed by Speaker, Signed by President, Returned to House  
3/6/13 Returned Signed by the President, Ordered Transmitted to Governor  
3/7/13 Delivered to Governor at 11:15 a.m. on 3/6/13  
3/12/13 Reported Signed by Governor , Session Law Chp. 42 – Effective 7/1/13 |
**2012-2013 IDWR LEGISLATIVE ACTION SUMMARY**

Current as of 3/21/13, 10:00 a.m.

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<th>HB</th>
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<tr>
<td>HO049</td>
<td>Class II Injection Well Permit Fee</td>
<td>42-3902</td>
<td>• Provide legislative authority for a fee to be filed with any application for permit for construction and use of Class II underground injection wells.&lt;br&gt;• IDWR proposes a fee of $2,500 for each injection well permit application. In contrast to permit applications for Class V wells, Class II injection well applications require additional technical data and review, more time to process, and more information/data for legal advertisement.&lt;br&gt;• Upon approval of Class II permits, IDWR staff must review monthly monitoring reports as well as mechanical integrity test reports once every five years.&lt;br&gt;• The proposed fee is consistent with the Idaho Department of Lands permit fee for oil and gas production wells authorized by the 2012 Idaho Legislature (see Section 47-320(2), HO460).</td>
<td>Ordered Transmitted to Governor&lt;br&gt;• 3/7/13 Delivered to Governor at 11:15 a.m. on 3/6/13&lt;br&gt;• 3/12/13 Reported Signed by Governor, Session Law Chp. 43 – Effective 7/1/13</td>
</tr>
</tbody>
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**HB**  
**TITLE**  
**I.C.**  
**STATEMENT OF PURPOSE/ SUMMARY**  
**STATUS**
### H0050 Term Limits for Hydropower Water Rights

- **42-203B**
- In the past, the ID Dept of Water Resources placed conditions on hydropower water right permits and licenses that established a term of years for the hydropower water right with flexibility for automatic extension or renewal.
- A recent Supreme Court decision strongly suggested that the ID Dept of Water Resources is not authorized, under Idaho Code Section 42-203B, to set a term of years with flexibility, but instead might have to establish a rigid, fixed term of years with no flexibility.
- The expiration of the term might result in a power producer not have a water right to the power plant during a FERC relicensing process.
- The legislation would propose amendments to Idaho Code Section 42-203B that would authorize granting a more flexible term of years.

### HB TITLE I.C. STATEMENT OF PURPOSE/ SUMMARY STATUS

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<tbody>
<tr>
<td>H0131</td>
<td>Extension Provision for</td>
<td>42-204</td>
<td>Amending Section 42-204, Idaho Code, to provide water permit holders the opportunity to recoup development time lost due to delays caused by state, county, city or other local government permitting or administrative actions related to the</td>
<td>2/8/13 Introduced, Read 1st Time</td>
</tr>
</tbody>
</table>

- 1/24/13 Introduced, Read 1st Time
- 1/25/13 Reported, Printed and Referred to H R&C
- 2/12/13 H R&C Committee Meeting
- 2/13/13 H R&C Committee Meeting
- 2/14/13 House – Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading
- 2/15/13 Read 2nd Time, Filed for 3rd Reading
- 2/18/13 Read 3rd Time, Passed 68-1-1, Title apvd – to Senate
- 2/19/13 Received from House, Introduced, Read 1st Time, Referred to S R&E
- 2/25/13 S R&E Committee Meeting
- 2/26/13 Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading
- 2/27/13 Read 2nd Time, Filed for 3rd Reading
- 2/28/13 Read 3rd Time in full, Passed 34-0-1, Title apvd – to House
- 3/1/13 Returned from Senate Passed; to JRA for Enrolling
- 3/4/13 Reported Enrolled; Signed by Speaker; Transmitted to Senate
- 3/5/13 Received from the House enrolled/signed by Speaker, Signed by President, Returned to House
- 3/6/13 Returned Signed by the President, Ordered Transmitted to Governor
- 3/7/13 Delivered to Governor at 11:15 a.m. on 3/6/13
- 3/12/13 Reported Signed by Governor, Session Law Chp. 45 – Effective 7/1/13
### 2012-2013 IDWR LEGISLATIVE ACTION SUMMARY

Current as of 3/21/13, 10:00 a.m.

| Permit Holders | Permit holder’s land or water development efforts; • Clarifying that the recoupment of lost development time is in addition to any development time extension granted under the statute; • Adding a new subsection enabling the Department of Water Resources to provide water permit holders longer extension periods for larger water right permits upon application and sufficient showing of good cause. | 2/21/13 H R&C Committee Meeting 2/22/13 Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading 2/25/13 Read 2nd Time, Filed for 3rd Reading 2/26/13 U.C. to hold place on 3rd Reading calendar one legislative day 2/28/13 Read 3rd Time in full, Passed 68-0-2, Title apvd – to Senate 3/1/13 Received from the House Passed; Filed for 1st Reading, Introduced, Read 1st Time; Referred to S R&E 3/5/13 Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading 3/6/13 Read 2nd Time, Filed for 3rd Reading 3/7/13 Read 3rd Time in full, Passed 33-1-1, Title apvd – to House 3/11/13 Returned from Senate Passed 3/12/13 Reported Enrolled, Signed by Speaker, Transmitted to Senate, Received from the House enrolled-signed by Speaker, Signed by President, Returned to House 3/13/13 Returned Signed by the President, Order Transmitted to Governor 3/14/13 Delivered to Governor at 10:30 a.m. on March 13, 2013 3/15/13 Reported Signed by Governor on 3/15/13, Session Law Chp. 82, Effective 3/15/13 |
| H144 | Well Construction Standards | 42-202B 42-238 | • Correction to IDWR rules for sealing water wells, returning the minimum standard for well seals to 18 feet from 38 feet. • 38 feet has been found to be arbitrary, difficult and too costly. | • 2/12/13 Introduced, Read 1st Time • 2/13/13 Reported, Printed and Referred to H R&C |
| H174 | Additional IDWR | Sec. 2, Chp. 276, | • Supplemental appropriation for IDWR 2013 fiscal year in the amount of $435,000. • $400,000 from Water Administrative Fund to cover increased activity in WSB. | • 2/13/13 Introduced, Read 1st Time • 2/14/13 Reported, Printed, Filed for 2nd |
### 2012-2013 IDWR LEGISLATIVE ACTION SUMMARY

Current as of 3/21/13, 10:00 a.m.

<table>
<thead>
<tr>
<th>Appropriations</th>
<th>Laws of 2012</th>
<th>STATEMENT OF PURPOSE/SUMMARY</th>
<th>STATUS</th>
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<tbody>
<tr>
<td></td>
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<td>$35,000 from Water Resources Adjudication Fund for shortage in Northern Idaho Adjudication budget.</td>
<td>Reading</td>
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<td>- 2/15/13 Read 2nd Time, Filed for 3rd Reading</td>
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<td></td>
<td>- 2/18/13 Read 3rd Time, Passed 69-0-1, Title apvd - to Senate</td>
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<td>- 2/19/13 Received from House, Introduced, Read 1st Time, Referred to Finance Committee, Reported out of Committee with Do Pass Recommendation, Filed for 2nd Reading</td>
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<td>- 2/20/13 Read 2nd Time, Filed for 3rd Reading</td>
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<td>- 2/28/13 Read 3rd Time in full, Passed 33-0-2, Title apvd - to House</td>
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<td>- 3/1/13 Returned from Senate Passed; to JRA for Enrolling</td>
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<td>- 3/5/13 Received from the House enrolled/signed by Speaker, Signed by President, Returned to House</td>
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<td>- Returned Signed by the President, Ordered Transmitted to Governor</td>
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<td>- 3/7/13 Delivered to Governor at 11:15 a.m. on 3/6/13</td>
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<td>- 3/12/13 Reported Signed by Governor, Session Law Chp. 51 – Effective 3/12/13</td>
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<tr>
<th>HB</th>
<th>TITLE</th>
<th>I.C.</th>
<th>STATEMENT OF PURPOSE/SUMMARY</th>
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<tbody>
<tr>
<td>H247</td>
<td>Comprehensive State Water Plan</td>
<td>42-1734B(6)</td>
<td>- Adds to existing law to ratify and approve the Comprehensive State Water Plan as adopted by the Idaho Water Resource Board on November 28, 2012.</td>
<td>3/4/13 Introduced, Read 1st Time</td>
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<td>3/5/13 Reported, Printed and Referred to H &amp;C</td>
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<td>3/7/13 H &amp;C Committee Meeting</td>
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<th>HB</th>
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<th>I.C.</th>
<th>STATEMENT OF PURPOSE/SUMMARY</th>
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<tbody>
<tr>
<td>H270</td>
<td>Appropriations-Department of Water Resources</td>
<td>42-1414 (1)(a)&amp;(b) 67-3511(1), (2) &amp; (3)</td>
<td>- This is the FY 2014 appropriation to the Department of Water Resources in the amount of $21,311,500.00. It authorizes up to 152 full-time equivalent positions and provides guidance for employee compensation. The budget includes funding to cover the employer paid increases in health insurance and retirement. It includes funding for inflationary adjustments and replacement items.</td>
<td>3/7/13 Introduced, Read 1st Time</td>
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<td>3/8/13 Reported Printed, Filed for 2nd Reading</td>
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<td>3/11/13 Read 2nd Time, Filed for 3rd Reading</td>
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<tr>
<td>HB</td>
<td>TITLE</td>
<td>L.C.</td>
<td>STATEMENT OF PURPOSE/SUMMARY</td>
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<tr>
<td>H277</td>
<td>Well Construction Standards</td>
<td>42-238</td>
<td>• This legislation is a correction to the Department of Water Resources rules for sealing water wells, returning the minimum standard for well seals to 18 feet.</td>
<td>• 3/11/13 Introduces, Read 1st Time</td>
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<td>• 3/12/13 Reported, Printed, Referred to H R&amp;C</td>
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<td>• 3/19/13 H R&amp;C Committee Meeting</td>
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<td>• 3/21/13 H R&amp;C Committee Meeting</td>
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<td>L.C.</td>
<td>STATEMENT OF PURPOSE/SUMMARY</td>
<td>STATUS</td>
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<tr>
<td>S1155</td>
<td>Watermaster &amp; Watermaster</td>
<td>42-610</td>
<td>• Clarify compensation provisions relating to watermasters and watermasters' assistants</td>
<td>• 2/27/13 Introduced at S R&amp;E</td>
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<td></td>
<td>Assistants Compensation</td>
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<td>• 3/8/13 Introduced, Read 1st Time</td>
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<td>• 3/11/13 Reported, Printed, Referred to S R&amp;E</td>
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<td>• 3/15/13 Read 2nd Time, Filed for 3rd Reading</td>
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<td>• 3/19/13 Read 3rd Time in full – Passed 24-11-0, Title apvd - to House</td>
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<td>• 3/20/13 Received from the Senate, Filed for 1st Reading, Read 1st Time, Referred to H R&amp;C</td>
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<td>RS</td>
<td>TITLE</td>
<td>L.C.</td>
<td>STATEMENT OF PURPOSE/SUMMARY</td>
<td>STATUS</td>
</tr>
<tr>
<td>21635</td>
<td>Water Banking Mitigation</td>
<td>42-1737</td>
<td>• Draft legislation would authorize board to promulgate rules related to ground water recharge throughout state, require Board to promulgate rules within the ESPA.</td>
<td>• Original legislation held by Director</td>
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<td>42-1737A</td>
<td></td>
<td>• Currently working with a IWUA legislative</td>
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</tbody>
</table>
### 2012-2013 IDWR LEGISLATIVE ACTION SUMMARY
Current as of 3/21/13, 10:00 a.m.

| Credits – Managed Recharge | 42-1761 | 42-1762 | 42-1762A | Would authorize board to promulgate rules related to aquifer credits, require Board to promulgate rules within ESPA for an aquifer credit program. | subcommittee on language. |

### IDAPA – RULEMAKING

<table>
<thead>
<tr>
<th>DOCKET</th>
<th>TITLE</th>
<th>Rules</th>
<th>STATEMENT OF PURPOSE/ SUMMARY</th>
<th>STATUS</th>
</tr>
</thead>
</table>
| 37-0303-1201 | Rules and Minimum Standards for the Construction and Use of Injection Wells | 37.03.03 | • IDAPA 37.03.03 revised to be made consistent with Idaho Code Title 42, Chapter 39 “Injection Wells” and the CFR Parts 144-148.  
• Definitions have been added or updated.  
• Existing exemptions for certain shallow injection wells have been removed.  
• Permitting and advertising requirements for low-flow domestic heat pump return injection wells have been reduced.  
• New rules specific to Class II injection wells used in association with oil and gas production have been added. | • 1/23/13 Introduced at S. R&E. Senate committee voted to approve docket (7-2).  
• 1/23/13 Introduced at H. R&C – House committee voted to approve docket (voice vote). |
MEMORANDUM

TO: David R. Tuthill Jr., Idaho Water Engineering, LLC
FROM: Phillip J. Rassier
DATE: March 20, 2013
RE: Proposed Legislative Authorization to Subordinate Recharge Water Rights

This memorandum is provided in response to your request for review of the draft ground water recharge legislation circulated among members of the IWUA Recharge Legislation Work Group on March 13, 2013. The draft proposes numerous substantial amendments to section 42-234, Idaho Code, governing IDWR’s authority to issue water rights for recharge purposes, and to Idaho Code sections 42-1761 and 42-1762 concerning creation of the water supply bank and rulemaking for its management.

The principal objective of the draft legislation is to provide authorization for the Idaho Water Resource Board to develop an aquifer water storage credit program to optimize the beneficial use of the state’s water resources. This memorandum focuses on two secondary provisions of the draft legislation which diminish its attractiveness and are unnecessary to achieve the legislation’s principal objective.

The draft legislation proposes amending section 42-234, Idaho Code, to provide, “The director shall have the authority to subordinate any ground water recharge water right permit or license issued after the date of this act to a permit or license held by the board for ground water recharge.” This language replaces text proposed in a prior draft which granted the Idaho Water Resource Board “exclusive authority” to appropriate water for aquifer recharge purposes.

My memorandum to you dated February 25, 2013, reviewing the prior draft of the legislation discussed why the proposed grant of “exclusive authority” to the Board would not be appropriate. In my view, the language now proposed to grant the Director of the Department of Water Resources authority to subordinate any future recharge water right to a similar right held by Board is equally inappropriate.

To date, the sole use of water rights subordination by the State applies to rights for hydropower generation purposes. Current statutory authority to subordinate water rights for power generation purposes is a result of the Legislature’s implementation of the authority provided by the 1928 amendment to Art. 15, Sec. 3 of the Idaho Constitution. See Idaho Code § 42-203B(6). The legislative history for section 42-203B shows it was enacted by the Idaho Legislature pursuant to its "authority under the 1928 Amendment to Article XV, Section 3 of the Idaho Constitution to limit and regulate the use of water for power purposes." Statement of Legislative Intent, S. Journal, S.1008, 1st. Sess., at 59 (Idaho 1985). No similar constitutional authority exists authorizing the Legislature to grant power to the Director, or any other official, board or entity, to subordinate water rights for other purposes including aquifer recharge.

In the recent case of Clear Springs Foods, Inc. v. Spackman, 150 Idaho 790, 252 P.3d 71 (2011), the Idaho Supreme Court considered the argument of the Idaho Ground Water Appropriators that the State in entering into the Swan Falls Agreement effectively subordinated surface water rights for fish propagation purposes to junior ground water rights on the Eastern Snake River Plain. The Court in rejecting this argument stated:
There is nothing in the Agreement indicating that the State purported to subordinate any third party's surface water rights to junior ground water rights. Indeed, the State could not have done so without paying just compensation to the owners of the senior water rights. "In Idaho, water rights are real property." Olson v. Idaho Dept. of Water Resources, 105 Idaho 98, 101, 666 P.2d 188, 191 (1983); Idaho Code § 55-101. "When one has legally acquired a water right, he has a property right therein that cannot be taken from him for public or private use except by due process of law and upon just compensation being paid therefor." Bennett v. Twin Falls North Side Land & Water Co., 27 Idaho 643, 651, 150 P. 336, 339 (1915).

Id. 105 Idaho at 797, 666 P.2d at 78 (emphasis added).

Based upon a lack of constitutional authority similar to that contained in Article 15, Section 3 of the Idaho Constitution to limit the appropriation of water for power purposes, it does not appear that a legislative grant of authority to the Director to subordinate water rights for recharge purposes would be appropriate. Furthermore, should the State proceed with imposing subordination conditions on existing water rights issued after the date of the proposed legislative enactment, it appears under the language in the Clear Springs case the State would incur potential taking liability.

In 1964, the citizens and water users of the state of Idaho approved a constitutional amendment adding Section 7, Article 15 to the Idaho Constitution allowing for the establishment of the Idaho Water Resource Board authorized “to appropriate public waters as trustee for Agency projects ... all under such laws as may be prescribed by the Legislature.” It is unlikely that those voting to approve the constitutional amendment would have anticipated that non-power water rights they might acquire in the future could potentially be subordinated to later-in-time water rights acquired by the Board. After all, nothing in the constitutional amendment suggested that the Prior Appropriation Doctrine existing in Idaho since before statehood and carefully enshrined in Article 15, Section 3 of the Constitution was in any way being diminished.

A second concern in the draft legislation here mentioned is the proposed amendment to section 42-1762, Idaho Code. The statute presently authorizes the Water Resource Board to promulgate rules governing operation of the water supply bank. The changes proposed to the statute greatly broaden the breadth of the Board’s rulemaking authority. The draft proposes to delete reference to the water supply bank and instead gives the Board broad rulemaking authority to adopt rules “governing the management, control, delivery and use and distribution of water and the accrual of aquifer credits under the aquifer credit program....” This proposed modification of the Board’s rulemaking authority creates a direct conflict with the legislative grants of authority to the Director under section 42-603, Idaho Code, to adopt rules for the distribution of water from the streams, rivers, lakes, ground water and other natural water sources, and section 42-1805(8), Idaho Code, to promulgate rules implementing or effectuating the powers and duties of the department.

In conclusion, my present comments are limited to the two issues discussed above although there are several other significant issues that could be discussed. Thank you for seeking my comment.
Managed Ground Water Recharge Legislation

Comments to Idaho Water Resource Board

David R. Tuthill, Jr., Ph.D., P.E.
March 22, 2013

Outline
- Water availability in Idaho
- What entities will develop water storage projects in the future?
- Managed ground water recharge legislation
- Request for IWRB Action
Presentation to the Idaho Water Resource Board

Ave. Water Year Vol. Flowing From ID

**Gage**

1. Near Porthill, ID
   11,153,000 AF
2. Albeni Falls Dam
   17,633,000 AF
3. Near Post Falls, ID
   4,475,000 AF
4. Near Potlach, ID
   190,000 AF
5. Lower Granite Dam
   34,850,725 AF
6. Near Anatone, WA
   25,281,000 AF
7. Near Rome, OR
   686,000 AF
8. ID-UT State Line
   770,000 AF

Total = over 95MAF!

**Principal Aquifers**

Where are Aquifer Storage Opportunities?

Map from IDEQ Website
Primary Drivers of Water Projects in Idaho

What entities will develop storage and recharge in the future?

Public and Private Partnerships

- Irrigation Districts and Canal Companies
  - Expertise
  - Facilities
  - Storage Water
  - Regulatory preferences

- Local, State and Federal Government
  - Expertise
  - Regulations
  - Oversight
  - Funding
  - Enforcement

- Private Development Company
  - Expertise
  - Funding
  - Techniques
  - Administration
  - Initiative
Role of Recharge

- Incidental Recharge -- No Credit

1865 1900 1965 2011

Recent History of Changes to Managed Ground Water Recharge Legislation

- Sep 7, 2012 IWRB Meeting – Director Spackman: “I may put language out there that causes a firestorm...” “We need to have a discussion.”
- Nov 2012 – Proposed legislation circulated, calling for IWRB to have the “exclusive” authority to appropriate water for gw recharge
- Dec 2012 Henry’s Fork Foundation Managed Recharge Symposium – Director Spackman “My intent was to encourage discussion.”
- Jan 2013 IWUA Legislative Meeting – Issue assigned to a working group
Recent History of Changes to Managed Ground Water Recharge Legislation (cont.)

- Feb 6, 2013 working group meeting in Twin Falls – D. Tuthill calls the exclusive authority provision unconstitutional
- Feb 14, 2013 working group meeting in Twin Falls – D. Tuthill renews the concern that the exclusive authority provision is unconstitutional. D. Tuthill assigned to drafting committee.
- Mar 5, 2013, new draft from John Simpson changes exclusive authority to subordination authority
- Mar 14, 2013, telephonic working group meeting – D. Tuthill says "subordination is a polite way of saying I am taking your property." Draft legislation reviewed at this meeting "looks like a rainbow." Throughout two hours of discussion, attorney Dan Steenson identifies many problems.

Recent History of Changes to Managed Ground Water Recharge Legislation (cont.)

- The legislation drafting group is supposed to consist of John Simpson, Jerry Rigby, Garrick Baxter, Dan Steenson and myself. I have not seen any other documents, or received notice of any other meetings, since the March 14th meeting. Nevertheless I have heard that other drafts are in the works.
- Mid-March, 2013 -- Idaho Legislature begins wind-down – the opportunity for meaningful discussion and review by the Legislature has passed
2013 Idaho legislative session winding down

Stephanie Rater-Lugue

POSTED: 06:35 PM MST Mar 24, 2013

IDAHO FALLS, Idaho - The 2012 state legislature is expected to wrap up late next week, ending three months worth of work.

Requests

1. Send a message to the IWUA that this proposal should not be sent to the Legislature for action this year.

2. Initiate an open, comprehensive discussion on managed ground water recharge over the coming year to develop changes to the statutes that will be good for the state in the long term.
42-234. Ground water recharge -- Authority of department to grant permits and licenses. (1) It is the policy of the state of Idaho to promote and encourage the optimum development and augmentation of the water resources of this state. The legislature deems it essential, therefore, that water projects designed to advance this policy be given maximum support. The legislature finds that the use of water to recharge ground water basins in accordance with Idaho law and the state water plan may enhance the full realization of our water resource potential by furthering water conservation and increasing the water available for beneficial use.

(2) The legislature hereby declares that the appropriation of water for purposes of ground water recharge shall constitute a beneficial use of water. The director of the department of water resources is authorized to issue permits and licenses for the purpose of ground water recharge, pursuant to the provisions of this chapter and in compliance with other applicable Idaho law and the state water plan.

(3) The Idaho water resource board shall develop rules for the appropriation and use of water for ground water recharge that will protect, sustain and enhance the water resources of the state of Idaho, while optimizing the use of water for ground water recharge. Said rules shall be consistent with rules developed pursuant to section 42-1762, Idaho Code. Rules developed by the board may address issues specific to the different hydrologic basins aquifers throughout the state.

(a) In order to ensure the optimum use and to sustain and enhance the health and stability of the Eastern Snake Plain Aquifer (ESPA) and hydraulically connected reaches of the Snake River and to ensure compliance with the State minimum flows at Murphy gage, both of which are essential for the state's municipalities, agricultural community and the economic vitality of southern Idaho and to ensure future water rights for managed aquifer recharge do not interfere with the physical fill of the Snake River reservoir system, the board and the director of the department of water resources shall oversee and regulate the managed aquifer recharge opportunities on the ESPA. Rules governing ground water recharge to the ESPA shall prioritize projects that enhance the ESPA and improve water supplies for existing water right holders consistent with the goals and objectives identified in ESPA comprehensive aquifer management plan (CAMP) and the State water plan.
The board shall develop pursuant to section 42-1762(3), Idaho Code, an aquifer credit program that will protect, sustain and enhance the water resources of the state of Idaho, while optimizing the use of water for ground water recharge, with the primary objective of achieving that will be consistent with the board's goals as set forth in the comprehensive aquifer management plan.

The board is authorized shall to provide aquifer credit recharge opportunities for the sharing the benefits of for managed ground water recharge that occurs in the ESPA provided or long as the managed ground water recharge is consistent with the goals set by the board in the ESPA CAMP, and with the State water plan and the rules developed pursuant to section 42-234(3), Idaho Code, in excess addition to of satisfying the board's goals, consistent with the provisions herein. Recognizing the existing conditions of the ESPA water resources, no new ground water recharge water rights on the ESPA shall be permitted allowed based upon the accrual of aquifer credits unless the application satisfies the criteria of section 42-203(A), Idaho Code and rules pursuant to section 42-234(3), Idaho Code, if the director concludes the new water right would be inconsistent with goals of the ESPA CAMP and the State water plan.

The director shall have the authority to subordinate any ground water recharge water right permit or license issued after the date of this act to a permit or license held by the board for ground water recharge. The director of the department of water resources may regulate the amount of water which may be diverted for recharge purposes and may reduce such amount, even though there is sufficient water to supply the entire amount originally authorized by permit or license. The director shall also have the authority to limit the exercise of a ground water recharge water right permitted or licensed after the effective date of this act if the director determines that such action is necessary to ensure compliance with the goals of the ESPA CAMP and the State Water Plan. To facilitate necessary financing of an aquifer recharge project, the director may fix a term of years in the permit or license during which the amount of water authorized to be diverted shall not be reduced by the director under the provisions of this subsection.

To ensure that other water rights are not injured by the operations of an aquifer recharge project, the director of the department of water resources shall have the authority to approve, disapprove or require alterations in the methods employed to achieve ground water recharge. In the event that the director determines that the methods of operation are adversely affecting existing water rights or are creating conditions adverse to the beneficial use of water under existing water rights, the director shall order the cessation of operations until such alterations as may be ordered by the director have been accomplished or such adverse effects otherwise have been corrected. The benefits from the exercise of ground water recharge water rights shall not be the basis for a new water right unless (a) there is a proof of a sufficient supply of water to sustain the benefits into the future and (b) such use is consistent with and pursuant to a comprehensive aquifer management plan and the aquifer credit program, and 42-237 of Idaho Code, except as provided in section 42-1762(6), Idaho Code. The exercise of benefits of...
The legislature further recognizes that incidental ground water recharge benefits are often obtained from the diversion and use of water for various beneficial purposes. However, such incidental recharge may not be used as the basis for claim of a separate or expanded water right. Incidental recharge of aquifers which occurs as a result of water diversion and use that does not exceed the vested water right of water right holders is in the public interest. The values of such incidental recharge shall be considered in the management of the state's water resources.

42-1761. Water supply bank created. The water resource board shall have the duty of operating a water supply bank. In operating the water supply bank, the water resource board shall make use of and obtain the highest duty for beneficial use from water, provide a source of adequate water supplies to benefit new and supplemental water uses, recognize and promote activities, including ground water recharge, that improves ground water supplies or inflows to related water sources, develop rules, regulations and policies that will utilize the water supply bank as a vehicle for the accrual of aquifer credits through ground water recharge and other activities that can be accrued and expended to mitigate for both existing and new uses of water, and provide a source of funding for improving water user facilities, ground water recharge facilities, and the board's recharge activities, and planning pursuant to the board's program, and efficiencies. The board shall adopt fee rules necessary to provide a source of revenue for operation of the water supply bank.

42-1762. Rules and regulations -- Acquisition of water rights. (1) The water resource board shall adopt rules and regulations governing the management, control, delivery and use and distribution of water and the accrual of aquifer credits under the aquifer credit program and deeds for the board's ground water recharge and other activities to and from the water supply bank in compliance with chapter 52, title 67, Idaho Code and consistent with the rules developed pursuant to section 42-234(3), Idaho Code. Such rules shall ensure that the aquifer credits shall only be available for recharge occurring pursuant to or in conformance with the board's ground water recharge goals and the rules developed pursuant to section 42-234(3), Idaho Code and the aquifer credit program. While recognizing the right to recharge water for credits with new ground water recharge water rights on the ESPA, the board shall only allow aquifer credits if aquifer storage of the aquifer is improving through a portion of the benefits of aquifer recharge being retained in the aquifer to meet the board's goals of sustaining and enhancing the aquifer in a timely period. While recognizing the right to recharge water for credits with new ground water recharge water rights on the ESPA, the board shall only allow aquifer credits for a portion of the benefits of ground water recharge and only if the recharge is consistent with the ESPA CAMP.
and state water plan.

Such rules shall ensure that the aquifer credits shall only be available for recharge occurring on the ESPA pursuant to or in conformance with the board's ground water recharge goals, the Aquifer Credit Program, while recognizing the right to recharge water for credits allowing for a portion of the recharged water to be pumped for existing or new uses, and in furtherance of the board's comprehensive aquifer management plan.

(2) The board may contract with lessors and lessees to act as an intermediary in facilitating the rental of water. The board may purchase, lease, or otherwise obtain decreed, licensed or permitted water rights to be credited to the water supply bank. The use to which the owner is entitled under the water right shall be reduced by the portion of the water right leased to the board, all under such provisions as are specified in the terms of the purchase or lease.

(3) The board may contract with lessors, lessees, other water right holders, consultants and prospective water users and groups of water users who have privately contracted with each other as lessors and lessees to divert utilize the ground water recharge rights and participate in the Aquifer Credit Program to: (a) lease place water into the water supply bank for managed recharge; (b) accrue and account for credits and debits in the water supply bank; (c) rent credits to prospective water users to mitigate for existing or new water uses; and (d) compensate the contributors of the credits from the rental proceeds; (e) provide a preference to those parties who have participated in achieving the board's goals through contracting with the board; (f) ensure that ground water levels, hydraulically related spring discharges, and aquifer storage of the aquifer is improving through a portion of water recharge being retained in the aquifer to meet the board's goals of sustaining and enhancing the aquifer in a timely period, ensure that the overall health, ground water levels, hydraulically related spring discharges, and aquifer storage of the aquifer is improving, and stabilizing, through a sufficient portion of water recharged being retained in the aquifer to meet the board's, goals restoring sustaining and enhancing the aquifer.

(4) For purposes of the board's aquifer credit program, the allocation of the benefits of recharge identified and confirmed through modeling and measurements shall be determined by the board. For credit in the ESPA, the recharge must be in furtherance of the board's goals of sustaining and enhancing the aquifer. Aquifer credit for new applications shall be subject to review of the director under the provisions of Chapter 2, Title 42, Idaho Code. For purposes of the board's aquifer recharge credit program, aquifer credit shall mean access to an identified portion of the water temporarily stored in the aquifer that is identified and confirmed through modeling and measurements, resulting from recharge actions pursuant to this section. For credit in the ESPA, the recharge must also be in excess of recharge required to further the board's goals of restoring, sustaining and enhancing stabilizing the aquifer. Aquifer credit for new applications shall be subject to review of the director under the provisions of Chapter 2, Title 42, Idaho Code.

(5) Water cannot be appropriated for managed recharge within or using existing man-made irrigation facilities without the permission of the owner thereof.

(6) Nothing contained herein shall limit the right of individuals to use existing water rights to file mitigation plans or accrue credits for the use of existing water rights for new or existing uses.
MEMO

To: Idaho Water Resource Board

From: Brian W. Patton

Subject: Water Resource Projects Funding Program Status Report

Date: March 10, 2013

As of February 1st the IWRB's available and committed balances in the Revolving Development Account, Water Management Account, and the Secondary Aquifer Management Account are as follows:

Revolving Development Account (main fund)

<table>
<thead>
<tr>
<th>Committed but not disbursed</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans for water projects</td>
<td>$5,049,776</td>
</tr>
<tr>
<td>Water storage studies</td>
<td>1,679,783</td>
</tr>
<tr>
<td>Total committed but not disbursed</td>
<td>6,729,559</td>
</tr>
<tr>
<td>Loan principal outstanding</td>
<td>7,871,858</td>
</tr>
<tr>
<td>Uncommitted balance</td>
<td>2,451795</td>
</tr>
<tr>
<td>Estimated revenues next 12 months</td>
<td>2,300,000</td>
</tr>
<tr>
<td>Commitments from revenues next 12 months</td>
<td>0</td>
</tr>
<tr>
<td>Estimated uncommitted funds over next 12 months</td>
<td>4,751,795</td>
</tr>
</tbody>
</table>

Rev. Dev. Acct. ESPA Sub-Account

<table>
<thead>
<tr>
<th>Committed but not disbursed</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CREP</td>
<td>2,419,581</td>
</tr>
<tr>
<td>Aquifer recharge</td>
<td>350,000</td>
</tr>
<tr>
<td>Bell Rapids</td>
<td>361,620</td>
</tr>
<tr>
<td>Palisades storage</td>
<td>10,000</td>
</tr>
<tr>
<td>Black Canyon Exchange</td>
<td>529,445</td>
</tr>
<tr>
<td>Loan for water project</td>
<td>250,000</td>
</tr>
<tr>
<td>Total committed but not disbursed</td>
<td>$3,920,645</td>
</tr>
<tr>
<td>Loan principal outstanding</td>
<td>347,893</td>
</tr>
<tr>
<td>Uncommitted balance</td>
<td>102,638</td>
</tr>
<tr>
<td>Estimated revenues next 12 months</td>
<td>172,000</td>
</tr>
<tr>
<td>Commitments from revenues over next 12 months</td>
<td>0</td>
</tr>
<tr>
<td>Estimated uncommitted funds over next 12 months</td>
<td>274,638</td>
</tr>
</tbody>
</table>

Rev. Dev. Acct. Bell Rapids Sub-Account

| Committed but not disbursed (finance costs)       | $179,835     |
| Estimated revenues next 12 months (1)             | 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.)   | $1,344,576   |
| 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. Treasure Valley & Rathdrum Prairie CAMP Sub-Account

Committed but not disbursed $245,005
Estimated revenues next 12 months (5) 200,000
Commitments from revenues over next 12 months 0
Estimated uncommitted funds over next 12 months 445,005

Rev. Dev. Acct. Pristine Springs Sub-Account

Committed but not disbursed
Repair fund $1,167,428
ESPA CAMP 616,455 (to be transferred to Secondary Aquifer Fund)
Total committed but not disbursed $1,783,883
Loan principal outstanding 7,127,940
Uncommitted balance 0
Estimated revenues next 12 months 800,000
Commitments from revenues over next 12 months 800,000
Estimated uncommitted funds over next 12 months 0

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

Committed but not disbursed $2,710,094
(Upper Salmon flow enhancement/reconnect 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 1,790
Uncommitted balance 7,659
Estimated revenues next 12 months 2,000
Commitments from revenues over next 12 months 0
Estimated uncommitted funds over next 12 months $9,659

Secondary Aquifer Management Fund

Committed but not disbursed: $1,875,885
Uncommitted balance 1,573,249
Estimated revenues next 12 months 643,455
Commitments from revenues over next 12 months 0
Estimated uncommitted funds over next 12 months 2,216,704

Total committed but not disbursed $18,598,296
Total loan principal outstanding 15,349,361
Total uncommitted balance 4,683,055
Total estimated uncommitted funds over next 12 months 7,697,801

(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 $2,203,004.
(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 and so are not included in the income projection.
(5) From Pristine Springs hydropower and rental income.
The **20-Mile Creek Water Association** has repaid its loan in full ahead of schedule. 20-Mile Creek provides water service to the town of Naples and surrounding area in Boundary County, and borrowed $107,400 to rebuild its sand filter water treatment plant.

The following is a list of potential loans that we know about:

<table>
<thead>
<tr>
<th>Potential Applicant</th>
<th>Potential Project</th>
<th>Preliminary Loan Amount</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunset Heights Water District</td>
<td>Water exchange project – required by water rights settlement agreement</td>
<td>$50,000</td>
<td>Expect application for May IWRB meeting.</td>
</tr>
<tr>
<td>Raft River Ground Water District</td>
<td>Ground water-to-surface water conversion pipeline</td>
<td>$2 million</td>
<td>Project in planning and design. Applying for NRCS cost share grants.</td>
</tr>
<tr>
<td>Marysville Irrigation Company/North Fremont</td>
<td>Gravity pipeline system – next phase</td>
<td>$1.5 million</td>
<td>Project in planning and design. Applying for NRCS cost share grants.</td>
</tr>
<tr>
<td>Account Description</td>
<td>Amount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legislative Appropriation 2005, HB192</td>
<td>$21,300,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Earned State Treasury</td>
<td>$691,975.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bell Rapids Purchase</td>
<td>($16,006,558.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bureau of Reclamation Principal Amount Lease Payment</td>
<td>$8,294,337.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bureau of Reclamation Interest Paid</td>
<td>$179,727.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bureau of Reclamation Remaining Amount Lease Payment</td>
<td>$9,142,649.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Installment Payment to Bell Rapids</td>
<td>($1,313,236.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Installment Payment to Bell Rapids</td>
<td>($1,313,236.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Installment Payment to Bell Rapids</td>
<td>($1,313,236.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Installment Payment to Bell Rapids</td>
<td>($1,040,431.55)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Credit Due to Bureau of Reclamation (Part of Fourth Installment)</td>
<td>($19,860.45)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fifth Installment Payment to Bell Rapids</td>
<td>($1,055,000.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer to General Fund - Principal Fund</td>
<td>($772,052.06)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOR payment for Bell Rapids</td>
<td>$1,040,431.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOR payment for Bell Rapids</td>
<td>$1,313,236.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOR payment for Bell Rapids</td>
<td>$1,302,981.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOR payment for doing Alternative Financing Note</td>
<td>$7,117,971.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payment to US Bank for Alternative Financing Note</td>
<td>($7,118,125.86)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payment for ongoing Bell Rapids finance costs (trustee fees, water bank, etc.)</td>
<td>($6,740.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ongoing Bell Rapids Finance Costs (trustee fees, etc.)</td>
<td>$179,835.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Committed for alternative finance payment</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Commitments</td>
<td>$179,835.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance Bell Rapids Water Rights Sub-Account</td>
<td>($0.00)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pristine Springs Project Sub-Account**

<table>
<thead>
<tr>
<th>Account Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Appropriation 2008, SB1511, Pristine Springs</td>
<td>$10,000,000.00</td>
</tr>
<tr>
<td>Legislative Appropriation 2008, HB570, Water Right Purchases</td>
<td>$5,000,000.00</td>
</tr>
<tr>
<td>Interest Earned State Treasury</td>
<td>$30,091.51</td>
</tr>
<tr>
<td>Loan Interest</td>
<td>$1,443,691.29</td>
</tr>
<tr>
<td>Transfer from ESP Sub-Account</td>
<td>$1,000,000.00</td>
</tr>
<tr>
<td>Payment for Purchase of Pristine Springs (3)</td>
<td>($16,000,000.00)</td>
</tr>
<tr>
<td>Payment from Magic Valley &amp; North Shore GWD for Pristine Springs</td>
<td>$2,827,059.82</td>
</tr>
<tr>
<td>Appraisal</td>
<td>($15,000.00)</td>
</tr>
<tr>
<td>Insurance</td>
<td>($20,650.00)</td>
</tr>
<tr>
<td>Recharge District Assessment</td>
<td>($6,051.00)</td>
</tr>
<tr>
<td>Hydro Plant Engineering Certification (Straubhar)</td>
<td>($3,000.00)</td>
</tr>
<tr>
<td>Payment to EHM Engineers for pipeline work</td>
<td>($1,200.00)</td>
</tr>
<tr>
<td>Payment to John Root for Easement Survey</td>
<td>($1,000.00)</td>
</tr>
<tr>
<td>Telemetry Station Equipment</td>
<td>($10,445.00)</td>
</tr>
<tr>
<td>Rein Tech LLC (Satellite phone annual payment)</td>
<td>($485.00)</td>
</tr>
<tr>
<td>Property Taxes and other fee assessments (Jerome County)</td>
<td>($8,319.39)</td>
</tr>
<tr>
<td>Rental Payments</td>
<td>$1,323,634.32</td>
</tr>
<tr>
<td>Transferred to Secondary Aquifer Fund (2011 Legislature; HB 291)</td>
<td>($2,465,300.00)</td>
</tr>
<tr>
<td>Transferred to Secondary Aquifer Fund (2012 Legislature; SB 1383)</td>
<td>($2,223,000.00)</td>
</tr>
</tbody>
</table>

**Pristine Springs Hydropower Projects**

<table>
<thead>
<tr>
<th>Account Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net power sales revenues</td>
<td>$235,727.56</td>
</tr>
<tr>
<td>Pristine Springs Committed Funds</td>
<td></td>
</tr>
<tr>
<td>ESPA CAMP (to be transferred to Secondary Fund)</td>
<td>$61,454.72</td>
</tr>
<tr>
<td>Repair/Replacement Fund</td>
<td>$1,167,427.96</td>
</tr>
<tr>
<td>TOTAL COMMITTED FUNDS</td>
<td>$1,783,882.68</td>
</tr>
<tr>
<td>Loans Outstanding</td>
<td></td>
</tr>
<tr>
<td>North Snake and Magic Valley Ground Water District</td>
<td>$7,127,940.18</td>
</tr>
<tr>
<td>TOTAL Loans Due</td>
<td>$7,127,940.18</td>
</tr>
<tr>
<td>Funds to RP CAMP &amp; TV CAMP Sub-Account</td>
<td>$245,005.34</td>
</tr>
<tr>
<td>Pristine Springs Revenues Into Main Revolving Development Account</td>
<td>$115,445.59</td>
</tr>
<tr>
<td>Description</td>
<td>Amount</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Pristine Springs Hydropower and Rental Revenues</td>
<td>$245,005.34</td>
</tr>
<tr>
<td>Interest Earned State Treasury</td>
<td>$573.11</td>
</tr>
<tr>
<td>Treasure Valley Water Quality Summit</td>
<td>($560.00)</td>
</tr>
<tr>
<td>Committed Funds</td>
<td></td>
</tr>
<tr>
<td>Treasure Valley Water Quality CAMP Sub-Account</td>
<td>$245,078.45</td>
</tr>
<tr>
<td>Upper Salmon/CBWTP Sub-Account</td>
<td></td>
</tr>
<tr>
<td>Water Transaction Projects Payment Advances from CBWTP/Accord</td>
<td>$2,840,997.65</td>
</tr>
<tr>
<td>PSCRF Funds for Administration of Non-Diversion Easements on Lemhi River</td>
<td>$157,279.26</td>
</tr>
<tr>
<td>Interest Earned State Treasury</td>
<td>$89,482.11</td>
</tr>
<tr>
<td>Transfer to Water Supply Bank</td>
<td>($447,715.10)</td>
</tr>
<tr>
<td>Change of Ownership</td>
<td>($600.00)</td>
</tr>
<tr>
<td>Alturas Lake Creek Appraisal</td>
<td>($89,989.23)</td>
</tr>
<tr>
<td>Payments for Water Acquisition</td>
<td>($337,190.65)</td>
</tr>
<tr>
<td>Committed Funds</td>
<td></td>
</tr>
<tr>
<td>Administration of Non-Diversion Easements on Lemhi River</td>
<td>$158,532.38</td>
</tr>
<tr>
<td>Alturas Lake Creek (Breckenridge)</td>
<td>($0.00)</td>
</tr>
<tr>
<td>Bayhorse Creek</td>
<td>$26,952.66</td>
</tr>
<tr>
<td>Beaver Creek (DOT LLC)</td>
<td>$15,795.61</td>
</tr>
<tr>
<td>Big Hat Creek</td>
<td>$270.65</td>
</tr>
<tr>
<td>Big Timber Tyler (Leadore Land Partners)</td>
<td>$429,168.31</td>
</tr>
<tr>
<td>Canyon Creek/Big Timber Creek (Beyeler)</td>
<td>$402,367.55</td>
</tr>
<tr>
<td>Fourth of July Creek (Vanderbilt)</td>
<td>$17,581.57</td>
</tr>
<tr>
<td>Iron River</td>
<td>$216,360.67</td>
</tr>
<tr>
<td>Lemhi River &amp; Little Springs Creek (Kauer)</td>
<td>$18,827.49</td>
</tr>
<tr>
<td>Little Springs Creek (Snyder)</td>
<td>$261,817.66</td>
</tr>
<tr>
<td>Lower Eighteenmile Creek (Elsworth Angus Ranch)</td>
<td>$6,058.63</td>
</tr>
<tr>
<td>Lower Lemhi M Olson (Mark Olson)</td>
<td>$11,218.29</td>
</tr>
<tr>
<td>Lower Lemhi Thomas (Robert Thomas)</td>
<td>$2,570.46</td>
</tr>
<tr>
<td>P-8 Bowles (River Valley Ranch)</td>
<td>$276,581.23</td>
</tr>
<tr>
<td>P-8 Charlton (Sydney Dowton)</td>
<td>$8,439.38</td>
</tr>
<tr>
<td>P-8 Dowton (Jim Dowton Ranch)</td>
<td>$220,962.37</td>
</tr>
<tr>
<td>P-9 Etzinga (Etzinga)</td>
<td>$223,312.38</td>
</tr>
<tr>
<td>Patterson-Big Springs (PBSC9)</td>
<td>$167,848.67</td>
</tr>
<tr>
<td>Sulphur Creek</td>
<td>$12,305.00</td>
</tr>
<tr>
<td>Whitefish (Leadore Land Partners)</td>
<td>$176,314.72</td>
</tr>
<tr>
<td>Total Committed Funds</td>
<td>$2,710,094.15</td>
</tr>
<tr>
<td>Balance CBWTP Sub-Account</td>
<td>($13,830.11)</td>
</tr>
<tr>
<td>Eastern Snake Plain Sub-Acount</td>
<td></td>
</tr>
<tr>
<td>Legislative Appropriation 2005, HB392</td>
<td>$7,200,000.00</td>
</tr>
<tr>
<td>Legislative Appropriation 2005, HB392, CREP Program</td>
<td>$3,000,000.00</td>
</tr>
<tr>
<td>Interest Earned State Treasury</td>
<td>$1,880,664.93</td>
</tr>
<tr>
<td>Loan Interest</td>
<td>$181,294.43</td>
</tr>
<tr>
<td>Bell Rapids Water Rights Closing Costs</td>
<td>($6,558.00)</td>
</tr>
<tr>
<td>First Installment Payment to Bell Rapids Irr. Co. (Partial)</td>
<td>($361,800.00)</td>
</tr>
<tr>
<td>Second Installment Payment to Bell Rapids Irr. Co. (Partial)</td>
<td>($361,800.00)</td>
</tr>
<tr>
<td>Third Installment Payment to Bell Rapids Irr. Co. (Partial)</td>
<td>($361,800.00)</td>
</tr>
<tr>
<td>Fourth Installment Payment to Bell Rapids Irr. Co. (Partial)</td>
<td>($614,744.00)</td>
</tr>
<tr>
<td>Fifth Installment Payment to Bell Rapids Irr. Co. (Final)</td>
<td>($1,675,036.00)</td>
</tr>
<tr>
<td>Reimbursement from Commerce &amp; Labor W-Canal</td>
<td>$74,705.77</td>
</tr>
<tr>
<td>Transfer to Pristine Springs Sub Account</td>
<td>($1,000,000.00)</td>
</tr>
<tr>
<td>Reimbursement from Magic Valley GWD - Pristine Springs</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>Reimbursement from Magic Valley GWD - Pristine Springs</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>Reimbursement from Water District 1 for Recharge</td>
<td>($3,510,257.36)</td>
</tr>
<tr>
<td>Palisades (FMC) Storage Costs</td>
<td>$2,381.12</td>
</tr>
<tr>
<td>Reimbursement from BOR for Palisades Reservoir</td>
<td>($3,268,834.11)</td>
</tr>
<tr>
<td>W-Canal Project Costs</td>
<td>$23,800.00</td>
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<td>2008 Recharge Conveyance Costs</td>
<td>($14,580.00)</td>
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<td>2009 Recharge Conveyance Costs</td>
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<td>2010 Recharge Conveyance Costs</td>
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<td>Pristine Springs Cost Project Costs</td>
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<td>Loans and Other Commitments</td>
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<td>Commitment - ESPA Comprehensive Aquifer Management Plan - CDR Contract</td>
<td>$0.00</td>
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<td>Commitment - North Snake &amp; Magic Valley GWD Loan - Mitigation Pipeline</td>
<td>$250,000.00</td>
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<td>Commitment - Remainder of Bell Rapids Water Rights Purchase (1)</td>
<td>$361,620.00</td>
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<td>Commitment - CREP Program (HB392, 2009)</td>
<td>$2,419,580.50</td>
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<td>Commitment - Recharge Conveyance</td>
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<td>Commitment - Additional recharge projects preliminary development</td>
<td>$350,000.00</td>
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<td>Commitment - Palisades Storage O&amp;M</td>
<td>$10,000.00</td>
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<td>Commitment - Black Canyon Exchange Project (fund with ongoing revenues)</td>
<td>$529,444.95</td>
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<td>Commitment - W-Canal Aquifer and Recharge Conveyance</td>
<td>$0.00</td>
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<td>Total Loans and Other Commitments</td>
<td>($3,920,645.45)</td>
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<td>Loans Outstanding:</td>
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<td>American Falls-Aberdeen GWD (CREP)</td>
<td>$113,814.73</td>
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<td>Bingham GWD (CREP)</td>
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<td>Bonneville Jefferson GWD (CREP)</td>
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<td>Magic Valley GWD (CREP)</td>
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<td>North Snake GWD (CREP)</td>
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<td>TOTAL ESP LOANS OUTSTANDING</td>
<td>($337,933.10)</td>
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<td>Uncommitted Balance Eastern Snake Plain Sub-Account</td>
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<td>Dworshak Hydropower Project</td>
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<td>Dworshak Project Revenues</td>
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<td>Power Sales &amp; Other</td>
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<td>Interest Earned State Treasury</td>
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<td>Total Dworshak Project Revenues</td>
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<td>Dworshak Project Expenses</td>
<td>$148,542.63</td>
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Revolving Development Account - Page 2 of 4
Construction not paid through bond issuance ........................................ $226,106.83
1st Security Fees ................................................................................ $314,443.35
Operations & Maintenance ................................................................ $1,527,706.28
Power Plant Repairs ........................................................................... $58,488.80
Capital Improvements ......................................................................... $318,366.79
FERC Payments ................................................................................ $35,956.16
Total Dworshak Project Expenses .................................................... ($2,629,610.84)

Dworshak Project Committed Funds
Emergency Repair/Future Replacement Fund ................................ $1,314,575.00
FERC Fees Payment Fund ................................................................. $30,031.40
Total Dworshak Project Committed Funds .................................... $1,344,606.40

Excess Dworshak Funds into Main Revolving Development Account .................................................. $2,203,003.84

Total Loans Outstanding: $7,871,858.12

Loans Outstanding: Amount

Aberdeen-Springfield Canal Company (WRB-491; Diversion structure) $329,761 $198,967.51
Big Wood Canal Company (23-Jan-09; Tromex Creek Flume) $90,000 $30,382.31
Boise City Canal Company (WRB-492) ............................................... $282,362 $21,422.81
Boise City Canal Company (WRB-492; Grove St Canal Rehab) $110,618 $54,215.30
Bonnie Laura Water Corporation (14-Jul-06; Well repair) $71,000 $35,299.29
Canyon County Drainage District No. 2 (29-Nov-12; Drain tile pipeline) $35,500 $35,000.00
Carlin Bay Property Owners Association ...................................... $115,609 $0.00
Challis Irrigation Company (28-Nov-07; river gate replacement) $50,000 $30,668.69
Chaparral Water Association ......................................................... $90,154 $17,165.69
Chaparral Water Association (21-Jan-11; Well deepening & improvement) $68,000 $32,625.39
Cloverdale Ridge Water Corp. (irrigation system rehab 25-Sep-09) $106,400 $72,611.48
Country Club Subdivision Water Association (18-May-07, Well Project) $102,000 $67,563.71
Cub River Irrigation Company (18-Nov-05; Pipeline project) $1,000,000 $484,571.79
Cub River Irrigation Company ........................................................ $500,000 $402,731.19
Deer Creek Water Association (14-Mar-08; Water system) $375,000 $0.00
Deep Creek Property Owners Association .................................. $25,115 $2,993.84
Enterprise Irrigation District (14-Jul-06; Pipeline project) $37,270 $21,242.66
Enterprise Irrigation District (North Lateral Pipeline) $105,420 $52,992.14
Evergreen Terrace Water Association (water study) $15,000 $0.00
Firth, City of ................................................................................ $112,888 $38,715.57
Foothills Ranch Homeowners Association (7-oct-11; well rehab) $150,000 $135,187.76
Garden Valley Ranchettes Homeowners Association (25-Jan-05) $2,716 $1,541.85
Geneseo, City of (Storage tank, 22-Jan-10) $250,000 $86,387.30
Georgetown, City of .................................................................. $278,500 $77,603.92
Harbor View Water & Sewer District (Combined Loans) $302,819 $187,051.41
Hoy Bluff Water Association (Rathdrum Prairie Well) $273,020 $28,589.65
Jefferson Irrigation Company (well deepening) $110,780 $0.00
Jefferson Irrigation Company (well deepening) $207,016 $72,728.09
Jefferson Irrigation Company (9-May-2008 Well Replacement) $81,000 $64,668.15
Jugandle HOA/Valley County Local Improvement District No. 1 (well replacement) $907,552 $190,259.00
King Hill Irrigation District (24-Sep-10; Pipeline replacement) $300,000 $161,434.51
Kullesvill Estates Property Owners Association $219,510 $0.00
Lake Reservoir Company (29-July-11; Payette Lake-Lardo Dam Outlet) $394,000 $308,243.11
Lakeview Water District ................................................................. $45,146 $0.00
Last Chance Canal Company (WRB-487) $500,000 $181,760.75
Lava Hot Springs, City of ................................................................ $347,510 $190,259.92
Lindsay Lateral Association (22-Aug-03) $9,600 $3,215.63
Lindsay Lateral Association (Engineering Design Project) $35,000 $15,000.00
Lindsay Lateral Association (Pipeline Study) $15,000 $4,500.00
Live-More Lake Community (9-Jun-04) $42,000 $16,961.25
Lower Payette Ditch Company (2-Apr-04; Diversion dam replacement) $875,000 $465,632.00
Marsh Center Irrigation Company (15-May-08; Hawkins Dam) $236,141 $163,043.88
Marysville Irrigation Company (18-May-07, Pipeline Project Phase 1) $625,000 $377,890.82
Marysville Irrigation Company (9-May-08, Pipeline Project Phase 2) $1,100,000 $631,747.52
McGuire Estate Water Users Association (4-Mar-05) $90,851 $25,725.37
Meadow Point Subdivision, Homeowners Association (7-Sep-07) $330,000 $297,967.02
Meridian Heights Water & Sewer Association (18-May-07) $350,000 $279,271.42
Monument Ridge Homeowners Association (20-Mar-09; irrigation system) $360,000 $0.00
Mores Creek Rim Ranches Water District ........................................... $221,450 $67,839.91
New Hope Water Corporation.......................................................... $24,000 $0.00
New Hope Water Corporation ......................................................... $24,000 $0.00
Oakley Valley Water Company ........................................................ $151,460 $63,411.06
Oakley Valley Water Company ........................................................ $138,331 $0.00
Packslade Water Corporation .......................................................... $40,650 $0.00
Pacifax Livestock Co (Pacifax town water system) $36,000 $0.00
Pinehurst Water District (14-mar-08; Water storage tank) $160,000 $36,678.73
Powder Valley-Shadowbrook Homeowners Assoc. $201,500 $5,039.12
PRT Water System ......................................................................... $70,972 $29,515.73
Preston Riverdale & Mink Creek Canal Co. $400,000 $0.00
Preston-Whitney Irrigation Company (29-May-09; Fairview Lateral Pipe) $800,000 $216,733.16
Producers Irrigation Company (17-Mar-06; well replacements) $185,000 $43,181.96
Ranch Subdivision Property Owners Assn. $85,851 $13,790.36
Riverside Independent Water District ................................................. $350,000 $198,952.97
Rochester Ditch Co. ...................................................................... $30,000 $0.00
Skin Creek Water Association ........................................................ $188,288 $106,754.57
Sourdough Point Owners Association (23-Jan-09; Water supply & treatment) $750,000 $110,394.77
Spirit Bend Water Association ......................................................... $92,000 $55,438.11
Thunder Canyon Owners Association (6-Feb-04) $392,416 $45,328.86
Twenty-Mile Creek Water Association ............................................. $104,933 $0.00
Twin Lakes Canal Company (13-Jul-07) $750,000 $376,734.34
Twin Lakes Canal Company (2-Apr-04) $80,000 $13,928.88
Twin Lakes-Rathdrum Fd Cont Dist (24-Oct-02; Twin Lakes Dam) $349,988 $64,340.50
Whitney-Nashville Water Company ................................................. $72,999.26 $7,871,858.12

Revolving Development Account - Page 3 of 4
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Amount</th>
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<tr>
<td>Senate Bill 1511 - Teton Replacement and Minidoka Enlargement Studies</td>
<td>$778,161.82</td>
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<tr>
<td>Boise River Storage Feasibility Study</td>
<td>$350,000.00</td>
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<td>Weiser-Galloway Study (26-May-10)</td>
<td>$551,520.87</td>
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<td>Canyon Creek Canal Company (14-Mar-08; Pipeline project)</td>
<td>$133,599.00</td>
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<td>Canyon County Drainage District No. 2 (28-Nov-12; Drain tile pipeline replacement)</td>
<td>$0.00</td>
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<tr>
<td>Chaparral Water Association (21-Jan-11; Well deepening &amp; improvement)</td>
<td>$18,465.16</td>
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<td>Clearwater Water District - pilot plant (13-Jul-07)</td>
<td>$80,000.00</td>
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<td>Consolidated Irrigation Company (July 20, 2012; pipeline project)</td>
<td>$1,500,000.00</td>
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<td>Dover, City of (23-Jul-10; Water intake project)</td>
<td>$184,063.00</td>
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<td>Evergreen Terrace Water Association (water study, 25-Sep-09)</td>
<td>$1,316.09</td>
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<td>Foothills Ranch Homeowners Association (7-Oct-11; well rehab)</td>
<td>$14,812.24</td>
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<td>Garden Valley Ranchettes Homeowners Association (25-Jan-05)</td>
<td>$8,183.69</td>
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<td>Lake Reservoir Company (29-Jul-11; Payette Lake-Lando Dam Outlet Gates)</td>
<td>$285,746.89</td>
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<td>Lindsay Lateral Association</td>
<td>$15,300.00</td>
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<tr>
<td>North Fremont Canal Systems (Marysville)</td>
<td>$2,500,000.00</td>
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<td>North Snake &amp; Magic Valley GWD Loan - Mitigation Pipeline</td>
<td>$250,000.00</td>
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<td>Point Springs Grazing Association (July 20, 2012; stock water pipeline)</td>
<td>$48,280.00</td>
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<td>Portneuf Irrigating Company (29-Jul-11; Pipeline project)</td>
<td>$0.00</td>
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<td><strong>TOTAL LOANS AND OTHER FUNDING OBLIGATIONS</strong></td>
<td>$6,729,588.76</td>
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<td><strong>Uncommitted Funds</strong></td>
<td>$2,451,794.50</td>
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<td><strong>TOTAL</strong></td>
<td>$17,081,211.38</td>
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(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 and is therefore not shown on this balance sheet.
Idaho Water Resource Board
Sources and Applications of Funds
as of January 31, 2013

**WATER MANAGEMENT ACCOUNT**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tr>
<td>Original Appropriation (1978)</td>
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<tr>
<td>Legislative Audits</td>
<td>($10,645.45)</td>
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<tr>
<td>IWRB Appraisal Study (Charles Thompson)</td>
<td>($5,000.00)</td>
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<tr>
<td>Transfer funds to General Account 1101(HB 130, 1983)</td>
<td>($500,000.00)</td>
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<tr>
<td>Legislative Appropriation (6/29/1984)</td>
<td>$115,800.00</td>
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<td>Legislative Appropriation (HB988, 1994)</td>
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<td>Turned Back to General Account 6/30/95, (HB988, 1994)</td>
<td>($35,014.25)</td>
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<td>Legislative Appropriation (SB1260, 1995, Aquifer Recharge, Caribou Dam)</td>
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<td>Interest Earned</td>
<td>$120,189.05</td>
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<td>Filing Fee Balance</td>
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<td>Water Supply Bank Receipts</td>
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<td>Bond Fees</td>
<td>$277,254.94</td>
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<td>Funds from DEQ and IDOC for Glenns Ferry Water Study</td>
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<td>Legislative Appropriation FY01</td>
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<td>Western States Water Council Annual Dues</td>
<td>($7,500.00)</td>
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<td>Transfer to/from Revolving Development Account</td>
<td>($317,253.80)</td>
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<td>Legislative Appropriation (SB1239, Sugarloaf Aquifer Recharge Project)</td>
<td>$60,000.00</td>
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<td>Legislative Appropriation (HB 843 Sec 6)</td>
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<td>Legislative Appropriation (SB1496, 2006, ESP Aquifer Management Plan)</td>
<td>$300,000.00</td>
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<tr>
<td>Legislative Appropriation (HB 320, 2007, ESP Aquifer Management Plan)</td>
<td>$849,936.99</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>$4,497,203.86</td>
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Grants Disbursed:

- **Completed Grants**
  - 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
  - Bonners 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

TOTAL GRANTS DISBURSED............................................................................................................. ($1,632,755.21)

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

TOTAL IWRB AND LEGISLATIVE DIRECTED EXPENDITURES......................................................... ($2,732,017.19)

WATER RESOURCE BOARD RECHARGE PROJECTS................................................................. ($11,426.88)

CURRENT ACCOUNT BALANCE........................................................................................................ $121,004.58

Committed Funds:
Grants Obligated
Cottonwood Point Water & Sewer Association.................................... $0.00
Preston - Whintey 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
ESP Aquifer Management Plan (SB 1496, 2006).............................. $0.00
ESP Aquifer Management Plan (HB320, 2007)................................. $48,829.24

TOTAL GRANTS & LOANS OBLIGATED & UNDISBURSED................................................................. $111,375.55

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<th>Loans Outstanding</th>
<th>Amount Loaned</th>
<th>Principal Outstanding</th>
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<tr>
<td>Arco, City of.......</td>
<td>$7,500</td>
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<td>Butte City, City of</td>
<td>$7,425</td>
<td>$1,969.94</td>
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<tr>
<td>Roberts, City of...</td>
<td>$23,750</td>
<td>$0.00</td>
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<tr>
<td>Victor, City of....</td>
<td>$23,750</td>
<td>$0.00</td>
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TOTAL LOANS OUTSTANDING........................................................................................................ $1,969.94

Uncommitted Funds...................................................................................................................... $7,659.09

CURRENT ACCOUNT BALANCE........................................................................................................ $121,004.58
Idaho Water Resource Board  
Sources and Applications of Funds  
as of January 31, 2013

SECONDARY AQUIFER PLANNING, MANAGEMENT, & IMPLEMENTATION FUND

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tr>
<td>Legislative Appropriation (HB 291, Sec 2)</td>
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<tr>
<td>Legislative Appropriation (SB 1389, Sec 5)</td>
<td>$1,232,000.00</td>
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<tr>
<td>Interest Earned State Treasury (Transferred)</td>
<td>$35,722.89</td>
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<tr>
<td>Water Users Contributions</td>
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<tr>
<td>Conversion project (AWEP) measurement device payments</td>
<td>($16,455.21)</td>
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<tr>
<td>Contribution from GWD’s for 2011 ESPA Managed Recharge</td>
<td>$71,893.16</td>
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<tr>
<td>Contribution from GWD’s for Revenue Bond Prep Expenses</td>
<td>$14,462.50</td>
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<tr>
<td>American Falls Res. Dist#/2 - MP31 Recharge Site Engineering</td>
<td>($1,593.75)</td>
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<tr>
<td>Payments for 2012 Recharge</td>
<td>($260,031.02)</td>
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<tr>
<td>Payment for Recharge</td>
<td>($80,000.00)</td>
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<tr>
<td>Payment for High Country RC&amp;D Cloud Seeding</td>
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Committed Funds

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<tr>
<th>Description</th>
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</tr>
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<tbody>
<tr>
<td>Measurement devices for AWEP conversion projects</td>
<td>$183,544.79</td>
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<tr>
<td>High Country RC&amp;D Cloud Seeding</td>
<td>$27,735.38</td>
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<td>American Falls Res. Dist#/2 - MP31 Recharge Site Engineering</td>
<td>$4,406.25</td>
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<td>American Falls Res. Dist#/2 - MP31 Recharge Site Construction</td>
<td>$35,000.00</td>
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<tr>
<td>Five-Year Managed Recharge Pilot Program</td>
<td>$1,239,968.98</td>
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<tr>
<td>Contribution from GWD’s for 2011 ESPA Managed Recharge</td>
<td>($8,106.84)</td>
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<tr>
<td>GWD Bond Prepatory Expenses</td>
<td>$37,500.00</td>
</tr>
<tr>
<td>Idaho Irrigation District Recharge Phase 1</td>
<td>$13,200.00</td>
</tr>
<tr>
<td>Fremont-Madison Irrigation District Egin Recharge</td>
<td>$40,000.00</td>
</tr>
<tr>
<td>Total Committed Funds</td>
<td>$1,573,248.56</td>
</tr>
</tbody>
</table>

TOTAL UNCOMMITTED FUNDS.................................................................................................... $1,875,885.39

CURRENT ACCOUNT BALANCE........................................................................................................ $3,449,133.95
The Harvest Valley Home Owners Association is applying for a Water Project Loan from the Revolving Development Account in the amount of $4,500.00 to replace their irrigation pump.

1.0 BACKGROUND
The Harvest Valley Home Owners Association (HVH) was founded in August of 2002 in Emmett, Idaho. The HVH is currently made up of 81 homes in Phases 1 through 3 with additional homes expected for phases 4 and 5 as the economy improves. The Harvest Valley subdivision was developed with a pressurized irrigation system installed in 2002 which supplies irrigation water for each home and the common areas of the subdivision. The pressurized system consists of a submersible pump, valves and a mainline.

2.0 PROPOSED PROJECT
The proposed project is to replace the existing pump and valves for the pressurized system.

3.0 PROJECT COST ESTIMATE
The following cost estimate was developed by the Valley Pump and Equipment Co. Inc. of Emmett and has been reviewed by staff. The estimate reflects the cost associated with the pump replacement.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 hp pump submersible</td>
<td>$1,938.12</td>
</tr>
<tr>
<td>1½ hp 3 phase motor submersible</td>
<td>$357.12</td>
</tr>
<tr>
<td>Pipe, valves and fittings</td>
<td>$294.18</td>
</tr>
<tr>
<td>Misc parts and installation</td>
<td>$1,910.54</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$4,500.00</strong></td>
</tr>
</tbody>
</table>

4.0 FINANCIAL ANALYSIS
Harvest Valley HOA is requesting financing for the Pump Replacement Project. The amount requested from IWRB in the form of a loan is $4,500. Assuming a loan of $4,500 at 6%:

<table>
<thead>
<tr>
<th>Term</th>
<th>Estimated Payment</th>
<th>Assessment per home</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>$1,100</td>
<td>$13.58</td>
</tr>
</tbody>
</table>

During the last meeting of the Home Owners Association, a motion was passed to proceed with pursuit of a loan from the Idaho Water Resource Board. The HOA charges each home $120/year. This amount pays for the upkeep of the common area, power bills, insurance and other miscellaneous expenses. The HOA generally has funds left at the end of the year but last year they need those reserve funds to replace the fencing surrounding the subdivision which was damaged due to high winds.

5.0 WATER RIGHTS
HVH does not own any water rights but holds 30 shares in the Last Chance Ditch Company of Emmett, Idaho.

6.0 CONCLUSION AND RECOMMENDATION
This project will provide benefits to Harvest Valley HOA by giving them a reliable pumping system for their irrigation needs. The IWRB will hold a lien on the shares of Last Chance Ditch Company and on the common areas of the subdivision. Staff recommends approval of a loan for the Pump Replacement Project in the
amount of $4,500 at 6%, with a 5-year term.

Map of Harvest Valley HOA
BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE                 )  A RESOLUTION TO MAKE
HARVEST VALLEY                        )  A FUNDING COMMITMENT
HOMEOWNERS ASSOCIATION                )
___________________________________

WHEREAS, the Harvest Valley Homeowners Association (Association) has submitted an application to the Idaho Water Resource Board (IWRB) requesting a loan in the amount of $4,500; and

WHEREAS, the Association currently provides irrigation water to a total of 81 properties in Emmett, Idaho; and

WHEREAS, the Association’s pump is used for irrigation has fallen into a state of disrepair and can no longer supply the required irrigation water; and

WHEREAS, the loan would be used to replace the pump and make other improvements to the system; and

WHEREAS, the Association is a qualified applicant and registered with the State of Idaho and the proposed project qualifies for a loan from the Revolving Development Account; and

WHEREAS, the project is in the public interest and in compliance with the State Water Plan.

NOW THEREFORE BE IT RESOLVED that the IWRB approves a loan not to exceed $4,500 from the Revolving Development Account at 6% interest with a _____ year repayment term and provides authority to the Chairman of the Idaho Water Resource Board or his designee, to enter into contracts with the Association on behalf of the IWRB.

BE IT FURTHER RESOLVED that this resolution and the approval of the loan is subject to the following conditions:

1) The Association shall comply with all appropriate Federal, State, and Local rules and requirements including Association bylaws that may apply to the proposed project and the borrowing of funds.

2) The Association shall provide adequate security to the Board for this loan.

3) The Association shall establish a reserve account in the amount equal to one annual payment within one year of the completion of project construction.

DATED this 22nd day of March, 2013.

ROGER W. CHASE, Chairman
Idaho Water Resource Board

ATTEST ______________________________________

BOB GRAHAM, Secretary
Harvest Valley Homeowners Association  
PO Box 523  
Emmett, ID 83617

February 4, 2013

IWRB  
c/o IDWR  
Statehouse Mail  
PO Box 83720  
Boise, ID 83720

Gentlemen:

Harvest Valley Subdivision Homeowners Assn. comes to you with a request for a short-term low-interest loan in the amount of $4500. This loan is needed to repair the irrigation pumping system we use to divert Payette River water shares that we maintain with Last Chance Ditch Co. Development of the subdivision began in 2001 and the pump was installed in 2002. It had never been pulled for cleaning nor had any service been done on it since installment. At the end of the 2012 irrigation season, we asked Valley Pump to perform whatever maintenance and repair was needed. Little did we realize that some of the expensive equipment was in need of replacement instead of repair.

There are currently 81 homes in Phases I, II and III of the subdivision. Yearly assessments of $120 per home cover lawn care for all swale pond lots and common areas, irrigation shares, power bills, insurance and other miscellaneous expenses incurred by the HOA. We typically have about $2000 on hand at the end of each year as surplus after all expenses have been paid. Unfortunately, at the beginning of summer in 2012, we had to pay $2200 to replace/reinforce three sections of fencing surrounding the subdivision which were destroyed in a violent windstorm. We have since purchased insurance to cover this type of expense, but the checkbook took a big hit with that repair. That is why we are asking for a loan that can be paid back over several years so that we can make the necessary repairs to the pumping system before the beginning of irrigation season this year and still be able to meet all our expenses.

Thank you for your consideration in this matter.

Sincerely,

[Signature]

Sharla Curtis  
Treasurer
APPLICATION FOR FINANCIAL ASSISTANCE FOR NON-POTABLE WATER SYSTEM CONSTRUCTION PROJECT

Answer the following questions and provide the requested material as directed. All pertinent information provided. Additional information may be requested by the Idaho Water Resource Board (IWRB) depending on the scope of the project and amount of funding requested. For larger funding amounts an L.I.D. may be required.

Incomplete documents will be returned and no further action taken will be taken by IWRB staff. All paperwork must be in twenty eight (28) working days prior to the next bi-monthly Board meeting.

Board meeting agendas can be found at: http://www.idwr.idaho.gov/waterboard/

I. Prepare and attach a "Loan Application Document".

The Loan Application Document requirements are outlined in the Water Project Loan Program Guidelines. The guidelines can be found at: http://www.idwr.idaho.gov/waterboard/Financial%20program/financial.htm.

You can also obtain a copy by contacting IWRB staff.

II. General Information:

A. Type of organization: (Check box)

- [ ] Irrigation District
- [ ] Canal/Irrigation Company
- [ ] Lateral Association
- [ ] Flood Control District
- [ ] Homeowners Association
- [ ] Water User's Association
- [ ] Municipality
- [ ] Reservoir Company
- [ ] Other

Explain:

Name of Contact Person

Shop Curtis, Treasurer

Organization name

Harvest Valley HOA

P.O. Box 523

PO Box/Street Address

Emmett, ID 83617

City, County, State, Zip Code

Project location legal description

Harvest Valley Subdivision

B. Is your organization registered with the Idaho Secretary of State's office? Yes [X] No [ ]
C. Purpose of this loan application.
- New Project
- Rehabilitation or replacement of existing facility
- DEQ requirement
- Other: replacement of motors & pumps, labor, parts, cleanout of equip & ir. system; general maint

D. Briefly describe the project:

see Estimate

III. WATER SYSTEM:
A. Source of water:
- Stream
- Reservoir
- Groundwater
- Other

B. Water Right Numbers:

<table>
<thead>
<tr>
<th>Water Right</th>
<th>Stage</th>
<th>Priority Date</th>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Stage refers to how the water right was issued. (License, Decree, or Permit)

C. If irrigation/lateral system:
   Number of acres served: ____________________________
   Number of shareholders served: ____________________
   Water provided annually (acre-feet): __________________

D. If flood control system, drainage system, groundwater recharge, or other type of system:
   Number of acres within District or service area: ____________________________
   Number of people within District or service area: ____________________________

E. If an Association/Municipality the number of residences served by the system:
   Number of residences served: 81
   Number of hookups possible: ____________________________

IV. USER RATES:
A. How does your organization charge users rates?
- Per acre
- Per hook up
- Per share
- Tax assessment
   Explain what a share is: yearly homeowner assessment (per home)
B. Current rate? \$120 per [year] per [home]
   (Share, hook-up, month, year, etc.)

C. When was the last rate change? [NA] has been current [month/year]
   Rate since org. was formed

D. Does your organization measure water use? Yes [ ] No [x]
   If yes, explain how: ____________________________

E. Does you organization have a regular assessment for a reserve fund? Yes [ ] No [x]
   If yes, explain how it is assessed:
   ____________________________

F. Does your organization have an assessment for some future special need? Yes [ ] No [x]
   If yes, explain for what purpose and how it is assessed:
   ____________________________

V. PROPOSED METHOD FOR REVENUE FOR REPAYMENT OF LOAN
   How will you plan to assess for the annual loan payments?
   Check revenue sources below:
   [ ] Tax Levies
   [ ] Capital Improvement Reserve Account or Sinking Fund
   [ ] User Fees and Tap/Hookup Fees
   [x] Other (explain) normal homeowner assessments

   Will an increase in assessment be required? Yes [ ] No [x]
   When will new assessments start and how long will they last?
   ____________________________

VI. SECUREMENT OF LOAN
   List all land, buildings, waterworks, reserve funds, and equipment with estimated value that
   will be used as collateral for the loan:
   Property Estimated Value
   __________________________________________
   No collateral is proposed for this loan.

   For property Securement, attach a legal description of the property being offered along with a
   map referencing the property.

VII. FINANCIAL INFORMATION:
   A. Attach a copy of each of the last 3 year’s financial statement. (Copies must be attached)
   B. Reserve fund (current) ____________________________
   C. Cash on hand $400.00

IWRB Non-drinking loan form 4/10
D. Outstanding indebtedness:

<table>
<thead>
<tr>
<th>To Whom</th>
<th>Annual Payment</th>
<th>Amt. Outstanding</th>
<th>Years Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>None - except for pump repairs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for which this loan is sought</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E. What other sources of funding have been explored to fund the project? (example: NRCS, USDA Rural Development, Banks, Local Government, etc.)

None

VIII. ORGANIZATION APPROVAL:
Is a vote of the shareholders, members, etc. required for loan acquisition? Yes ☒ No ☐
If yes, a record of the vote must be attached.

Amount of funds requested: $4500

By signing this document you verify that all information provided is correct and the document is filled out to the best of your ability.

Authorized signature & date: Shari Curtis 1/30/13
Memorandum

To: Idaho Water Resource Board
From: Helen Harrington
Date: March 11, 2013
Re: IWRB Rental Pool 2012 Annual Summary INFORMATIONAL

The Idaho Water Resource Board has authorized four storage rental pools. These rental pools are active in Water District 1 (Upper Snake), 63 (Boise), and 65 (Payette) and 65-K (Lake Fork Creek). These pools facilitate the optimum use of water in these areas and provide revenue to the Board. Each rental pool has a local committee who manages the pool and submits annual reports to the Board.

Revenue from these rental pools provided a total of $400,850.64 to the Board in 2012. Revenue is down slightly from 2011, although revenue continues to remain strong as shown in the chart below of historic trends since 1991.

Revenue from these rental pools demonstrated the strong use of these rental pools. Over 99% of the available leased water was rented. The breakdown by rental pool is as follows:

<table>
<thead>
<tr>
<th>Rental Pool Space</th>
<th>2012 Leased (af)</th>
<th>2012 Rented (af)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WD1</td>
<td>311,430</td>
<td>311,430</td>
</tr>
<tr>
<td>WD63</td>
<td>16,281</td>
<td>16,281</td>
</tr>
<tr>
<td>WD65</td>
<td>174,060</td>
<td>171,677</td>
</tr>
<tr>
<td>WD65-K</td>
<td>287</td>
<td>287</td>
</tr>
<tr>
<td>Total</td>
<td>502,058</td>
<td>499,674</td>
</tr>
</tbody>
</table>
Memorandum

To: Idaho Water Resource Board
From: Helen Harrington
Date: September 26, 2011
Re: Water District 1 Rental Pool Procedures

Action Item

Consider approval of proposed changes adopted by the Committee of Nine to Water District 1 Rental Pool Procedures.

Discussion

The Committee of Nine, the local committee appointed to manage the Water District 1 (Upper Snake) Rental Pool, adopted changes 2013 Water District 1 Rental Pool Procedures. A copy of the proposed revised Rental Pool Procedures is attached. Key areas which are reflected in the revisions are:

Fees:

(1) Administrative fee to the district increased from $0.80 to $1.05

(2) Rental prices have been increased for tiers 1 through 4 as follows:
   a. Tier 1: If the storage system fills, the rental price for purposes above Milner will increase from $5.00 to $6.00 per acre-foot.
   b. Tier 2: If the storage system does not fill but storage is provided for flow augmentation pursuant to Rule 5.2.105(a), the rental price for purposes above Milner will increase from $12.00 to $14.50 per acre-foot.
   c. Tier 3: If the storage system does not fill and no flow augmentation water is provided pursuant to Rule 5.2.105(a), the rental price for purposes above Milner will increase from $18.00 to $22.00 per acre-foot.
   d. Tier 4: The rental price for storage rented for flow augmentation will increase from $12.00 to $14.50 per acre-foot. (exclusive of administrate fee and Board surcharge). This increase is in compliance with the uniform rate schedule for flow augmentation described in the 2004 Snake River Water Rights Agreement for the 2013-2017 period.

(3) Equitable Adjustment Water
Additional rules have been added to provide a source to meet the negotiations that are being done to solve the 1990 Fort Hall “Equitable Adjustment” issue.

Recommendation

Staff recommends approval of the proposed changes.
BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF APPROVAL )
OF THE LOCAL RENTAL POOL ) A RESOLUTION APPROVING
PROCEDURES FOR WATER DISTRICT ) LOCAL RENTAL POOL
NO. 01, UPPER SNAKE RIVER ) PROCEDURES
_______________________________________)

WHEREAS, section 42-1761 of the Idaho Code authorizes the Idaho Water Resource Board (Board) to operate a Water Supply Bank; and

WHEREAS, the purposes of the Water Supply Bank are to encourage the highest beneficial use of water; provide a source of adequate water supplies to benefit new and supplemental uses; and provide a source of funding for improving water user facilities and efficiencies; and

WHEREAS, effective July 18, 2008, the Board has renewed the appointment of the Committee of Nine for a period of five (5) years to serve as the local committee to operate the rental pool for water stored in the Upper Snake River system, pursuant to sections 42-1765, Idaho Code; and

WHEREAS, the Committee of Nine has proposed amending Water District No. 01 Rental Pool Procedures to increase fees for all tiers, and comply with the rate structure for flow augmentation rental described in the 2004 Snake River Water Rights Agreement; and

WHEREAS, the Director of the Department of Water Resources has reviewed the proposed revisions and determined them to be in substantial compliance with the Board’s “Water Supply Bank Rules, IDAPA 37.02.03.040; and

NOW THEREFORE BE IT RESOLVED that the Board approves the addition of Rule 8.0 Supplemental Pool to the 2010 Water District 1 Rental Pool Procedures.

DATED this 22th day of March, 2013.

____________________________________
Chairman
Idaho Water Resource Board

ATTEST ___________________________
Secretary
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RULE 1.0 LEGAL AUTHORITY

1.1 These procedures have been adopted by the Water District 1 Committee of Nine pursuant to Idaho Code § 42-1765.

1.2 These procedures shall not be interpreted to limit the authority of the Idaho Department of Water Resources, the Idaho Water Resource Board, or the Watermaster of Water District 1 in discharging their duties as prescribed by statute or rule.

1.3 These procedures shall be interpreted consistent with Idaho Code, rules promulgated by the Idaho Water Resource Board, and relevant provisions of spaceholder contracts with the United States.

1.4 The operation of the rental pool shall in no way recognize any obligation to maintain flows below Milner or to assure minimum stream flows at the United States Geological Survey (USGS) gaging station on the Snake River near Murphy.

RULE 2.0 DEFINITIONS

2.1 Accounting Year: the Water District 1 accounting year that begins on November 1 and ends on October 31.

2.2 Acre-foot: a volume of water sufficient to cover one acre of land one foot deep and is equal to 43,560 cubic feet.

2.3 Administrative Fee: a fee of one dollar and five eighty cents ($0.80) per acre-foot assessed on the total quantity of storage set forth in any rental or lease application, disbursed to the District at the end of the irrigation season.

2.4 Allocation: the amount of stored water, including carryover, that has accrued to a spaceholder’s storage space on the date of allocation that is available for the spaceholder’s use in the same accounting year.

2.5 Applicant: a person who files with the Watermaster an application, accompanied by the required fees, to rent or lease storage through the rental pool.

2.6 Assignment: storage provided by an assignor from the current year’s storage allocation for rental through the common pool pursuant to Rule 5.3.

2.7 Assignor: a participant who assigns storage to the common pool pursuant to Rule 5.3 and subject to Rule 7.5.

2.8 Board: the Idaho Water Resource Board (IWRB).

2.9 Board Surcharge: a surcharge equal to ten percent (10%) of the rental price or lease price assessed on the total quantity of storage set forth in any rental or lease application, disbursed to the Board at the end of the irrigation season.
2.10 **Bureau:** the United States Bureau of Reclamation (USBR).

2.11 **Committee:** the Committee of Nine, which is the advisory committee selected by the members of Water District 1 at their annual meeting and appointed as the local committee by the Board pursuant to Idaho Code § 42-1765.

2.12 **Common Pool:** storage made available to the Committee through participant contributions and/or assignments for subsequent rental pursuant to Rule 5.

2.13 **Date of Allocation:** the date determined each year by the Watermaster on which the maximum accrual to reservoir spaceholders occurs.

2.14 **Date of Publication:** the date on which the Watermaster publishes on the District website the storage allocation for the current accounting year.

2.15 **Department:** the Idaho Department of Water Resources (IDWR).

2.16 **District:** Water District 1 of the state of Idaho.

2.17 **Impact Fund:** a fund maintained by the Watermaster for the mitigation of impacts to participants pursuant to Rule 7.3.

2.18 **Infrastructure Fee:** a fee of five dollars ($5.00) per acre-foot assessed on all storage rented through the common pool for purposes below Milner, excluding flow augmentation, disbursed to the Infrastructure Fund at the end of the irrigation season.

2.19 **Infrastructure Fund:** a fund maintained by the Watermaster for the purposes outlined in Rule 4.5.

2.20 **Lease:** a written agreement entered into between a lessor and lessee to lease storage through the rental pool pursuant to Rule 6.

2.21 **Lease Price:** a price per acre-foot negotiated between a lessor and lessee as set forth in a lease agreement.

2.22 **Lessee:** a person who leases storage from a participant under a lease.

2.23 **Lessor:** a participant who leases storage to a person under a lease pursuant to Rule 6 and subject to Rule 7.6.

2.24 **Milner:** Milner Dam on the Snake River.

2.25 **Net Price:** the average price per acre-foot of all rentals from the common pool, including flow augmentation, but excluding rentals of assigned storage.

2.26 **Net Proceeds:** the net price times the number of acre-feet rented from the common pool, excluding rentals of assigned storage.

2.27 **Participant:** a spaceholder who contributes storage to the common pool pursuant to Rule 5.2.
2.28 **Participant Contributions:** storage made available to the common pool by participants, with impacts accounted from next year’s reservoir fill, which forms the supply for large rentals, small rentals, and flow augmentation, subject to the limitations in Rule 5.2.

2.29 **Person:** an individual, corporation, partnership, irrigation district, canal company, political subdivision, or governmental agency.

2.30 **Rent:** the rental of storage from the common pool.

2.31 **Rental Pool:** the processes established by these procedures for the rental and/or lease of storage, mitigation of associated impacts to spaceholders, and disposition of revenues.

2.32 **Rental Pool Subcommittee:** a subcommittee composed of the Watermaster, a designated representative from the Bureau, and three or more members or alternates of the Committee who have been appointed by the chairman of the Committee.

2.33 **Rental Price:** the price per acre-foot of storage rented from the common pool, as set forth in Rule 5.5, excluding the administrative fee, the Board surcharge, and the infrastructure fee.

2.34 **Renter:** a person who rents storage from the common pool.

2.35 **Reservoir System:** refers to American Falls, Grassy Lake, Henrys Lake, Island Park, Jackson Lake, Lake Walcott, Milner Pool, Palisades, and Ririe.

2.36 **Space:** the active capacity of a reservoir measured in acre-feet.

2.37 **Spaceholder:** the holder of the contractual right to the water stored in the space of a storage facility.

2.38 **Storage:** the portion of the available space that contains stored water.

2.39 **Watermaster:** the watermaster of Water District 1.

2.40 **Water Supply Forecast:** the forecasted unregulated runoff for April 1 to September 30 at the Heise USGS gaging station, referred to in Table 1.

**RULE 3.0 PURPOSES**

3.1 The primary purpose of the rental pool is to provide irrigation water to spaceholders within the District and to maintain a rental pool with sufficient incentives such that spaceholders supply, on a voluntary basis, an adequate quantity of storage for rental or lease pursuant to procedures established by the Committee. These procedures are intended to assure that participants have priority over non-participants and non-spaceholders in renting storage through the rental pool.

3.2 To maintain adequate controls, priorities, and safeguards to insure that existing water rights are not injured and that a spaceholder’s allocation is not impacted without his or her consent. To compensate an impacted spaceholder to the extent the impact can be determined by the procedures developed by the District.
3.3 To generate revenue to offset the costs of the District to operate the rental pool and to fund projects that fall within the parameters of Rule 4.5.

RULE 4.0 MANAGEMENT

4.1 Manager. The Watermaster shall serve as the manager of the rental pool and shall take all reasonable actions necessary to administer the rental pool consistent with these procedures, which include, but are not limited to:
(a) Determining impacts pursuant to Rule 7;
(b) Calculating payments to participating spaceholders as prescribed by Rules 5.2 and 7.3;
(c) Accepting storage into the common pool and executing rental agreements on behalf of the Committee;
(d) Disbursing and investing rental pool monies with the advice and consent of the Rental Pool Subcommittee; and
(e) Taking such additional actions as may be directed by the Committee.

4.2 Rental Pool Subcommittee. The Rental Pool Subcommittee shall exercise the following general responsibilities:
(a) Review these procedures and, as appropriate, make recommendations to the Committee for needed changes;
(b) Review reports from the Watermaster regarding rental applications, storage assignments to the common pool, and leases of storage through private leases;
(c) Advise the Committee regarding rental pool activities;
(d) Develop recommendations for annual common pool storage supplies and rental rates;
(e) Assist the Watermaster in resolving disputes that may arise from the diversion of excess storage; and
(f) Assume such additional responsibilities as may be assigned by the Committee.

4.3 Applications
4.3.101 Applications to rent or lease storage through the rental pool shall be made upon forms approved by the Watermaster and shall include:
(a) The amount of storage sought to be rented or leased;
(b) The purpose(s) for which the storage will be put to beneficial use;
(c) The lease price (for private leases); and
(d) To the extent practicable at the time of filing the application, the point of diversion identified by legal description and common name; and a description of the place of use.

4.3.102 Application Acceptance. Applications are not deemed accepted until received by the Watermaster together with the appropriate fees required under Rules 5.5 (rentals) or 6.4 (leases).

4.3.103 Application Approval. An application accepted under Rule 4.3.102 shall be approved after the Watermaster has determined that the application is in compliance with these procedures and sufficient storage will be available from the common pool and/or lessor to provide the quantity requested in the application. Upon approval of the application, the Watermaster shall send notice to the renter/lessor/lessee and entity owning the point-of-diversion designated in the application of such approval and allocation of storage;
provided, however, no allocation of storage shall be made until the applicant designates the point of diversion and place of use of the rented and/or leased storage in the application or pursuant to Rule 4.3.106.

4.3.104 **Timeframe for having Rental Application Accepted to Preserve Rental Priority.** Applications to rent storage will not be accepted until April 5 of the year in which the storage will be used. Applications must be accepted by the Watermaster within 15 days following the date of publication to preserve the applicant’s priority under Rule 5.4.101.

4.3.105 **Deadline for Accepting Applications to Rent or Lease Storage.** All applications to rent or lease storage must be accepted by the Watermaster pursuant to Rule 4.3.102 not later than December 1 in order for the storage identified in such applications to be accounted for as having been diverted prior to October 31 of the same year. Applications accepted after December 1 will be accounted for from storage supplies in the following calendar year, unless an exception is granted by the Rental Pool Subcommittee.

4.3.106 **Deadline to Designate Point of Diversion and Place of Use.** If the point of diversion and/or place of use of the rented and/or leased storage was not previously designated in the application, the renter and/or lessee must make such designation in writing to the Watermaster not later than December 1 of the same year, unless an extension is granted by the Rental Pool Subcommittee. Failure to comply with this provision shall cause any unused storage to automatically revert back to the common pool and/or lessor, respectively.

4.4 **Rental Pool Account**

4.4.101 All monies submitted by applicants shall be deposited in an interest-bearing account known as the “Rental Pool Account” and maintained by the Watermaster on behalf of the Committee. Monies in the Rental Pool Account will be disbursed to participants, the District, the Board, the Impact Fund, and the Infrastructure Fund in the proportions set forth in these Rules. Accrued interest to the Rental Pool Account shall be used to maintain the Impact Fund. Rental Pool Funds shall be considered public funds for investment purposes and subject to the Public Depository Law, Chapter 1, Title 57, Idaho Code.

4.4.102 Monies deposited in the Rental Pool Account are non-refundable to the extent the rental and/or lease application is approved pursuant to Rule 4.3.103, regardless of whether the storage is used.

4.5 **Infrastructure Fund**

4.5.101 Monies in the Infrastructure Fund may only be used to fund District costs of projects relating to improvements to the District’s distribution, monitoring, and gaging facilities, and other District projects designed to assist in the adjudication, conservation, or efficient distribution of water.

4.5.102 Disbursements from the Infrastructure Fund are subject to two-thirds (2/3) Committee approval.
4.5.103 If monies in the Infrastructure Fund accrue to one million dollars ($1,000,000.00), the infrastructure fee shall be waived and the same amount (five dollars ($5.00)) added to the rental price in Rule 5.5.105.

4.5.104 Monies in the Infrastructure Fund may be carried over from year to year.

**RULE 5.0 COMMON POOL**

5.1 **Scope.** The common pool consists of storage made available to the Committee through participant contributions and assignments. Participants make storage available to the common pool pursuant to the terms of Rule 5.2, with impacts accounted from next year’s reservoir fill. Assignors provide storage to the common pool, pursuant to Rule 5.3, by assigning a portion of their current year’s storage allocation. Rentals from the common pool are subject to the priorities and prices established under this Rule.

5.2 **Participant Contributions**

5.2.101 **Participants.** Any spaceholder may, upon submitting written notice to the Watermaster prior to February 1, elect to contribute storage to the common pool. Any spaceholder making such election shall be deemed a “participant” for the current year and every year thereafter until the spaceholder provides written notice to the Watermaster prior to February 1 rescinding its participation. Upon election to participate, a spaceholder is eligible for all the benefits of a participant set forth in these procedures, excluding monetary payment for rentals or impacts associated with rentals from the prior year. If after February 1, less than seventy-five percent (75%) of the contracted storage space is committed to the common pool by participants, the Committee shall revise the rental pool procedures as necessary prior to April 1.

5.2.102 **Non-Participants.** Spaceholders who are not participants shall not be entitled to supply storage to, or rent storage from, the common pool, or supply or lease storage through a private lease. Notwithstanding this restriction, the Bureau may rent water from the common pool for flow augmentation pursuant to Rule 5.2.105.

5.2.103 **Large Rentals.** The common pool will make available from participant contributions 50,000 acre-feet of storage for rentals, plus any assigned storage, subject to the priorities and limitations set forth in Rule 5.

5.2.104 **Small Rentals.** The common pool will make available from participant contributions 5,000 acre-feet for rentals of less than 100 acre-feet per point of diversion, subject to the priorities and limitations set forth in Rule 5. The Committee may approve on a case-by-case basis the additional rental of storage under this provision to exceed the 100 acre-feet limitation.

5.2.105 **Flow Augmentation**

(a) **Table 1.** The amount of storage, from participant contributions to the common pool, available for rental for flow augmentation shall be determined by Table 1.

(b) **Extraordinary Circumstances.** A greater amount of storage may be made available by the Committee, if it determines on or before July 1 that
extraordinary circumstances justify a change in the amount of storage made available for flow augmentation.

5.2.106 Equitable Adjustment Water. The amount of storage, from participant contributions to the common pool, shall be made available, regardless of priority, at no cost to the Shoshone Bannock Tribe at no cost subject to the following: pursuant to administrative fees paid by Water District 1, shall be determined as follows:

(a) Equitable adjustment water shall only be available in accordance to the Shoshone Bannock Tribe in accordance with the terms of the Blackfoot River Equitable Adjustment Settlement Agreement and subject to approval by the SRBA court and implementation thereof.
(b) The equitable adjustment water account shall begin in 2013 with a balance of 5,000 acre-feet.
(c) The equitable adjustment water account shall be replenished at a fixed rate of 1,000 acre-feet per year.
(d) The equitable adjustment water account shall have a maximum balance of 10,000 acre-feet.
(e) Any utilization of the equitable adjustment water by the Tribe shall be subtracted from the equitable adjustment water account balance.

5.2.107 Additional Quantities. In the event rental requests from participants impacted from the prior year’s rentals exceed 50,000 acre-feet and insufficient storage has been assigned to the common pool to meet such additional requests, the minimum amount of storage that will be available through the common pool will be the amount of storage necessary to meet the demand of those shown to have been impacted from the prior year’s rentals. If additional storage is deemed necessary, any participant may elect not to participate in contributing such additional storage.

5.2.108 Participant Payments. Monies collected through the rental of the participant contribution portion of the common pool, including flow augmentation, shall be disbursed as follows:
(a) seventy percent (70%) of the Net Proceeds disbursed to participants; and
(b) thirty percent (30%) of the Net Proceeds disbursed to the Impact Fund.

5.2.109 Participant Payment Formula. Participants will receive payment for storage rented from the participant contribution portion of the common pool pursuant to the following payment formulas:

1st Installment \(= \frac{(R \times SP/TSP)}{2}\)
2nd Installment \(= \frac{(R \times ST/TST)}{2}\)

R = 70% of net proceeds
SP = Space of participants
ST = Storage of participants based on the preliminary storage allocation for the following year
TSP = Total participating space in system
TST = Total participating storage in system based on the preliminary storage allocation for the following year
If a specific reservoir’s allocation has been reduced as a result of flood-control operations, the ST and TST values in the above formula for those reservoir spaceholders will reflect the values that otherwise would have occurred without any reductions for flood-control.

5.2.109 Timing of Payments. Payments to participants will be made in two installments. The first installment will be paid to participants immediately following the irrigation season in which the proceeds were collected. The second installment will be paid to participants within two weeks of the date of publication for the following irrigation season.

5.3 Assignments

5.3.101 Assignors. Any participant may assign storage to the common pool. An assignment of storage shall be made in writing on forms approved by the Watermaster.

5.3.102 Purposes. Storage assigned to the common pool may be rented only for purposes above Milner.

5.3.103 Limitations. Storage assigned to the common pool may be rented only after the participant contributions to the common pool have been rented. A participant may not assign storage and rent storage in the same accounting year unless an exception is granted by the Rental Pool Subcommittee.

5.3.104 Assignor Payment. The assignor shall receive one-hundred percent (100%) of the rental price per acre-foot of the assigned storage that is rented.

5.3.105 Distribution of Assigned Storage. Assignments can only be made between April 5 and 15 days after the date of publication in the year in which the storage is to be rented. Assignments shall initially be distributed on a pro-rata basis, with each pro-rata share based on the amount of storage assigned or 10% of the assignor’s storage space, whichever is less. If, after this initial distribution, additional rental requests exist, the remaining assigned storage shall be distributed on a pro-rata basis.

5.4 Priorities for Renting Storage

5.4.101 Priorities. Storage rented from the common pool shall be pursuant to the following priorities:

(a) First Priority. Rentals by participants whose storage is determined to have been impacted by the prior year’s rental from the common pool not to exceed the amount of the impact. Rentals pursuant to existing long-term leases with the Committee, provided that such rentals be supplied first from any balance of the 5,000 acre-feet reserved for small rentals, then from any assigned water, and then from the 50,000 acre-feet reserved for large rentals.

(b) Second Priority. Rentals by participants for agricultural purposes up to the amount of their unfilled space.

(c) Third Priority. Rentals by participants for any purposes above Milner in excess of their unfilled space. Applications for such rentals will be reviewed by the Committee and may be approved on a case-by-case basis.
(d) **Fourth Priority.** Rentals by non-spaceholders for any purposes above Milner.

(e) **Fifth Priority.** Rentals for purposes below Milner, excluding flow augmentation; provided, however, such rentals are limited to 50,000 acre-feet per year or a lesser amount as set by the Committee. Rentals for purposes below Milner can only be filled with storage from the 50,000 acre-feet of participant contributions described in Rule 5.2. To the extent that storage is assigned to the Common Pool, assigned storage will be used to fill the rentals of the First, Second, Third, and Fourth Priorities, allowing that portion of the participant contributions to be used for rentals below Milner. Rentals for purposes below Milner will only be approved to the extent the renter provides written certification from the Bureau stating either 1) that the Bureau has sufficient flow augmentation supplies for the year, or 2) that the storage to be released past Milner will count towards the Bureau’s flow augmentation total.

5.4.102 **Priority for Late Applications.** Applications received after the deadline set forth in Rule 4.3.104 will be deemed last in priority and will be filled in the order they are received, only after all timely applications have been filled.

5.4.103 **Distribution Within Priority Classes.** If rental supplies are not sufficient to satisfy all of the timely applications within a priority class (those received within 15 days of the date of publication), the available rental supplies will be distributed to the applicants within that priority class on a pro-rata basis.

5.4.104 **Priority for Small Rentals.** Small rentals made pursuant to Rule 5.2.104 are not subject to the priorities set forth in Rule 5.4.101 and will be approved in the same order in which the rental applications are received by the Watermaster, so long as the total amount of all such applications does not exceed 5,000 acre-feet.

5.4.105 **Priority for Flow Augmentation.** Rentals for flow augmentation are not subject to the priorities set forth in Rule 5.4.101 and shall be determined pursuant to Rule 5.2.105.

5.4.106 **Priority for Equitable Adjustment Water.** Equitable adjustment water is not subject to the priorities set forth in Rule 5.4.101 and shall be determined pursuant to Rule 5.2.106.

5.5 **Rental Prices**

5.5.101 **Tier 1:** If the storage system fills, the rental price for purposes above Milner shall be $5.00 per acre-foot.

5.5.102 **Tier 2:** If the storage system does not fill but storage is provided for flow augmentation pursuant to Rule 5.2.105(a), the rental price for purposes above Milner shall be $12.00 per acre-foot.

5.5.103 **Tier 3:** If the storage system does not fill and no flow augmentation water is provided pursuant to Rule 5.2.105(a), the rental price for purposes above Milner shall be $18.00 per acre-foot.
Determination of Tier 1, 2 or 3 Rental Price: Unless the storage system has filled, the Watermaster shall designate on or before April 5 either Tier 2 or Tier 3 as the rental price for above-Milner rentals. If at any time during the same accounting year, the storage system should subsequently fill, the Watermaster shall designate Tier 1 as the rental price for above-Milner rentals and refund any excess rental fees within 30 days after the date of publication.

5.5.105 Tier 4: The rental price for storage rented for flow augmentation shall be $12.00 per acre-foot.

5.5.106 Tier 5: The rental price for storage rented for purposes below Milner, excluding flow augmentation, shall be up to $35.00 per acre-foot negotiated between the applicant and the rental pool sub-committee.

5.5.107 Fees & Surcharges. There shall be added to the rental price for all rentals the administrative fee and Board surcharge. There shall also be added to the rental price for rentals below Milner, excluding flow augmentation, the infrastructure fee.

5.5.108 Storage System Fill. For purposes of Rule 5.5 only, the storage system is considered full when all storage rights are filled in Jackson Lake, Palisades, American Falls, and Island Park.

RULE 6.0 PRIVATE LEASES

6.1 General. All leases must be transacted through the rental pool. Only participants may lease storage to a Lessee subject to the provisions of these rules.

6.2 Purposes. Storage may be leased through the rental pool only for beneficial use purposes above Milner. A lessor may not lease storage to a lessee and rent storage from the common pool in the same accounting year unless an exception is granted by the Rental Pool Subcommittee.

6.3 Payment to Lessor. The lessor shall receive one-hundred percent (100%) of the lease price.

6.4 Fees & Surcharges. There shall be added to the lease price the administrative fee and the Board surcharge.

6.5 Non-Applicability to Common Pool. Storage leased pursuant to this rule does not count against the participant contribution volumes set forth in Rule 5.2.

6.6 Recharge. All storage used for the purpose of recharge must be transacted through the rental pool. Unless storage is rented pursuant to Rule 5.0, storage used for recharge, whether diverted by the storage spaceholder or another person, will be treated as a lease of storage.

RULE 7.0 IMPACTS

7.1 Determination. In any year in which the storage rights in the reservoir system do not fill, the Watermaster will determine the impacts to spaceholders, if any, associated with
the prior year’s rentals and leases. In making this determination, the Watermaster will use a procedure which identifies the following:
(a) What each reservoir fill would have been had the previous year’s rentals and leases not taken place;
(b) The storage space from which rented or leased storage was actually supplied for the previous year’s rental or lease; and
(c) The amount of storage each spaceholder’s current allocation was reduced by the previous year’s rental or lease activities.

7.2 **Flood Control.** There are no impacts resulting from the previous year’s rentals or leases for a specific reservoir when that reservoir’s storage is released as a result of flood-control operations and water is spilled past Milner in the current year.

7.3 **Impacts to Participants due to Rentals from the Common Pool (excluding assignments)**

7.3.101 **Impact Payment Formula.** Participants whose storage allocation is impacted from the prior year’s rental of storage from the common pool, excluding assignments, will receive payment from the Impact Fund according the following formula:

\[
\text{Impact Payment} = (Isp \times RP) \text{ or } \frac{1}{2} \times \text{IF} \times \frac{Isp}{Ispt} \text{ (whichever sum is less)}
\]

*Isp* = Participant’s impacted space in acre-feet  
*RP* = Rental Price  
*IF* = Impact Fund  
*Ispt* = Total of all Participants’ impacted space in acre-feet

7.3.102 **Timing of Payment.** Impact payments, which will be based on preliminary data, will be made to participants on or before July 15.

7.4 **Impacts to Non-Participants due to Rentals from the Common Pool (excluding assignments).** If the rental of storage from the common pool, excluding assignments, caused impacts to non-participants, as determined by the Watermaster, the participants’ storage allocation shall be limited to the storage available after such impacts have been mitigated.

7.5 **Impacts to Spaceholders due to Rental of Assigned Storage.** If the rental of assigned storage caused impacts, as determined by the Watermaster, the assignor’s storage allocation shall be reduced by an amount equal to such impacts, not to exceed the quantity of storage assigned by the assignor, and reallocated to mitigate impacts to affected spaceholders. This reallocation will only occur in the year following the rental of assigned storage.

7.6 **Impacts to Spaceholders due to Private Leases.** If the lease of storage pursuant to a private lease caused impacts, as determined by the Watermaster, the lessor’s storage allocation shall be reduced by an amount equal to such impacts, not to exceed the quantity of storage leased by the Lessor, and reallocated to mitigate impacts to affected spaceholders. This reallocation will only occur in the year following the lease of storage.

**RULE 8.0. SUPPLEMENTAL POOL**
8.1 **Purpose.** To provide a voluntary mechanism for the lease of storage water below Milner for hydropower generation within the state of Idaho when storage water supplies, as a result of hydrologic, climate and other conditions, are sufficient to satisfy above Milner uses and flow augmentation. A supplemental pool shall be created in order to mitigate for impacts associated with leases below Milner, consistent with the Idaho Water Resource Board’s policy to establish an effective water marketing system consistent with state law and assuring the protection of existing water rights while accommodating the purchase, lease or conveyance of water for use at Idaho Power’s hydroelectric facilities, including below Milner Dam.

8.2 **Annual Authorization Required.** No storage may be leased through the supplemental pool until the Committee on or after April 1 of each year authorizes use of the pool and the Bureau certifies that it has sufficient flow augmentation supplies for the year or that storage to be released past Milner will count toward flow augmentation.

8.3 **Quantity and Price Determinations.**

8.3.101 *Quantity Determination.* The maximum quantity of storage authorized to be leased through the supplemental pool shall be determined annually by the Committee taking into account the advice and recommendation of the Rental Pool Subcommittee, together with current and forecasted hydrological conditions and estimated demand on the rental pool for above Milner uses.

8.3.102 *Price Determination.* The Committee shall authorize the leasing of water, including price pursuant to Rule 8 after taking into account spaceholder needs and current market conditions for power generation. There shall be added to the lease price the board surcharge and not to exceed a $1.80 per acre-foot administrative fee associated with the development and implementation of the supplemental pool, assessed on the total quantity of storage set forth in any lease application approved or conditionally approved under Rule 8.4.

8.3.103 *Subsequent Quantity and Price Determinations.* If within the same accounting year, the Committee subsequently determines based on the criteria set forth in Rule 8.3.101 that additional opportunities exist for utilizing the use of water within Idaho through the supplemental pool consistent with Rule 8.1 it shall designate such additional maximum quantity authorized to be leased through the supplemental pool and identify a separate lease price for such additional quantity pursuant to Rule 8.3.102.

8.4 **Application to Lease Storage from the Supplemental Pool.**

8.4.101 Applications to lease storage from the supplemental pool for hydropower purposes shall be made upon forms approved by the Watermaster and shall include:

(a) The amount of storage sought to be leased;
(b) The lease price with associated fees as identified by the Committee under Rule 8.3.102;
(c) The point of diversion identified by legal description and common name; and
(d) A description of the place of use.
8.4.102 Application Acceptance. Applications are not deemed accepted until received by the Watermaster together with the appropriate fees required under Rule 8.3.102.

8.4.103 Application Approval. An application accepted under Rule 8.4.102 shall be approved after the Watermaster has determined that the application is in compliance with these procedures and sufficient storage will be available from the supplemental pool to provide the quantity requested in the application; provided, however, if the date of publication has not yet occurred, approval of the application shall be conditioned on the ability of spaceholders who have contracted to lease storage through the supplemental pool to have a sufficient storage allocation during the accounting year to satisfy their contracts approved under Rule 8.5.104. Upon approval or conditional approval of the application, the fees collected from the applicant shall be non-refundable to the extent of the total quantity of storage approved or conditionally approved in supplemental pool lease contract(s) under Rule 8.5.104. The Watermaster shall provide notice of such approval.

8.4.104 Deadline for Accepting Applications. All applications to lease storage from the supplemental pool must be accepted by the Watermaster pursuant to Rule 8.4.102 not later than October 31 in order for the storage identified in such applications to be accounted for as having been diverted as of October 31 of the same year. Applications accepted after October 31 will be accounted for from storage supplies in the following calendar year, unless an exception is granted by the Rental Pool Subcommittee.

8.5 Supplemental Pool Supply.

8.5.101 Notice to Spaceholders of Opportunity to Lease Storage through the Supplemental Pool. The Watermaster shall provide notice of the supplemental pool on the Water District 1 website, which shall include the following information:
(a) The maximum quantity of storage authorized to be leased through the supplemental pool;
(b) The lease process, including price and deadlines as authorized by the Committee;
(c) Instructions for spaceholders interested in leasing storage through the supplemental pool, including instructions for executing a standardized supplemental pool lease contract; and
(d) The deadline, as set by the Committee, for the Watermaster to receive supplemental pool lease contracts from spaceholders interested in leasing storage through the supplemental pool.

8.5.102 Supplemental Pool Lease Contracts. Spaceholders interested in leasing storage through the supplemental pool shall execute a standardized supplemental pool lease contract, which shall be provided by the Watermaster and include provisions for the following:
(a) Limit eligibility to lease storage through the supplemental pool only to spaceholders who qualify as participants under Rule 2.27;
(b) The quantity sought to be leased by the spaceholder may be any amount, except that the total amount of storage leased pursuant to Rule 8 may not exceed either the maximum quantity set by the Committee under Rule
8.3.101 or 10% of the spaceholder’s total reservoir system space, unless an exception is approved by the Rental Pool Subcommittee;
(c) The quantity actually leased by the spaceholder may be reduced depending upon the number of spaceholders who elect to lease storage through the supplemental pool as provided in Rule 8.5.103;
(d) That, in the event the spaceholder elects to sign a standard pool lease contract before the date of publication, the spaceholder assumes the risk that its storage allocation may be less than the spaceholder anticipated; and
(e) Notice to the spaceholder that if the spaceholder’s lease through the supplemental pool causes impacts, the mitigation required under Rule 8.7 will result in an amount of the spaceholder’s space, not to exceed the quantity of storage leased by the spaceholder, being assigned a junior priority which may not fill for multiple consecutive years, an accounting commonly referred to as “last to fill.”

8.5.103 Distribution of Storage to the Supplemental Pool. If, following the deadline for receipt of executed supplemental pool lease contracts, the Watermaster determines that the total quantity of storage sought to be leased through the supplemental pool exceeds the quantity limitation established under Rule 8.3, then the Watermaster shall reduce the quantity of each supplemental pool lease contract to a pro rata share based on the amount of storage sought to be leased by each spaceholder. The Watermaster shall amend the supplemental pool lease contract(s) to reflect any reduced quantity required by this provision.

8.5.104 Lease Contract Approval. Following receipt of a supplemental pool lease contract, the Watermaster shall determine whether the contract is in compliance with these procedures, and, if so, shall approve the same; provided, however, if the date of publication has not yet occurred, approval of the contract shall be conditioned on the spaceholder having a sufficient storage allocation during the accounting year to satisfy the contract.

8.6 Notice of Contract Approval and Payment to Lessors. The lessors shall receive one-hundred percent (100%) of the lease price apportioned according to the quantity of storage each lessor leased through the supplemental pool. The Watermaster shall notify spaceholder(s) who submitted supplemental pool lease contracts of the approved amount and distribute the funds to the lessors within 30 days following approval or conditional approval of an application under Rule 8.4.103.

8.7 Mitigation of Impacts. If a lease of storage through the supplemental pool caused impacts, as determined by the Watermaster, the lessor’s storage allocation shall be reduced by an amount equal to such impacts, not to exceed the quantity of storage leased by the lessor, and reallocated to mitigate impacts to affected spaceholders until the lessor’s affected space fills under a priority junior to that required to fill Palisades powerhead space.

8.8 November 1 Carryover Unaffected. For purposes of determining the amount of storage available for flow augmentation under Rule 5.2.105(a), storage leased through the supplemental pool shall not affect the November 1 carryover quantity on Table 1.
MEMO

To: IWRB Water Supply Bank Committee
From: Brian W. Patton
Subject: Water Supply Bank Funds Routing
Date: March 20, 2013

Historically, all funds received from Water Supply Bank (WSB) rentals have been deposited into the Departments “Fee Account.” This includes both the Department’s share and the owner’s share, which is held in the Fee Account until payment is made back to the water right owner.

As many of you are aware with the rapid growth of the WSB, the payments back to the water right owners hit a problem this year as the Fee Account “spending authority limit” was reached. This prevented payments to the water right owners until the legislature increased this spending authority. This spending authority is set annually by the Legislature, as the fees deposited into the Fee Account help pay for Department operations.

In researching this situation, it appears there is a better way to route the funds that is allowed by current statute and rules and can be implemented by an IWRB resolution. The Department share would still be deposited into the Fee Account to be used for Department operations, while the owner’s share would be deposited into the IWRB’s Revolving Development Account until payment to the water right owner is made. Since the IWRB has “continuous spending authority” for the Revolving Development Account (i.e. the IWRB does not need to seek annual spending authority from the legislature), the spending authority limit for the Fee Account would no longer be an issue.

A conceptual diagram of the historical and proposed funds routing is as follows:

On March 20, 2013 the IWRB Water Supply Bank Committee examined this issue and recommended implementing this change through the attached resolution.
BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE WATER SUPPLY BANK

A RESOLUTION

WHEREAS, the Idaho Water Resource Board (IWRB) had adopted Water Supply Bank Rules, IDAPA 37.02.03, as it is considered necessary to carry out the purposes of Section 42-1762, Idaho Code; and

WHEREAS, the Idaho Department of Water Resources (IDWR) operates the Water Supply Bank for the IWRB; and

WHEREAS, historically all revenues received from Water Supply Bank lease and rentals have been deposited into the IDWR "Fee Account," including both the Department’s 10% share and the water right owner’s 90% share, which is held in the Fee Account until payment is made to the owner.; and

WHEREAS, in early 2013 payments to the water right owners caused the Fee Account to reach its legislatively-set spending authority limit, preventing further payments to the water right owners until the Legislature increased the spending authority limit; and

WHEREAS, Idaho Code 42-1753 allows “revenues received from the lease of water rights” to be deposited into the Revolving Development Fund; and

WHEREAS, since the IWRB’s Revolving Development Fund is “continuously appropriated” and has no spending authority limit.

NOW THEREFORE BE IT RESOLVED that the IWRB directs that water right owner’s share of the revenues from Water Supply Bank lease and rentals shall be deposited into the IWRB’s Revolving Development Fund until payment is made to the owner, while IDWR’s share of the revenues from the Water Supply Bank lease and rentals shall still be deposited into IDWR’s Fee Account to help pay for IDWR operations.

DATED this 22nd day of March 2013.

ROGER CHASE, Chairman
Idaho Water Resource Board

ATTEST

BOB GRAHAM, Secretary
MEMO

To: Idaho Water Resource Board
From: Brian W. Patton
Subject: Pristine Springs/Blue Lakes Pipeline
Date: March 10, 2013

Attached is a resolution authorizing the expenditure of funds for the Blue Lakes Pipeline Replacement. Although the IWRB has no legal obligation for the pipeline, the IWRB’s Pristine Springs facility is dependent on the pipeline for water deliveries from Alpheus Creek and the IWRB may wish to maintain good cooperation with ground water districts that now own the Blue Lakes Trout Farm and the pipeline.

Should the IWRB wish to participate in the replacement, the attached resolution would authorize funds based on a selected percentage of the project cost, with an upper limit cap.
BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF THE PRISTINE SPRINGS FACILITY AND THE BLUE LAKES PIPELINE

A RESOLUTION TO AUTHORIZE AN EXPENDITURE OF FUNDS

WHEREAS, the Idaho Water Resource Board (IWRB) owns the Pristine Springs Facility located near Twin Falls, Idaho; and

WHEREAS, the Blue Lakes Pipeline delivers “fresh water” water from Alpheus Creek to the Blue Lakes Trout Farm and Pristine Springs; and

WHEREAS, approximately 10% of the “fresh water” deliveries through the Blue Lakes Pipeline are to Pristine Springs, however, all “fresh water” water delivered to the Blue lakes Trout Farm is later “re-used” at Pristine Springs; and

WHEREAS, the Blue Lakes Trout Farm was acquired in 2012 by four ground water districts and an irrigation district (Districts) located on the Eastern Snake Plain; and

WHEREAS the Blue Lakes Pipeline is wholly owned by the Blue Lakes Trout Farm, and the IWRB has no obligations for the pipeline; and

WHEREAS, due to deterioration of the Blue Lakes Pipeline, the Districts and the IWRB jointly participated in an assessment of the condition of the pipeline and an assessment of options; and

WHEREAS, the Districts have decided to move forward with replacement of the pipeline, with an estimated cost of $1.7 million; and

WHEREAS, although the IWRB has no legal obligations for the pipeline, the IWRB desires to participate in the interest of maintaining good cooperation with the Districts.

NOW THEREFORE BE IT RESOLVED that the IWRB authorizes the expenditure of % of the total project cost, not to exceed $ from the Pristine Springs Repair/Replacement Fund located within the Revolving Development Account, and authorizes the IWRB Chairman or his designee to enter into contracts with the Districts for this project.

NOW THEREFORE BE IT FURTHER RESOLVED that the IWRB’s financial participation in the pipeline replacement may be offset by the value of fill material provided from a gravel pit located at Pristine Springs, if said fill material is found suitable for the project.

DATED this 22nd day of March 2013.

ROGER CHASE, Chairman
Idaho Water Resource Board

ATTEST

BOB GRAHAM, Secretary
Memorandum

To: Idaho Water Resource Board
From: Cynthia Bridge Clark
Date: March 7, 2013
Re: Status of Ongoing Storage Water Studies

The following is a status report on the water storage studies initiated by the Idaho Water Resource Board (IWRB). This memorandum describes progress since the last IWRB meeting in January 2013.

Weiser-Galloway Project

Geologic Investigation:
- Strength and materials testing performed by the US Bureau of Reclamation (BOR) on selected core samples and potential embankment materials is complete. The BOR is circulating a draft technical report on the core drilling and testing which will be incorporated into the US Army Corps of Engineers (Corps) geologic analysis.
- The Corps has completed an analysis of landslide potential and seismic hazards at the dam and reservoir site. It is currently evaluating possible dam types, potential cost savings from the original Corps design, and is refining the project economics to reduce the risk associated with previous cost estimates.
- Estimated timeline: Completion scheduled for summer 2013.

Operational Analysis:
- The Corps continues to develop the reservoir model and required inputs to evaluate a range of scenarios within the Snake River System. The model is being developed in Riverware which is also being used by the BOR for model updates in the Upper Snake and Boise River systems.
- Estimated timeline: Completion scheduled for spring 2014.

The Corps will present preliminary results of the geologic findings and provide a progress report on both the Geologic and Operations Analysis at the IWRB’s March 2013 work session. A presentation on the use of LiDAR in the Weiser-Galloway studies and other areas of science and technology will also be provided at the work session.

REQUIRED ACTIONS: No action is required by the IWRB at this time.

Lower Boise River Feasibility Study

- In 2012, the Corps initiated an effort to modernize and streamline the feasibility process. The Corps Planning Modernization initiative requires that all ongoing and future feasibility studies be completed within 3 years, within a budget of $3 million, and approved by the Corps 3 tiers of management (District, Division, and Headquarters). This is referred to as the “3x3x3 Framework”. The Corps advised the IWRB that federal support and continuation of the study would be contingent on a revision of the original agreement to meet the new 3x3x3 Framework guidelines. In May 2012, the IWRB directed IDWR staff to coordinate with the Corps to develop a feasibility study project management plan (PMP) with a scope of study, schedule and costs for its consideration.
- The Corps and IDWR staff continue to develop the modified scope of study and the associated documentation required to amend the agreement between the Corps and the IWRB. The PMP will ultimately identify a set of alternatives to be studied that meets the Corps 3x3x3 framework.
As required under the Corps new Planning Modernization Initiative, a four day planning charette for the Lower Boise Feasibility Study was held at the Corps Walla Walla District Office in early December 2012. Participants included a technical team, project managers, and planners from the Corps Walla Walla District and Northwest Division offices, as well as representatives from IDWR and the Bureau of Reclamation.

An initial set of alternatives to address water supply and flood risk problems in the Treasure Valley was identified during the charette. This list will be refined based on additional information at a follow-up meeting of the team in mid-March.

The Corps is also coordinating with management at Headquarters in Washington DC in March to obtain the required approval of the project objectives and alternatives generated by the team.

The earliest that the re-scoping process and development of the PMP are likely to be complete is September 2013.

If the IWRB supports the modified agreement, initiation of the study will be subject to availability of federal funding. The Corps is currently seeking funding in FY 2014 but the outcome is uncertain.

REQUIRED ACTIONS: No action is required by the IWRB at this time.

**Henrys Fork Basin Study**

- Reclamation finalized an interim report documenting the process of identifying and screening water management alternatives in the Henrys Fork basin. It includes the technical reports developed for each alternative and other supplemental analyses such as water supply and water needs assessments.
- Reclamation has initiated the appraisal analysis of the short list of alternatives beginning with technical issues specific to each alternative and a refined analysis of the water available for storage.
- Reclamation will provide updates to the IWRB as the appraisal analysis progresses.
- Estimated timeline: Completion scheduled for October 2013.

REQUIRED ACTIONS: No action is required by the IWRB at this time.
Idaho Department of Water Resources
Construction Observation Report

Project: Mile Post 31 Recharge Site
Observer: Mathew Weaver
Date: March 11, 2013 (Monday)

Field Conditions

Skies: Clear
Wind: Wind Gusts 10-20 mph         Temperature: 48 deg-F
Soil Moisture: Moist. There was no standing water in the bottom of the canal. However, there was some moisture visible on the canal bank access roads and surrounding areas.

Heavy Equipment

No heavy equipment. Two light duty pick-ups were on-site.

Construction Personnel

Three.

Observed Activity

While on-site I observed the concrete check dam footing, recharge diversion head gate structure, two 36-inch diameter canal gates, recharge diversion outlet structure, and the block-out for the submerged orifice. Personnel on site were placing rebar and form-work on the check dam structure. The crew anticipated one and half more days were needed to complete all concrete work.

Site Photos

Photo 1 - Panoramic of the recharge basin and construction activity on the Milner-Gooding Canal.
Photo 2 – Diversion structure concrete head gate and twin 36-inch diameter canal gates.

Photo 3 – Detail of 36-inch diameter canal gate seated on left 36-inch diameter turnout.
Photo 4 – Concrete outlet and control structure Milner-Gooding canal is located behind the concrete wall. Note baffle wall and block-out for submerged orifice.

Photo 5 – Detail of submerged orifice block-out.
Photo 6 – Picture of the 36-inch diameter pipe outlets located upstream of the baffle wall.

Photo 7 – Picture of second 36-inch diameter pipe outlet that is partially visible on the left edge of photo 6.
Photo 8 – Detail of exposed aggregate on the downstream face of the diversion structure.

Photo 9 – Detail of grouted concrete patch on face of concrete wall on the downstream face of the diversion structure. This picture is typical of several large patches. The reason for the grouting is unknown.
Photo 10 – Photo of outlet diversion structure. At the time the picture was taken backfill appeared to be comprised exclusively of native barrow material.

Photo 11 – Photo of outlet diversion structure and recharge basin. No rip-rap or other energy dissipation improvements were installed at the time of the site visit.
Photo 12 – Photo of Milner-Gooding canal and diversion structure head gates. Note the footing for the canal check dam structure in front of the pickup trucks running perpendicular to the flow of water (dashed red line). Also, 8-inch diameter recharge turn-out previously located downstream of check dam has been removed from the north canal bank (red arrow).

Photo 13 – Detail of canal check dam concrete footing.
Memorandum

To: Idaho Water Resource Board
From: Helen Harrington
Re: IWRB Planning Activities Status Update
Date: March 11, 2013

Information; no action necessary

Rathdrum Prairie Comprehensive Aquifer Management Plan Implementation

Implementation activities will be ramping up this spring with an advisory committee meeting scheduled for March 29, 2013. The agenda for the meeting includes several topics which are intended to move the implementation forward. These topics are directly tied to action items from the RP CAMP. The draft agenda include:

- Conservation Guidelines Completion Strategy
  - (establishment of working group to develop scope of work/table of contents)
- Ground Water Management Plan Status and Discussion
- Proposed Research Projects
  - Solomon & others
  - Beall & others
- Technical Projects Update
- Coordination Update
  - Idaho/Washington Aquifer Committee (IWAC)
  - Aquifer Protection District
  - North Idaho Chamber
- Funding Status & Expenditures

Treasure Valley Comprehensive Aquifer Management Plan Review

As discussed at the January IWRB meeting, the proposed TV CAMP has been referred to the IWRB Water Resource Planning Committee for reconsideration of the public comments. It is anticipated the committee will take up that work once committee meets and priorities are set.

Wood River Valley Model Development

The IDWR Hydrology Section is moving forward with developing a groundwater flow model in partnership with the United States Geological Survey (USGS). This project is anticipated to be completed in late 2015. A fact sheet about the project is attached. This work will provide the foundation of technical understanding for planning work in the basin. Planning staff are working closely with the technical staff to assess what planning activities should be initiated.

Idaho Comprehensive State Water Plan

As of this date, the Idaho Comprehensive State Water Plan has been sent from the House Resource and Conservation Committee to the Idaho House with a do-pass recommendation. This information will be updated at the IWRB meeting.

During the discussions with the legislature as the legislation moved through the House committee, Chairman Chase committed to reviewing the concerns raised by some committee members and considering revisions. It is anticipated that this activity will be referred to an IWRB committee for review and recommendation to the Board.

Sustainability Policy
In September 2012, Governor Otter requested that the IWRB develop and adopt a policy to guide management and development of Idaho’s water resources to maximize their sustainability. A copy of the request is attached. As previously discussed by the IWRB, this activity has been referred to the IWRB Water Resource Planning Committee for a recommendation. It is anticipated that this topic will be considered by the committee in the near future.

Attachments:
1. Wood River Valley Groundwater-Flow Model Fact Sheet
2. Letter from Governor Otter to the IWRB, dated September 5, 2012

The U.S. Geological Survey (USGS), in collaboration with the Idaho Department of Water Resources (IDWR), will use the current understanding of the Wood River Valley aquifer system to construct a MODFLOW numerical groundwater-flow model to simulate potential anthropogenic and climatic effects on groundwater and surface-water resources. This model will serve as a tool for water rights administration and water-resource management and planning. The study will be conducted over a 3-year period from late 2012 until model and report completion in 2015.

The Wood River Valley

The population of Blaine County in south-central Idaho has nearly quadrupled from 1970 to 2010; most of the growth has occurred in the Wood River Valley in the northern part of the county. Because the entire population of the valley depends on groundwater for domestic supply, from either domestic or municipal-supply wells, this growth has caused concern about the long-term sustainability of the groundwater resource (Bartolino and Adkins, 2012).

The upper Wood River Valley is more developed than the lower valley and contains the incorporated communities of Sun Valley, Ketchum, Hailey, and Bellevue (fig. 1). The lower Wood River Valley is dominated by farms and ranches (irrigated by groundwater and diverted surface water), and contains the small communities of Gannett and Picabo. A number of tributary canyons to the main valley have been developed over the last 50 years (Bartolino and Adkins, 2012).

The Aquifer System

The Wood River Valley aquifer system is composed primarily of Quaternary-age sediment and basalt. This material constitutes the three components of the aquifer system: a single unconfined aquifer underlying the entire valley, a deeper confined aquifer present to the south of Baseline Road (fig. 1), and a confining layer separating the two aquifers. The confining layer thickens toward the south and generally, as land-surface altitude decreases in the same direction, the water-level surface rises above land surface so that wells flow under artesian pressure. South and east of Gannett the confining unit thins and disappears over the basalt.

Figure 1. Locations of communities, selected U.S. Geological Survey streamgaging stations, and other features, Wood River Valley, south-central Idaho (modified from Bartolino and Adkins, 2012).
EXPLANATION

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Boundary of study area

Water-level contour - Shows elevation at which water level would have stood in tightly cased wells.

Dashed where approximately located. Contour interval is 10 feet.

Canal/Well

43

Wells completed in the confined aquifer with water-level measurement data

**Figure 2.** Groundwater levels in the confined aquifer, Wood River Valley aquifer system in October 2006 (modified from Skinner and others, 2007).

The sediment and basalt can be divided into three hydrogeologic units: a coarse-grained sand and gravel unit, a fine-grained silt and clay unit, and a basalt unit. Although the three units exist throughout the aquifer system, the two aquifers are primarily composed of coarse-grained sediment and basalt and the confining unit is mostly composed of the fine-grained sediment. The sediments are largely derived from two episodes of glaciation in the surrounding mountains and upper reaches of tributary canyons. The basalt unit contains two flows of different ages, and is limited to the southeastern part of the Wood River Valley.

In some areas, the underlying bedrock may be hydraulically connected to the sediment and basalt units; however, the bedrock likely contains a small percentage of available water in the aquifer system. These bedrock aquifers probably are separate from the Wood River Valley aquifer system.

Generally, groundwater movement through the Wood River Valley aquifer system is relatively straightforward. Groundwater under unconfined conditions moves down-valley to the south, where it either enters the deeper confined aquifer or remains in the shallow unconfined aquifer; the two aquifers appear to hydraulically reconnect in the area south of Gannett. A groundwater budget by Bartolino (2009) indicates that recharge primarily is from precipitation or seepage from streams, and discharge primarily is through springs and seeps to streams, pumpage, or subsurface outflow from the aquifer system. The rerouting of surface water into a network of irrigation canals in the late 19th century, construction of groundwater wells, and increased demand have affected groundwater flow, but the overall direction of groundwater movement remains down the topographic gradient and toward the eastern outlet of the valley at Picabo and western outlet near Stanton Crossing (figs. 1 and 2).

Depth to groundwater in the upper valley commonly is less than 10 ft, and increases southward to approximately 90 ft; water levels in wells completed in the unconfined aquifer in the lower valley range from less than 10 ft to approximately 150 ft below land surface. Wells completed in the confined aquifer are under artesian pressure and flow where the water-level surface is above land surface (Skinner and others, 2007).

**Hydrologic Trends**

A USGS report by Skinner and others (2007) verified statistically significant declining trends in mean annual water levels in three wells that seem representative of general conditions in the aquifer system. Two of these wells are completed in the unconfined aquifer and one well is in the confined aquifer (fig. 3): all three have more than 50 years of measurement data.

Skinner and others (2007) also analyzed streamflow trends for three streamgaging stations in the Wood River Valley (fig. 1). The findings included:

- The Big Wood River at Hailey streamgaging station (13139500) showed an increase in mean monthly base flow for March over the 90-year period of record, possibly because of earlier snowpack runoff.
- Low-flow analyses for the Big Wood River near Bellevue streamgaging station (13141000) showed a mean decrease of about 15 cubic feet per second since the 1940s, whereas the mean monthly discharge showed decreasing trends for the winter months.
a series of mathematical equations. Groundwater-flow models are usually constructed by representing the geology of the groundwater system as a series of rectangular three-dimensional blocks or model cells surrounded by a boundary (figs. 4 and 5).

A numerical computer model, in this case MODFLOW, is a program containing a number of equations that represent groundwater flow between the model cells. As the equations are solved, the program accounts for the flow of water through the model domain and for each cell; a model calculates the volume of water flowing horizontally and vertically between the cells and any changes in the volume of water stored in each cell.

By applying the basic laws of physics and reasonably representing the actual groundwater system in the model cells and boundaries, a groundwater-flow model can provide an accurate, quantitative depiction of the relations between groundwater flow-system stresses (such as pumpage) and responses (such as water-level declines). This understanding enables forecasts of future hydrologic conditions in response to changes in recharge, discharge, or varying management scenarios. Such forecasts inherently contain some uncertainty because of sparse or inaccurate data, errors in scientists' understanding of the system, and poor estimates of future conditions. Despite such uncertainties, groundwater-flow models often represent the best available tool for management decisions (Alley and others, 1999).

**Groundwater Modeling: A Tool for Understanding and Managing the Resource**

In the most general terms, a model is a simplified representation of the appearance or operation of a real object or system. Groundwater-flow models attempt to reproduce, or simulate, the processes of a real aquifer system by solving
One of the keys to a successful groundwater-flow model that produces accurate forecasts is the appropriate representation of important aspects of the physical system. The selection of these aspects depends, in part, on the objectives of the modeling project. These modeling objectives also influence the extent and depth of the modeled area, the size and shape of the model cells and layers, the methods used to represent the boundary conditions of the system, and the use of any specialized techniques or equations to address specific flow conditions or processes.

The Wood River Valley groundwater-flow model will be designed to further the basic understanding of the aquifer system, and ultimately to examine effects on the groundwater system and its interaction with the Big Wood River due to changes in water use, recharge, or discharge. Additionally, by virtue of the attempt to mathematically represent the groundwater-flow system, the model can be used to evaluate how well components of the system are understood and which components have the most effect on calculations. This analysis then can be used to guide the collection of additional data that will most improve the understanding of the Wood River Valley aquifer system.

The Collaborative USGS-IDWR Groundwater-Flow Model Project

The USGS began cooperative groundwater studies in the Wood River Valley in 1928 with one of the precursor agencies to the IDWR (Stearns and others, 1936). Since then, the USGS and IDWR have cooperated with each other, numerous local governments, and other entities to understand the water resources of the valley. The latest effort began in 2004 when the USGS, in cooperation with Blaine County, City of Hailey, City of Ketchum, The Nature Conservancy, City of Bellevue, and Citizens for Smart Growth undertook a four-phase, multiyear effort to better understand the groundwater system and provide information for scientifically-informed decisions.

The USGS, in collaboration with the IDWR, will incorporate this improved understanding of the Wood River Valley aquifer system into a groundwater-flow model that will serve as a tool for water-rights administration and water-resource management and planning. The 3-year study will be from late 2012 through 2015. Additional data collection, including water-level monitoring and streamflow measurements, will be done in 2013.

The numerical groundwater-flow model will be constructed using MODFLOW to simulate potential anthropogenic and climatic effects on groundwater and surface-water resources. A USGS report will be published to describe numerical model construction and limitations, as well as results from several simulations that represent a range of potential anthropogenic activities (formulated in consultation with stakeholders) and hydrologic conditions. The documented model will be published by the USGS and made publically available through a USGS website.

A Technical Advisory Committee is planned to provide for transparency in model development and to serve as a vehicle for stakeholder input. Technical representation will include interested parties such as water-user groups and current USGS cooperating organizations in the Wood River Valley.

References Cited


Authors: James Bartolino and Sean Vincent
For Information Contact:
Director, Idaho Water Science Center
U.S. Geological Survey
F.H. Newell Federal Building
230 Collins Road
Boise, ID 83702
208-387-1300
http://id.water.usgs.gov

Silver Creek on the Nature Conservancy Silver Creek Preserve, Idaho. View is from the Picabo Hills looking north up the Wood River Valley. The low hills to the right are the southeastern edge of the Pioneer Mountains, the snow-covered peaks in the background are in the Smokey Mountains. The valley bottom visible in the medium to far is the Bellevue Fan. Photograph taken November 19, 2004.
C.L. "Butch" Otter  
Governor  
September 5, 2012

Idaho Water Resource Board  
322 East Front St.  
Boise, ID 83720-0098

Chairman Uhling and Board Members,

I want to first and foremost thank you for your hard work and dedication to protecting the precious water resources of the State of Idaho.

The lives and livelihoods of Idahoans depend upon a reliable supply of water. Pre-statehood development along Idaho’s vast river valleys and canyons began a dependence on water and reliance on property rights that created a foundation for the economic growth Idahoans have enjoyed for over 120 years. Looking ahead to the future, economic development and job creation is dependent upon the sustainability of our water supply.

The responsibility for planning for the optimum use of Idaho’s water resources is constitutionally vested in the Idaho Water Resource Board. By developing visionary procedures and policies that will sustain the reliability of water supplies in the future, the Board can ensure water is available to meet both present and future needs. As an Idahoan, I believe we should never forget where we came from or the values such as property rights that are the backbone of our Idaho way of life.

Therefore, I request that the Idaho Water Resource Board define water sustainability in a way that ensures our values are respected and the unique qualities of our resources are protected. It is my hope that the Board will develop and adopt a policy to guide management and development of Idaho’s water resources to maximize their sustainability. The Board’s activities should be an inclusive process which involves stakeholders statewide. I will commit my office to assist and participate throughout this very important project.

I believe that formally incorporating such a policy will enable the Board to identify areas in Idaho where achieving sustainability needs more focused attention. Once identified, the Board can recommend activities that will enhance the reliability of water in these areas. The State, through the Idaho Water Resource Board, needs to proactively establish long-term goals to address today’s issues and tomorrow’s challenges.

Again, thank you for your dedicated service to the State of Idaho and I look forward to working with you as we address this important issue.

As Always – Idaho, “Esto Perpetua”

C.L. “Butch” Otter  
Governor of Idaho

CLO/sg
Phase 1 of the NIA was commenced on November 12, 2008. Phase 1 is composed of Administrative Basins 91-95, the Coeur d’Alene-Spokane River basins.

The Board holds six water licenses for minimum stream flows in Phase I. In addition to the water rights held by the IWRB, the Governor holds a water right for lake level in Phase 1. This right is for recreation storage in Lake Coeur d’Alene. Staff has been assisting in preparing claims for the Governor’s lake level water rights. Total Phase 1 claim filing fees for IWRB claims is $464,800. Filing fee for the Governor’s claim is $138,420.

In 2012, the Idaho Legislature enacted Senate Bill 1389 which appropriated $380,100 in Fiscal Year 2013 for the NIA from the General Fund within the IDWR appropriation. In that legislation, Section 6 described that the NIA General Fund appropriation would count toward the filing fees for water right claims filed by the IWRB and the Governor. The section goes on to state that if the General Fund appropriation does not meet or exceed the fee required for claims of the IWRB or the Governor, the Director of IDWR shall grant an extension of time to file the claim(s), and the General Fund appropriation for the following fiscal year shall be counted toward the balance of the filing fee.

The filing fees for NIA claims exceed the 2012 NIA appropriation. In coordination with IDWR NIA staff, the required claims were reviewed and a schedule for filing was developed which identified the fiscal year in which the claims would be filed. Claims have been filed for five of the six IWRB rights during Fiscal Year 2013. An extension of time has been granted for filing the claim on the St. Joe River.

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During the 2013 legislative session, House Bill 174 included an appropriation of $386,000 for Fiscal Year 2014 from the General Fund for the NIA in the IDWR appropriation with similar language regarding the use of the funding to be applied to IWRB and Governor’s NIA claims. The remaining claims for the minimum stream flow on the St. Joe River and the lake level on Coeur d’Alene Lake will be filed in the upcoming fiscal year.
Minimum Stream Flows and Lake Levels

Minimum Stream Flow
IDWR Administrative Basin

Phase 3
Clark Fork - Pend Oreille River

Lion Creek (97-07275)
22 cfs

Indian Creek (97-07274)
26 cfs

East River, North Fork (97-07308)
18-70 cfs

Priest River (97-07380)
300-1,500 cfs

Pack River (96-08717)
54-129 cfs

Grouse Creek (96-07980)
14-85

Gamble Lake (96-08764)
2081.8 ft

Lightning Creek (96-07979)
49-84 cfs

Round Lake (96-08503)
2125 ft

Granite Creek (96-07771)
10 cfs

Sullivan Springs (96-07772)
45 cfs

Hayden Creek (95-08560)
4-20 cfs

Spokane River (95-08780)
951-2,495 cfs

Wolf Lodge Creek (95-07874)
7-30 cfs

Coeur d'Alene River (94-07341)
413-1,018 cfs

St. Joe River (91-07122)
460-941 cfs

St. Maries River (92-07200) 65-141 cfs
## NORTHERN IDAHO ADJUDICATION
### IDAHO WATER RESOURCE BOARD WATER RIGHTS

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**Total:** 4645

### PHASE 2 (Administrative Basin 87)
No water rights in the name of the IWRB

### PHASE 3 (Administrative Basins 96-97)

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**Total:** 12588
**IWRB Work Session:** An update on Weiser-Galloway project activities will be provided at the Idaho Water Resource Board’s (IWRB) work session on March 21, 2013. The U.S. Army Corps of Engineers (Corps) will present preliminary results of the geologic findings at the Galloway dam and reservoir site. The Corps will also discuss ongoing work including analysis of potential design configurations, updated project costs, and the progress and preliminary results of the Operations Analysis. Final results and recommendations will be provided at a later date.

A presentation on Light Detection and Ranging (LiDAR), its many uses in science and technology and how it was used in the Weiser-Galloway studies will be provided by staff from the Idaho State University’s Boise Center Aerospace Laboratory (BCAL) following the discussion of Weiser-Galloway project activities.

No action is required by the IWRB at this time.

**Project Background:** Water storage on Weiser River and at the Galloway site has been studied for decades -- the Corps first received a study authorization resolution for the Galloway Project from the U.S. Senate Public Works Committee in 1954; and, in the early 1970s Federal lands for the potential Galloway dam and reservoir site were classified and withdrawn for hydropower purposes by the Federal Power Commission (now the Federal Energy Regulatory Commission). In 2008, the IWRB was directed by the Idaho Legislature through House Joint Memorial 8 (HJM 8) to investigate water storage projects statewide, including the Weiser-Galloway Project. Potential project benefits include flood risk reduction, hydropower, additional water storage, pump back, irrigation, regional economic development, recreation and flow augmentation requirements for anadromous fish recovery.

**Gap Analysis (March 2011):** In response to HJM 8, the IWRB partnered with the Corps to publish the *Weiser-Galloway Gap Analysis, Economic Evaluation and Risk-Based Cost Analysis Project* (Gap Analysis), completed in March 2011. The Gap Analysis was a comprehensive review of earlier studies of the potential Galloway Dam and Reservoir site by the Corps from 1983-1994. It provided an analysis of gaps in information in the earlier studies and incorporated events, knowledge and information affecting Idaho and the Snake River Basin that have developed since the earlier studies were performed. Its focus was on the future water supply and management needs of Washington and Adams Counties, the City of Weiser, the State of Idaho, and the Weiser and Snake Rivers.

The gap analysis was specifically designed to inform decision makers of critical gaps to be addressed before deciding whether to move forward with comprehensive new environmental, engineering and economic feasibility studies. The analysis examined 181 gaps and identified two critical gaps that require resolution: 1) Determine the safety, suitability and integrity of geologic structures at the potential dam and reservoir site; 2) Evaluate whether basin and system benefits would be realized by analyzing a series of system operating scenarios with a range of new storage options on the Weiser River.

On July 29, 2011, the Idaho Water Resource Board authorized expenditure of up to $2 million to analyze the forgoing gaps. Both studies are being conducted jointly between the IWRB and the Corps.

**Geologic Investigation (Ongoing):** The *Weiser River Geologic Investigation and Analysis* is intended to determine the suitability of the geologic structures at the potential dam and reservoir site. Clays, tuffs, and ash were found by the Corps during limited 1984 core drilling of dam site abutment structure. To rule out potential structural weakness and seepage potential for the dam and reservoir site, additional core drilling and geologic investigation was performed.

Findings of the geologic analysis completed to date will be presented at the IWRB’s work session:

- Six holes and 1537.8 feet of core were drilled in the abutments of the potential dam site;
- Permeability, strength and materials testing was performed on selected core samples and possible embankment materials located near the site;
- Geologic mapping was performed and potential burrow areas, slope stability and seismic hazards were investigated at the dam reservoir site.
Analysis still to be completed includes:

- Evaluation of possible dam types (e.g. embankment dam);
- Modifications to the structure proposed in the 1980’s Corps studies (including areas of potential cost savings);
- Refinement of the project economics to reduce the risk associated with previous cost estimates.

**Operational Analysis (Ongoing):** The Snake River System Operational Analysis Project will analyze a range of scenarios that seek to optimize system operation with approximately 750,000 acre-feet of new water storage capacity on the Weiser River. The analyses will consider the needs of the Hells Canyon Complex, Snake River System, and the Weiser River Basin including Washington and Adams Counties. Coordination and validation by IPCO, BOR, BPA and NOAA is critical to the process. The analysis will schedule and shape the new storage to maximize:

- Flood risk reduction, irrigation, recreation and hydropower benefits for Weiser, and surrounding areas in Washington and Adams Counties;
- Supplemental water supply for local canal and irrigation companies;
- Economic benefits to the water storage systems on the Boise, Payette and Upper Snake Rivers through potential substitution and relief of up to 40,000, 160,000 and 200,000 acre-feet of water currently released respectively from those basins to meet anadromous fish flow augmentation requirements;
- Potential benefits to the Lower Snake for temperature reduction during the summer;
- Positive and/or negative impacts to hydropower for the Middle Snake and Hells Canyon Complex generating facilities and Lower Snake/Columbia River system;
- Integration with State water management policy including obligations set forth in the 2004 Snake River Water Rights Agreement (Nez Perce Agreement) regarding salmon flow augmentation, the 2009 Swan Falls Reaffirmation, and the Hells Canyon relicensing criteria.

During the work session presentation, the Corps will provide an overview of the work completed to date as well as background on the development of the reservoir model, model inputs, and preliminary results of other analyses such as reservoir yield, probable maximum flood and sedimentation.

**Budget and Timeline (for ongoing studies)**

1. Geologic Investigation:
   - $1.3 million (includes federal matching funds - Corps and IWRB partnership)
   - Drilling was completed in November 2012; results and final report are anticipated by summer 2013.
2. Operational Analysis:
   - $700,000 (includes federal matching funds - Corps and IWRB partnership)
   - Initiation of the operational analysis was held until preliminary results of geologic study were available.
   - Completion is anticipated by spring 2014.

**Quick Project Facts (based on original 1987-89 USACE studies)**

1. Located on the Weiser River, approximately 13.5 miles east of Weiser, Idaho, and its confluence with the Snake River.
2. Project consisted of a potential 300 foot high, 1,200 foot long, earth and rock-fill embankment dam, and approximately 900,000 acre-feet of water storage (a slightly smaller structure is being considered in the current studies based on the updated yield analysis).
3. Reservoir at full capacity would potentially inundate 6,918 acres of land (4,608 acres of private lands, 2,017 acres of federal lands, and 293 acres of former Northern Pacific Railroad – now the Weiser River Trail).
4. The total current project cost is estimated to be $502 million (2011). Some 78% of this cost is for contingencies per the Corps cost-risk calculation methodology. Without contingencies, the costs are estimated to be some $310 million. (Approximately $350 to $550 per acre-foot capital cost).
Idaho Water Supply

Presented by Liz Cresto

March 21, 2013
Current Snowpack ranges from 57% to 104% of median.
Changes to the Snow Map

• Updated period of comparison.
  – Replaced the wet 1970’s with the dry 2000’s.
• Change from average to median.
Comparison Period Updated

• Every decade the 30 year normals change periods.
• This year we go from the 1971-2000 period to the 1981-2010 period.
• The change is meant to keep pace with current climatic conditions as most recent years are said to represent the current conditions.
January 1 Average:

- 1971-2000 average = 14.8"
- 1981-2010 average = 13.3"

Compare January 2013 SWE 16.4"

111% of 1971-2000 average
123% of 1981-2010 average

Snow Water (inches)

Lewis Lake Divide SNOTEL January 1 Snow Water Content
**Why use Median for SWE?**

---

**Togwotee Pass Snotel**

(All years 1981-2010 plotted with average and median)

---

**During the onset of snow accumulation,** the median has its first nonzero value later than the average. Years with early snow accumulation cause the average to be nonzero even though most years do not start snow accumulation until later. The median begins nonzero values when half or more of the years have begun snow accumulation.

---

For this day in early April (denoted by the vertical bar), the average is greater than the median, reflecting the influence of a few large SWE values on the average.

---

During the melt out period, the median goes to zero earlier than the average. The average maintains a nonzero value until the latest melt out on record, whereas the median goes to zero when half or more of the years have melted out.
Streamflow Forecasts

• Updated period of comparison.
  – Replaced the wet 1970’s with the dry 2000’s.

• Percent of average. Did not change to medians.
117% of 1981-2010 average
105% of 1971-2000 average

Compare 2012 Runoff of 1,600 KAF

105% of 1971-2000 average = 1,526 KAF
117% of 1981-2010 average = 1,726 KAF

April-Sept Volumes:

Trade 7 big years for 9 low years

April-July Average Seasonal Runoff Comparison
1971-2000 3,561 KAF
1981-2010 3,236 KAF
Difference -325 KAF
The table below illustrates the changes in the April-July average volume for 1971-2000 and 1981-2010 periods for various rivers across Idaho. Statewide the new averages are 11% lower than the old averages.

<table>
<thead>
<tr>
<th>Station Name</th>
<th>71-00 Ave April-July Streamflow (KAF)</th>
<th>81-10 Ave April-July Streamflow (KAF)</th>
<th>Difference (KAF)</th>
<th>% Difference from 71-00 Ave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bear R bl Stewart Dam</td>
<td>234</td>
<td>183</td>
<td>-51</td>
<td>-22%</td>
</tr>
<tr>
<td>Oakley Reservoir Inflow</td>
<td>29</td>
<td>24</td>
<td>-5</td>
<td>-17%</td>
</tr>
<tr>
<td>Big Wood R bl Magic Dam</td>
<td>292</td>
<td>250</td>
<td>-41</td>
<td>-14%</td>
</tr>
<tr>
<td>Big Lost R bl Mackay Res</td>
<td>141</td>
<td>123</td>
<td>-19</td>
<td>-13%</td>
</tr>
<tr>
<td>Salmon Falls nr San Jacinto</td>
<td>70</td>
<td>80</td>
<td>-10</td>
<td>-13%</td>
</tr>
<tr>
<td>Bruneau R nr Hot Spring</td>
<td>208</td>
<td>183</td>
<td>-25</td>
<td>-12%</td>
</tr>
<tr>
<td>Little Lost R nr Howe</td>
<td>31</td>
<td>28</td>
<td>-4</td>
<td>-12%</td>
</tr>
<tr>
<td>Little Wood R nr Carey</td>
<td>87</td>
<td>77</td>
<td>-10</td>
<td>-11%</td>
</tr>
<tr>
<td>Boise R nr Boise</td>
<td>1414</td>
<td>1261</td>
<td>-153</td>
<td>-11%</td>
</tr>
<tr>
<td>Teton R nr St Anthony</td>
<td>405</td>
<td>367</td>
<td>-38</td>
<td>-9%</td>
</tr>
<tr>
<td>Snake R nr Heise</td>
<td>3561</td>
<td>3236</td>
<td>-325</td>
<td>-9%</td>
</tr>
<tr>
<td>Payette R nr Horseshoe Bend</td>
<td>1618</td>
<td>1477</td>
<td>-141</td>
<td>-9%</td>
</tr>
<tr>
<td>Salmon R at White Bird</td>
<td>5851</td>
<td>5369</td>
<td>-481</td>
<td>-8%</td>
</tr>
<tr>
<td>Moyie R at Eastport</td>
<td>403</td>
<td>374</td>
<td>-30</td>
<td>-7%</td>
</tr>
<tr>
<td>Clearwater R at Spalding</td>
<td>7430</td>
<td>6890</td>
<td>-540</td>
<td>-7%</td>
</tr>
<tr>
<td>Teton R nr Driggs</td>
<td>165</td>
<td>154</td>
<td>-11</td>
<td>-7%</td>
</tr>
<tr>
<td>Spokane R nr Post Falls</td>
<td>2553</td>
<td>2389</td>
<td>-164</td>
<td>-6%</td>
</tr>
<tr>
<td>Weiser R nr Weiser</td>
<td>392</td>
<td>370</td>
<td>-21</td>
<td>-5%</td>
</tr>
<tr>
<td>Falls R nr Ashton</td>
<td>380</td>
<td>365</td>
<td>-15</td>
<td>-4%</td>
</tr>
<tr>
<td>Henrys Fk nr Ashton</td>
<td>544</td>
<td>532</td>
<td>-12</td>
<td>-2%</td>
</tr>
</tbody>
</table>
March 1, 2013
50% Exceedance
Summer Streamflow Forecasts
Idaho

State Boundary
Major Basins
Percent of Average
> 180
150 - 179
130 - 149
110 - 129
90 - 109
70 - 89
50 - 69
25 - 49
< 25
Not Forecast

Map based on provisional data
Payette Reservoirs at 74% of capacity.

Boise Reservoirs at 61% of capacity.
Snake Reservoirs at 69% of capacity.
Agricultural Water Supply Shortage May Occur When SWSI is Less Than

<table>
<thead>
<tr>
<th>BASIN or REGION</th>
<th>SWSI Value</th>
<th>Most Recent Year With Similar SWSI Value</th>
<th>Agricultural Water Supply Shortage May Occur When SWSI is Less Than</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Panhandle</td>
<td>0.0</td>
<td>2007</td>
<td>NA</td>
</tr>
<tr>
<td>Spokane</td>
<td>-1.8</td>
<td>2007</td>
<td>NA</td>
</tr>
<tr>
<td>Clearwater</td>
<td>-1.3</td>
<td>2004</td>
<td>NA</td>
</tr>
<tr>
<td>Salmon</td>
<td>-0.5</td>
<td>2003</td>
<td>NA</td>
</tr>
<tr>
<td>Weiser</td>
<td>-1.0</td>
<td>2005</td>
<td>NA</td>
</tr>
<tr>
<td>Payette</td>
<td>-0.5</td>
<td>2010</td>
<td>NA</td>
</tr>
<tr>
<td>Boise</td>
<td>-1.3</td>
<td>2002</td>
<td>-1.6</td>
</tr>
<tr>
<td>Big Wood</td>
<td>0.0</td>
<td>2010</td>
<td>-0.1</td>
</tr>
<tr>
<td>Little Wood</td>
<td>0.8</td>
<td>2012</td>
<td>-1.9</td>
</tr>
<tr>
<td>Big Lost</td>
<td>0.5</td>
<td>2009</td>
<td>0.4</td>
</tr>
<tr>
<td>Little Lost</td>
<td>-0.3</td>
<td>2012</td>
<td>1.1</td>
</tr>
<tr>
<td>Teton</td>
<td>-2.0</td>
<td>2002</td>
<td>-3.9</td>
</tr>
<tr>
<td>Henrys Fork</td>
<td>-0.8</td>
<td>2005</td>
<td>-3.2</td>
</tr>
<tr>
<td>Snake (Heise)</td>
<td>-1.8</td>
<td>2007</td>
<td>-1.6</td>
</tr>
<tr>
<td>Oakley</td>
<td>-0.3</td>
<td>2012</td>
<td>-0.4</td>
</tr>
<tr>
<td>Salmon Falls</td>
<td>-1.3</td>
<td>2000</td>
<td>-1.1</td>
</tr>
<tr>
<td>Bruneau</td>
<td>-0.3</td>
<td>2008</td>
<td>NA</td>
</tr>
<tr>
<td>Owyhee</td>
<td>-0.5</td>
<td>2012</td>
<td>-3.4</td>
</tr>
<tr>
<td>Bear River</td>
<td>0.5</td>
<td>2001</td>
<td>-3.3</td>
</tr>
</tbody>
</table>

**SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION**

-4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4
---|---|---|---|---|---|---|---|---
99%| 87%| 75%| 63%| 50%| 37%| 25%| 13%| 1%

<table>
<thead>
<tr>
<th>Much Below</th>
<th>Below Normal</th>
<th>Near Normal</th>
<th>Water Supply</th>
<th>Normal</th>
<th>Above</th>
<th>Much Above</th>
</tr>
</thead>
</table>
Questions?

More Information:
Liz.cresto@idwr.idaho.gov
208-287-4833
http://www.idwr.idaho.gov/WaterInformation/WaterSupply/supply.htm
Water Supply and Priority Date Considerations for Recharge at the Proposed Lake Walcott Recharge Site

Mathew Weaver
February - 2013
Approach 1

Analysis Considerations of Water Availability for Recharge at the Proposed Lake Walcott Recharge Site

1. Priority Date is Irrelevant When Items 2, 3, & 4 are enforced.
2. Criteria 1: $Q @ \text{Minidoka} \geq 2,800 \text{ cfs (}@ \text{MINI})^*$
3. Criteria 2: $Q @ \text{Milner} \geq 100 \text{ cfs (}Q @ \text{MILI})^{**}$
4. Correct $Q @ \text{Milner}$ (i.e. spills) for Bureau Flow Augmentation, IPCo Storage Releases, and Reach Gain Accruals Downstream of the Minidoka Dam
5. Period of Analysis: 1992 – 2012 (20 years)

*The proposed capacity of the Lake Walcott site is 100 cfs. By selecting for days when 2,800 cfs or more flowed past Minidoka, we ensure that we are considering a supply of water available for recharge that does not conflict with the USBR’s unsubordinated hydropower WRs.

**By selecting days when 100 cfs of natural flow spilled past Milner and was lost from the upper Snake River system, we avoid the suspicion that recharge may have interfered with the optimal capture of storage Water above Minidoka Dam or with the delivery of water to senior water users downstream of Minidoka Dam.
Annual No. of Days (A1)

Annual No. of Days 100 cfs Available at Minidoka for Recharge

Water Year (11/1-10/31)  Non-Irr Season (10/15 - 4/1)
Average No. of Days in a Month 100 cfs Available at Minidoka for Recharge

Water Year Σ: 95 days (18,810 AF)
Winter Only Σ: 21 days (4,158 AF)
In any year, there is a 50% likelihood that the No. of Days where 100 cfs is available for recharge will exceed 95 (i.e. 18,810 acre-feet).

In any year, there is an 80% likelihood that the No. of Days where 100 cfs is available for recharge will exceed 29 (i.e. 5,742 acre-feet).
Conclusions from Approach 1:

1. Enforcement of priority date is not applicable at this location if we assume the screening criteria that (1) flows at Minidoka are greater than 2,800 cfs, and (2) natural flow spilling past Milner is greater than 100 cfs.

2. From 1992-2012, on average, there are 95 days in a year where 100 cfs is available for diversion at Minidoka for recharge – this equates to a volume of 18,810 acre-feet.

3. From 1992-2012, on average, there are 21 days in the non-irrigation season where 100 cfs is available for diversion at Minidoka for recharge – this equates to a volume of 4,158 acre-feet.

4. Frequency analysis indicates that there is a 47% likelihood that in any given year there will be 101 days or more where 100 cfs is available for recharge – this equates to a volume of 20,000 acre-feet.

5. Frequency analysis indicates that there is an 80% likelihood that in any given year there will be 29 days or more where 100 cfs is available for recharge – this equates to a volume of 5,742 acre-feet.

6. Frequency analysis indicates that the 90% and 95% exceedance values are 0 days in a year. In other words, if we are looking for 90% certainty or better, than we must assume that there will be no days in a year where 100 cfs is available for recharge.

7. The volumes of water estimated to be available for recharge by this analysis are limited by the proposed diversion capacity of 100 cfs, and not necessarily by the volume of water available in the river for recharge. Increases in diversion capacity would lead to increases in the volumes of water available for recharge.

8. Frequency analysis and exceedance forecasting provides a reasonable fit. And can be used as a loose guide to recharge availability. However, a more thorough evaluation of frequency analysis might determine a better relationship with an alternative distribution and may be warranted.
Approach 2

Analysis Considerations of Water Availability for Recharge at the Proposed Lake Walcott Recharge Site

1. Priority Date – Not Irrelevant*

2. Criteria 1: \( Q \) @ Minidoka \( \geq 600 \) cfs (\( @ \) MINI)**

3. Criteria 2: \( Q \) @ Milner \( \geq 100 \) cfs (\( Q \) @ MILI)***

4. Adjust for Bureau Flow Augmentation, IPCo Storage Releases, and Reach Gain Accruals Downstream of Minidoka Dam

5. Ensure 500 cfs Minimum Stream Flow Downstream of Minidoka


*Approach assumes an agreement can be made with USBR for forgone hydropower reimbursement. This approach does not strictly honor the prior appropriation doctrine.

**The proposed capacity of the Lake Walcott site is 100 cfs. By selecting for days when 600 cfs or more flowed past Minidoka, we ensure that we are not interfering with ESA minimum flow requirements immediately downstream of Minidoka Dam (i.e. 500 cfs).

***By selecting days when 100 cfs of natural flow spilled past Milner and was lost from the upper Snake River system, we avoid the suspicion that recharge may have interfered with the optimal capture of storage water above Minidoka Dam or with the delivery of water to senior water users downstream of Minidoka Dam.
Average No. of Days in a Month 100 cfs Available at Minidoka for Recharge

Water Year $\Sigma$: 135 days (26,768 AF)
Winter Only $\Sigma$: 52 days (10,353 AF)
In any year, there is a 50% likelihood that the No. of Days where 100 cfs is available for recharge will exceed 135 (i.e. 26,730 acre-feet).

In any year, there is a 80% likelihood that the No. of Days where 100 cfs is available for recharge will exceed 69 (i.e. 13,662 acre-feet).
Conclusions from Approach 2:

1. Enforcement of priority date is not applicable at this location if we assume an agreement is reached with the USBR whereby they are reimbursed for foregone hydropower revenues – USBR cooperation required.

2. From 1992-2012, on average, there are 135 days in a year where 100 cfs is available for diversion at Minidoka for recharge – this equates to a volume of 26,730 acre-feet.

3. From 1992-2012, on average, there are 52 days in the non-irrigation season where 100 cfs is available for diversion at Minidoka for recharge – this equates to a volume of 10,296 acre-feet.

4. Frequency analysis indicates that there is a 66.7% likelihood that in any given year there will be 101 days or more where 100 cfs is available for recharge – this equates to a volume of 20,000 acre-feet.

5. Frequency analysis indicates that there is an 80% likelihood that in any given year there will be 69 days or more where 100 cfs is available for recharge – this equates to a volume of 13,662 acre-feet.

6. Frequency analysis indicates that there is a 90% likelihood that in any given year there will be 34 days or more where 100 cfs is available for recharge respectively and a 95% likelihood that 5 days are available.

7. The volumes of water estimated to be available for recharge by this analysis are limited by the proposed diversion capacity of 100 cfs, and not necessarily by the volume of water available in the river for recharge. Increases in diversion capacity would lead to increases in the volumes of water available for recharge.

8. Frequency analysis and exceedance forecasting provides a reasonable fit. And can be used as a loose guide to recharge availability. However, a more thorough evaluation of frequency analysis might determine a better relationship with an alternative distribution and may be warranted.
Approach 1 vs. Approach 2

**Exceedance Probability (Ex.)** – the probability that an event having a specified recharge volume and duration will be exceeded in a one year period of time.

### Approach 1 (QMINI > 2,800 cfs)

<table>
<thead>
<tr>
<th>No. Days</th>
<th>47% Ex.</th>
<th>50% Ex.</th>
<th>67% Ex.</th>
<th>80% Ex.</th>
<th>90% Ex.</th>
<th>95% Ex.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vol. (AF)</td>
<td>101</td>
<td>95</td>
<td>61</td>
<td>29</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>20,018</td>
<td>18,810</td>
<td>12,078</td>
<td>5,742</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Approach 2 (QMINI > 600 cfs)

<table>
<thead>
<tr>
<th>No. Days</th>
<th>47% Ex.</th>
<th>50% Ex.</th>
<th>67% Ex.</th>
<th>80% Ex.</th>
<th>90% Ex.</th>
<th>95% Ex.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vol. (AF)</td>
<td>141</td>
<td>135</td>
<td>101</td>
<td>69</td>
<td>34</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>27,918</td>
<td>26,730</td>
<td>20,018</td>
<td>13,662</td>
<td>6,732</td>
<td>990</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>No. Days</th>
<th>47% Ex.</th>
<th>50% Ex.</th>
<th>67% Ex.</th>
<th>80% Ex.</th>
<th>90% Ex.</th>
<th>95% Ex.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vol. (AF)</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>34</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>7,900</td>
<td>7,920</td>
<td>7,940</td>
<td>7,920</td>
<td>6,732</td>
<td>990</td>
</tr>
</tbody>
</table>
Idaho Power Company’s Cloud Seeding Program

Shaun Parkinson, PhD, PE
Derek Blestrud, Meteorologist
Presentation Overview

- What is cloud seeding?
- Perceptions…
- IPC’s cloud seeding program…
  - Payette
  - Upper Snake
- Benefits
  - Increased Runoff…
- Other Developments
  - Generator Testing
  - NCAR
  - WY program
What is cloud seeding?

• The term cloud seeding has been used to describe:
  – Fog suppression (airports)
  – Hail suppression (reduce crop and property damage)
  – Rainfall enhancement (water supply augmentation)
  – Snowpack enhancement (snowpack augmentation)

• Our focus is **snowpack** enhancement

• In particular – IPC does winter orographic cloud seeding
Winter Orographic Cloud Seeding

- *Cloud seeding* provides additional ice nuclei that function at warmer temperatures, allowing ice formation to begin sooner
- This occurs at temperatures as warm as 23°F, though more effectively at 17°F or colder
- Natural ice nuclei become effective below 5°F
Cloud Seeding Programs - NAWMC

Weather Modification Programs in Western U.S. & Canada in 2012
Silver Iodide Distribution

- In commercial programs, silver iodide is burned to release silver iodide particles (ice nuclei) of an appropriate size to the atmosphere.
- **Ground generators** - Acetone – silver iodide solution is burned in a propane flame.
- **Aircraft** - silver iodide is incorporated into a flare, or solution is burned.
Presentation Overview

• What is cloud seeding?
• Perceptions…
• IPC’s cloud seeding program…
  • Payette
  • Upper Snake
• Benefits
  • Increased Runoff…
• Other Developments
  • Generator Testing
  • NCAR
  • WY program
Downwind Effects

- Research on the subject has shown there are neutral or positive effects (more precipitation) from a well run program. This is especially true for winter programs.
- Seeding extends the duration of precipitation for a storm, which extends the area and total precipitation.
- A poorly run program has the potential to reduce precipitation.
- To put quantities into context…
  - Nature will condense about 20% of the water vapor as moist air rises over a mountain barrier (the remaining 80% remains uncondensed).
  - Winter storms are typically about 30% efficient, meaning 30% of the 20%, or 6% of the total, reaches the ground.
  - If cloud seeding increases precipitation 15%, that amounts to 15% of the 6%, or 0.9% of the total water vapor is the additional amount cloud seeding pulls from the atmosphere.
Silver Toxicity

• The WMA has issued a statement on toxicity of silver originating from cloud seeding…
  http://weathermodification.org/AGI_toxicity.pdf

• In summary,
  “The published scientific literature clearly shows no environmentally harmful effects arising from cloud seeding with silver iodide aerosols have been observed; nor would they be expected to occur. Based on this work, the WMA finds that silver iodide is environmentally safe as it is currently being dispensed during cloud seeding programs.”
IDEQ Review

- IDEQ reviewed cloud seeding w.r.t. water and air quality.
- Water quality - it is unlikely that cloud seeding will cause a detectable increase in silver concentrations in target area or pose a chronic effect to sensitive aquatic organisms.
- Air quality permit not needed based on screening thresholds.

Current Silver Levels

- IPC conducted sampling from August 2010 through June 2012 in the Payette target and control areas.
- Collected samples of water, sediment, fish tissue, and invertebrates.
- Water samples included lake, stream, river, hot springs.
- Samples were analyzed for total silver.
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Idaho Power’s History with Cloud Seeding

- At the request of shareholders – began investigating cloud seeding in 1993
- Literature review 1993 and 1994
- Climatology study 1994-95
- Contracted operational program in 1996-97
- Planned to perform internal program in 1997-98
- Reinstated in Feb 2003.
- Operational including assessment in fall of 2003
- Completed second year of assessment and third year of operations in May 2005.
- In 2008 began working with HCRC&D and E Idaho Counties to enhance their program
- In 2013:
  - Payette: 17 Remote Generators, 1 Aircraft
  - Upper Snake: 19 Remote Generators (IPC), 25 Manual (HCRC&D)
Effective Program Includes

- Knowledge of:
  - Storm timing – prepare for operations
  - Water content – is the storm conducive to seed?
  - Temperature profile
    - The wrong combination of temperature and water content can lead to reduced precipitation.
  - Wind speed and direction
    - Winds effect targeting

- Operating Criteria

- Flexibility – ability to seed a range of conditions

- Aircraft safety
  - Flying a plane in storm conditions – pilot needs guidance regarding severe ice, lightning, etc.

- Suspension Criteria
Idaho Power’s Cloud Seeding Projects

Payette

Upper Snake
in cooperation with HCRC&D

Salt and Wyoming Ranges

‘12-'13 Season

Rawinsonde
Radiometer

Existing Generators
HC RC&D Manual Generators
Target Area
Snake Watershed
Rawinsonde

Temperature
Relative Humidity
Pressure
Wind Direction
Wind Speed
Up to 60,000’
Radiometrics M3000A
Microwave Radiometer

- They are passive, receive-only instruments, meaning they emit no radiation themselves.
- The wavelength of the radiation they receive identifies the source of the emission resulting in an atmospheric profile:
  - Temperature
  - Relative Humidity
  - Liquid Water

IPC’s MP-3000A Hyper-Spectral Temperature, Humidity and Liquid Water Profiler.
Radiometer Data

- Real time atmospheric profiling by elevation:
  - Temperature
  - Relative Humidity
  - Liquid Water
  - Vapor Density

Image courtesy of Radiometrics
Generator Types

Remote Cloud Seeding Generator

- Burn Head
- Ignition Coil
- Satellite Communication
- Solar Panel
- Nitrogen
- Work Platform

Temperature Probe
Valve Box
Tower
Computer Box
Solution Tanks
Batteries
Propane

Manual Cloud Seeding Generator
Aircraft Seeding
Presentation Overview

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  • Generator Testing
  • NCAR
  • WY program
# Operations Summary

**Payette**

<table>
<thead>
<tr>
<th>Water Year</th>
<th>(April-July) % Normal*</th>
<th>% TC** Benefit</th>
<th>Silver Iodide (grams)</th>
<th>Hours</th>
<th>Status</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>Air</td>
<td>Ground</td>
</tr>
<tr>
<td>2003</td>
<td>104%</td>
<td>16%</td>
<td>33558</td>
<td>23270</td>
<td>10288</td>
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<tr>
<td>2004</td>
<td>78%</td>
<td>5%</td>
<td>21485</td>
<td>2803</td>
<td>18682</td>
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<tr>
<td>2005</td>
<td>71%</td>
<td>26% / 7%***</td>
<td>27301</td>
<td>11122</td>
<td>16179</td>
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<tr>
<td>2006</td>
<td>151%</td>
<td>15%</td>
<td>113173</td>
<td>97710</td>
<td>15463</td>
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<tr>
<td>2007</td>
<td>69%</td>
<td>10%</td>
<td>106082</td>
<td>76980</td>
<td>29102</td>
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<tr>
<td>2008</td>
<td>116%</td>
<td>16%</td>
<td>61147</td>
<td>38740</td>
<td>22407</td>
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<tr>
<td>2009</td>
<td>103%</td>
<td>15%</td>
<td>50274</td>
<td>26110</td>
<td>24164</td>
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<tr>
<td>2010</td>
<td>99%</td>
<td>25%</td>
<td>49823</td>
<td>30090</td>
<td>19733</td>
</tr>
<tr>
<td>2011</td>
<td>148%</td>
<td>7%</td>
<td>40395</td>
<td>25770</td>
<td>14625</td>
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<tr>
<td>2012</td>
<td>132%</td>
<td>28%</td>
<td>57398</td>
<td>42370</td>
<td>15028</td>
</tr>
</tbody>
</table>

*Payette Apr-Jul volume at Horseshoe Bend '81-'10

** TC = Target Control

*** DRI Trace chemistry average benefit Seeding Summary All Years_12.xlsx
2012/2013 Operations

• Payette
  – 16 Storms have been seeded so far.
    • Aircraft has only been used for 10.3 seed hours
    • Ground generators have been used for 913.6 hours or an average of 54 hrs/gen.

• Upper Snake
  – 12 storms have been seeded so far.
    • Ground generators have been used for 742.2 hours or an average of 39 hrs/gen.
Benefit Estimation
Payette and Upper Snake

- To estimate project benefits in terms of runoff, IPC has used:

1. USBR Run-off regression equations
2. Watershed modeling using IPCRFS forecasting model
USBR Regression Payette

- USBR Equations use precipitation and SWE to predict runoff at specific locations.
- Target control analysis indicates precipitation increases ranging from 5% to 28% (average of 15.8%).
- A precipitation increase of 15.8% from cloud seeding results in an average of approximately 212 KAF of additional April – July runoff at Horseshoe Bend.
Streamflow Modeling
IPCRFS

- Additional runoff estimated using IPC’s river forecast system.
- Model uses mean aerial temperature and precipitation (MAT & MAP) by elevation
- Without seeding – adjusted MAP down by amounts indicated by target-control analysis (observed data includes seeding)
- With seeding – used MAP based on observed data (‘03–’12)
- Streamflow increase approximately 273 KAF / year

Cost: less than $5.00/AF
Upper Snake Benefits
Integrated Resource Plan

Precipitation & SWE Increase:
• 0.5% Salt and Wyoming
• 2.5% Henry’s Fork and Upper Snake
• Represents partial build-out

Run-off:
124 KAF (Avg of 1928-2009, SRPM)
Upper Snake Benefits
IPCRFS

Precipitation increase of:
• 2% Salt and Wyoming
• 4.5% Henry’s Fork and Upper Snake
• Represents current project

Run-off:
184 KAF (2012 only)

At build-out:
• 10% Salt and Wyoming
• 5% Henry’s Fork and Upper Snake
410 KAF/year
Upper Snake Benefits
USBR Regression Equations

Precipitation & SWE Increase:
• 2% Salt and Wyoming
• 4.5% Henry’s Fork and Upper Snake
• Represents Current Project

Run-off (April – July):
• Island Park 6 KAF
• Jackson 34 KAF
• Teton 17 KAF
• Heise 134 KAF
**Total 191 KAF**

At build-out:
• 10% Salt and Wyoming
• 5% Henry’s Fork and Upper Snake
**280 KAF/year**
Presentation Overview

- What is cloud seeding?
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  - WY program
How do IPC’s Remote Generators Compare?

• No active cloud chamber to test particle distribution in a controlled setting.
• Testing was conducted by Weather Modification Inc., Fargo, ND using an alternate method of testing.
• Conclusions
  – Generator Rapidly produced ice nuclei that produced ice in the acoustic ice nucleus counter’s cloud chamber.
  – Used a solution that produces ice at a much warmer temperature than the old standard solution.
  – Ice Nuclei counts were similar to those of an older generator that was tested in a controlled setting.
High Resolution Modeling (NCAR)

- Idaho Power has contracted the National Center for Atmospheric Research (NCAR) to develop a high resolution Weather Research and Forecasting (WRF) model of southern Idaho.
  - The model simulates temperature, precipitation, wind, and cloud seeding.
  - IPC will use the model for:
    - Operations guidance (forecasting and predicting seedable storms)
    - Program design (where to place generators or aircraft)
    - Program evaluation (seed/no-seed precipitation amounts)
  - Model Verification
    - High resolution precipitation gauges
      - Measure precipitation (rain or snow) to hundredth of an inch. (SNOTEL data measures to a tenth of an inch)
      - Gauges placed both within and outside of the target area
    - Radiometer
    - Rawinsonde
Wyoming Weather Modification Pilot Program
Wyoming Weather Modification

Pilot Program Target Areas

- Wind River Range
- Sierra Madre
- Medicine Bow
Operations …

- Weather Modification, Inc.
  - Fargo, ND
  - Heritage Environmental, Denver, CO

Research & Evaluation …

- National Center for Atmospheric Research – Boulder, CO
- Desert Research Institute, Reno, NV
Model helps forecasters know when the seeding criteria is met (to exist in both ranges)

1. Temperature favorable for AgI nuclei to be effective (≤ -8°C at 700 mb). Requires observations from radiosonde or high-elevation surface stations.

2. Winds favorable for generators to affect target areas (wind direction 210° to 315° at 700 mb from sounding, or trajectory calculations from WRF-RTFDDA)

3. Presence of SLW (realtime observation from microwave radiometer, WRF-RTFDDA cloud water indications, cloud observations: visual or satellite-derived)
   • No suspension criteria in effect.
Experimental design peer-reviewed & implemented

26 ground-based generators and a suite of scientific equipment has been deployed across three target areas.

Real-time numerical modeling, soundings & radiometer data to guide operations & case selection

The current study is continuing to collect “case data” under the randomized statistical experiment portion of the study.

A hydrologic analysis is being conducted to quantify potential streamflow changes resulting from weather modification activities.

“Piggyback” research conducted by UW is furthering the evaluation of the pilot program with preliminary data indicating higher precipitation rates over the target area when seeding is occurring.

The 2012 Wyoming Legislature approved the final funding necessary to achieve scientifically credible results after two more winter seasons.
Questions?

Shaun Parkinson
sparkinson@idahopower.com

Derek Blestrud
dblestrud@idahopower.com
This memo provides an update on the various activities concerning the Pristine Springs Facility.

1) **College of Southern Idaho** – Discussions with CSI continue. On February 8th Vince Alberdi and staff led a tour of the facility for the CSI Board of Trustees. On March 11, Vince Alberdi and Brian Patton will meet with the CSI Board of Trustees to continue the discussion. An updated report will be provided at the IWRB meeting.

2) **Facility Operations** – As you know, Seapac has terminated their lease at Pristine Springs and will be vacating the facility on March 31. We are making arrangements to operate and maintain the facility after this date. The immediate concern is hydropower plants. We are entering into a contract with a firm in that area that maintains many of the small hydro’s in the area to provide O&M for the plants. There will be no fish production in the near term. Depending on the outcome of discussions with CSI and the length of time the facility sits without a tenant, we may need to make arrangements for maintenance of the raceways, buildings, irrigation, etc.

3) **Pipeline** – As a result of pipeline deterioration and leaks, the IWRB participated in the assessment of the Blue Lakes Pipeline with the Ground Water Districts that now own the Blue Lakes Trout Farm. The pipeline is wholly owned by the Blue Lakes Trout Farm, and the IWRB has no legal responsibility for the pipeline, but the IWRB’s 15 cfs of “fresh water” is delivered to Pristine Springs through the pipeline. In addition the IWRB’s 150 cfs (+/-) of “re-use water” coming from the Blue Lakes Trout Farm also depends on the pipeline. The Ground Water Districts have made the decision to move forward with the replacement of the pipeline. They have entered into a design agreement with MWH Engineers. The Ground Water Districts have asked the IWRB to determine if it intends to participate in the pipeline replacement, and the extent of the participation.
Treasure Valley Technical Studies

Presented by Craig Tesch
March 21, 2013
Aquifer Planning and Management

- House Bills No. 428 and 644 → Aquifer Planning and Management Program in 2008
  - Funding for technical studies, facilitation services, hydrologic monitoring, measurement and comprehensive plan development
Purpose

• Provide reliable sources of water, projecting 50 years into the future for selected basins
• Avoid conflicts over water resources
  – Population growth
  – Currently, large water rights sought for proposed housing developments in North Ada and East Ada
Treasure Valley Water Resources

- Overall water supply is ample
  - Primary source is Boise River, 1.1 million acre-ft/yr leaves basin

- Issues are **timing** and **distribution** of water supplies
  - Surface water (6% of DCMI uses, 97% of water for irrigated ag.)
    - Supply greatest during snowmelt period
    - Availability at other times controlled by reservoir system capacity
    - Limited surface water in East Ada → limited aquifer recharge
  - Groundwater (94% of DCMI uses, 3% of water for irrigated ag.)
    - Domestic supplies above Star primarily from shallow aquifer system
    - Municipal supplies above Star from deeper aquifers
    - Localized areas of water level decline (e.g., SE Boise, south of L. Lowell)
TV Water Resources (cont’d)

• Hydrogeology is complex
  – Layer upon layer of sand, silt, and clay deposited by repeated filling and draining of Lake Idaho
  – Sand layers = aquifers (discontinuous and of variable thickness)
  – Fault zones along basin margin

• Groundwater modeling is difficult
Treasure Valley Technical Studies

- North Ada hydrogeologic investigation
  - Dennis Owsley, P.G.
  - 103 cfs active applications/transfers (approx. 24k housing units)

- East Ada hydrogeologic investigation
  - Craig Tesch, P.G.
  - 85 cfs active, 96 cfs removed (approx. 20k housing units)

- Update of TVHP groundwater model
  - Jennifer Sukow, P.E., P.G.
IDWR Monitoring

• North Ada
  – Quarterly monitoring of 90 wells (22 w/ transducers)
  – 2 streams, 4 drains

• East Ada
  – Quarterly monitoring of 25 wells (9 w/ transducers) + 24 wells in SE Boise GWMA (9 w/ transducers) + 27 wells in Mountain Home GWMA (8 w/ transducers)
  – 3 streams
Contracts Overview

• Treasure Valley modeling needs assessment (WWC)
  – Review existing aquifer models and make recommendations

• Surface and subsurface geologic mapping (Idaho Geological Survey)
  – Hydrogeologic report and geologic map complete

• Surface geophysics (CGISS @ BSU)
  – Seismic reflection, gravity, and magnetic surveys → hydrostratigraphy and aquifer boundaries
Contracts Overview (cont’d)

• Geochemistry (USGS) → aquifer recharge
  – Baseline ground water quality + geochemical flow path modeling
  – Age dating

• Seepage studies (USGS)
  – Boise River and Indian Creek Reservoir

• Streamflow gaging (USGS)
  – North Ada: Dry Creek, Spring Valley Creek, & Eagle Drain
  – East Ada: Indian Creek, Bowns Creek, & Blacks Creek
Contracts Overview (cont’d)

- Monitor well drilling + borehole geophysics
  - Six wells drilled in North Ada
  - Three wells drilled in East Ada

- Installation of water level monitoring ports

- Database development
Figure 14. (left) Elevation profile, unmigrated seismic reflection profile, and interpreted, migrated, and depth converted seismic image for the Johnson/BLM profile, Elmore County. Note that a change in water table topography also matches offset dipping reflectors below. (below) Seismic profile processed to highlight the water table reflector. Note the flat-lying water table reflector along the northern portions of the profile and south-dipping water table reflector along the southern portion of the profile. Seismic station number locations are shown on Figure 11.
North Ada County Monitoring Well #5
T. 5 N., R. 1 E., Section 29

Water Chemistry

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Shallow</th>
<th>Deep</th>
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<tr>
<td>Alkalinity as CaCO3</td>
<td>202</td>
<td>194</td>
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<tr>
<td>Ammonia</td>
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<td>Arsenic</td>
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<td>Calcium as CaCO3</td>
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<tr>
<td>Chloride</td>
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<td>Conductivity (μS/cm)</td>
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<td>Fluoride</td>
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<td>Hardness</td>
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<td>190</td>
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<td>Iron</td>
<td>0.052</td>
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<td>Magnesium</td>
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<td>Manganese (dissolved)</td>
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<td>Sodium</td>
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<td>Total Dissolved Solids</td>
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<td>Total Kjeldahl Nitrogen</td>
<td>0.14</td>
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<tr>
<td>Total Organic Carbon</td>
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<td>0.69</td>
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<td>Field Temperature (C)</td>
<td>14.1</td>
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<tr>
<td>Field Conductivity (μS/cm)</td>
<td>461</td>
<td>467</td>
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<tr>
<td>Field pH (SU)</td>
<td>7.62</td>
<td>7.16</td>
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Borehole Geophysics

Lithologic Description

Ground Surface (2715’ amsl)
- Bentonite chips [5-40] (700 lbs.)
- ⅞’ Steel casing [Surface=40’]
- 4” Schedule 80 PVC casing [Surface=380’]
- Bentonite/mortar grout seal
- Pumped through a flexible pipe from the bottom up and tagged to verify placement (surface=370’) (60 cu. ft.)
- Colorado-silica sand (8 X 12) [175-442] (21 cu. ft)
- 4” Schedule 80 PVC screen (0.02” slot size) [370-400’]

Lithology based on drill cutting analysis conducted by IDWR

- Backfilled borehole with bentonite chips [410-490] (4,050 lbs.)
- Backfilled borehole with bentonite chips [10-370’]
- Existing domestic well “Shallow well” Total Depth = 237” Screen = 226-228”
- Bent onite/mortar grout seal
- Pumped through a flexible pipe from the bottom up and tagged to verify placement (surface=370’) (60 cu. ft.)
- Colorado-silica sand (8 X 12) [175-442] (21 cu. ft)
- 4” Schedule 80 PVC screen (0.02” slot size) [370-400’]

As-Built Well Construction

Well drilling and construction by Down Right Drilling and Pump Company, Caldwell, Idaho

Analysis by Idaho Bureau of Laboratories, Boise, Idaho and Analytical Laboratories, Boise, Idaho
Samples collected by IDWR on 3/1/2011
Preliminary Hydrogeologic Analysis of the Mayfield Area, Ada and Elmore Counties, Idaho

John A. Velhan

EXECUTIVE SUMMARY

The East Ada ground water system is recharged by three sources: (i) infiltration of seasonally warmed surface water into shallow aquifers near local streams, (ii) meteoric recharge into both the perched and deep aquifers derived from local watersheds, and (iii) a deep source of geothermally heated water rising along faults of the Boise Front.

Meteorically recharged ground water in the study area reflects local mean annual air temperature 50-54 °F (10-12 °C). However, drillers report temperatures up to 96 °F (35.5 °C) and two-thirds of wells are in the 66-71 °F (19-22 °C) range. The presence of widespread elevated water temperatures across this part of the WSRP indicates that mixing of meteoric recharge and geothermally heated water (not conductive heat flow) accounts for elevated temperatures in wells deeper than 200 feet. Systematic seasonal and pumping-induced temperature fluctuations of up to 4 °F in the Danskin and Stage Stop deep wells indicate that both natural seasonal factors and pumping-induced hydraulic stresses can affect mixing proportions and temperatures in the East Ada deep aquifer.

The elemental composition and ionic proportions in East Ada well water suggest that geothermal recharge originates from the same source that supplies the Boise geothermal system and the hot springs of the Idaho Batholith. This end member has a surface temperature of 60-90 °C and is characterized by elevated fluoride, lithium and boron concentrations derived from deep circulation through felsic rocks under an elevated geothermal gradient. Assuming that the temperature of the thermal end member is similar to hot springs in the Idaho Batholith and wells in the Downtown area (160 °F 34.5 °C), factors affecting water temperature include...
NAC/EAC Technical Advisory Committee

- Patterned after ESHMC
  - Vehicle for stakeholder input/collaboration
  - Transparency

- ~ Quarterly meetings since April, 2007

- Consultants, state and federal agencies, U of I and BSU researchers, United Water Idaho, groundwater users

- Plan technical studies and present and discuss findings
Treasure Valley Groundwater Model
Technical Advisory Committee

- Patterned after ESHMC
  - Vehicle for stakeholder input/collaboration
  - Transparency

- Consultants, state and federal agencies, U of I and BSU researchers, United Water Idaho, groundwater users

- ~ Quarterly meetings since November 2012

- Plan modeling efforts and present and discuss findings
TVHP Model Update

- In accordance with Western Water recommendations, decided to piggyback on USBR/IWRRI efforts and update TVHP model to a transient version
  - USBR, IWRRI, and IDWR collaborating for ~ 2 yrs
  - IDWR now has the USBR/IWRRI transient model

- Attributes
  - 4 layers
  - Monthly stress periods
  - Transient water budget from 2008 Boise Valley Water-Use Planning Study (USBR and IDWR)
  - IDWR prepared model grid & water budget for expansion areas
TVHP Boundary
TV CAMP Boundary

- Treasure Valley CAMP Boundary
- Counties
- Incorporated (2000)
- Proposed Developments
Domain of Updated Model
TVHP Model Update (Cont’d)

• Advantages of teaming w/ USBR and IWRRI:
  – Save $
  – Save time → initial, research version of model in 2011

• Cautions
  – Adequacy of initial model needs to be evaluated by IDWR staff and the Technical Advisory Committee
  – Significant model refinement & recalibration will be required
  – Likely will never be able to calibrate as well as ESPA or SVRP models
  – Collaborative model development (w/ stakeholder input) is long-term commitment
Future Work

- USGS geochemistry report
  - Age dating

- Comprehensive reports
  - Monitoring, contract work, etc.

- Treasure Valley groundwater modeling efforts
  - Model refinement and TAC

- Continued monitoring
  - Fill data gaps, refine water budgets, etc.
END
Lewiston Plateau Ground Water Issues

Kenneth W. Neely, Technical Hydrogeologist

March 21, 2013
Brief Historical Overview of the Lewiston Plateau Ground Water

1. Lewiston public supply wells beginning in 1953.

2. LOID wells beginning in 1978.

3. Two aquifer systems: Deep Regional and Shallow Local.


5. Nine of the 11 monitoring wells show declines ranging from 0.1 ft/year to 3.4 ft/yr. Average = 1.3 ft/yr.

6. IDWR proposes a significant enlargement of the ground water management area with a new name: Lewiston Plateau GWMA.
The Lewiston area is underlain by a number of basalt flows that range in thickness from less than 100 feet to more than 200 feet. Water producing zones dominantly are located along contacts between individual basalt flows.
Columbia River Basalt Group: Formations of Importance in the Lewiston Basin

(From Idaho Geological Survey)
Likely discharge area for the regional aquifer

Likely recharge area for the regional aquifer

Postulated recharge and discharge areas for the regional aquifer within the Grande Ronde Formation
Hydrograph for APUD Well #4

Water-level Elevation in feet

Jan-60  Jan-70  Jan-80  Jan-90  Jan-00  Jan-10
Columbia River Basalt Group: Formations of Importance in the Lewiston Basin

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<th>SERIES</th>
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<td>UPPER</td>
<td>SADDLE MOUNTAINS BASALT</td>
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<td>WANAPUM BASALT</td>
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<td>LOWER</td>
<td>GIRANDE RONDE BASALT</td>
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<td>IMNAHA BASALT</td>
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(From Idaho Geological Survey)

- Upper local aquifers
- Upper local aquifers
- Regional aquifer
Diagrammatic Cross Section of Lewiston Basin Aquifers
Well 11 - 35N 5W 25ADD1 (585 ft)
Well 9 - 35N 05W 23CAC1 (279 ft)

Water Level Elevation (feet above sea level)

Depth to Water (feet below LS)