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August 3, 2006

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KENT W FOSTER
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IDAHO FALLS, ID 83402-3304

BOB DUKE
WATERMASTER
WATER DISTRICT NO. 34
PO BOX 53
MACKAY, ID 83251-0053

RE: Additional Instructions to the Watermaster of WD34 – Big Lost River

Mr. Foster and Mr. Duke,

This letter responds to Mr. Foster's letter of July 19, 2006 commenting on the June 30, 2006 updates to the *Water District 34 Guidelines for Operation* (*guidelines*) Mr. Foster had asked that certain sentences be highlighted and that the storage rights for the Big Lost River Irrigation District (BLRID) be listed in order of priority. These changes, as well as additional text regarding administration of BLRID storage rights, and a supporting memorandum, have been incorporated in the *guidelines* and an updated version has been placed on IDWR's Internet site

Mr. Foster describes a concern (also raised in a June 13, 2006 letter) that the Watermaster delivered water as "free water" when it should have been diverted under the recharge permits Nick Miller had drafted a memorandum commenting on the reference in the June 13, 2006 letter, which also appears to apply to this reference. This memorandum is attached for your reference The additional instructions provided in the *guidelines* regarding administration of "free water" and the BLRID storage rights should clear up any misunderstandings. If additional questions remain on these issues, contact IDWR and additional guidance will be provided

Two other issues were raised in the July 19, 2006 letter. One is a request for a meeting soon after the close of the irrigation season to present the diversion records and measurement verification for this season. IDWR agrees and will work with the Watermaster to schedule that meeting. The other issue raised in the letter is a request for "hands-on training" by department staff. IDWR staff has provided such training to Bob Duke in the past, and has physically visited diversions with him as requested by Mr. Foster. IDWR feels that the issues identified over the past several months are primarily documentation issues and rule interpretation issues, rather than field-related issues. The steps IDWR has taken to date (such as providing additional clarification on rules, asking for more detailed records, providing spreadsheets to WD34 staff to assist in

record keeping, and updating the list of diversions that must be reported) will help address these issues and the field verification that IDWR has performed to date will contribute to increased confidence. That being said, IDWR is willing to provide additional training if users provide specific tasks and concepts in which they feel the Watermaster needs additional training.

Please review the attached documents and contact IDWR if you have any questions or comments.

Sincerely,

David R. Tuthill, Jr., P.E.
Water Management Division Administrator

Enclosures:
1) *Water District 34 Guidelines for Operation – Updated August 3, 2006*
2) *August 3, 2006 memorandum from Nick Miller, RE. Administration of Big Lost River Irrigation District Storage Rights*
3) June 29, 2006 memorandum from Nick Miller to Tim Luke, WD34 File. *RE "Free Water" and recharge references in Kent Foster's 6/13/06 letter*

cc:

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WATER DISTRICT 34 GUIDELINES FOR OPERATION

(Updated August 3, 2006)

Prepared by Idaho Department of Water Resources

Water Distribution Section

Boise, Idaho

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FIGURES

Figure 1. Big Lost Diversion and Flow Measurement Locations.
Figure 2. Water District 34 Ground Water Diversions.
Figure 3. Location of "A"-Line

APPENDIX

1.0 PURPOSE

This manual is being compiled and maintained by the Water Distribution Section of IDWR to establish standard procedures for operations in Water District 34 (WD 34) Need for the manual is justified by concern among WD 34 patrons about IDWR's level of over site in the district. Compiling and maintaining a central document with summary of, and reference to the numerous guidance letters, SRBA court documents, and WD 34 Rules is appropriate to consistently address the complexity of issues encountered in this district This document is intended to serve as the primary reference for water users and the Watermaster regarding operation of Water District 34.

2.0 SCOPE

- Procedures in this manual are to be used by the Watermaster, Advisory Committee, Water District patrons, and IDWR regional and state office staff.

- Content of this manual is taken from the Idaho Administrative Procedures Act (IDAPA) Water District 34 Rules (IDAPA 37 03.12), Idaho Code, IDWR Watermaster training workshops, IDWR standards, General Provisions 1-6 in the SRBA partial decree, and correspondence with WD 34 personnel/WD 34 patrons/IDWR staff regarding implementation of the aforementioned documents With the exception of the Idaho Code and IDWR Watermaster training workshop materials, all of these referenced documents are attached in the Appendix

- This manual is a "living document" It may be updated and revised to include more detailed procedures from the Rules, General Provisions, and guidance letters, as needed. Input from WD 34 personnel, WD 34 patrons, other involved parties, and IDWR staff will be used to initiate revisions. Revisions will include document format and organization, as well as content.

3.0 GENERAL WATER DISTRICT OPERATIONS

These procedures are established in accordance with the provisions of I C (Idaho Code) Title 42, particularly Chapter 6. Water Districts formed under I.C. Title 42 shall operate in the manner described below.

3.1 Water District Meeting

3.1.1 Hold at least once per year in accordance with I.C. Section 42-605

3 1 2 Set a budget with sufficient funds to provide for accomplishment of all minimum standards described herein. Establish assessments.

3.1.3 Establish resolutions necessary for conducting meetings, collecting assessments and delivering water within the Water District.

- 3.1.3.1 Watermaster shall serve all year.
- 3.1.3.2 Voting/Assessment procedures including those for purchasing and administrating mitigation storage water.
- 3.1.3 3 Water not to be delivered if assessment not paid.
- 3 1 3 4 Watermaster shall acquire and hold property for district.
- 3.1 3 5 Annual meeting dates and locations.
- 3.1.3.6 Method for choosing an Advisory Board.
- 3.1.3.7 Advisory Board functions (see Appendix materials for examples of resolutions defining Advisory Board duties).
- 3.1.3 8 Granting authority to Watermaster for appointing deputies, or other means for hiring

3.1.4 Select Advisory Board members as per resolutions.

3.1.5 Elect a Watermaster that can complete the tasks in §3.2

3.1.6 Conduct other business as needed - special problems, information updates, scheduling of next year's meeting, etc.

3.2 Watermaster Duties

3.2.1 Manage the Water District office, including preparation and maintenance of district budgets, preparation and collection of assessments, and to hire, train and supervise all employees of the Water District.

3.2.1.1 Perform immediate oversight/supervision of Big Lost Irrigation District personnel also deputized by Water District to be certain of proper delivery of natural flow water rights within irrigation district canals.

3.2.1.2 Periodically verify reported diversion rates. The Watermaster will personally visit each point of measurement in the district (both above and below the reservoir) at least once a month and maintain a spreadsheet of his measurements and corresponding measurements submitted by his assistants. He should compare his measurements with those submitted to him by his assistants and verify that the reported diversions are generally consistent with his own observations, recognizing that differences may be observed due to natural fluctuations in flow. Furthermore, the Watermaster should submit this spreadsheet to IDWR with the annual distribution report and as requested by IDWR staff.

3.2.2 Operate, or supervise the operation of, all office and field equipment utilized by the Water District.

3.2.3 Maintain detailed records of water district operations as specified in §3.4.

3.2.4 Analyze water measurement data, and apply the data to make water delivery determinations in accordance with Water District 34 Rules and I.C. Title 42.

3.2.5 Coordinate with IDWR in receipt and transmittal of all pertinent water right and water use data or information.

3.2.6 Investigate and stop illegal uses of water.

3.2.7 Distribute water to rights in accordance with I.C. Title 42, Water District 34 Rules, and using decrees, partial decrees, Director's Reports, permits, licenses and transfers.

3.2.8 Properly administer ground water diversions that are subject to mitigation requirements of Rule 50 (IDAPA 37.03.12.50).

3.2.8.1 Curtail ground water diversions that are not covered by a basin wide mitigation plan, stipulated agreement or an individual mitigation plan approved by IDWR.

3.2.9 Curtail illegal diversions.

3.2.9.1 Regulate water rights by both point of diversion and place of use.

3.2.9.2 Assist IDWR to issue and follow-up on Notices of Violation as required, and follow other curtailment provisions in accordance with I.C. Title 42 and Water District 34 Rules.

3.2.10 Curtail diversions for which assessments have not been paid in accordance with adopted resolutions

3.2.11 Prepare an annual report meeting I.C. Section 42-606 requirements and as described in §3.6.1.

3.2.12 Prepare a proposed budget for the upcoming year, including an annual work plan. This proposed budget report must be submitted to IDWR at least 30 days prior to the WD34 Annual Meeting and must be in a format acceptable to IDWR as described in §3.6.2.

3.2.13 Work longer hours during the irrigation season.

3.2.14 Maintain good working relationships with water users, advisory committee, and government agencies.

3.2.15 Provide an annual statement of Water District finances, and provide for independent financial audits of Water District finances in accordance with minimum requirements of I.C. Section 67-450B.

3.3 Acceptable Management

3.3.1 Informal agreement or arrangement is acceptable where all water users are satisfied with water delivery situation. Any method the Water District chooses to meet this goal is acceptable if all Water District patrons agree to it, and it follows existing state law (I.C. Titles 42 and 43 and Idaho Administrative Rules IDAPA 37.01 through 37.03).

3.3.2 The only water rights eligible for Watermaster delivery are those identified by a decree, license, or permit.

3.3.3 The proper list of deliverable rights will be supplied to the Watermaster by IDWR periodically, and upon request by the Watermaster.

3.3.4 Ideally, all diversions calling for Watermaster delivery of water during water shortage periods will have standard measuring devices and lockable diversion works - typically a screw-valve metal headgate at the creek and a weir in the ditch near the headgate to allow practical adjustment and measurement by Watermaster.

3.3.5 If measuring devices are installed for all diversions, the Watermaster delivers available water on priority basis, delivering the most senior right first, then the next senior right and so on until all available water is delivered. Junior diversions are shut off, unless senior rights are completely filled.

3.3.6 In the above scenario, the Watermaster records water deliveries, and then sums the total amount of water per right delivered to each individual user in one irrigation season. The total flows delivered form the basis for determining costs per water user for Water District expenses.

3.3.7 Without measuring devices the Watermaster uses recorded water rights as the basis for water-delivery billing purposes. An exception is in the case of ground

water wells where power records are used to estimate annual volumes The Watermaster makes his or her best effort to see that each water user receives a fair share of water based on priority dates This is acceptable as long as all water users are satisfied.

3.4 Diversion Measurements

3.4.1 *Frequency*. Each surface water diversion from the Big Lost River and tributaries will be measured at least once a week, but preferably twice per week. At times where flows are changing, the Watermaster may elect to measure some diversions more frequently. Where practical, gage readings should be recorded daily for all established diversions in WD34. In remote locations, such as Antelope and Alder Creeks, and Big Lost River and tributaries above Mackay reservoir, diversions may remain nearly constant for several days in a row In these cases, daily visits aren't necessary by the Watermaster to record gage readings Diversion can be interpolated from readings for the days in between.

3.4.2 *Method*. Most diversions are equipped with a measuring device. The devices should be used if present and in a functioning condition If the diversion lacks a measuring device, or if the device is not functioning or not properly calibrated, an alternative method should be employed and the records should indicate how the measurement was made.

3.5 Record Keeping

3.5.1 Current water rights lists. The Watermaster will deliver water in accordance with the most current list of water rights provided by IDWR. At the time of this writing, the most current list was provided in June 2006. Updated lists will be made available upon request.

3.5.2 Calls for Water. The Watermaster will maintain a record of calls for water This record will be in the form of a spreadsheet listing all WD34 water right holders and noting the dates each user called for their water and the dates each user called their water off.

3.5.3 Priority dates. The Watermaster will keep a daily record of the priority date above the reservoir, below the reservoir, and on Antelope Creek if a futile call determination has been made. The daily record will also note whether the river is connected or disconnected, as described in General Provision 6, and any futile call determinations that have been made. The Watermaster will keep records of calculations used to determine priority dates.

3.5.4 **Canal Headings. The Watermaster will submit daily diversion rates at each of the canal headings to IDWR via the IDWR Internet application.**

3.5.5 Field Records. The Watermaster will keep a complete file of original field documents made by his assistants. These original documents will serve as verification of the records submitted to IDWR. The field records will clearly indicate the priority date in effect each day, the total canal heading, and the amount of flow being diverted for each user on the canal (including recharge).

3.5.6 Additional Records. The Watermaster will maintain any additional records required for administration of water rights. Examples include records of winter stock water deliveries, and records of water deliveries on Alder Creek per: *Guidance for Distribution of Alder Creek Water Rights and Flows, Water District 34 (6/11/1999) Paragraph* 1.C.2.E. – "*Record Keeping Procedures".*

3.5.7 Rotation Credit. The Watermaster will maintain daily records of which water rights are being rotated into storage and will document all requests to rotate into storage.

3.5.8 Oversight records The Watermaster will maintain records of the measurement verifications described in §3.2.1.2

3.5.9 Ground water Records The Watermaster will maintain records of ground water withdrawal measurements where available, and records of PCC examinations, where applicable.

3.6 Reporting Requirements

3.6.1 Distribution Report (Watermaster's Report). The annual Watermaster's report will contain the following information in a format acceptable to IDWR:

- Summary discussion of the irrigation year and notable events Summary should include delivery statistics, such as total water delivered, total ground water, total surface water, and should note any out of priority or excessive diversions.
- Summary Table listing all water right holders in the district, and listing for each user: total water delivered for the year, total ground water deliveries for the year, total surface water delivered for the year, number of days the user had called for water, the proposed assessment to be levied for the year and any previous years used to calculate voting rights and assessments.
- Summary Table listing each day of the year and noting for each day whether the river was connected or disconnected, and what priority date was in effect above and below the reservoir. Also note on the table the dates of any futile calls, the date the reservoir filled, periods when recharge was occurring, and any other notable events.
- Recharge Summary Report. Summary table listing each point of diversion used for recharge and providing monthly and annual totals by diversion and in total.
- Oversight Summary table listing the Watermaster's verification measurements of his assistants' reported diversions. Any significant discrepancies should be noted.
- Supporting data. Printouts of diversion, stream gage and reservoir contents summaries from the IDWR database. Include any additional stream measurements made during the course of the year.

3.6.2 Proposed Budget Report. The proposed budget report must be submitted to IDWR at least 30 days prior to the annual meeting, and must contain the following information in a format acceptable to IDWR:

- Summary Table listing all water right holders in the district, and listing total water delivered for the year, and any previous years used to calculate the average deliveries, the proposed total budget amount, the proposed cost factor, each user's portion of the proposed budget amount, any debits and credits, and the proposed billing for each user.

3.6.3 Adopted Budget and Annual Meeting Minutes. Following the Annual Meeting, the water district will submit to IDWR a certified Adopted Budget form and a copy of the minutes of the Annual Meeting listing any resolutions that were passed.

3.6.4 Recharge Report. *The Plan of Operation for Basin 34 Recharge* specifies that an annual report of recharge diversions is to be submitted to the recharge committee and IDWR. In addition, the Watermaster will provide daily records of recharge deliveries to the recharge committee or IDWR upon request.

4.0 WATER DELIVERY PROBLEMS

4.1 Water District Involvement First

Refer all water delivery problems to the Watermaster to see if they can be successfully resolved locally to everyone's satisfaction. Water users and/or the Watermaster can call on the Advisory Committee for help. Rule 40.08b provides this protocol:

4.1.1 In the event a water user feels inappropriate delivery of natural flow water is occurring on any lateral or canal, the water user can request the Watermaster to investigate. In the event the Watermaster determines that delivery of natural flow water rights within a lateral or canal is being improperly conducted he shall:

- Notify the ditch rider and the water delivery entity of the results of his investigation and coordinate efforts to make proper delivery of the natural flow.

- If the situation has not been sufficiently resolved within twenty-four (24) hours the *Watermaster* will notify the Director who may take all actions authorized by law to remedy the situation [emphasis added].

4.1.1.1 Some past IDWR experiences with inappropriate delivery problems in Basin 34 involved the water user contacting IDWR directly, rather than the Watermaster, contrary to the protocol in Rule 40.08 b. In the event a water user contacts IDWR about inappropriate delivery, IDWR will refer them to the Watermaster to initiate contact with IDWR, in compliance with Rule 40.08 b.

4.1.1.2 If the Watermaster does not contact IDWR within 24 hours as considered in Rule 40.08 b, and the water user is still needing a problem resolved, the water user should initially confer with the Advisory Committee to obtain the cooperation of the Watermaster.

4.1.1.3 If the advisory committee is unable to initiate compliance by the Watermaster to Rule 40.08 b, the aggrieved water user could then submit a written petition to IDWR describing the unresolved situation and requesting the Director's intervention. The written petition should clearly define what title and section of Idaho Code, WD 34 Rules, or General Provision of the SRBA partial decree is not being adhered to, and explicitly describe the situation to which the problem applies.

- Taking the step of submitting a written petition likely will result in a much more formal investigative and mandating process than is described in 4.2 through 4.4.

- The level of response to a written petition resulting from lack of response by the Watermaster and Advisory Board to a water delivery problem will be determined on a case-by-case basis.

4.2 IDWR Involvement Second

Upon notification to IDWR by the Watermaster of an unresolved problem, IDWR will make a site assessment with the Watermaster, Advisory Committee (as needed), and the water users to see what is needed to correct the problem.

4.2.1 IDWR Solutions

4.2.1.1 Step 1 - The first time a problem is brought to IDWR's attention, IDWR will try to identify a local solution requiring minimal disruption to normal operations, and help the Watermaster and water users implement this.

4.2.1.2 Step 2 - if Step 1 is not useful, in some particular cases IDWR will host a mediation effort provided that all involved parties are willing to attend the mediation and abide by the outcome of the mediation. There is no

guarantee that this will work but past experience has shown that it is worth trying this option. IDWR will determine on a case by case basis whether or not this step is used

4.2.1.3 Step 3 - If Steps 1 and/or 2 fail and problems persist; a more formal process will be used. This involves IDWR issuing guidance or direction to the Watermaster as is allowed under I.C. Titles 42 and 43

5.0 WINTER OPERATIONS

5.1 Stockwater delivery, extended season requests.

5.1.1 Administer winter stockwater as per the direction given in General Provision 2, and per addition instructions provided by IDWR (attached letter of November 17, 2003).

5.1.2 Stockwater is allowed for winter diversion at the rate listed in the decree. If water is conveyed to the place of use through a private ditch, and the legal point of diversion is at the heading of the private ditch, additional flow, up to the full irrigation right, may be allowed to convey stockwater from point of diversion to the place of use if, as determined by the Director, water is not being wasted in the process. Guidance on this issue was provided in the attached memo by Susan Hamlin, Deputy Attorney General for IDWR, dated October 15, 2003

5.1.3 Accounting for water is to be done with stockwater deliveries in winter (per rule 60: Water diversions shall be accounted for continuously, throughout the year by the Watermaster).

5.1.4 Extended-season requests should be handled as per instructions provided by IDWR (see attached phone conversation record of October 9, 2003).

6.0 SPECIAL INSTRUCTIONS FOR ADMINISTRATING DIVERSIONS

6.1 Above the Reservoir

6.1.1 Nielson Ditch and Fish Hatchery Canal with Supplemental Wells

- Measure Reno/Unger wells along Warm Springs Creek and Upper Fish Hatchery Canal in accordance with IDWR instructions (in attached letter of March 9, 2004).
- Measure and regulate Warm Springs Creek/Nielsen Ditch in accordance with IDWR instructions (attached letters of May 1, 2003 and February 13, 2003).

6.1.2 Back Channel Regulation

- The Back Channel is described in General Provision 1.d (GP-1.d)
- Back Channel regulation shall be as described in Rule 20.03, and as described in General Provision 3 (GP-3), with GP-3 prevailing when conflicting with Rule 20.03 (see 2nd to last paragraph of March 23, 2004 memorandum, attached).

6.2 Below the Reservoir

6.2.1 Alder Creek

- Deliver water on Alder Creek in accordance with 6/11/1999 guidance document -*Guidance for Distribution of Alder Creek Water Rights and Flows, Water District 34*.
- Record water deliveries per: *Guidance for Distribution of Alder Creek Water Rights and Flows, Water District 34 (6/11/1999) Paragraph* 1.C.2.E. – "Record Keeping Procedures"

6.3 Pertinent Enforcement Orders

6.3.1 Inspect diversions located in the sub-basin areas identified by the following listing of Administrative Orders for compliance, and keep daily records, if practical, of the measured flows at all diversions covered under these orders

4/28/2000 Order	In the Matter Requiring Measuring Devices and Controlling Works on Warm Springs Creek and Tributaries
10/11/2001 Order	In the Matter Requiring Measuring Devices and Controlling Works on Ground Water Diversion Discharging to the Timberdome Canal
12/4/2001 Order	In the Matter of Requiring Measuring Devices and Controlling Works on the Big Lost River Above Mackay Reservoir
2004 Order	Installation of controlling works and measuring devices on Antelope Creek.

7.0 SURFACE WATER ADMINISTRATION

7.1 Connected River Determination

Determine state of river connectivity as described in General Provision 6 (GP-6) and Rule 20.01, with elaboration on implementation of GP-6 in June 15, 2001 Letter from D. Tuthill (attached). When Rule 20.01 conflicts with GP-6, GP-6 is used.

7.1.1 If diversions are made from the Big Lost River or its tributaries above the Howell Gage, then the amounts diverted will be added to the amount of the flow at the Howell Gage for the purposes of determining the connectivity of the river (paraphrased from Rule 20.01).

7.1.2 Surface water rights diverted from Warm Springs Creek, Pole Stackyard Creek, Parsons Creek, and the Big Lost River above Mackay Reservoir will be administered separately from those diverted below Mackay Reservoir from the beginning of the irrigation season until the maximum flow at the Howell gage has exceeded 750 cfs for three consecutive days. This is the "connected river" condition.

7.1.2.1 To determine the maximum flow, the 15-minute gage readings and flow measurements reported via the USGS Internet site are used. When the 15-minute flow, adjusted by adding flows identified in 7.1.1, exceeds 750 cfs one or more times each day, for three days in a row, with a day starting at midnight, then the river is connected.

7.1.3 After the river is connected, surface water rights diverted above and below the reservoir will be administered conjunctively until the minimum flow at the

Howell gage is less than 450 cfs for three consecutive days. After this, the river is again administered separately as described in 7.1.2.

7.1.3.1 The minimum flow is determined by observing the 15-minute flows reported by the USGS, taking midnight as the start of a day. When the 15-minute flow, adjusted by adding the flow identified in 7.1.1, drops below 450 cfs one or more times for three consecutive 24-hour periods, each period starting at midnight, the river is "broken", or disconnected.

7.1.4 In most irrigation seasons, the river will only connect and disconnect once. Connection will occur during the rising stage of peak runoff of snowmelt, and disconnection occurs during the falling stage of peak snowmelt runoff. Two snowmelt peaks have occurred historically, thus the possibility of two periods of conjunctive administration of the entire Big Lost River system exist (see attached letter of June 15, 2001 from D. Tuthill).

7.2 Surface Water Administered Separately

7.2.1 General Provision 5 and Rule 20.02 list tributary streams to the Big Lost River and water right numbers that are administered separately from the Big Lost River. These water rights listed in General Provision 5 and Rule 20.02 are not regulated by the priority date determined for the Big Lost River. When Rule 20.02 conflicts with GP-5, GP-5 is used.

7.3 Big Lost Irrigation District (BLID) Storage Rights

RIGHT NO.	PRIORITY	QUANTITY	PERIOD OF USE	REMARKS
34-00818	06/30/1880	3.2 CFS/556.5AF	05-01 10-15	
34-00811	06/30/1881	1.7 CFS/294 AF	05-01 10-15	
34-00810	06/01/1888	3.2 CFS/556.5AF	05-01 10-15	
34-10935	06/01/1896	6.4 CFS/1113 AF	05-01 10-15	
34-00817B	03/01/1902	0.8 CFS/140 AF	05-01 10-15	
34-00013	07/31/1905	100CFS	05-01 10-15	Antelope Cr Exchange w/ 3 in 1
34-10873	10/02/1905	20646 AF	01-01 12-31	Additional Vol. Allowed
34-00012	02/07/1916	17205 AF	01-01 12-31	Additional Vol. Allowed
34-02507	09/02/1959	6000 AF	01-01 12-31	Additional Vol. Allowed

7.3.1 See the attached August 2, 2006 memorandum *Re: Administration of Big Lost River Irrigation District Storage Rights*. For additional discussion.

7.3.2 Stored water accrues first against the volume limits of the in season water right with the earliest priority date. Reservoir carryover accrues against the annual volume limit. Carryover and any storage that accrues prior to May 1st fills 34-10873 first (20646 af), then fills 34-0012 (17205 af), then 34-2507 (6000 af). Any storage accrued after April 30th accrues against 34-818 first until it fills (556.5 af), then accrues toward 34-811, and so on. Storage that accrues after October 15th fills any remaining volume of 34-10873, 34-12, and 34-2507 that was not filled before or during the irrigation season. If the annual volume limit

has been met, additional water may be stored under these rights as long as all other rights that are in season, regardless of priority, are being filled.

~~7.3.1~~7.3.3 During the non-irrigation season, storage rights are superior to winter stockwater (Rule 55.06). During the non-irrigation season, from October 16 through April 30, except as modified by Rule 040.04 that extends the season from April 20 to as late as October 31, the storage of water in Mackay Reservoir is superior to all rights from the Big Lost River with points of diversion downstream from Mackay Dam, subject to the minimum release of 50 cfs required by Rule 040.07.

~~7.3.2~~7.3.4 If after the start of the irrigation season the reservoir is not full, storage rights are filled in priority. After the irrigation season has started (after April 30, or Rule 40.04 April 20), and the river is not connected (GP-6a or 6b in effect), the continued filling of the reservoir storage is according to priority date of the river segment below the Reservoir.

~~7.3.3~~7.3.5 Junior rights above the reservoir are curtailed when the river is not connected per GP 6a or 6b and a call is made by BLID for storage. Also, users below the reservoir cannot make a call on the BLID storage water made available by the curtailment of users above the reservoir when the river is not connected per GP 6a or 6b (attached letter of May 19, 2003 from J. Berkey).

~~7.3.4~~7.3.6 As per General Provision 6c (GP-6c), when Mackay Reservoir is not full, calls can be made on upstream diversions, in priority, to make water available for storage. Measurements of flow are made at the Pence and Donahue bridges to determine the amount of water made available by curtailment of upstream diversions through a reservoir storage right call. The water made available through such curtailment is only available to the reservoir storage rights, and not downstream users, i.e. it is not considered as inflow to the reservoir or as natural flow (attached memorandum of March 23, 2004 from D. Tuthill, Bullet 2).

~~7.3.4.1~~7.3.6.1 Current metering equipment is needed to make measurements, and to develop a rating at both Pence and Donahue bridge sites. Staff gages have been installed at both these sites. Presently, the Water District does not own current metering equipment. As a courtesy, IDWR will do current metering if time and resources permit, unless the Watermaster purchases current metering equipment and does the measuring, or contracts with others.

7.4 Accrual of Natural Flow Rights as Storage in Mackay Reservoir (Rotation Credit)

7.4.1 Rotation credit is allowed as per GP-3. GP-3 supercedes Rule 40.02 when in conflict.

7.4.2 Rotation credit storage is allowed until the reservoir fills (Rule 40.02 f). If 1905 and junior rights are on after the reservoir fills, all rotation storage credit becomes property of BLID. If rights junior to 1905 are off, then rotation credit storage remains property of the individual users.

7.4.2.1 Clarifications and interpretations for implementation:

- Rotation is not allowed when the River is connected and rights junior to 10/1/1936 above the reservoir are being curtailed. Rotation is allowed when the river is disconnected (see attached letter of June 4, 2001 from D. Tuthill, and the attached June 30, 2006 memorandum from Dave Tuthill).
- Rotation into storage is allowed before river connection (GP-6a) and after river connection (GP-6b), and delivery of this rotated storage can occur any time during the irrigation season (attached letter of May 16, 2002 from D. Tuthill).
- Delivery calls on the rotation credit storage of 3500 AF river charge water (37.03.12.040.02.d.iii) are not allowed (attached memorandum of March 23, 2004 from D. Tuthill, Bullet 3)
- Losses are assigned proportionally according to the amount of BLID storage and the portion up to the total 3500 AF amount stored (attached letter of April 30, 2004 to Bob Duke from J. Berkey, Item 2.).

7.5 River Reaches and Gage Sites

7.5.1 The Big Lost River is divided into reaches for determining losses (shrink), river gains, and calculating and accounting for natural flow. These reaches are specified in Rule 25.01 to be:

1. Above Howell Gage.
2. Howell Gage to Chilly Bridge
3. Chilly Bridge to the 2-B Gage.
4. 2-B Gage to Leslie Gage
5. Leslie Gage to Moore diversion
6. Moore diversion to Arco diversion
7. Below Arco diversion to the Arco Gage.

7.5.1.1 Currently reach 2 (Howell Gage to Chilly Bridge) is not used, thus Reach 2 is Howell Gage to the 2-B gage. The Water District should work towards establishing the Chilly Bridge Gage site.

7.5.2 Gage station and flow measuring facilities are described in Rule 25.03. A gage station or other flow measuring facility as approved by the Director, shall be located at the Howell Gage, Chilly Bridge, 2-B Gage, Leslie Gage, Moore diversion, Arco diversion, and Arco Gage (see Figure 1).

7.5.2.1 The Howell, 2-B and Arco Gages are maintained as part of a USGS and state of Idaho cooperative program.

7.5.2.2 All other gages shall be operated when water diversions, other than just storage in Mackay Reservoir, are being made from the river. The cost of

installation, operation and maintenance of these other measuring facilities is WD34's responsibility

- IDWR has maintained the Leslie Gage rating as a courtesy, and will do so in the future, unless the Water District or others take over this task.

7.6 Futile Calls (Rule 20.04)

When curtailment of junior upstream surface water rights will not make water available for delivery and use to senior downstream surface water rights, without unreasonable waste as determined by the Director, the Watermaster will not curtail the junior water rights in a futile effort to deliver water to the senior rights. The Director may consult the Water District 34 Advisory Board, the Big Lost River Irrigation District and other impacted water users when determining whether attempting to deliver senior downstream surface water rights would be futile.

7.6.1 For the Big Lost River below the Beck Diversion, follow procedures as per attached IDWR letters of 5/17/2004 and 7/28/2004- Futile Call Requests

7.6.2 For all other regulated streams, the Watermaster shall provide data satisfactory to the Director (or designee) that proves the futile call is legitimate. Approval from the Directory or designee is necessary to initiate and implement a futile call. Streams that may anticipate implementation of the futile call doctrine include: Antelope Creek/Cherry Creek, Alder Creek, and the Big Lost River above the reservoir when curtailment of junior rights to fill reservoir storage rights or natural flow water rights below Chilly Bridge is futile. GP-6c covers some of the requirements for measurements when determining futile calls above the reservoir.

7.6.3 Water must be delivered to the senior priority if called for. If insufficient water for beneficial use is reaching senior priorities, they may voluntarily withdraw calls and make water available to the junior priority users upstream. No futile call determination and order from the Director is necessary.

7.6.3.1 If senior downstream priorities continue to call for water, it must be delivered and upstream junior priorities must be shut off. Continued attempts to deliver senior priorities must be made until a futile call order is issued by the Director.

7.6.3.2 In requesting a futile call, data to be provided to the Director should include:

- Priority date in effect on stream Antelope and Alder Creek priorities should correspond to the Big Lost River priority in effect downstream of Mackay Reservoir. Upstream of Mackay reservoir, priority will be the same as the Big Lost River, either in it's disconnected (GP-6a and 6b in effect) or connected administrative state

- Recent daily diversion measurements on the affected stream reach, with indication of the water right number(s) and priority date(s) being served by each diverted amount Diversions on tributary streams, such as Cherry Creek on the Antelope Creek drainage, or

Warm Springs/Pole Stackyard Creek on the Big Lost River above Mackay Reservoir also need to be included

- Any stream flow measurements, conveyance loss estimates, maps showing the reaches in question, and other information that may be useful.

- A representative from IDWR may assist in making flow measurements and collecting other pertinent data if requested by the Watermaster.

7.6.3.3 The Watermaster should make a written (fax is ok) request for a futile call determination to the Director. IDWR will then coordinate with the Watermaster to obtain the above listed information efficiently, and issue the futile call order quickly if the Director (or designee) so approves.

7.7 Water Deliveries and Priority Date Calculation

7.7.1 Measuring Devices And Control Works (Rule 35). Rule 35.01 provides for the Director to refuse delivery of water per Chapter 7, Title 42, Idaho Code where an acceptable measuring device and control works is not in place or properly maintained. Costs for installing and maintaining measuring devices and control works is born by the water user.

7.7.2 Where practical, gage readings should be recorded daily for all established diversions in WD34. In remote locations, such as Antelope and Alder Creeks, and Big Lost River and tributaries above Mackay reservoir, diversions may remain nearly constant for several days in a row. In these cases, daily visits aren't necessary by the Watermaster to record gage readings. Diversion can be interpolated from readings for the days in between.

7.7.2.1 Diversion data should be entered electronically at least once a week, but preferably twice a week, through the Water District data entry program accessed through the IDWR Internet site. The data entry program has options for interpolating between non-daily readings to get estimated daily readings.

7.7.2.2 Use the IDWR data entry program to enter data consisting of daily reservoir stage/contents, exchange wells, flow stations, and diversion readings from WD34 deputy(ies) and BLID ditch riders deputized by WD34.

7.7.3 Rule 40.01b requires that all water deliveries must be called for by the water user at least 48-hours in advance of the actual water delivery, but water which can be delivered by the Watermaster in less than forty-eight hours may be used by the water user. The Watermaster will not deliver water to a user until that user has called for delivery of the water right. It is the responsibility of the water user to contact the Watermaster or his assistants to call for a water right to be delivered or to be shut off. However, if the Watermaster observes that a water right is not being beneficially used, he will contact the user and cease delivery of that water

right until the user calls again for delivery. The Watermaster must document when a user calls for water and when a call is made to cease delivery.

7.7.4 Rule 40.01 describes the administration of surface water rights. Administration of surface water rights is based upon the list of water rights approved for interim administration by the court or as subsequently decreed by the court in the SRBA. Water not diverted or rotated for credit is available for the next in time water right. Natural flow rights are delivered to the point of diversion from the natural waterway with no conveyance loss assessment. A natural flow water right delivered through a lateral or canal of a water conveyance entity shall be assessed the conveyance loss for the canal through which the water right is delivered.

- Rule 40.01a - All natural flow will be allocated based upon a four (4) day moving average of the natural flow computed by the Watermaster.

7.7.4.1 Implementation of Rule 40.01 to calculate natural flow (Q_{NAT}) by the Watermaster is done according to these formulae:

$$\Delta STOR = (S_{DAY-4} - S_{TODAY})/4$$
$$INFLOW = \Delta STOR + 2B + SHARP$$
$$TOTAL\ WATER = \Sigma\ EXCH + 2B + SHARP$$
$$HEADING\ TOTAL = \Sigma\ DIVERSIONS$$
$$SHRINK = HEADING\ TOTAL / TOTAL\ WATER$$
$$Q_{NAT} = SHRINK * INFLOW$$

Where:
S_{DAY-4} = storage from 4 days ago
S_{TODAY} = storage today
$\Sigma EXCH$ = sum of exchange well flows for current day
2B = flow rate for current day at 2B Gage
SHARP = flow rate for current day at Sharp diversion
$\Delta STOR$ = 4 day average of change in storage
INFLOW = total inflow to the river reach below Mackay Dam
TOTAL WATER = total water in the river from all sources
HEADING TOTAL = sum of all diversions below Mackay Dam for current day

The Watermaster uses the calculated Q_{NAT} to select a priority date from a list of decreed right diversion rates summed in order of increasing priority.

7.7.4.2 Natural flow is computed for the reach of the Big Lost below Mackay Reservoir using the method in §7.7.4.1. This method does not meet the requirements of Rule 40.03, which requires conveyance losses to natural flow be calculated on a river reach basis (Rule 25.01, and §7.5.1 above). Also, the Watermaster does not calculate Q_{NAT} and priority for the river reach above Mackay Reservoir. For meeting the requirements of Rule 25.01 and Rule 40.01, IDWR has developed and maintained a computer program, Big Lost Water Right Accounting (BLWRA) to do iterative

calculations that enable river conveyance losses to be determined on a reach-by-reach basis, both above and below Mackay Reservoir BLWRA also determines Q_{NAT} used in each river reach, evaporation losses incurred by reservoir storage, and determines priority for the river in either the connected or broken condition

7.7.4.3 The BLWRA program is adapted from the same water rights accounting (WRA) program used by Water Districts 01 for the Upper Snake River[1]. Basins 11, 63, and 65 (Bear, Payette, and Boise Rivers, respectively) also use adaptations of this program to calculate the amount of water available and allocate the water by priority date. BLWRA is encoded to reflect operations in accordance with the SRBA decree General Provisions for WD 34.

- IDWR's policy is to operate and/or update the WRA programs in WD's 01, 11, 34, 63 and 65 because of the similarity in the complexity of operations in these districts. IDWR provides this function as a matter of policy to aid in the efficient administration of water in the state.

7.7.4.4 The Watermaster provides daily diversion, exchange pump, and flow data two times a week. Data are transmitted through the Internet data entry application to IDWR for running the BLWRA program (also, see §7.7.2). These data are to be submitted throughout the irrigation season (May 1 through October 15), including after futile call orders are issued for below the Beck Diversion on the Big Lost River. Data are also entered for stockwater diversions occurring during the winter (October 16 through April 30).

- The surface diversions, flows, and exchange wells to be reported are as listed in the Water District data entry program on IDWR's website for WD 34. This list is to be updated in coordination with the Watermaster from time to time to reflect on the ground changes, additional measurement stations, etc.

7.7.4.5 The computations and results from the BLWRA program are intended to assist the Watermaster in determining priority cut dates for river rights, river shrink incurred on natural flow by reach, and reservoir inflows. IDWR posts the BLWRA results on the IDWR web site for public access throughout the irrigation season.

- Priority date from the BLWRA for the river reach below Mackay Reservoir will be similar to what the Watermaster calculates using the method in §7.7.3.1. Determining what priority to use from the results of the two methods is at the discretion of the Watermaster.

[1] Sutter, R J., R D. Carlson, and D. Lute, 1983. Data Automation for Water Supply Management, *Journal of Water Resources Planning and Management*, Vol. 109, No. 3, July. Am. Soc. of Civil Eng., NY, NY

- Implementation of BLWRA to the river above Mackay Reservoir is still incomplete because of insufficient flow measurement stations (see §7.5.1.1 and Rule 20.03 d). Revisions to the program will proceed as better flow monitoring abilities are developed for the reach above Mackay Reservoir.

- Rule 60 requires accounting by the Watermaster for all deliveries in WD 34 all year. This rule is met during the irrigation season by the daily records kept by the Watermaster and the BLWRA program. Accounting of winter stockwater delivery is currently not done by IDWR in the BLWRA, but must be done by the Watermaster. This task includes weekly submittal of data to IDWR showing winter stockwater deliveries

7.7.5 Rule 40.06 describes the process for allowing diversion of additional flows above the decreed amount for irrigation. The Director may allow the diversion of surface water in addition to the quantity of surface water described in a water right for irrigation use to be diverted for irrigation of the described place of use where:

- The waters so diverted are applied to a beneficial use, as determined by the Director.
- All surface water rights, regardless of priority, unless subordinated to the water right or class of water rights being called for, existing at the time of diversion that are within their period of use can be satisfied.
- The diversion and use of the water does not conflict with the public interest as determined by the Director.
- Additional flows diverted pursuant to Rule 040.06 are natural flows and will not be assessed as impounded water.

7.7.5.1 This rule is intended to allow the practice of diverting of rights above the legal maximum diversion rate for purposes of "building up the sub", or increasing soil moisture by spreading of water when high runoff is occurring. This practice would be used to the greatest benefit in areas not able to receive storage water, such as above Mackay Reservoir, and on tributaries such as Antelope Creek. *The rule allows this practice only with permission (i.e. under an order) from IDWR's Director (or designee) when all users are receiving their full right, and other qualifying conditions listed in §7.7.4 are met.*

7.8 Use of Eastside Canal or Other Facilities for Alternative River Channel (Rule 30)

7.8.1 To reduce conveyance losses in the Big Lost River, use of the Eastside Canal (Rule 30.01) or other facilities (Rule 30.02) is permitted for carrying natural flow, per instructions contained in these rules.

8.0 GROUND WATER ADMINISTRATION

8.1 Measurement of Ground water Diversions

8.1.1 All ground water diversions within WD 34 (Figure 2), excluding small domestic and stock water diversions, shall be measured by Water District staff using one of the methods below. Each pumping plant and system should be evaluated for it's suitability for the measurement method chosen with the use of guidelines provided in *State of Idaho Department of Water Resources (IDWR) Minimum Acceptable Standards for Measurement and Reporting of Surface and Ground Water Diversions* (attached) Additional specifications for system configuration requirements and measurement accuracy are in Rule 35.03 Rule 35 03 requires flow certification by a licensed engineer for diversions that cannot be measured using the methods below.

8.1.1.1 Power Consumption Coefficient (PCC) method. Instantaneous flow rate is measured by the Water District utilizing a polysonic flow meter and the annual volume determined by electrical power records PCC exams shall be performed by WD 34 staff when the system configuration changes, or periodically if the system configuration remains static.

8.1.1.2 In-line flow meter with totalizing capabilities Meters will be periodically checked for accuracy by the Water District staff Annual volumes will be recorded at the end of the irrigation season by WD 34 staff from the odometer on the meter.

8.1.1.3 An in-line orifice or manometer Accuracy should be checked initially using a polysonic flow meter by WD 34 staff. Daily readings by WD 34 staff are necessary to accumulate annual volume data.

8.1.1.4 An open channel measuring device of a type and installed in a location acceptable to the Director. Device is to be read and recorded daily by Water District staff

8.1.2 Water district staff enters the PCC information for wells measured by this method, and submit electronically to IDWR. Using the local electric utility power records, IDWR calculates annual volumes for the PCC wells. Volumes for the PCC wells are then submitted back to WD 34 prior to the annual meeting. Improvements in an on-line database, have been implemented by IDWR in 2006, and will enhance the Water District's capabilities for better monitoring of PCC wells.

8.1.3 Water district staff will calculate annual volume for the other methods of measurement, with assistance from IDWR if requested.

8.2 Administration of Ground water Rights

8.2.1 Senior ground water users can call for curtailment of junior ground water users. Curtailment of junior ground water rights for protecting senior ground water right(s), will use administrative procedures based upon reasonable pumping levels and the prior appropriation doctrine as required by law.

8.3 Conjunctive Management of Surface and Ground Water Rights

8.3.1 Hydrologic studies conducted prior to the adoption of Rule 50 verified that ground water pumping depletes surface water in the Big Lost River. An annual depletion rate to the river of 13% of the annual pumping volume was established in Rule 50. This 13% depletion was calculated to be 6110 Acre-feet in 1994, based on an annual pumping volume of 47,000 acre-feet per year. According to Rule 50, IDWR should revise the 13% depletion rate each year. IDWR has not revised the depletion rate since flow augmentation has only been called for once in 2004. Rule 50 establishes that all ground water rights within the Big Lost Basin are subject to conjunctive administration, except as follows:

8.3.1.1 The ground water user can show to the satisfaction of the Director, that due to well construction or location, the diversion of ground water from a particular point of diversion does not reduce the flow of the Big Lost River above the last (most downstream) diversion from the Big Lost River.

8.3.1.2 Ground water rights in the list of water rights containing a remark noting that the right will be administered as separate from the Big Lost River and its tributaries.

8.3.1.3 Ground water rights located south of the "A"-line (See Figure 3).

8.3.1.4 Small domestic and stockwater wells

8.3.2 Surface water users with priority dates of 1905 and earlier may request mitigation water when they make their initial call for water.

8.3.3 Flows will be augmented from the time period starting when 1905 water rights are being called for and cannot be filled through October 15.

8.3.4 Mitigation water consists of storage in Mackay Reservoir purchased by the Water District.

8.3.4.1 The Big Lost Irrigation District (BLID) must approve storage arrangements in Mackay Reservoir. Procedures for negotiating with BLID for obtaining storage are not defined in the WD Rules. WD 34 Resolutions may be an appropriate method to establish the procedures, such as giving the Watermaster authority to negotiate with the BLID board of directors.

8.3.4.2 Augmentation will occur at a rate of 1/3*(6110) for the first semester of the period and at 2/3*(6110) during the second semester. The augmentation rate for the second semester should follow the pattern of crop consumptive use for the period (attached letter of March 18, 2005 from Gary Spackman)

8.3.5 If use of storage in Mackay Reservoir is not possible for augmenting river flows, other means of augmentation are allowed for in Rule 50.04 c.iii which states: Augmentation of natural flow for purposes of mitigation may be accomplished

by making additional water available for diversion from the Big Lost River, including increased river flows resulting from recharge efforts approved by the Director, or by adding water to canals or laterals.

8.3.5.1 Additional consultation is needed with IDWR to use this scenario. Also, see guidance in attached IDWR letter of March 18, 2005

8.3.6 The Watermaster can add additional assessments to the district water users for administering mitigation water. A special resolution may be adopted at the annual meeting, or at a special meeting to add this assessment at a later time when actual costs are known.

8.3.7 Single or small groups of users can submit individual mitigation plans that are administered separately from the Water District. The mitigation volume requirement will be set at 13% of average annual pumping for past years, unless revised by IDWR in accordance with Rule 50. Individual plans should be submitted to IDWR pursuant to Rule 43 of the "Rules for Conjunctive Management of Surface and Ground Water Resources," IDAPA 37.03.11 (attached).

8.3.8 If any ground water users continue to pump while mitigation is called for, and they are not operating under an approved mitigation plan, the water master shall curtail use under the Director's guidance as per IDAPA 37.03.11.40 (attached).

8.3.9 Any revised estimates of annual depletions (see §8.3.1) will be presented at the WD34 annual meeting, prior adoption of the values by Order of the Director (Rule 50.04.c).

Memorandum

To: Append to *Water District 34 Guidelines for Operation* Document

From: Nick Miller

Date: August 3, 2006

Re: Administration of Big Lost River Irrigation District Storage Rights

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This memo clarifies how the Watermaster of WD34 is to administer storage rights held by the Big Lost River Irrigation District (BLRID). Written instruction is necessary to ensure all parties (IDWR, BLRID, water users, and WD34 staff) share a common understanding of the administration of these storage rights. This memorandum discusses the administration of the BLRID storage water rights by the Watermaster of WD34 and does not address how the stored water is to be allocated to the BLRID patrons.

BLRID holds the following 9 water rights listed in order of priority:

RIGHT NO	PRIORITY	RATE/VOLUME LIMITS	SEASON OF USE (STORAGE)*	REMARKS
34-00818	06/30/1880	3.2 CFS/556.5AF	05-01 to 10-15	
34-00811	06/30/1881	1.7 CFS/294 AF	05-01 to 10-15	
34-00810	06/01/1888	3.2 CFS/556.5AF	05-01 to 10-15	
34-10935	06/01/1896	6.4 CFS/1113 AF	05-01 to 10-15	
34-00817B	03/01/1902	0.8 CFS/140 AF	05-01 to 10-15	
34-00013	07/31/1905	100CFS	05-01 to 10-15	Antelope Cr Exchange w/ 3 in 1
34-10873	10/02/1905	20646 AF	01-01 to 12-31	Additional Vol. Allowed
34-00012	02/07/1916	17205 AF	01-01 to 12-31	Additional Vol. Allowed
34-02507	09/02/1959	6000 AF	01-01 to 12-31	Additional Vol. Allowed

* Season of use for irrigation deliveries is 5/1 to 10/15. Season of use for storage and irrigation from storage may be extended to as early as 4/20 and as late as 10/31 at the discretion of the Director of IDWR

It is important to note that these rights are limited by season of use, storage volume, and, in some cases, flow rate. Storage volume limits are limitations on the total volume of water stored under a right each calendar year (Jan. 1 to Dec 31). Note that only three of the rights allow storage to accrue during the non-irrigation season. The BLRID storage rights fill as follows:

January 1st – Any carryover, including unused rotation credit storage from the previous irrigation season accrues against the volume limit of the earliest, in season storage right (34-10873).

Fill between January 1st and May 1st (before the irrigation season)– Only three of the BLRID water rights have a season of use that includes this period. Any water that is stored accrues against the volume limits of the earliest of these right first. 34-10873 fills first, then 34-12, then 34-2507. All water stored during this period must be stored in priority with other rights above the reservoir that are within their season of use, but is superior to all other rights below Mackay Reservoir, subject to a minimum flow at the 2B gage of 50 cfs. If the inflow to Mackay Reservoir is less than 50 cfs, no storage may occur, but BLRID is not required to release water to maintain 50 cfs at the 2B gage.

If the reservoir fills prior to May 1st, the three year-round rights have been satisfied. Storage is cumulative; anything that is stored, even if released for flood control, counts toward the annual volume limit. See the following example:

Date	Res. Contents	Change in Storage	Cum. stored	Rights filled		
	acre-feet	acre-feet	acre-feet	34-10873	34-12	34-2507
1/1	20,000	0	20,000	20,000 of 20,646	0 of 17,205	0 of 6,000
3/1	25,000	5,000	25,000	Right Full - 20,646	4,354 of 17,205	0 of 6,000
3/10	22,000	-3,000	25,000	Right Full - 20,646	4,354 of 17,205	0 of 6,000
3/20	25,000	3,000	28,000	Right Full - 20,646	7,354 of 17,205	0 of 6,000
4/15	38,000	13,000	41,000	Right Full - 20,646	Right Full - 17,205	3,149 of 6,000
4/28	40,851	2,851	43,851	Right Full - 20,646	Right Full - 17,205	Right Full - 6,000
5/1	44,500	3,649	47,500	Additional Volume allowed by WR Condition		

In the above example, water is released for flood control on 3/10, but that water still had accrued toward volume limits. This, (along with the fact that the annual volume limit for these three rights is less than the 44,500 acre-feet of capacity in Mackay Reservoir) would prevent the reservoir from ever filling prior to the irrigation season were it not for a condition on these rights that reads:

> *A VOLUME OF WATER IN ADDITION TO THE VOLUME DESCRIBED ABOVE FOR STORAGE PURPOSES MAY BE STORED IN A SINGLE YEAR IF: A) THE ADDITIONAL VOLUME IS STORED USING THE STORAGE CAPACITY OF MACKAY RESERVOIR, AND B) ALL WATER RIGHTS EXISTING AT THE TIME OF STORAGE (INCLUDING WATER RIGHTS WITH JUNIOR PRIORITY AND OTHER RIGHTS FOR STORAGE PURPOSES) THAT ARE WITHIN THEIR PERIOD OF USE ARE SATISFIED.*

In other words, as in the example above, even though the volume limits for the rights are met (on 4/28 in the example), an additional volume could be (and was in the example) stored because all other rights were satisfied. It is likely that recharge may be occurring during this period, but the WD34 recharge plan of operations indicates that recharge will not occur upstream of Mackay Reservoir without consulting BLRID.

If the reservoir does not completely fill, or if the volume limits for the three rights are otherwise not filled by May 1st, storage proceeds as described below.

Fill between May 1st and October 15th (irrigation season)– During this period, all of the BLRID storage rights are within their seasons of use and any storage accrues in priority with all other rights. These rights are subject to their volume and rate limitations as well. In years where the reservoir does not fill prior to the start of the irrigation season, the remaining fill occurs in priority and accrues against the volume limits of the oldest right first.

In the example below, storage deliveries began after May 10th. The reservoir contents for 5/30 and 6/5 do not directly equate with the increase in cumulative stored water because storage water is being stored and delivered, so storage may accrue against the volume limitations without a corresponding net change in reservoir contents. The important volume from an administrative point of view is the cumulative stored volume because that determines which rights have filled. As an example, if the contents of Mackay reservoir contents are increasing at a rate of 1 cfs, and 4 cfs of storage water are being delivered, then 5 cfs must be accrued against a storage right. In that example, the net change in reservoir contents does not reflect how much water is actually being stored during that period.

In the example below, the reservoir never filled to capacity but the rights reached their volume limits. Additional volume was not stored on the three rights that allow an additional volume because priority cuts were being made to 1975, so some rights being called for were not filled in this example. However, an additional volume of water may be stored in Mackay Reservoir under water right 34-13 as described later in this memorandum.

			1-May	3-May	10-May	30-May	5-Jun
Reservoir Contents (AF)			25,000	26,000	20,000	25,000	34,000
Net Change in Contents (AF)*			0	1,000	-6,000	5,000	9,000
Cumulative Stored (AF)			25,000	26,000	26,000	36,000	46,511
Priority date on BLR			All on	All on	All on	1975	1965
34-00818	6/30/1880	3.2 CFS/556.5AF	0 of 556.5	Full	Full	Full	Full
34-00811	6/30/1881	1.7 CFS/294 AF	0 of 294	Full	Full	Full	Full
34-00810	6/01/1888	3.2 CFS/556.5AF	0 of 556.5	149.5 of 556.5	149.5 of 556.5	Full	Full
34-10935	6/01/1896	6.4 CFS/1113 AF	0 of 1,113	0 of 1,113	0 of 1,113	Full	Full
34-00817B	3/1/1902	0.8 CFS/140 AF	0 of 140	0 of 140	0 of 140	Full	Full
34-10873	10/2/1905	20646 AF	Full	Full	Full	Full	Full
34-00012	2/7/1916	17205 AF	4,354 of 17,205	4,354 of 17,205	4,354 of 17,205	12,694 of 17,205	Full
34-02507	9/2/1959	6000 AF	0 of 6,000	0 of 6,000	0 of 6,000	0 of 6,000	Full

* Net change in contents does not accurately reflect storage accrual when storage deliveries are being made.

If the reservoir fills after natural flow rotation has begun, the rotated volume becomes BLRID storage water and that volume is accrued against the BLRID storage right limitations and that water accrues to the most senior right first.

If the reservoir filled prior to the start of the irrigation season, the volume limitation on the three non-irrigation season rights has been met, but an additional volume of water may be stored under the following rights: 34-00013, 34-00810, 34-00811, 34-00818, 34-10935, and 34-00817B. These rights must be in priority and are limited to the volume limits and diversion rate limits of the individual rights (although rights may be stored concurrently if they are in priority). Note that these rights may accrue into storage while the reservoir is full, provided that storage deliveries are being made concurrently. If the reservoir is full, not being drawn down, and storage is being delivered, then storage must accrue against an in priority storage right. Such storage accrual is subject to priority date, flow rate, and volume limitations. WR 34-13 is subject to additional limitations, as described below.

WR # 34-13 is an exchange water right held by BLRID. This right entitles BLRID to store water in Mackay Reservoir in exchange for diverting an equal amount from Antelope Creek to the 3 in 1 ditch at the south fork of Antelope Creek. This right is to be administered as follows:

> When water right 34-13 is in priority, and BLRID is calling for delivery of this right, the Watermaster must determine which rights that take Big Lost River water from the 3 in 1 below Antelope Creek are currently called for and deliverable. The sum of these rights may be called the "exchange flow rate". The Watermaster must adjust the diversion at the head of the 3 in 1, reducing it by the exchange flow rate, and he must divert Antelope Creek into the 3 in 1 at the South Fork of Antelope Creek at the exchange flow rate. Under 34-13, BLRID may only store at a rate equal to the exchange flow rate and may only do so while Antelope Creek is being diverted to those users on the 3 in 1 and when those users are in priority and are calling for their water.

The basis of this right is that the BLRID cannot physically store water from Antelope Creek, so instead they provide Antelope Creek water to users on the 3 in 1 and store an equal amount in Mackay Reservoir. The stored water may then be delivered as storage water to BLRID patrons. The users on the 3 in 1 receive their natural flow water rights as they normally would and nothing out of the ordinary happens from their perspective. It is important to note that these users receive their natural flow in this exchange. BLRID is not delivering any storage water in this exchange. This simply allows them to store under their Antelope Creek right. It is also important to stress that, although the right bears a diversion rate of 100 cfs, 34-13 is limited to the rate of flow that users on the 3 in 1 are calling for and that is deliverable

Fill between October 16th and December 31st (after the irrigation season)– Following the end of the irrigation season; any rotated water that has not been delivered becomes BLRID storage water. During this period, water may be stored under rights 34-10873, 34-12, and 34-2507. At this point the volume limits will likely have been met earlier in the year for these rights. Additionally, the general provisions allow all inflow to Mackay Reservoir to be stored during this period subject to a 50 cfs minimum release. Therefore, any rights above Mackay Reservoir that are within their season of use and are called for must be satisfied, but BLRID may store all inflow to the reservoir beyond that required to satisfy the 50 cfs minimum flow at the 2B gage.

Watermaster's Role in Administration of BLRID Rights– Given the above description of BLRID water rights, the Watermaster must perform a number of checks throughout the season to ensure BLRID is storing within their water rights:

- On May 1st, or as early as April 20th if the irrigation season has been extended:
  - If the reservoir is full, the three year-round rights are satisfied
  - If the reservoir is not full, the Watermaster must ensure that the storage rights are filled in priority.

- When BLRID is making storage deliveries:
  - It is possible that BLRID may store water at the same rate they are delivering it. In this case, the reservoir contents will not change, but volume still accrues toward the volume limits of the in priority storage rights. The Watermastser should verify that the in priority storage rights are not exceeding their flow rate or volume limitations. During this period, the following should be true:

[reservoir outflow] = [rotation storage outflow] + [storage release out flow] + [natural inflow] - [Storage inflow] - [inflow of rotation credits]

Storage inflow is determined by the Watermaster based on which BLRID storage rights are in priority and have not met their annual volume limitation. 34-13 is limited to the flow rate of in priority Big Lost River water rights on the 3 in 1 below Antelope Creek and is further limited to that volume of water that can be supplied to those users from Antelope Creek under WR#34-13.

- Following the irrigation season:
  - Ensure that all other rights are satisfied above the reservoir unless volume limitations remain on the three year round rights, in which case they can be filled in priority with above the reservoir rights.
  - Ensure that the flow at the 2B gage is either 50 cfs or is equal to the inflow to the reservoir, if the inflow is less than 50 cfs.

Memorandum

To: Tim Luke – Water Distribution Section Manager, WD34 File

From: Nick Miller

Date: June 29, 2006

Re: "Free Water" and recharge references in Kent Foster's 6/13/06 letter

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You had asked me to prepare a short memorandum regarding the reference to "Free Water" and difficulties with recharge in the June 13, 2006 letter from Kent Foster. The paragraph in Mr. Foster's letter reads as follows:

> *"You are personally aware of the most recent difficulties experienced by the recharge committee for this basin in attempting to persuade the watermaster to deliver available water supplies for such recharge. Instead, he and the manager of the Big Lost River Irrigation District seemed to insist on characterizing the extra water supplies as "free water" that they can deliver to the water users to whom they are personally loyal, without any accounting. We insist this practice be stopped and corrected."*

I believe the recharge and free water issues and my awareness of them refer to a call I received from Mitchell Sorensen on Friday, May 12, 2006. Mr. Sorensen called me and seemed very upset. He described the concept of "free water" to me as that water that is available above and beyond that required to satisfy existing water rights. He indicated that Bob Duke does not deliver this "free water" to everyone, but instead only delivers it to his friends. Furthermore, Mr. Sorensen suggested that the practice of delivering "free water" at that time was not appropriate because it was being done when other rights were not being filled (his 1983 right out of the Blaine canal (34-7430) and the recharge permits (34-7571 and 34-7573)). Additionally, Mr. Sorensen alleged that Bob Duke was delivering the BLRID Antelope Creek storage exchange right (34-13) out of priority. He seemed most concerned that the delivery of "free water" is preventing the delivery of the recharge water and his 1983 right.

At that time the flow at the Arco gage was about 80 cfs, and recharge was occurring so there was plenty of water to satisfy all valid water rights. I explained that his 1983 right is a floodwater right with a stringent condition that he may only divert water that is sent down the Blaine Canal for the purpose of flood control, as described in condition 1 on his permit (I have attached a proof report of this permit for reference). I explained to him that he is not allowed to divert water under his 1983 right, but he may use the water if the conditions on the permit are met. Although there was water in the Blaine Canal, the conditions of the permit were not satisfied. After some discussion, it became apparent to me that Mr. Sorensen was upset because Bob Duke had not sent more recharge water down the UC/Blaine canal below Antelope Creek. I believe this is the recharge issue referenced in the June 13, 2006 letter. I confirmed with Mr. Sorensen during a phone call on June 22,2006 that the Blaine canal was the <u>only</u> canal that the watermaster did not send recharge down to the satisfaction of the recharge committee. Mr. Sorensen indicated that there was also some difficulty with recharge on Spring Creek, but that it was due to physical limitations rather than any difficulty with the Watermaster.

With respect to the BLRID Antelope Creek water right (34-13), I explained to Mr. Sorensen that it is an exchange right that allows BLRID to store water in the reservoir in exchange for providing irrigation water to users on the 3 in 1. Because the reservoir was full, and BLRID was not then delivering storage water, BLRID could not be using their 34-13 right. I believe Mr. Sorensen's concern about BLRID stems from a comment made by the Watermaster about consulting with Bob Shafer before he would send any water down the Blaine Canal from Antelope Creek. The sense I got from the Watermaster was that this had to do with a switch from recharge to storage deliveries as the flows at the Arco gage were expected to drop below 60 cfs, rather than because of delivery of 34-13.

After some discussion with Mr. Sorensen and Mr. Duke, we agreed that additional recharge water would be sent down the Blaine Canal, but that Mr. Duke will verify that the recharge water that makes it past the cross-over canal is rediverted and allowed to recharge in the gravel pit located at 04N 26E S 30 rather than going to irrigation as some of the recharge water may have previously. I felt it was important to ensure the recharge water could not be diverted for irrigation because users on the Blaine Canal do not have water rights to irrigate with the recharge water. Mr. Sorensen alleges that users on the BLRID canals are also irrigating with recharge water and he insists that we either control that practice or allow him to irrigate his lands with recharge water. I agreed that any irrigation that occurs with recharge water is not legal and should be stopped.

With respect to "free water", it appears that the distribution rules for Water District 34 (IDAPA 37.03.12.040.06) recognize and authorize the Director of IDWR to allow diversion of water in excess of that authorized by a water right under certain conditions. However, it appears that the watermaster has not petitioned for authorization to deliver any such water. The watermaster indicated to me that the only delivery of "free water" he is aware of is that, during times of high water, users are delivered their full water right at the field headgate, rather than at the canal heading (it is delivered "shrink-free") but they do not get more than what their water right authorizes.

I indicated that Mr. Sorensen, or the Watermaster, may petition the director to allow the watermaster to deliver water under rule 40.06 and allow Mr. Sorensen to divert irrigation water down the Blaine Canal, and allow users on BLRID canals to irrigate with water that is currently being diverted for recharge. Of course, any irrigation diversion of this "excess" water would have to be accounted for as separate from recharge.

IDAHO DEPARTMENT OF WATER RESOURCES

Water Permit Report 34-7430

WATER RIGHT NUMBER: 34-7430

Owner Type	Name and Address
Current Owner	MARSHAL TODD PERKES RT 1 BOX 69 MOORE, ID 83255 (208)527-3157
Current Owner	GREG DANIELS RT 1 BOX 63 MOORE, ID 83255
Current Owner	EVERETT T ACOR JR 3196 N YELLOWSTONE HWY IDAHO FALLS, ID 83401 (208)524-5138
Current Owner	MITCHELL D SORENSEN 3871 W 2500 N MOORE, ID 83255 (208)527-3271
Current Owner	NORMAN NIEDERER RT 1 BOX 63 MOORE ID 83255
Security Interest	IDAHO AG CREDIT FLCA PO BOX 386 REXBURG, ID 83440-0386 (800) 632-8221

Priority Date: 04/08/1983

Basis:

Status: Active

Source	Tributary
ANTELOPE CREEK	BIG LOST RIVER
BIG LOST RIVER	SINKS

Beneficial Use	From To	Diversion Rate	Annual Volume
IRRIGATION	4/01 to 10/31	199.600 CFS	
	Total Diversion:	199.600 CFS	

Location of Point(s) of Diversion

ANTELOPE CREEK CUSTER County	NE1/4NW1/4	Sec 36,	Twp 06N,	Rge 25E, B M
BIG LOST RIVER CUSTER County	NW1/4SE1/4	Sec 14,	Twp 06N,	Rge 25E, B M
ANTELOPE CREEK CUSTER County	NE1/4NW1/4	Sec 6,	Twp 06N,	Rge 26E, B M

Place of Use

IRRIGATION

IDAHO DEPARTMENT OF WATER RESOURCES

Water Permit Report 34-7430

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N	25E	1	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0			40.0		520.0
03N	25E	2	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0					40.0	40.0	40.0	40.0	480.0
03N	25E	3	40.0	40.0															80.0
03N	25E	11	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0					40.0	40.0	40.0	40.0	480.0
03N	25E	12	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	640.0
03N	26E	17	15.0	30.0			40.0	40.0	20.0	5.0									150.0
03N	26E	18	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	640.0
04N	25E	25			40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	560.0
04N	25E	34													40.0	40.0	40.0	40.0	160.0
04N	25E	35	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	640.0
04N	25E	36	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	640.0

Total Acres: 4990

Conditions of Approval:

1. Use of water is authorized only during flood events when county commissioners, highway district commissioners, or state emergency agency officials are diverting water into the Blaine Canal as they determine necessary to prevent or reduce damage to public or private property. The amount diverted at the field headgate from the Blaine Canal shall not exceed 0 02 cfs/acre when combined with all other rights appurtenant to the acreage upon which it is being used.

   The permit holder is not authorized to call for diversion of water under this permit or to take any action to divert water under the permit except as provided in the above condition

   This permit has the sole and limited effect of allowing the permit holder to use, in accordance with the permit's priority date, water placed in the Blaine Canal during officially designated flood emergencies.

   Any any time within two years from the effective date of this permit, the permit holder may petition the director of the department to consider information allowing for a determination of the specific flow rates necessary to protect the public interest values in the Big Lost River and Antelope Creek, as recognized in this decision Upon a determination by the director of the required flow rates, the approval conditions of this permit will be amended to allow the permit holder to request the diversion of water under this permit at times when the flow in Antelope Creek or Big Lost River exceeds that required to protect public values. The permit holder shall serve the parties to this proceeding with copies of the petition together with any supporting information for their review and and comment to the department. Upon request, the department will provide an opportunity for hearing on the petition.

   The permit holder's diversion rate from the Blaine Canal shall not exceed 99 8 cfs when combined with all other rights supplying water to the place of use authorized under this permit.

IDAHO DEPARTMENT OF WATER RESOURCES

Water Permit Report 34-7430

2	R04	Use of water under this water right will be regulated by the watermaster of State Water District No &DISTRICT
3	004	The issuance of this right does not grant any right-of-way or easement across the land of another

Remarks:

Comments:

1. SCURTIS 6/3/1998 MISC INFORMATION
Comment: The applicants have asked for processing of this application and Application Nos 34-07247 and 34-07430 under a provision of the existing order placing a moratorium on approval of new consumptive uses in the ESRB including the Big Lost River Basin. In accordance with this provision, the applicants have offered to provide mitigation to protect prior surface and groundwater rights in accordance with IDWR water distribution rules WD#34

Water Supply Bank: