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DEPARTMENT OF WATER RESOURCES

April 6, 2009

Jim Rindfleisch, Manager Big Lost River Irrigation Dist P. O. Box 205 Mackay, Idaho 83251

RE: Response to March 4, 2009 Letter

Dear Mr. Jim Rindfleisch;

We are in receipt of your recent letter giving notice to all water users who convey water supplies through BLRID facilities of the requirements of installing and using appropriate controlling and accurate measurement devices. We applaud this effort and express our intent to meet or exceed those minimal requirements. We also want to express to you our position that it is essential that all other water users, including BLRID and especially water users who serve as directors, meet those same standards of performance. Leadership is always best when expressed by example.

Your letter would have been more helpful if it had identified specific site(s) we are currently using which you feel need attention. In an effort to focus on site(s) that might need improvement structures and/or devices, we will review each site(s) we use in any manner for the conveyance of our water supplies from the Moore Diversion through various canals and laterals to our respective Folkman, Isom, and Jensen farms.

- 1. <u>Head of Eastside Canal</u> located at the Moore Diversion. The diversion structure appears to be acceptable. We understand this structure is repaired, maintained, and operated by BLRID. However, it's lock-ability along with the other diversion structures in the Moore Diversion needs to be improved. We understand there were some incidences when check planks were removed by vandals causing a loss or alteration of water supplies we were entitled to. That disruption of water flows had an adverse impact on water supplies we were relying on for the irrigation of our crops. All of the diversion equipment at this site needs to be very secure to avoid unauthorized tampering.
- 2. <u>Head of Island Canal</u> is located approximately 1/2 of a mile from the Moore Diversion and is fed from the above mentioned Eastside Canal. We understand there is an adequate measuring device at the head of the Island Canal. We also understand there is no measuring device in the Eastside Canal where the water supplies actually split. The practice of measuring Eastside Canal water supplies at a point which is some distance from the split is problematic at best. To meet the minimal statutory standards referenced in your letter, we suggest BLRID install a measuring device in the immediate vicinity of where water supplies are bifurcated.

3. <u>Island Canal Reach Measuring Device</u>, and the Folkman Well located in the NWNENW of Section 15, 05 N., R 26E which discharges into the Island Canal. This well was retrofitted with upgraded diversionary equipment during 2008. It is now capable of producing up to the full 9.04 cfs entitlement described in three relevant partial decrees. As part of that retrofit, two lockable devices were installed. One at the electrical panel and the second device is a lockable/adjustable valve located near the end of the discharge pipe. These upgrades significantly improved the measurability of discharge rates using polysonic flow meters operated by the watermaster, deputies, and other certified operators. It is our intention to install a second measuring device (cippolletti wier with a stilling box) at the well head site which will discharge directly into the canal.

Because it is an established fact that you can not regulate what you don't measure, a credible measuring device located at this particular point in the canal reach is needed. Presently there is a drop check with a staff gage at this site. If this device was modified, calibrated, and measurements recorded properly it could be used as a measuring device. It is essential that all water users and BLRID comply with the statutory requirements referenced in your letter.

- 4. <u>Island Canal Reach Measuring Device</u>, and the Jensen Well located in the SWSW of Section 27, T5N., R26E which discharges into the Island Canal. This well has been fitted with a discharge orifice of a specific dimension and uses calibrated flow charts, and has been operated in this manner for many years. We feel this measuring device is sufficient. However, to avoid any dispute we are planning on installing a second measuring device (cippolletti wier with a stilling box) prior to use this season. The drop check located immediately upstream and adjacent to the well provides an acceptable measurement for this reach of the canal.
- 5. <u>Isom Well #1</u> located in the SENWSW of Section 34, T5N., R26E which discharges into the Island Canal. This well has been fitted with a discharge orifice of a specific dimension and uses calibrated flow charts, and has been operated in this manner for many years. We feel this measuring device is sufficient. However, to avoid any dispute we are planning on installing a second measuring device (cippolletti wier with a stilling box) prior to use this season.
- 6. <u>Isom Well #2</u> located in the NESENW of Section 3, T4N., R26E which discharges into the Island Canal. Some modification to this well's discharge pipe was performed last year. These modifications were designed for and accomplished the purpose of separating and exhausting air from the water supply prior to discharge through a straight and uninterrupted discharge pipe. The end of the discharge pipe has a short 45 degree up spout on it to insure the pipe remains full at all times allowing for convenience when using polysonic flow meters. Again, to avoid any dispute we are planning on installing a second measuring device (cippolletti wier with a stilling box) prior to use this season.

- 7. Convergence of Island and Eastside Canals. Although there are some measurement structures at various locations within these two canals, there are none located immediately at the point of convergence. Without such measurement structures, the accounting of water supplies and their proper distribution to water users will continue to be problematic. We encourage BLRID to review the methods used to account for water supplies in this reach of the canal and earnestly plan for the installation of the needed measurement structures prior to the commencement of this year's irrigation season. To meet the minimum requirements reference in your letter, a new measuring device must be installed at the lower end of the Island Canal. Assumptions and extrapolations used from measurements taken at other canal site(s) are not adequate!
- 8. Lower End of Eastside Canal delivery into the Arco Diversion. There is an existing drop structure at the end of the Eastside Canal immediately upstream from where the canal empties into the Arco Diversion. With some modifications, this structure could be used to measure water before it is co-mingled with other water supplies from the Big Lost River. The practice of using the measuring devices in each of the canal headings taking water out of the Arco Diversion (Arco, Center, Middle, and Munsey) for determining the amount of water exiting the Eastside Canal is very problematic when considering all the possible scenarios that can and do exist in water distribution at this particular site. Once again, one can not properly regulate what is not properly measured.
- 9. <u>Head of Munsey Canal</u> located at the Arco Diversion. This particular diversion structure appears to be sufficient in its design and operation since evaluated by IDWR personnel. The spill-way portion of this diversion structure between the Munsey Heading and the other canal headings appear to lack sufficient design and strength to handle the extreme flow conditions that can exist in this reach of river channel. We understand these facilities are repaired, maintained, and operated by BLRID. We encourage you to make the necessary improvements to these structures in preparations for the inevitable events that will certainly occur in a natural river channel.
- 10. <u>Isom/Folkman Pumping Station</u> located in the Munsey Canal in the NWSESE of Section 2, 03N., R 26E just north of the Jr. Collins residence. This pumping station presently consists of three low-head lift pumps with accompanying screening devices which extend out into the canal causing an obstruction to canal water flows. We are currently in the process of consolidating and modifying this pumping station. When completed, all three screening devices will be removed from the canal channel. Due to limited space on the adjacent property, a single screening device and sump will be located where one of the pumps presently exists. The new station will include an adjustable/lockable valve and a sufficient length of unobstructed pipe providing for polysonic flow meter usage. A second measuring device will be located at the end of the pipe where water is discharged into a private conveyance lateral.
- 11. <u>Lower Isom Pumping Station</u> located in the Munsey Canal in the SENE of Section 14, 03N., R26E adjacent to the Minidoka Road. This low-head pumping station was partially modified in 2008. One of the two pumps has been disconnected both electrically and physically from the pipeline and is no longer in serve. The other

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remaining pump continues to be operational and an adjustable/lockable valve was inserted into the pipeline near the pump head. This has provided a excellent method for controlling pumping rates without causing damage to the pumping equipment. Measurement of water supplies are accomplished using a weir device located immediately down stream from the station. This system appears to be working at exceptionally high standards.

- 12. <u>Jensen Measuring Device</u> located at the lower end of the Munsey Canal in the SWSW of Section 13, 03N., R26E. This cippolletti wier has been in place for many years and appears to be accurate in its measurement. Due to the constant fluctuation in water flows existing at this site a continuous reading device would be very helpful in quantifying the amount of water that is actually received by Jensen. Again, BLRID has some responsibility for this recording device.
- 13. Folkman Pumping Station located in a small lateral feed off of the Munsey Canal in the SESESE of Section 12, 03N., R26E adjacent to the Folkman Residence. A new lockable screw gate and partial flume was installed at this site in 2008. This system also performs exceptionally well. However, it must be noted by BLRID that where this lateral splits at the Folkman headgate there is no controlling and/or measuring device on the other branch of the lateral. There is regular and constant interference from other water users regarding Mr. Folkman receiving his full entitled supply of water. There is even a certain question as to whether or not this particular lateral is part of the BLRID conveyance system. Clarifying and remedying this matter is of high priority to us. We need to address these concerns immediately.

No doubt there are many more diversions into and re-diversions out of the Eastside/Island, Munsey, and Arco Canal systems than we have discussed in this response letter. We anticipate BLRID will act uniformly and with due diligence in every instance. Again, we applaud you for your effort.

The real issue remains the proper distribution of water supplies to water users in a manner that is as efficient and accurate as possible. The single biggest practice that would properly address the shrink and conveyance losses you raised in your letter would be a major improvement in the maintenance methods used in canals and laterals. As we previously discussed with you last fall, you are invited to come look at the improved maintenance work being done on the Timberdome Canal Company's canals and laterals. Shareholders expect conveyance efficiencies to improve substantially and the overall cost of operation to be reduced.

We have attached to this letter pictures taken of the Munsey Canal in August of 2008. They clearly show a substantial amount of vegetative over-growth in the canal and its laterals. A closer inspection of the canal will show that in some locations the banks have sedimentary fill extending into the main channel of the canal by as much as 5-6 feet. There is no doubt some pumping stations and fence crossings cause obstructions to water flows. But the larger cause of water flow obstruction and impediment (effecting higher

"shrink") are the vast reaches of the canal that have obstructing trash, sediment fills, protruding vegetation, and misshapen banks.

The entire 5 mile reach of the Munsey Canal is in major need of a complete reshaping of the channel and canal banks. Partial burning of vegetation, removal of debris and obstructions, and installing measuring devices is helpful, but will still fall short of what is needed to properly provide for the efficient conveyance of our valuable water resources. A substantial portion of the assessment revenue BLRID receives from Munsey Canal water users should be used for this repair and maintenance project.

We appreciate your meeting with us to discuss specifically what might be done and how we can fund these improvements. Thank you for your time and consideration of these most important matters. Keep up the good work.

Sincerely,

Leon Folkman

Don Isom

Mitchell Sorensen

Attachments: three maps

six pictures

Copy to:

Bob Schaffer, Watermaster

Nick Miller, IDWR Boise Office David B. Shaw, ERO Consultant











