## Appendix 1

## BWLWWUA Water Right Diversion Summaries Big Wood River

Listed by diversion in numerical then alphabetical order

Owner: Bancroft, Paul and Ruby (WR Owner); Stepanek, Brad (Property Owner)

Water Right Number(s): 37-245 (6/1/1898; 1.6 cfs); 37-246 (6/1/1901; 0.8 cfs); 37-247

(6/1/1902; 0.8 cfs)

**Diversion Name:** 113L End – BWCC-AFRD2 lateral from North Shoshone Canal system

**Field Visit Date:** 08/17/2015

**Diversion Location:** The 113 L End is located approximately 8.75 miles northeast of Shoshone. The 113L diverts from North Shoshone Main Canal. The POD and POU are above the Milner Gooding Canal.

Combined/Other Water Rights & Sources: Water right condition S05 – use of right combined with BWCC. Water rights 37-245, 37-246, 37-247 have a combined use limit of 182.1 acres. IDWR staff identified BWCC-AFRD2 shares appurtenant to same water right POU under the name of Brad Stepanek (57.5 shares under Cert 12490). Additionally BWCC-AFRD2 shares under the name of Stepanek, Bradley J. & Wynette Kennedy were identified near the POU (80 shares under Cert 13420), however Stepanek does not own the property where the shares are identified.

**Diversion Description:** Concrete and wooden structure with metal weir blade. Approximately 50 feet up the channel is check dam and another diversion to control the amount of water that is passed.

Measuring Device: 30" Cipolletti weir.

**Conveyance & Irrigation System:** Open ditch travels approximately <sup>3</sup>/<sub>4</sub> miles to POU where it is used largely for flood irrigation and also collected in a pond for use on two pivots. The ditch rider stated that the crops on the farm are alfalfa and pasture. Total irrigated area from digitizing 2015 NAIP imagery is approximately 150 acres. Water rights are limited to 182.1 acres.

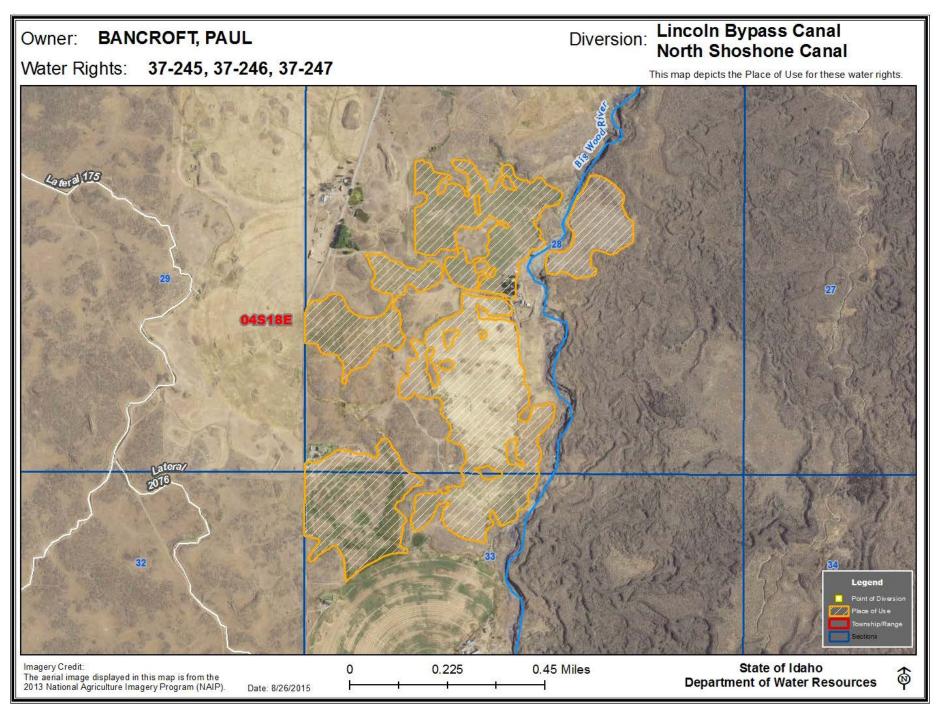
**Additional Comments:** The WR ownership is listed as Bancroft in care of Stepanek, while the property shows ownership as Stepanek. It is likely that the ownership should be updated to Stepanek. The POU has not been updated since the pivots were installed and could use some adjusting. In the southwest corner of the farm there is a 37 acre portion that is under the ownership of Lon Montgomery, it is likely that the water right would need to be spilt and ownership changed for that portion of the WR.



1. 113L End weir blade and check dam further up the ditch.



2. 113L: End weir, looking down stream



Owner: Roth Investments LLC

Water Right Number(s): 37-586 (4/3/1889; 2.64 cfs); 37-587 (4/2/1905; 0.8 cfs); 37-589

(5/1/1904; 3.0 cfs)

**Diversion Name:** 175AL End - BWCC-AFRD2 lateral from North Shoshone Canal system

**Field Visit Date:** 08/17/2015

**Diversion Location:** The 175AL End diversion is located approximately 8.5 miles northeast of Shoshone. The 175AL diverts from North Shoshone Main Canal. The POD and POU are above the Milner Gooding Canal.

Combined/Other Water Rights & Sources: Water right condition S05 – use of right combined with BWCC. Water rights 37-586, 37-587, 37-589 have a combined use limit of 266.9 acres; this covers approximately half of the farm land owned by Roth Investments LLC at this location. The other half of the farm appears to be irrigated with 197.5 shares of BWCC water per BWCC Certificate 13007 (per IDWR review of BWCC records). Information previously provided by BWLWWUA did not identify BWCC shares.

**Diversion Description:** Concrete structure with metal weir blade. This is the last diversion on the ditch and is designed to take any overflow water.

Measuring Device: 60" Cipolletti weir.

**Conveyance & Irrigation System:** Open ditch travels approximately 6 miles to the POU where it is used in a pressurized irrigation system associated with 7 pivots. The ditch rider stated that the crops on the farm are alfalfa and corn. Total irrigated area from digitizing 2015 NAIP imagery is approximately 225 acres. Water rights are limited to 266.9 acres.

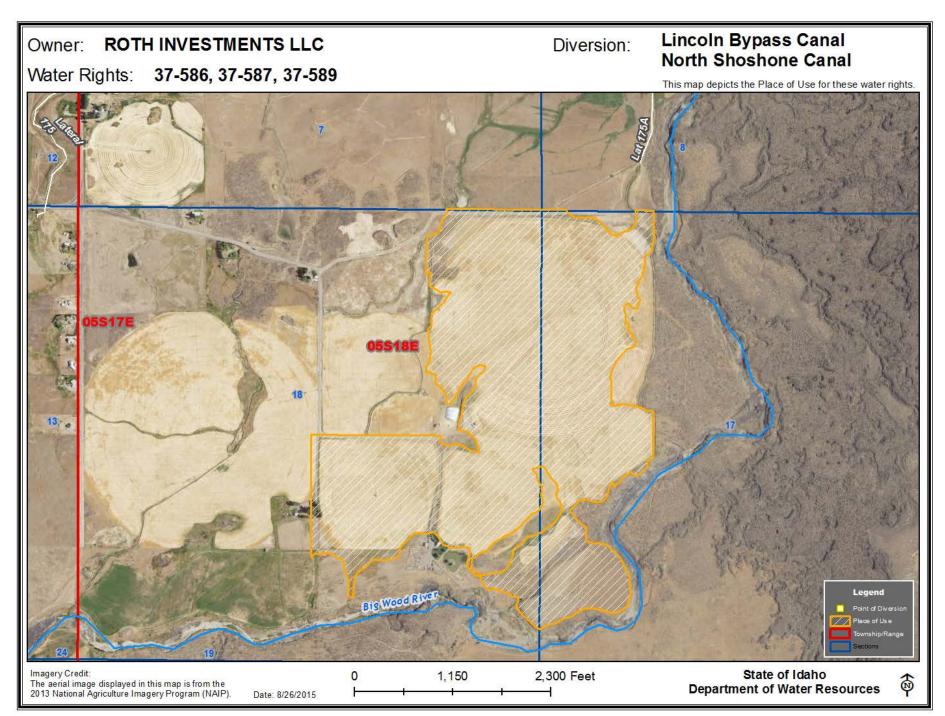
**Additional Comments:** The shape for the POU has not been updated since the pivots were installed and could use some adjusting. In the southeast corner of the farm (5S18E 17 SWSW) there are 28 acres of the POU that appear to have been dried up. The property associated with the 28 acres is now under separate ownership (Randall Keading); if the property was sold without water rights then a transfer should be filed to move the water rights onto property owned by Roth Investments.



1. Downstream view of 175AL End weir blade; to the right is a submerged orifice and screw top head gate for separate diversion for different user.



2. Upstream view of 175AL End weir blade.



Owner: Labbee, Brandon

Water Right Number(s): 37-21658 (8/6/1902; 0.07 cfs)

**Diversion Name:** 916 CBL 2 – BWCC-AFRD2 lateral head gate re-diversion

**Field Visit Date:** 08/17/2015

**Diversion Location:** Diversion from the 916CBL 2 is about 9 miles northwest of Shoshone. The head of the 916CBL is from the Milner Gooding Canal but the water right points of diversion is the Lincoln Bypass and North Shoshone Canals. Diversion and POU are located below Milner Gooding Canal.

**Combined/Other Water Rights & Sources:** Water Right is limited to 5 acres of irrigation. IDWR staff identified 5 shares of BWCC-AFRD2 water associated with the water right POU (customer #267).

Right includes the following conditions: S03 – combined with water from American Falls Reservoir Dist. No. 2; 161 - Delivery of this right is subject to the water exchange provisions contained in Bureau of Reclamation contract no. 14-06-W-73, executed October 14, 1954, between the United States of America and American Falls Reservoir District No. 2, as supplemented by Bureau of Reclamation contract no. 14-06-100-6031, executed June 1, 1962, between and among the United States of America, American Falls Reservoir District No. 2, and the Big Wood Canal Company.

**Diversion Description:** The 916CBL 2 diversion from 916CBL has a screen off the lateral and 18" screw top head gate.

**Measuring Device:** Submerged orifice (12"x18").

**Conveyance & Irrigation System:** The distance from the diversion to the POU is approximately 1 mile. From the diversion the water is piped, the exact path is unknown and it is possible that at some point the water does come out in a ditch or pond. The diversion and conveyance system is shared with another user (Ron Braun). The irrigated property associated with this water right is pasture and lawn for a home. Total irrigated area from digitizing 2015 NAIP imagery is approximately 2.5 acres.

**Additional Comments:** This 5 acre water right (37-21658, Labbee) was part of a larger parent water right (37-25A) for 40 acres that was split. The other 35 acre water right (37-21659, Braun) has the same diversion and conveyance system but was not included in the water call.



1. 916CBL 2 diversion and submerged orifice.

Lincoln Bypass Canal, Diversion: Owner: LABBEE, BRANDON **North Shoshone Canal** Water Rights: **37-21658** This map depicts the Place of Use for these water rights. 05S16E Point of Diversion // Place of Use Imagery Credit: The aerial image displayed in this map is from the 2013 National Agriculture Imagery Program (NAIP). State of Idaho 200 400 Feet **Department of Water Resources** Date: 8/26/2015

Owner: Westendorf, Nicholas

**Water Right Number(s):** 37-619B (5/1/1884; 0.8 cfs); 37-1191 (9/2/1902; 2.4 cfs) **Diversion Name:** 916 CBL 8 – BWCC-AFRD2 lateral head gate re-diversion

**Field Visit Date:** 08/17/2015

**Diversion Location:** Diversion from the 916CBL 8 is about 8.5 miles northwest of Shoshone. The head of the 916CBL is from the Milner Gooding Canal but the water right points of diversion are the Lincoln Bypass and North Shoshone Canals. The water right POD is located above Milner Gooding Canal, the POU is located below Milner Gooding Canal.

**Combined/Other Water Rights & Sources:** Water Rights have a combined irrigation limit of 153 acres. IDWR staff identified 154 BWCC-AFRD2 shares associated with the water rights POU under the ownership of Kurt Westendorf (#3281).

Both rights include the following conditions: S03 – combined with water from American Falls Reservoir Dist. No. 2; 161 - Delivery of this right is subject to the water exchange provisions contained in Bureau of Reclamation contract no. 14-06-W-73, executed October 14, 1954, between the United States of America and American Falls Reservoir District No. 2, as supplemented by Bureau of Reclamation contract no. 14-06-100-6031, executed June 1, 1962, between and among the United States of America, American Falls Reservoir District No. 2, and the Big Wood Canal Company.

**Diversion Description:** Diversion is part of a 3-way spilt of the 916CB Lateral; 916CBL 8 is the middle diversion through a concrete box with a submerged orifice and screw top head gate.

**Measuring Device:** Submerged orifice (9"x24" opening).

**Conveyance & Irrigation System:** Water flows approximately 0.25 miles directly south down an open ditch and is used for flood irrigation. Crops are grain and alfalfa. Total irrigated area from digitizing 2015 NAIP imagery is approximately 152 acres. Water rights are limited to 153 acres.

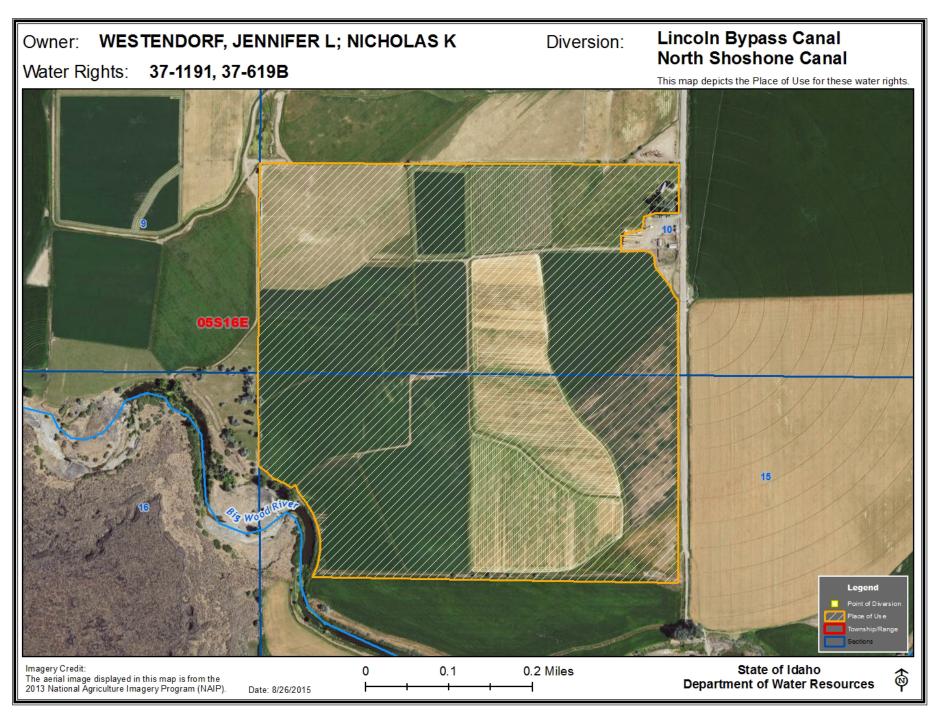
**Additional Comments:** The BWLWWUA delivery call petition identifies the water right owner as Jerry Westendorf but information submitted by BWLWWUA in August 2015 shows the rights owned by Nicholas Westendorf. The water rights ownership was changed to Nicholas Westendorf with IDWR in June 2015.



1. 916CBL8 diversion, directly south is the submerged orifice. Water comes from under the road heading south, to the left (east) is 916CBL End, to the right (west) 916CBL9.



2. Picture looking toward the 916CBL End diversion, off to the right is the 916CBL8 diversion, to the left is the water coming in from under the road.



Owner: Iest, Tina

**Water Right Number(s):** 37-619A (5/1/1884; 2.4 cfs); 37-620 (5/1/1891; 1.3 cfs) **Diversion Name:** 916 CBL End - BWCC-AFRD2 lateral head gate re-diversion

**Field Visit Date:** 08/17/2015

**Diversion Location:** Diversion for the 916CBL End is located approximately 8.5 miles northwest of Shoshone. The water right points of diversion are the Lincoln Bypass and North Shoshone Canals. The head of the 916CBL is from the Milner Gooding Canal. The water right POD is above Milner Gooding Canal, the POU is located below Milner Gooding Canal.

**Combined/Other Water Rights & Sources:** Water Rights 37-619A (129.7 acres) and 37-620 (66.8 acres) irrigate a portion of a large farm owned by Iest. The water rights are combined with BWCC-AFRD2 shares listed in BWCC-AFRD2 records for Iest, there are 773 shares for customer #3281.

Both rights include the following conditions: S05 – combined with water from Big Wood Canal Co.; S03 – combined with water from American Falls Reservoir Dist. No. 2; 161 - Delivery of this right is subject to the water exchange provisions contained in Bureau of Reclamation contract no. 14-06-W-73, executed October 14, 1954, between the United States of America and American Falls Reservoir District No. 2, as supplemented by Bureau of Reclamation contract no. 14-06-100-6031, executed June 1, 1962, between and among the United States of America, American Falls Reservoir District No. 2, and the Big Wood Canal Company.

**Diversion Description:** Diversion is part of a 3 way spilt of the lateral, 916CBL End is a concrete box with wooden check boards. The other two diversions are submerged orifices thus allowing for any overflow water to the 916CBL End diversion.

Measuring Device: 36" wooden check boards.

**Conveyance & Irrigation System:** Water flows approximately 0.4 miles south down an open ditch to a pond where it is pumped into a pivot. Ditch rider stated that the corner of the pivot is flood irrigated. Total irrigated area from digitizing 2015 NAIP imagery is approximately 270 acres. Water rights are limited to 196.5 acres. Additional lands are likely irrigated with canal shares.

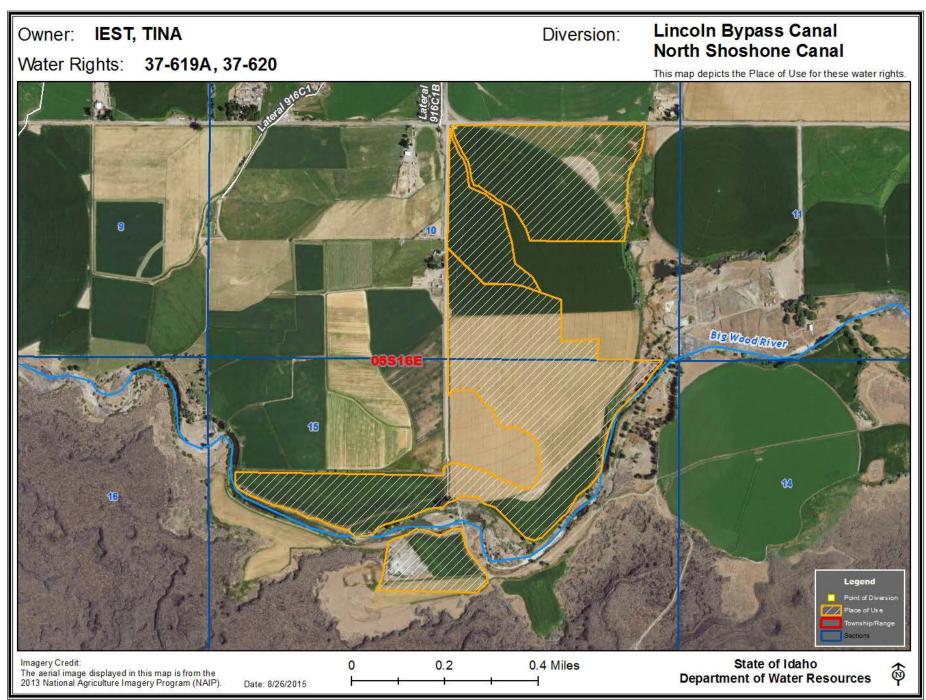
**Additional Comments:** There are also approximately 5 acres of irrigation on BLM land.



1. Ritter Pump 66: intake pipe from river to pump.



2. Ritter Pump 66: CMP well to vertical turbine 50 HP pump, connected to dragon filter (background, left) and mainline (right, with 10 inch Mag meter).



Owner: Northview Farms LP

**Water Right Number(s):** 37-616 (5/10/1897; 2.7 cfs)

**Diversion Name:** 916L End - BWCC-AFRD2 lateral head gate re-diversion

**Field Visit Date:** 08/17/2015

**Diversion Location:** Diversion from the 916L End is about 8 miles northeast of Gooding. The head of the 916L is from the Milner Gooding Canal. The water right points of diversion are the Lincoln Bypass and North Shoshone Canals. Diversion and POU are located below Milner Gooding Canal.

**Combined/Other Water Rights & Sources:** Water Right is limited to 131 acres of irrigation. IDWR staff identified 153 shares of BWCC-AFRD2 water associated with the water right POU (customer #268).

Right includes the following conditions: S03 – combined with water from American Falls Reservoir Dist. No. 2; S05 – combined with water from the Big Wood Canal Co.; 161 - Delivery of this right is subject to the water exchange provisions contained in Bureau of Reclamation contract no. 14-06-W-73, executed October 14, 1954, between the United States of America and American Falls Reservoir District No. 2, as supplemented by Bureau of Reclamation contract no. 14-06-100-6031, executed June 1, 1962, between and among the United States of America, American Falls Reservoir District No. 2, and the Big Wood Canal Company.

**Diversion Description:** Concrete structure with metal weir blade. This is the last diversion on the ditch and is designed to take any overflow water.

Measuring Device: 36" Cipolletti weir.

**Conveyance & Irrigation System:** Water travels through an open ditch approximately 1 mile to a pond where it is used in a pressurized irrigation system associated with a pivot. It also appears that the corners of the pivot are flood irrigated. The crop on the farm is alfalfa. Total irrigated area from digitizing 2015 NAIP imagery is approximately 125 acres. Water right is limited to 131 acres.

**Additional Comments:** The BWLWWUA delivery call petition identifies the water right owner as Double V LLC but information submitted by BWLWWUA in August 2015 shows the rights owned by Northview Farms LP. The water rights ownership was changed with IDWR in June 2015.



1. 916L End diversion and weir.



2. 916L End diversion: head gate off to the right is not a working diversion.

**Lincoln Bypass Canal** Owner: NORTHVIEW FARMS LP Diversion: **North Shoshone Canal** Water Rights: 37-616 This map depicts the Place of Use for these water rights. Lateral 916D // Place of Use State of Idaho 0 0.1 0.2 Miles The aerial image displayed in this map is from the 2013 National Agriculture Imagery Program (NAIP). **Department of Water Resources** Date: 8/26/2015

Owner: Faulkner, Tom; Bliss Point Cattle Inc.

Water Right Number(s): 37-22534 (Faulkner - 6/1/1884; 1.41 cfs; 91.4 acres), 37-22658 (Bliss

Point Cattle Inc. -6/1/1884; 0.77 cfs; 50 acres) **Diversion Name:** Dietrich Pump No. 33-PA

**Field Visit Date:** 06/26/2015

**Diversion Location:** Diversion from the Big Wood River about 34 miles NW of Gooding

Combined/Other Water Rights & Sources: IDWR staff confirmed combined sources include 53.57 shares of water from BWCC-AFRD 2 (Faulkner contract 389), and 45.63 shares from BWCC-AFRD2 (Bliss Point Cattle Inc contract 280). Other right(s) located at this same POD includes 37-287A, but diverted to separate pump (Desert Rose Ranch Inc.). Each right referenced above includes conditions that use of right is combined with water from BWCC and AFRD2. Rights also include AFRD2 exchange condition.

**Diversion Description:** Diversion directly from the Big Wood River into a common sump shared with Desert Rose Ranch. Common sump has two separate pumps used to split water according to use (one to Faulkner-Bliss Point Cattle and one to Desert Rose Ranch). The Faulkner-Bliss point pump is a 60 HP vertical turbine motor, discharges to 8 inch mainline.

**Measuring Device:** Installed McCrometer propeller flow meter on 8 inch mainline below the dragon filter. Meter reading was 400 gpm at time of visit. Meter has adequate straight run pipe upstream and downstream.

**Conveyance & Irrigation System:** Irrigation system includes a short coupled turbine pump that pressurizes 2 center pivots and some corner hand lines.

**Additional Comments:** Place of use for right 37-22658 extends into a quarter-quarter section not included on water right; right is limited to 50 acres but irrigated area per 2015 imagery is about 55.5 acres. Some adjustment to water right POU may be warranted.



1. Faulkner-Bliss Point pump: pump/60 HP motor in background from sump to 8" mainline, dragon filter, and mainline off filter.

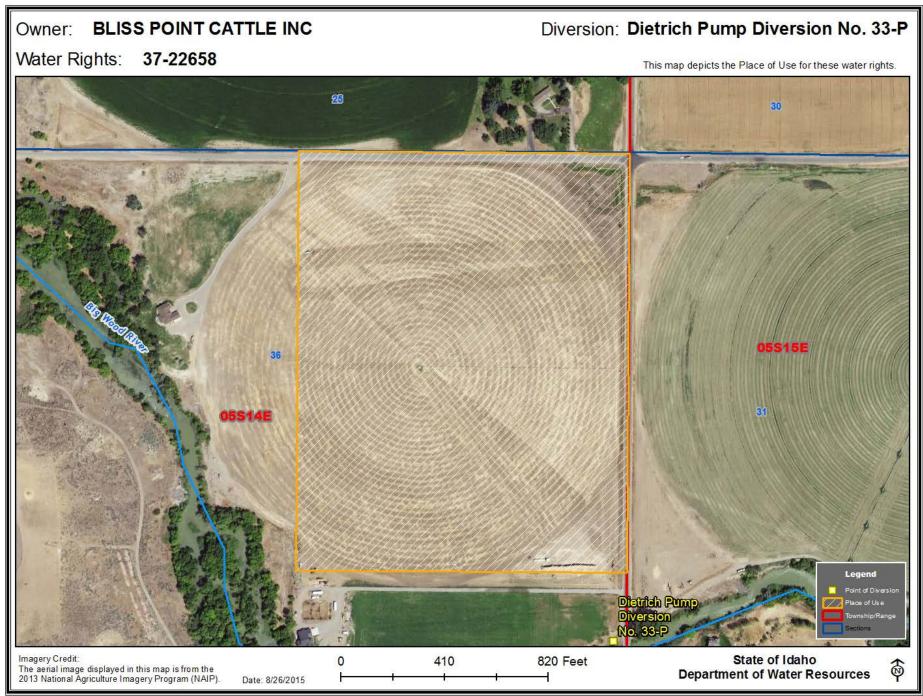


2. Faulkner – Bliss Point pump: McCrometer flow meter on mainline below dragon filter.

Owner: FAULKNER, KIM; FAULKNER, TOM Diversion: Dietrich Pump Diversion No. 33-P Water Rights: 37-22534 This map depicts the Place of Use for these water rights. Big Wood River Legend State of Idaho 890 Feet 445 The aerial image displayed in this map is from the 2013 National Agriculture Imagery Program (NAIP). **Department of Water Resources** Date: 8/26/2015

Appendix 1

Faulkner, Tom/Bliss Point Cattle, Inc.



Appendix 1 Faulkner, Tom/Bliss Point Cattle, Inc. Page 5 of 5 **Owner:** Desert Rose Ranch Inc.

Water Right Number(s): 37-287A (6/1/1884; 0.33 cfs)

**Diversion Name:** Dietrich Pump No. 33-PB

**Field Visit Date:** 06/26/2015

Diversion Location: Diversion from the Big Wood River about 3/4 miles NW of Gooding

**Combined/Other Water Rights & Sources:** IDWR staff confirmed combined sources include 9 shares of water from BWCC-AFRD 2 (contract #13051). Right 37-287A includes conditions that use of right is combined with water from BWCC and AFRD2. Right also includes AFRD2 exchange condition.

**Diversion Description:** Diversion directly from the Big Wood River into a common sump shared with Faulkner/Bliss Point Cattle. Common sump has two separate pumps used to split water according to use (one to Faulkner-Bliss Point Cattle, and one to Desert Rose Ranch). Desert Rose pump is a 20 HP centrifugal pump that discharges to a 6 inch mainline coupled to a dragon filter with a 6 inch line off the filter.

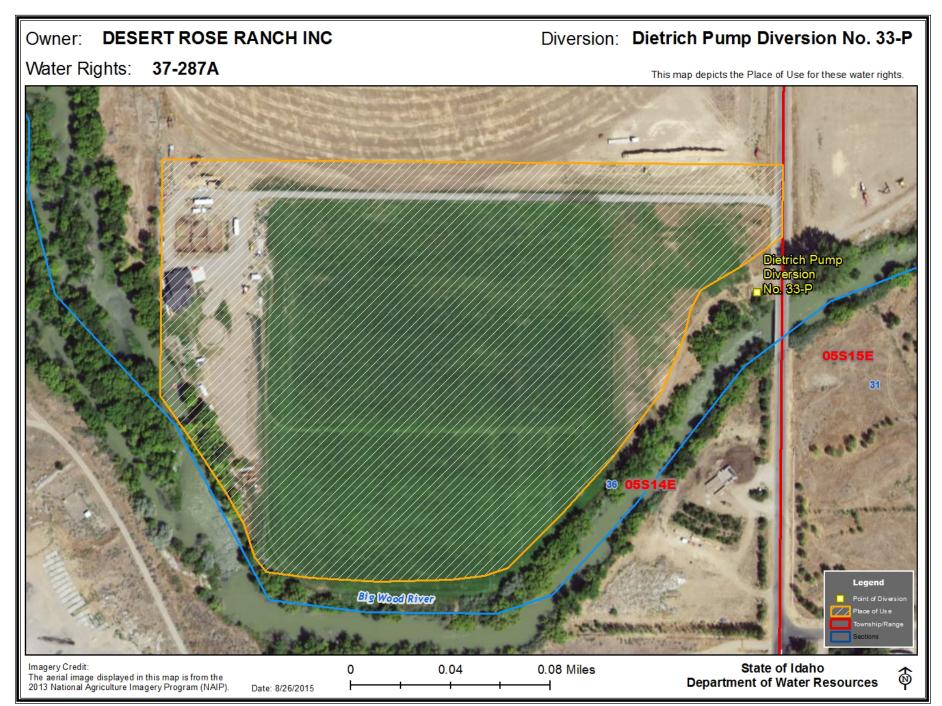
**Measuring Device:** Installed McCrometer propeller flow meter on 6 inch mainline above the dragon filter. Meter has adequate straight run pipe upstream and downstream.

**Conveyance & Irrigation System:** Irrigation system includes a short coupled turbine pump that pressurizes one short center pivot and corner hand lines. Irrigated area per 2015 imagery is about 14 to 15 acres, water right authorizes 21 acres.

**Additional Comments:** N/A



1. Desert Rose pump: 15 HP centrifugal pump (on right, view partially blocked by filter) to 6" mainline, dragon filter and mainline off filter (on right hand side of photo). McCrometer meter on 6" mainline above dragon filter. Faulkner pump on left shares same CMP wet well/sump.



**Owner:** 4 Bros Dairy Inc.

**Water Right Number(s):** 37-611 (4/30/1891; 2.8 cfs), 37-612 (6/2/1903; 1.6 cfs)

**Diversion Name:** DL End - BWCC-AFRD2 lateral head gate re-diversion

**Field Visit Date:** 08/17/2015

**Diversion Location:** The DL End is located approximately 5 miles northwest of Shoshone. The DL diverts from Milner Gooding Canal. The water right point of diversion is the North Shoshone Canal. The water right POD is above Milner Gooding Canal and POU is below the Milner Gooding Canal.

**Combined/Other Water Rights & Sources:** Water rights 37-611 and 37-612 have a combined use limit of 134 acres. There are 70 shares of BWCC-AFRD2 water per BWCC Certificate 12299, also 98.8 acres of BWCC-AFRD2 water per customer #302 (as per BWLWWUA information and IDWR review of BWCC records).

**Diversion Description:** Concrete structure with 15" screw top head gate. The water is diverted right from the Milner Gooding Canal and is measured after the head gate. Since it is the only diversion it is considered the end.

Measuring Device: 48" Cipolletti weir.

**Conveyance & Irrigation System:** After the water passes the weir it is piped south to a pond where it is pumped into several pivots. The ditch rider stated that the crops on the farm are alfalfa and corn. Total irrigated area from digitizing 2015 NAIP imagery is approximately 105 acres. Water rights are limited to 134 acres.

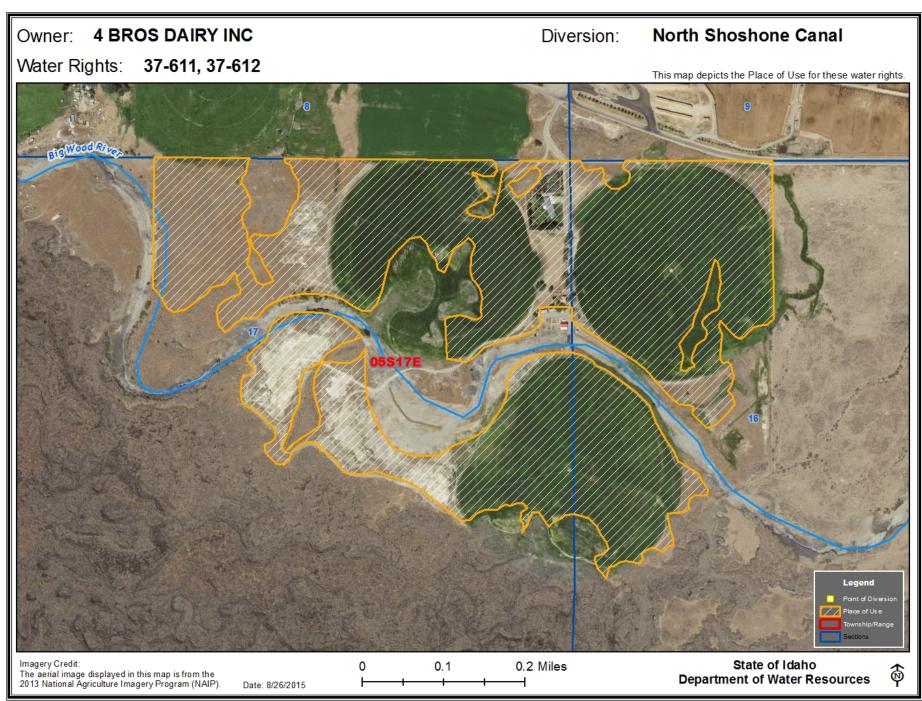
**Additional Comments:** The POU has not been updated since the pivots were installed and there appears to be some fields that are not currently irrigated, a transfer may need to be filed.



1. The DL End head gate off of the Milner Gooding Canal.



2. The DL End weir located directly after the diversion from the Milner Gooding Canal.



**Owner:** 4 Bros Dairy

**Water Right Number(s):** 37-21393 (5/1/1896; 0.908 cfs)

**Diversion Name:** FL 5 **Field Visit Date:** 08/17/2015

**Diversion Location:** About 6.3 miles northwest of Shoshone. The F Lateral diversion is from the Milner Gooding Canal. The location of this diversion is not physically able to get water over

to the POU identified on the water right.

Combined/Other Water Rights & Sources: Water right contains condition F01 - Water is delivered through the North Shoshone Canal. Water rights identify that water is from the North Shoshone Canal; however the F Lateral is diverted from the Milner Gooding canal. It is possible that there is an exchange of water between the two canals or water is diverted from the North Shoshone Canal and moved through a lateral to the Milner Gooding for diversion at the F Lateral. BWLWWUA information response indicated that there are 45.3 shares of BWCC-AFRD2 associated with this right (customer #271 – confirmed by IDWR per review of BWCC-AFRD2 records).

**Diversion Description:** Water is diverted from the F Lateral through a 10'' screw top head gate. Next to the FL5 diversion on the F Lateral is also the FL End measuring device.

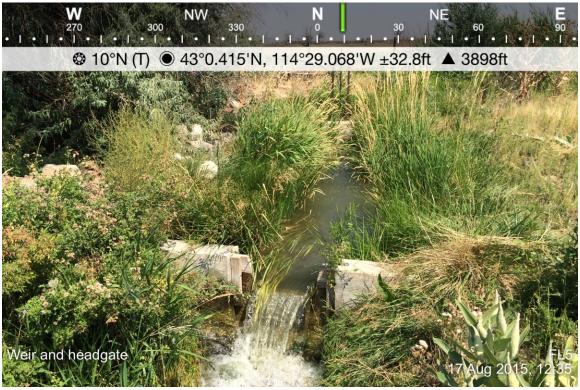
**Measuring Device:** Concrete and wooden structure with an 18" wooden weir. It was also noted that water was flowing past one side of the concrete structure. Ditch rider is going to fix it so all the water would pass over the weir.

**Conveyance & Irrigation System:** The ditch rider identified on a map the pivot being irrigated from the diversion on FL5 (5S17E 7 SW). Although the pivot is owned by 4 Bros Dairy it is not the POU identified on the water right (5S16E 12 SWNE). It is possible that the POD on FL5 is inaccurate and a different diversion is used to deliver water to the POU identified on the water right. The place of use identified on the water right is a portion of a pivot owned by 4 Bros Dairy. Total irrigated area from digitizing 2015 NAIP imagery is approximately 31 acres. The water right is limited to 30.6 acres.

**Additional Comments:** A review should be done to find out where this water right is being diverted and delivered. If necessary, a transfer should be filed to correctly represent the water right.



1. The FL5 diversion is a 10" screw top head gate, also shown is the FL End weir.



2. The FL5 weir and head gate in the background.

Owner: 4 BROS DAIRY

Diversion: North Shoshone Canal

Water Rights: 37-21393

This map depicts the Place of Use for these wa



Owner: Mohr, Steven

**Water Right Number(s):** 37-10210B (5/1/1896; .4 cfs); 37-20347 (5/1/1896; 0.38 cfs)

**Diversion Name:** FL End - BWCC-AFRD2 lateral head gate re-diversion

**Field Visit Date:** 08/17/2015

**Diversion Location:** The FL End is located approximately 6.3 miles northwest of Shoshone. The F Lateral diversion is from the Milner Gooding Canal. Diversion and POU located below Milner Gooding Canal.

Combined/Other Water Rights & Sources: Water rights contain condition F01 - Water is delivered through the North Shoshone Canal. Water rights identify that water is diverted from the North Shoshone Canal; however the F Lateral is diverted from the Milner Gooding canal. It is possible that there is an exchange of water between the two canals or water is diverted from the North Shoshone Canal and moved through a lateral to the Milner Gooding for diversion at the F Lateral. BWLWWUA information response indicated that there are no BWCC-AFRD2 shares for these rights. IDWR staff found BWCC-AFRD2 shares associated with this owner and lands described by the rights; 15.5 shares, customer #327, 10 shares, customer #334.

**Diversion Description:** Concrete structure with 30" weir. The FL End is the last diversion and it expected that it will receive some overflow water since it is designed to take all the water that has not been diverted.

Measuring Device: 30" Cipolletti weir.

**Conveyance & Irrigation System:** After the water passes the weir it flows through an open ditch approximately 1.3 miles to the property owned by Mr. Mohr. The water is pumped into wheel lines to irrigate. The ditch rider stated that the crops on the farm are typically alfalfa and pasture. Total irrigated area from digitizing 2015 NAIP imagery is approximately 30 acres. Water rights are limited to 32 acres.

**Additional Comments:** The POU has had minor changes to the areas irrigated; a transfer may need to be filed.



1. FL End weir, to the left of the weir is the FL5 head gate.

Owner: MOHR, ELIZABETH A; MOHR, STEVEN **North Shoshone Canal** Diversion: Water Rights: 37-10210B This map depicts the Place of Use for these water rights. Big Wood River State of Idaho Imagery Credit: 0.05 0.1 Miles The aerial image displayed in this map is from the 2013 National Agriculture Imagery Program (NAIP). Department of Water Resources Date: 8/26/2015

Owner: MOHR, ELIZABETH A; MOHR, STEVEN A Diversion: North Shoshone Canal Water Rights: 37-20347 This map depicts the Place of Use for these water rights. Imagery Credit: State of Idaho 0.05 0.1 Miles The aerial image displayed in this map is from the 2013 National Agriculture Imagery Program (NAIP). **Department of Water Resources** Date: 8/26/2015

Owner: Mohr, Wendy

**Water Right Number(s):** 37-10210A (5/1/1896; 0.4 cfs)

**Diversion Name:** FL End - BWCC-AFRD2 lateral head gate re-diversion

**Field Visit Date:** 08/17/2015

**Diversion Location:** The FL End is located approximately 6.3 miles northwest of Shoshone. The F Lateral diversion is from the Milner Gooding Canal. Diversion and POU located below Milner Gooding Canal.

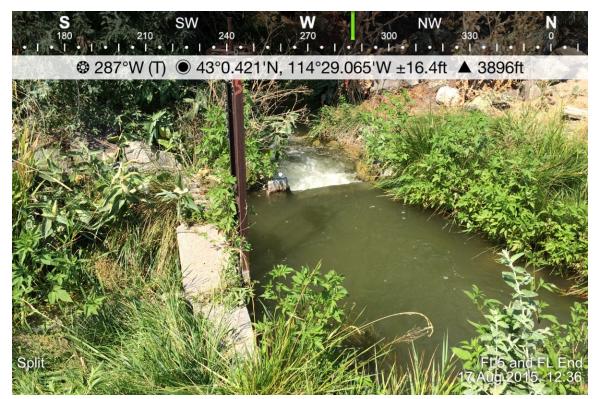
Combined/Other Water Rights & Sources: Water right contains condition F01 - Water is delivered through the North Shoshone Canal. Water right POD is the North Shoshone Canal; however the F Lateral is diverted from the Milner Gooding canal. It is possible that there is an exchange of water between the two canals or water is diverted from the North Shoshone Canal and moved through a lateral to the Milner Gooding for diversion at the F Lateral. BWLWWUA information response indicated that there are no BWCC-AFRD2 shares associated with this right. IDWR staff found 15.5 shares of BWCC-AFRD2 water associated with this owner and lands described by the rights (customer #275).

**Diversion Description:** Concrete structure with 30" weir. The FL End is the last diversion and it expected that it will receive some overflow water since it is designed to take all the water that has not been diverted.

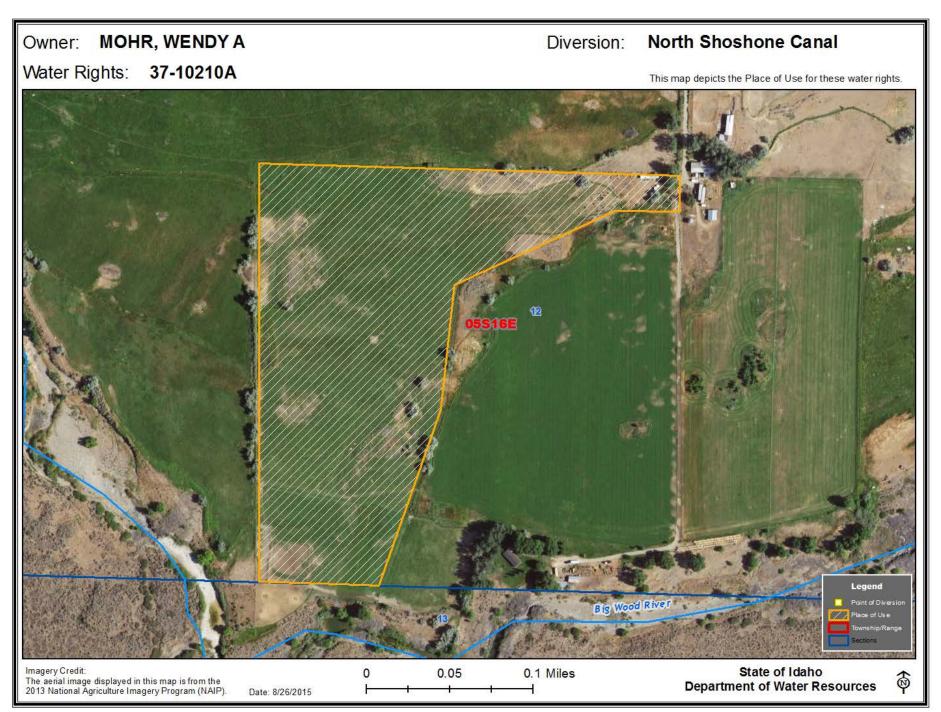
Measuring Device: 30" Cipolletti weir.

**Conveyance & Irrigation System:** After the water passes the weir it flows through an open ditch approximately 1.3 miles to flood irrigate property owned by Mrs. Mohr. The ditch rider stated that the crops are typically alfalfa and pasture. Total irrigated area from digitizing 2015 NAIP imagery is approximately 17.5 acres. Water right is limited to 20 acres.

**Additional Comments:** N/A



1. Shown is the FL End weir, to the left of the weir is the FL5 head gate.



Owner: Hults, David

Water Right Number(s): 37-22795 (5/1/1905; 1.2 cfs)

**Diversion Name:** Jones Pump No. 35 P-4B

Field Visit Date: 6/26/15

**Diversion Location:** Diversion is located approximately 3 miles NW of Gooding off River

Road.

**Combined/Other Water Rights & Sources:** Water right 37-22795 place of use is for 96 acres. IDWR staff confirmed combined sources of private held rights along with 50 shares of BWCC-AFRD2 water (contract #396). Water right includes conditions that use of right is combined with water from BWCC and AFRD2. Right also includes AFRD2 exchange condition.

**Diversion Description:** Cut or opening in river bank diverts water to a small pond with a pump intake pipe. An installed sump next to the pond with a short coupled turbine pump (25 HP vertical turbine motor) is used to pressurize the irrigation system. POD appears to be on neighboring property (Benko) with place of use south and west of River Road.

**Measuring Device:** Installed 8 inch Seametrics AG 2000 magnetic flow meter installed just below short coupled turbine pump in sump next to pond. Meter flow display about 182 gpm at time of visit.

**Conveyance & Irrigation System:** An 8 inch mainline from pump conveys water to 2 wiper pivots along with set irrigation systems in the corners on approximately 67 acres. Water right authorizes 96 acres under junior priority date.

**Additional Comments:** Physical point of diversion does not match legal descriptions per water rights. POD location is not authorized. Water right transfer is necessary to change POD location. Pump and meter installation. IDWR staff understands this pump was recently added or installed. Water was formerly diverted from the pump on Benko property, which is currently identified as Jones P-4A, and formerly identified as Jones P-4. Assistant watermaster confirms the newer Hults pump is Jones 35-P4B.



1. Hults pump or Jones 35-P4A: 25 HP pump in CMP sump from pond off river. Mainline to dragon filter, and mainline off filter to irrigation discharge points - pivots and corner hand lines.



2. View of sump, pump, and 8" mainline with Seametrics mag meter.

Diversion: Jones Ditch (Pump) Diversion No. 35-P **HULTS, DAVID; HULTS, NICOLE** Owner: Jones Pump Diversion No. 35 P-4 Water Rights: 37-22795 This map depicts the Place of Use for these water rights. Kra// 24 Jones Pump Krall Waste 05S14E Big Wood River Lateral 1465A2 Jones Ditch (Pump) Diversion Legend Place of Use 0.275 0.55 Miles State of Idaho Imagery Credit: The aerial image displayed in this map is from the 2013 National Agriculture Imagery Program (NAIP). 1 **Department of Water Resources** Date: 8/26/2015

**Owner:** Newell, Charles E.

Water Right Number(s): 37-432 (4/15/1885; 2.6 cfs) and re-diversion of Big Wood River right

37-59G (5/29/1887; 2.6 cfs)

**Diversion Name:** Mabutt Ditch 70

Field Visit Date: 7/29/2015

**Diversion Location:** Approximately 1 mile NW of Shoshone.

Combined/Other Water Rights & Sources: Water right has no conditions about use combined with water from BWCC-AFRD2. No AFRD shares or BWCC company shares identified by IDWR staff review. Right 37-432 is combined with 37-59G and 37-21135 with a total of 77.2 acres. Water right 37-21135 is an enlargement of 23.2 acres of 37-432 with a priority date of 4/15/1985. 37-432 is limited to 54 acres. Right 37-59G is a Big Wood River 'Cottonwood decree' right. Right 37-59G and 37-432 appear to be additive so that total acres under two rights authorize 77.2 acres if 37-59G (1899 priority) is deliverable. Otherwise, use is curtailed to 54 acres.

**Diversion Description:** A rock dam or ledge in river checks water to small side channel with notch for return/spill to river that is covered by wood planks. Water is diverted to ditch about 50 ft to concrete orifice-control box with submerged orifice for measurement and wooden slide gate with hand wheel for control. Open ditch below box to flood irrigation fields.

**Measuring Device:** Device is a wooden rectangular submerged orifice with 1 ft square opening. No sharp plate or crest around orifice opening.

**Conveyance & Irrigation System:** Open earth ditch about 350 ft to open flood irrigation fields located on south side of river between river and Highway 26.

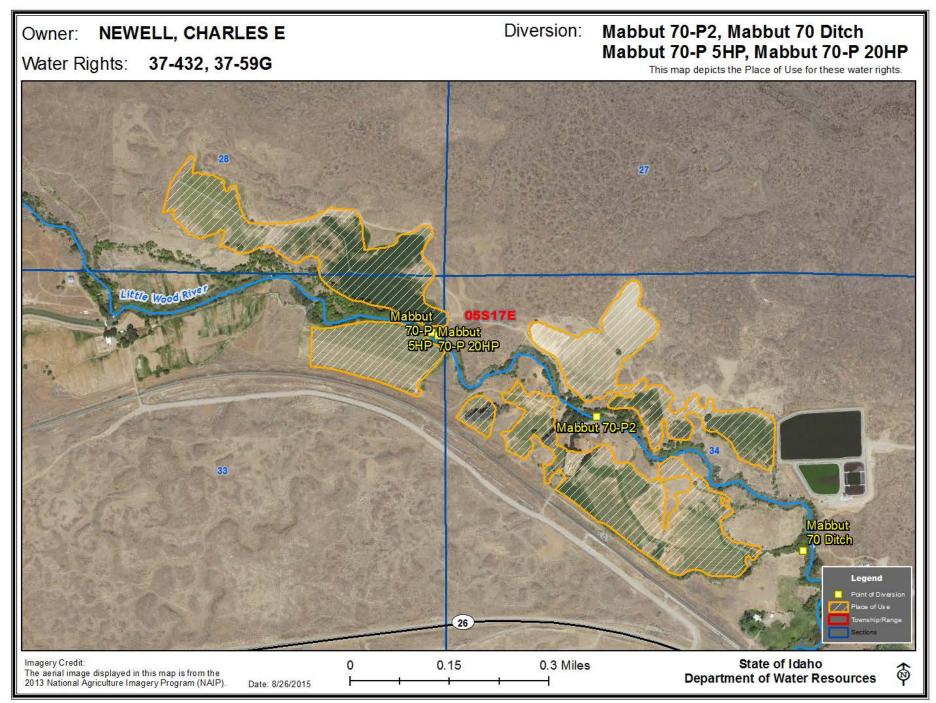
**Additional Comments:** Water rights show additional point of diversion in the SENWNW of Section 34 which presumably is not used since location was not visited with assistant watermaster. Water right(s) include 77.2 acres of irrigation use. Actual irrigated acres within water right boundaries were found to be less than 77.2 acres based on 2013/2015 NAIP imagery and Landsat imagery for June/July, 2015.



1. Mabbut 70 Ditch: orifice-gate box, rock diversion dam in river background not visible. Open ditch channel to fields on left



2. Mabbut 70Ditch: orifice-control gate box.



**Owner:** Newell, Charles E.

Water Right Number(s): 37-432 (4/15/1885; 2.6 cfs) and re-diversion of Big Wood River right

37-59G (5/29/1887; 2.6 cfs) **Diversion Name:** Mabutt 70P **Field Visit Date:** 7/29/2015

**Diversion Location:** Diversion location is approximately 0.33 miles NW of Shoshone near the

end of Quail Ridge Rd.

Combined/Other Water Rights & Sources: Water right has no conditions about use combined with water from BWCC-AFRD2. No AFRD shares or BWCC company shares identified by IDWR staff review. Right 37-432 is combined with 37-59G and 37-21135 with a total of 77.2 acres. Water right 37-21135 is an enlargement of 23.2 acres of 37-432 with a priority date of 4/15/1985. 37-432 is limited to 54 acres. Right 37-59G is a Big Wood River 'Cottonwood decree' right. Right 37-59G and 37-432 appear to be additive so that total acres under two rights authorize 77.2 acres if 37-59G (1899 priority) is deliverable. Otherwise, use is curtailed to 54 acres.

**Diversion Description:** There are two pump stations on north side of river side-by side but having separate intakes from river. The first pump has an intake pump form river to sump and 5 HP pump that lifts water through a pipe that open discharges to a ditch. Ditch is short distance (estimated 20 ft to ditch). The second pump is a 20 HP centrifugal pump in wet well/sump that discharges water to two mainlines and sprinkler irrigation systems. This pump and wet well receives water through a diversion box along bank of river with a wooden submerged orifice and steel slide gate with hand wheel for control to short ditch and sump.

**Measuring Device:** There is no measuring device installed on the 5 HP lift pump, either on the mainline between the pump and ditch or in the ditch. Assistant watermaster said a pump rating is used for measurement on both the 5 HP and 20 HP pumps and combined as one measurement for reporting. The owner was present and explained that a submerged orifice is installed on the front of the diversion box from the river. A wooden gate on front of the diversion box has a submerged opening but it was fairly deep and could not be reached by hand. The water district does not use the orifice for measurement but it appears it could be used if the size is verified, and if a sharp metal crest or plate is installed around the opening.

**Conveyance & Irrigation System:** The 5 HP pump goes to open gravity ditch for flood irrigation of fields. The 20 HP pump connects to a mainline that splits to two separate pipes, one mainline to the northwest, and one 6 inch mainline to the south, to pressurized wheel and hand sprinkler lines and nozzles.

**Additional Comments:** Water rights show additional point of diversion in the SENWNW of Section 34 which presumably is not used since location was not visited with assistant watermaster. Water right(s) include 77.2 acres of irrigation use. Actual irrigated acres within water right boundaries were found to be less than 77.2 acres based on 2013/2015 NAIP imagery and Landsat imagery for June/July, 2015.



1. Mabbut 70-P: 5HP lift pump from sump to mainline and open ditch.



2. Mabbut &0-P: Viw of 5HP pump from river side, looking at mainline to ditch in background.



3. Mabbut 70P: Open ditch from 5 HP pump.



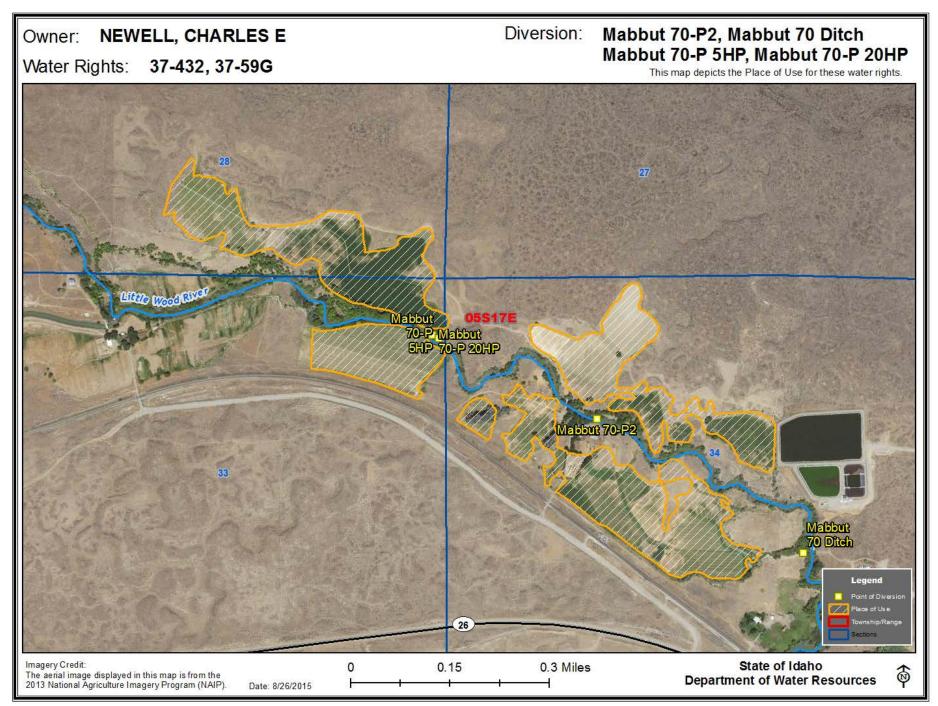
4. Mabbut 70P: 20 HP pump from wet well, to mainlines and sprinkler systems.



5. Mabutt 70P: 20 HP pump to discharge pipe that splits to two mainlines.



6. Mabbutt 70P: Diversion box in river that diverts water to wet well with pump. Submerged orifice on front/riverside of box and slide gate with hand wheel on ditch discharge side for control.



Owner: Meyers, Robert

**Water Right Number(s):** 37-20546 (5/15/1899; 0.95 cfs), 37-20548 (2/10/1906; 0.64 cfs)

**Diversion Name:** Poorman L 9 - lateral head gate re-diversion off Union Ditch 27

**Field Visit Date:** 08/17/2015

**Diversion Location:** Diversion from the Poorman L 9 is about 2.25 miles north of Gooding. The head of the Poorman is from the Union ditch. Diversion and POU are located below Milner Gooding Canal. The POD location for the water rights is the Poorman Ditch No. 29, which is no longer used. The actual water POD is the Union Ditch No. 27.

**Combined/Other Water Rights & Sources:** Water Rights have a combined irrigation limit of 72 acres. Water right is combined with 36 shares of BWCC-AFRD2 (customer #1842) and also 2 shares of BWCC-ARD2 (customer #282). BWLWWUA information response identified 39 shares of customer #282.

Both rights include the following condition: S05 – combined with water from Big Wood Canal Co.

**Diversion Description:** Concrete and wooden box with metal screw top head gate.

**Measuring Device:** Submerged orifice (6"x18" opening).

Conveyance & Irrigation System: There is some question as to what property this water right is used to irrigate, the ditch rider identified a property owned by Steve Victor as the POU (5S15E 20 SE) that is different than what is on the WR (5S15E 20 S1/2NW1/4). The ditch rider identified both properties as being operated by V&M; it is assumed that it would stand for Victor and Meyer. It is possible the properties are both irrigated from the same pressurized system. Crops are grain, alfalfa, and corn. Total irrigated area from digitizing 2015 NAIP imagery is approximately 70 acres. Water rights are limited to 72 acres.

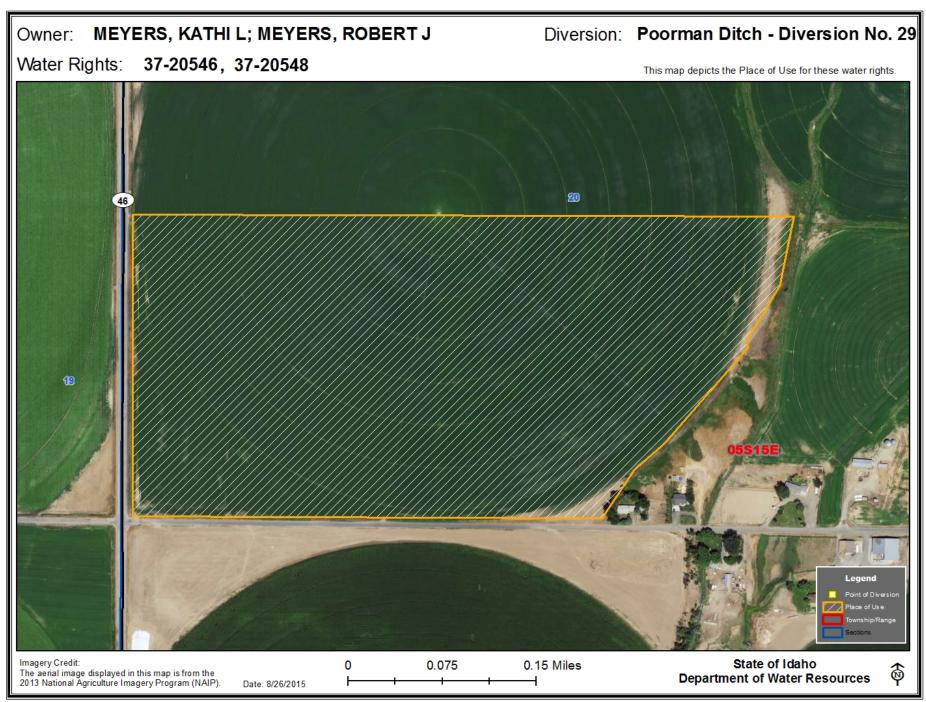
**Additional Comments:** A water right transfer should be filed to change the point of diversion from the Poorman Ditch to the Union Ditch.



1. Head gate in the center of the picture is the Poorman L9 diversion.



2. Poorman L9 head gate with submerged orifice.



**Diversion Name:** Richfield Canal

BWLWUA Water Right Owner(s) at this diversion: Arkoosh, John W; Arkoosh, William; T5

Ranch; Newell, Charles

**Water Right Number(s):** 37-59 G (Newell); 37-59M (Arkoosh, W); 37-10343 & 37-21485 (Arkoosh, J); 37-21836 (T5 Ranch). All water rights have 5/27/1899 priority dates. See

Attachment 1 for individual water right rates of diversion.

**Field Visit Date:** 05/26/2015 (Site visited with WD37 Watermaster)

**Diversion Location:** Canal diverts from Big Wood River about 2.3 miles south of Magic Reservoir, and about 22 miles north of Shoshone. Diversion located above Milner Gooding Canal. Water right POUs are below Milner Gooding Canal except for T5 Ranch right 37-21386 which is above Milner-Gooding.

Combined/Other Water Rights & Sources: Each of the above referenced water rights are diverted from the Big Wood River at the Richfield Canal and injected to the Jim Byrns Slough and Little Wood River, then re-diverted from the Little Wood River. Each of the rights is combined with Little Wood River natural flow water rights and may be combined with water from BWCC and/or AFRD2. See the individual summaries for BWLWWUA Little Wood River water right owners and diversions in Appendix 2 for further information regarding combined water rights and sources.

**Diversion Description:** A concrete dam across the river and gravel push up dam along upstream face of concrete dam diverts water to three large steel hydraulic control canal gates at head of Richfield Canal. A concrete box structure with an intake and Waterman type control gate is installed in the dam near the left bank of the river (looking downstream) to provide some control or release of water past dam. The three large hydraulic steel control slide gates are 10 ft. wide each and installed in concrete abutments and pillars/columns with grooves for gates. Control gates and concrete appear to be relatively new indicating recent upgrades or repairs to control structure.

A concrete check structure and spillway control gates are located on the canal about 365 yards below the main dam and large control gates. Three hydraulic steel slide gates set in concrete bank abutments and pillars provide control and spill to the Big Wood River and the two BWCC canals downstream on the river (Lincoln Bypass and North Shoshone Canals). Hydraulic slide gates and concrete abutments/pillars for gates also appear to have been recent upgrades or improvements. The concrete check structure across the dam includes stop log grooves for installing stop logs or dam boards for additional control water level control if necessary.

**Measuring Device:** A rated canal section with a stilling well and continuous recorder equipment is installed in the canal about 150 yards downstream of the spill gates. The BWCC currently measures the canal and maintains recorder equipment. BWCC makes periodic discharge rating measurements using a portable Acoustic Doppler Current Profile meter (ADCP). Measurements and recorder data are reported to the WD37 watermaster. BWCC maintains rated section and rating for Richfield Canal.

Conveyance & Irrigation System: The Richfield Canal conveys BWCC storage water from Magic Reservoir, BWCC Big Wood River decreed rights (junior priority) and the above referenced privately owned Big Wood River decreed rights about 11.5 to 12 miles southeast where the canal splits to the BWCC East and West Main Canals and the Jim Byrns Slough. The East and West Main Canals distribute water to various lateral ditches throughout the Richfield

Tract area. The Jim Byrns Slough conveys water about 16 miles around the east side of the Richfield Tract and BWCC-AFRD2 project boundary to the Little Wood River where it is injected to the river by the head of the Dietrich Main Canal. BWCC water from Magic Reservoir and the Big Wood River may be diverted to the Dietrich Main Canal or bypassed down the Little Wood River. The Dietrich Main conveys BWCC water to the Dietrich Tract area. The privately owned Big Wood River rights listed above are bypassed down the river channel and re-diverted at authorized water right points of re-diversion along the river both above and below the Milner Gooding Canal.

Additional Comments: The privately owned Big Wood River rights identified above have the same priority date (5/27/1899) and are among the 'Cottownwood Decree' rights. Some BWLWWUA members did not include their Big Wood River 1899 'Cottownwood Decree' rights in the BWLWWUA delivery call. IDWR understands that the 'Cottonwood Decree' rights are all diverted to the Richfield Canal, injected to the Jim Byrns Slough and the Little Wood River, and re-diverted at various points along the Little Wood River between Richfield and Gooding. See additional Little Wood River water right diversion summaries in Appendix 2 identifying other BWLWWUA owners and authorized re-diversions of the 1899 priority 'Cottonwood Decree' rights.



1. Richfield Canal: concrete diversion dam across river with gravel/dirt pushed-up along upstream face of dam. Concrete box and control gate for flow release and control is located near bank on left side of photo (view of river looking downstream.



2. Richfield Canal: hydraulic canal gates in concrete abutments at head of canal next to diversion dam across river.



3. Richfield Canal: downstream view of main canal gates next to river diversion dam.



4. Richfield Canal: Spillway gates located on canal downstream of main canal gates and river diversion dam about 365 yards. Water spills to the Big Wood River (located to the left of the photo). Check structure across canal to the right.



5. Richfield Canal: Spill gates in foreground, water spills to Big Wood River In background.



6. Richfield Canal hydraulic spillway slide gates.



7. View of Richfield Canal looking downstream from spill gates. Rated measurement section in canal at center of photo, about 150 yards downstream from spill gates.

Appendix 1 Richfield Canal Page 5 of 8



8. Richfield Canal rated measurement section and station. Stilling well in background houses continuous recorder equipment.



9. View of Big Wood River from Richfield Canal near canal spill gates. Big Wood River Gage Station #5 is located in background.



10. Big Wood River Gage Station #5 located in river below Richfield Canal spill gates; cable care in foreground and stilling well behind it.



11. Richfield Canal split BWCC East and West Main Canals (head gate control structure on right), and Jim Byrns Slough (head gate control structure on left side of photo).



12. Jim Byrns Slough: Downstream view of head gate structure taken from measuring device and stilling well shed.



13. Jim Byrns Slough measuring device and staff gage. Check dam type structure used as standard contracted rectangular weir (28 ft. width). Note head gate to small ditch next to weir (top – center of photo).

Owner: Sabala Farms Inc.

**Water Right Number(s):** 37-581 (4/2/1906; 3.2 cfs; 145 acres)

**Diversion Name:** Robertson Ditch and Sabala Farms re-diversion head gate

Field Visit Date: 7/29/2015: Visit made with Robertson Ditch Company ditch rider, Alan

Romans.

**Diversion Location:** Diversion from the Big Wood River is located 6 miles NE of Gooding into the Robertson Ditch.

Combined/Other Water Rights & Sources: IDWR staff verified this private water right is combined with 58.5 shares of BWCC-AFRD2 water (contract #262), and 29 additional shares or acres from BWCC-AFRD2. The Northside Canal Company water right place of use boundary also overlaps the place of use for the above referenced right. Water right 37-859A with a source of Dry Creek has a similar place of use under the water right listed above. Pivot system in 05S 14E section 15 appears to be a combination of 37-859A and 37-581 POUs. Combined water rights and total irrigated acres for these parcels total approximately 171 acres. Water right includes conditions that use of right is combined with water from BWCC and AFRD2. Right also includes AFRD2 exchange condition.

A number of decreed river rights plus BWCC-AFRD2 water shares are delivered to various uses on the Robertson Ditch. Water District 37 watermaster measures the ditch at canal heading. The watermaster reported that ditch maintenance and distribution is handled by the Robertson Ditch Company. Alan Romans is the ditch rider for the company (he is also a BWCC ditch rider).

**Diversion Description:** Diversion from the Big Wood River is located 6 miles NE of Gooding into the Robertson Ditch. A diversion dam in river checks water to an open ditch to a 8 ft x 8 ft concrete control structure with a steel slide gate across the opening attached to a hand wheel or turn screw for control. Conveyance from here is through open ditch to property located approximately 4.5 miles NW of Gooding at the end of the Robertson Ditch.

Head gate re-diversion is at split in ditch at the tail end of the Robertson Ditch. Water at this point is split 65% going to Sabala Farms and 35% to Dry Creek Partners. Split control is by weirs installed in concrete check structures. Any unused water past these users returns to Dry Creek.

**Measuring Device:** The head of the Robertson Ditch is measured with a 6 ft rectangular weir set 7 ft behind the control gate on the back end of the 8 ft x 8 ft concrete control gate structure. Weir is standard but approach flow condition is high in velocity and turbulent due to head gate control 7 ft upstream. Installed staff gage is very difficult to read. Measured head with hand held staff gage at 0.4 ft (5.00 cfs).

Sabala lateral has a 4 ft Cipolletti weir, Dry Creek Partners has 3 ft Cipoletti weir.

**Conveyance & Irrigation System**: Water flows through open lateral ditch to one or more re-lift pumps (as per ditch rider) to pressurized irrigation system consisting of 2 wiper pivots (approximately 1300 feet in length), and a small three tower pivot and set systems in the corners. About half of the south wiper pivot is not within the water right place of use.

**Additional Comments:** Ditch rider commented that flows at the end of this ditch is not consistent; there is always water at this location but not always same quantity, there is additional AFRD2 waste water at this end of ditch at times.



1. Robertson Ditch diversion dam across Big Wood River.



2. Robertson Ditch, head gate control structure with rectangular weir. Appendix 1 Sabala Farms, Inc.

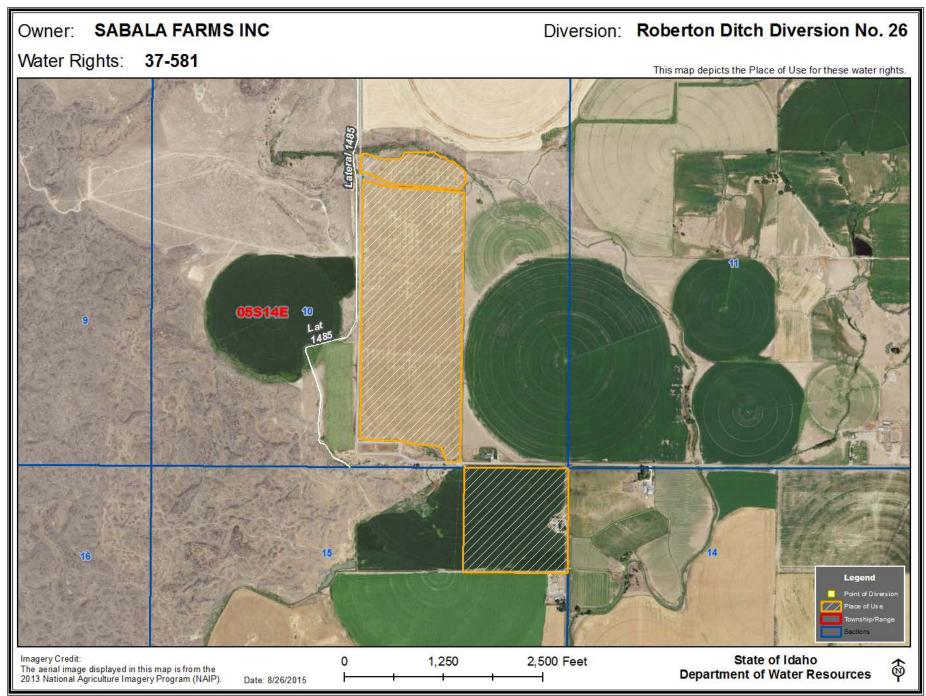
Page 2 of 4



3. Rectangular weir in head gate control box, about 7' below gate. Note high approach velocity and turbulence.



4. Split at end of Robertson Ditch to Sabala Farms (right hand side of photo) and other ditch user (left). Sabala control and measurement is a 4' Cipolletti weir in the concrete check structure.



Appendix 1 Sabala Farms, Inc. Page 4 of 4 **Owner:** Koyle, Ranley A.

**Water Right Number(s):** 37-607B (8/15/1886; 0.14 cfs), 37-608B (4/15/1887; 0.098 cfs)

**Diversion Name:** Silk 32-P (aka Severe Pump No. 32-P)

Field Visit Date: 6/26/2015

**Diversion Location:** Diversion is located approximately <sup>3</sup>/<sub>4</sub> of a mile north east of Gooding off 1700 S road.

**Combined/Other Water Rights & Sources:** Water under this diversion is primary Big Wood River water using rights referenced above. IDWR staff found no BWCC-AFRD2 shares to places of use as per review of BWCC-AFRD2 records. Rights have no conditions regarding use with water from BWCC-AFRD2 or AFRD2 exchange.

**Diversion Description:** Water is diverted directly from Big Wood River using intake pipe in river connected to CMP wet well or sump from which a centrifugal pump (HP not identified but size fairly small) pressurizes irrigation water through a 4" mainline to hand lines for irrigation of pasture.

**Measuring Device:** No flow meter or other measuring device installed. Assistant watermaster records the full water right diversion rate(s) when they are deliverable.

**Conveyance & Irrigation System:** Pump at river pressurizes water to a 4 inch mainline to hand lines for irrigation of pasture. Owner present at time of visit – he said they normally run about 18 rain birds at one time. Pasture field about 8 acres. IDWR finds about 8.75 acres per 2015 imagery, water right authorized 11 acres.

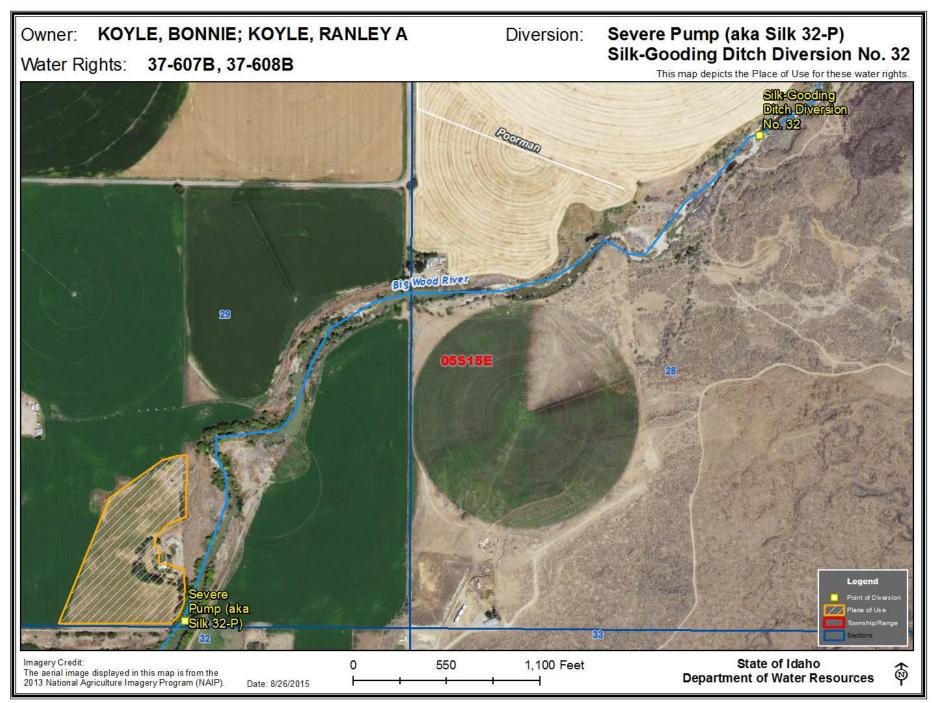
**Additional Comments:** N/A



1. Small size centrifugal pump in CMP sump to 4" mainline. Intake pipe from river (in background to sump.



2. Close-up view of sump and pump.



Owner: 4 Bros. Dairy, Inc.

Water Right Number(s): 37-11114B (4/27/1896; 5.3 cfs; 279 acres) **Diversion Name:** Union Ditch No. 27, BWCC Re-diversion head gate L2

**Field Visit Date:** 5/26/15 and 7/29/2015

**Diversion Location:** Diversion is located approximately 5.5 miles NE of Gooding; 5.25 miles east of HWY 46 on 1375 S road.

Combined/Other Water Rights & Sources: IDWR staff confirmed that this private right is combined with 236.21 shares of BWCC-AFRD2 water (contract #324). Water right includes conditions that use of right is combined with water from BWCC and AFRD2. Right also includes AFRD2 exchange condition. Ground water right 35-7575 is appurtenant or supplemental to 100% of the water right place of use.

**Diversion Description:** A concrete diversion dam across the river diverts water to Union Ditch heading with a concrete control structure having a steel slide gate across the opening attached to a hand wheel or turn screw for control. Conveyance from here is through open ditch to ditch rediversion head gate no. L2, which is a concrete orifice-had gate turnout box on side of canal.

**Measuring Device:** No measuring device is located at the head of the Union Ditch. However, BWCC uses the check structure located at this L2 head gate to measure total flow of the ditch (only one - two small diversion upstream). BWCC measures head above the 2 x 4 boards or stop logs installed in check structure and uses a standard rectangular weir formula and table to determine flow. The check structure is not a standard measuring device. The structure lacks any sharp crested plates on crest and sides which affects proper side contraction and aeration.

The L2 re-diversion is measured using a rectangular submerged orifice on front of head gate box (9" x 24"), which measured 175 inches (3.5 cfs) at time of visit. Orifice is standard and in good condition.

**Conveyance & Irrigation System:** Place of use is in sections 14 and 15 approximately 1.5 miles to the west. Water diverted from head gate fills a small pond form which water is re-diverted using three centrifugal pumps (50 HP, 40 HP and 25 HP) to irrigation system that consists of pivots and solid set hand line. Ground water well is located next to canal pumps and tied into the same irrigation conveyance system.

**Additional Comments:** N/A



1. Union Ditch 27 diversion dam across river.



2. Union Ditch control structure and head gate.



3. Union Ditch – L2 head gate and re-diversion for 4 Brothers right 37-11114B. Orifice gate box with submerged orifice (in box at top) and lateral gate with hand wheel control.



4. Pond and three centrifugal re-lift pumps to irrigation system. Well located behind utility pole is tied into same irrigation conveyance system.



5. Check structure in Union Ditch at L2 head gate (behind check dam to right). Check is used as rectangular weir for measurement of the Union Ditch.



6. View of check structure used as weir from L2 head gate.

Owner: 4 BROS DAIRY INC Union Ditch No. 27 Diversion: Water Rights: 37-11114B This map depicts the Place of Use for these water rights. Place of Use Imagery Credit: The aerial image displayed in this map is from the 2013 National Agriculture Imagery Program (NAIP). State of Idaho 0.3 Miles 0.15 **Department of Water Resources** Date: 8/26/2015

Appendix 1 4 Bros Dairy, Inc. Page 5 of 5 Owner: Lenguineche, Joe

Water Right Number(s): 37-178 (5/1/1896; 2.5 cfs)

**Diversion Name:** Union Ditch No. 27, BWCC Re-diversion head gate

**Field Visit Date:** 5/26/15 and 7/29/2015

**Diversion Location:** Diversion is located approximately 5 miles NE of Gooding

**Combined/Other Water Rights & Sources:** IDWR staff confirmed that this private right is combined with 111 shares or acres of BWCC-AFRD2 water (contract/customer #291). Water right includes conditions that use of right is combined with water from BWCC and AFRD2. Right also includes AFRD2 exchange condition.

**Diversion Description:** Union Ditch heading - see description for Union Ditch diversion dam and head in 4 Brothers summary (37-1114B).

Conveyance from Union ditch heading is through open ditch to ditch re-diversion head gate which is a concrete orifice-head gate turnout box on side of canal.

**Measuring Device:** See 4 Brothers Dairy summary for description of Union Ditch measuring device.

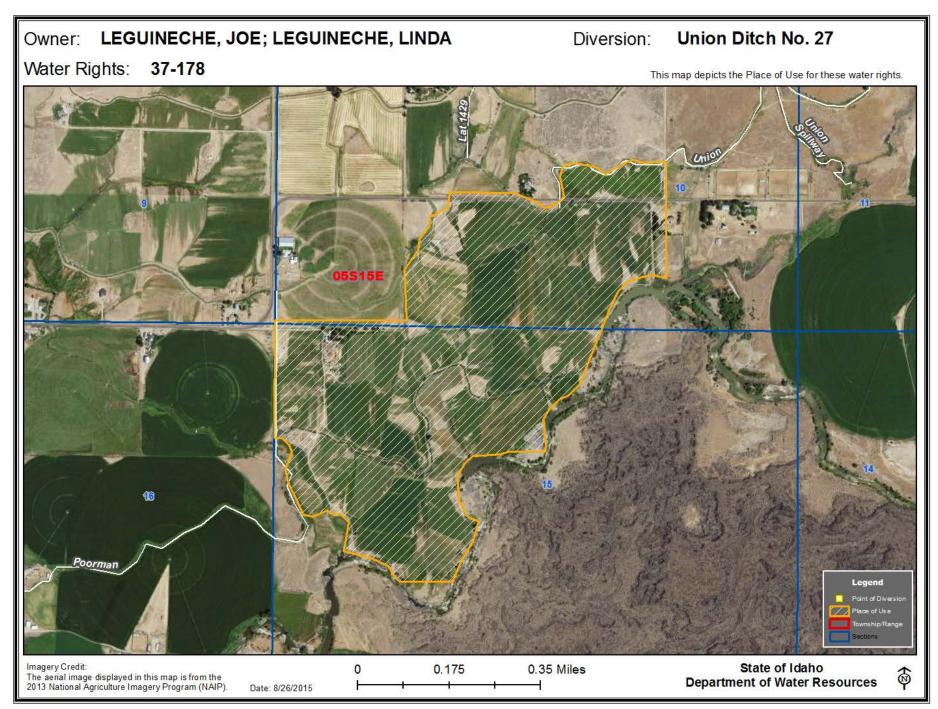
The Lenguineche re-diversion is measured using a rectangular submerged orifice on front of head gate box (9" x 18").

**Conveyance & Irrigation System:** Water diverted from head gate flows to open ditch and flood irrigation of fields. Place of use is adjacent to head gate and south.

**Additional Comments:** N/A



1. Union Ditch 27 Lenguineche re-diversion head gate, orifice – head gate control box. Water diverted to open ditch and flood irrigation system.



**Owner:** M & M Farms

Water Right Number(s): 37-72B (4/1/1885, 2.2 cfs), 37-21279 (11/1/1913; 6.4 cfs)

**Diversion Name:** Union Ditch No. 27

Field Visit Date: 5/26/2015 - visited head of Union Ditch only; M&M re-diversion head gate

was not visited.

**Diversion Location:** Diversion is located approximately 5 miles NE of Gooding

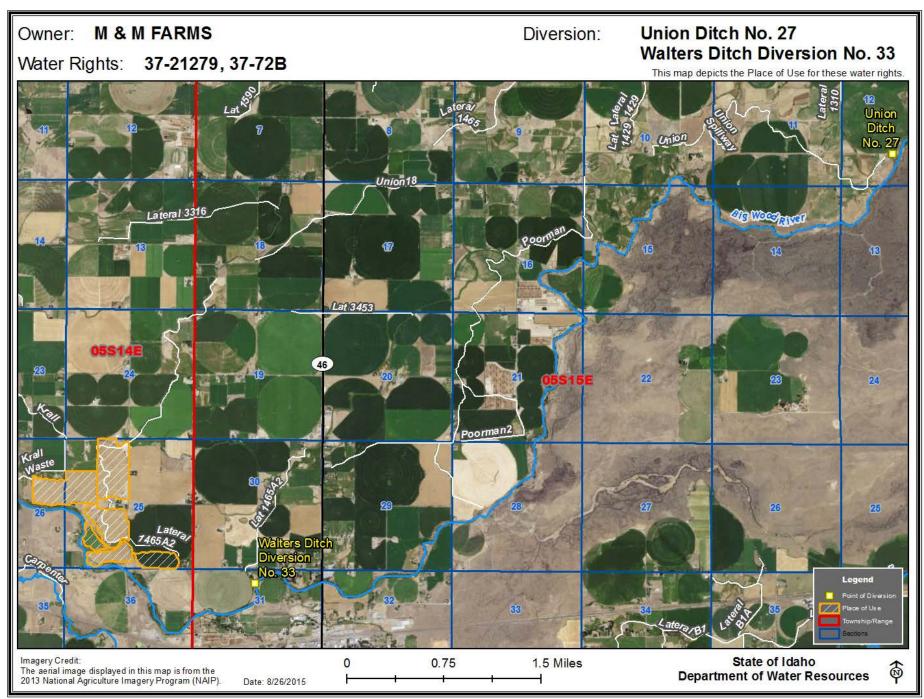
Combined/Other Water Rights & Sources: IDWR staff confirmed that this private right is combined with 109 shares or acres of BWCC-AFRD2 water (contract/customer 300 & 11702). Both water right includes conditions that use of right is combined with water from AFRD2. Bothe rights also include AFRD2 exchange condition. Place of use for both rights is limited to 176 acres in a 245 acre permissible place of use.

**Diversion Description:** Union Ditch heading - see description for Union Ditch diversion dam and head in 4 Brothers summary (37-1114B).

**Measuring Device:** See 4 Brothers Dairy diversion summary for description of Union Ditch measuring device.

**Conveyance & Irrigation System:** Place of use for both water rights includes center pivot irrigation systems and several small fields with wheel or hand lines.

**Additional Comments:** Portions of the place of use cover only portions of pivots. Some adjustment of water right place of use may be warranted.



Owner: Oppio Land & Livestock LLC

Water Right Number(s): 37-238A, (4/15/1883; 2.0 cfs), 37-239A (8/29/1884; 1.72 cfs), 37-

240A (6/1/1895; 2.28 cfs)

**Diversion Name:** Upper Frost 38-P1 & P2

**Field Visit Date: 6/26/2015** 

**Diversion Location:** Diversion from Malad River about 3.5 miles southwest of Gooding. POU on both east and west sides of the Malad River about 1.75 miles south of Hwy 26 west of 1500 E.

**Combined/Other Water Rights & Sources:** Combined sources included 94 shares of water from BWCC-AFRD 2 as per BWCC-AFRD2 records and confirmed by IDWR staff. Water rights include AFRD2 exchange condition and condition S03 – use combined with water from AFRD2.

**Diversion Description:** A cut or opening in river bank to a small pond with two intake pipes connected to separate CMP wet wells or sumps. One sump has a 50 HP short coupled turbine pump that discharges to an 8 inch mainline. The other sump has a 15 HP centrifugal Parma type lift pump connected to 14inch mainline. A second centrifugal Parma lift pump is set in the first sump with the 50 HP pump and connected to the 14 inch mainline but did not appear to be operable and may have been disconnected. Pumps and mainlines convey pressurized discharge to pivots and set systems ¼ mile to the south of the diversion. Pumps operated with variable speed drive control panel.

**Measuring Device:** Measuring devices for this diversion include two McCrometer propeller flow meters, one 8 inch and one 14 inch. The two meter measurements are combined for one delivery record. The 8 inch line with 50 HP pump was reading 500 gpm at time of visit. The 14 inch line/15 HP pump was off at visit. Eight inch meter lacked full straight length pipe diameter requirement upstream of meter (57 inches vs. 80 inches).

**Conveyance & Irrigation System:** Irrigation to pivots and set system irrigation on both sides of the Malad River. Power panel controls had label for five tower pivot and a three tower pivot. Observed hand lines running near pumps.

**Additional Comments:** The physical point of diversion from the river and pumps location does not match the water rights' point of diversion legal description. The actual location is in the SESW of Section 16, T5S, R 14E; water right POD is NWSE Section 16. A transfer is recommended to update the water right point of diversion. Northside Canal Company water right boundary overlaps the water rights place of use. Water rights place of use includes portions of other center pivots that are not included within the water rights place of use. Some minor adjustment to water rights place of use area may be warranted.



1. Oppio pumps: small pond from river in background to pipe intake/sump on left with 50 HP pump in background connected to 8" mainline. A 14" mainline in foreground from sump and 15 HP centrifugal pump on right. Note flow meter on 14" mainline.



2. Sump on right with 15 HP centrifugal pump (right) to 14 inch mainline.



3. Pumps from CMP sumps connected to mainlines. Middle centrifugal pump did not appear to be in use. Note McCrometer flow meter on 8" mainline from 50 HP pump.

Owner: OPPIO LAND & LIVESTOCK LLC Diversion: Upper Frost Diversion No. 38 Water Rights: 37-238A, 37-239A, 37-240A This map depicts the Place of Use for these water rights. South Gooding Main 20 0.45 Miles State of Idaho 0.225 The aerial image displayed in this map is from the 2013 National Agriculture Imagery Program (NAIP). **Department of Water Resources** Date: 8/26/2015

**Diversion Name:** Lincoln Bypass and North Shoshone Canals

**BWLWUA Water Right Owner(s) at this diversion:** 4 Brothers Dairy, Paul Bancroft, Northview Farms LP (formerly Double V LLC), Tina Iest, Steven Mohr, Wendy Mohr, Roth Investments, Jerry Westendorf

Water Right Number(s): See Attachment 1 for water right numbers, rates of diversion and other details.

**Field Visit Date:** 05/26/2015 (Site visited with WD37 Watermaster)

**Diversion Location:** Canal diverts from Big Wood River about 6.8 miles south of Magic Reservoir, and 4.5 miles south of the Richfield Canal. Diversion located above Milner Gooding Canal. Water right POUs are both above and below Milner Gooding Canal.

**Combined/Other Water Rights & Sources:** Water rights held by the above referenced owners are diverted from the Big Wood River using the Lincoln Bypass and North Shoshone Canals. Some of the rights list the North Shoshone Canal as the point of diversion only; others list both the Lincoln Bypass and the North Shoshone Canals.

All BWLWWUA river rights are delivered to member head gates by BWCC-AFRD2 ditch riders. IDWR staff has confirmed that the water right places of use owned by the BWLWWUA members listed above and diverted at the Lincoln Bypass/North Shoshone Canals have BWCC-AFRD2 shares. See individual BWCC-AFRD2 lateral head gate summaries in this Appendix.

**Diversion Description – Lincoln Bypass Canal:** A concrete dam across the river diverts water to concrete head gate structure having three gate bays. A radial gate is installed on the far left bay looking up river and is approximately 10 ft wide. The other two bays are sealed. The radial gate has steel cables attached to a pulley and hand wheel for gate control.

Measuring Device – Lincoln Bypass Canal: A rated canal section with a stilling well and continuous recorder (Stevens Type F) is installed in the canal about 325 feet downstream of the head gate structure. The BWCC currently measures the canal and maintains recorder equipment. BWCC makes periodic discharge rating measurements using a portable Acoustic Doppler Current Profile meter (ADCP). Measurements and recorder data are reported to the WD37 watermaster. The watermaster maintains the section rating table.

**Conveyance & Irrigation System:** The Lincoln Bypass conveys BWCC water from Magic Reservoir, BWCC Big Wood River decreed rights (junior priority) and privately owned Big Wood River decreed rights around a dry or losing reach of the river about 10 miles south to the head of the main North Shoshone Canal. The Bypass canal is an unlined open ditch for the entire length.

**Additional Comments:** IDWR staff did not make a site visit of the North Shoshone Canal prior to completion of the staff memorandum. A diversion summary is not provided for the North Shoshone Canal.



1. Lincoln Bypass diversion dam (background) and control gate structure (foreground). Three gate bays with one radial gate on left end, other bays are concrete sealed.



2. View of dam, river channel, and left end of head gate structure with radial gate.



3. Lincoln Bypass Canal rated section with stilling well shed for continuous water level recorder and equipment.