

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13796

Exam Date: 9/24/2012

1. Current Owner: CITY OF MC CALL
216 EAST PARK ST
MCCALL ID 83638
(208)634-7160
2. Accompanied by: Eric McCormick
Phone No: (208) 634-6740
Address: Same
Relationship to Permit Holder: McCall Golf Course Superintendent

3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 65-13119, 65-13476
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER	SW1/4SW1/4	Sec. 3,	Twp 18N,	Rge 03E, B.M.
VALLEY County				
GROUND WATER	NW1/4NE1/4	Sec. 10,	Twp 18N,	Rge 03E, B.M.
VALLEY County				
GROUND WATER	NE1/4NW1/4	Sec. 10,	Twp 18N,	Rge 03E, B.M.
VALLEY County				

Method of Determination: Arc Map (Aerial Photo); Ground Water Well (SW1/4SW1/4 Section 3) - GPS Latitude N.44°55.189', Longitude W.116°04.958'. Ground Water Well (NW1/4NE1/4 Section 10) - GPS Latitude N.44°55.086', Longitude W.116°04.495'. Ground Water Well (NE1/4NW1/4 Section 10) - GPS Latitude N.44°54.971', Longitude W.116°04.821'. Datum - NAD83.

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
18N	03E	3											20.0	15.0					35.0
18N	03E	4															20.0		20.0
18N	03E	10		15.0	5.0		15.0	25.0	10.0	9.0	8.0					3.0			90.0

Total Acres: 145.0

IRRIGATION FROM STORAGE same as IRRIGATION
RECREATION STORAGE same as IRRIGATION
RECREATION same as IRRIGATION
DIVERSION TO STORAGE same as IRRIGATION
IRRIGATION STORAGE same as IRRIGATION

Method of Determination: Arc Map (Aerial Photo); Tax Lots.

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
☒ Aerial Photo Attached (required for irrigation of 10+ acres).
☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
<u>D0007710</u>	<u></u>	<u>20</u>	<u></u>	<u>Berkley</u>	<u>(4")</u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
<u>N/A</u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

2. Measurements: No field measurement. Discharge line extends into storage pond.

E. FLOW CALCULATIONS

 Additional Computation Sheets Attached

Measured Method: (Theoretical Horsepower Equation – Three (3) Ground Water Wells)

(Ground Water Well – SW1/4SW1/4 Section 3)

$$Q = 8.8 \times 0.7 \times 20/120 + (2.31 \times 40) = 123.2/212.4 = 0.58 \text{ cfs}$$

Z = 120' (City of McCall)

P = 40 psi (Assumed)

HP = 20 (City of McCall)

(Ground Water Well – NW1/4NE1/4 Section 10)

$$Q = 8.8 \times 0.7 \times 10/62 + (2.31 \times 40) = 61.6/154.4 = 0.40 \text{ cfs}$$

Z = 62' (City of McCall)

P = 40 psi (Assumed)

HP = 10 (City of McCall)

FLOW CALCULATIONS CON'T.**(Ground Water Well – NE1/4NW1/4 Section 10 – WR 65-13119)**

Q = 0.28 cfs (Licensed Appropriation)

 $Q(\text{total}) = 0.58 \text{ cfs} + 0.40 \text{ cfs} + 0.28 \text{ cfs} = 1.26 \text{ cfs} < 6.40 \text{ cfs } Q(\text{permit})$

Appears that the permit diversion rate was based on an application rate of 0.02 cfs for irrigation of 320 acres of the golf course property, not the actual pumping capacity of the three well system. Therefore, we can only recommend the combined well pumping system capacity diversion rate of 1.26 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{\text{I.R.}} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 145 \times 3.0 = 435.0 \text{ AFA}$$

$$V_{\text{D.R.}} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.26 \times 200 \times 1.9835 = 499.8 \text{ AFA}$$

$$V = \text{Smaller of } V_{\text{I.R.}} \text{ and } V_{\text{D.R.}} = 435.0 \text{ AFA}$$

2. Volume Calculations for Other Uses: Irrigation/Recreation Storage Ponds

Based on the storage pond surface areas and an assumed average pond refill depth of 6', it appears that the beneficial use annual volume of 40.0 AF as indicated on the permit is reasonable. Recommend the permit irrigation/recreation storage volume of 40.0 AFA.

V = 40.0 AFA**G. NARRATIVE/REMARKS/COMMENTS****WATER SUPPLY SYSTEM:**

Three ground water wells provide water for the McCall Golf Course irrigation system. Two ground water wells, located in the SW1/4SW1/4 Section 3 and the NW1/4NE1/4 Section 10, discharge water directly to three (3) irrigation/recreation storage ponds. The third ground water well, WR 65-13119, which is located within the golf course driving range area (NE1/4NW1/4 Section 10), discharges to an open ditch and wetlands which then discharge into the interconnected irrigation/recreation storage ponds.

The ground water well located in the SW1/4SW1/4 Section 3 is located in the 'Aspen 9-Hole Golf Course' next to the main irrigation diversion pond and the irrigation pump station. Water from the well is discharged in 4" PVC pipe directly to the pond for irrigation of the McCall Golf Course. The irrigation/recreation storage pond, which is interconnected with two other storage ponds within the Aspen '9-Hole Golf Course', discharges water to the irrigation pump station wet well.

The ground water well located in the NW1/4NE1/4 Section 10 is located near an irrigation/recreation pond within the 'Cedars 9-Hole Golf Course'. Water is discharged to an irrigation/recreation storage pond near the ground water well, and to an irrigation/recreation storage pond located outside the golf course limits in the Aspen Ridge III development. The water discharged to the storage pond located outside the golf course limits is conveyed through approximately 1,300 lineal feet of 4" PVC pipe.

IRRIGATION SUPPLY SYSTEM:

Four golf course irrigation/recreation storage ponds, and an off-site irrigation/recreation storage pond located east of Spring Mountain Blvd. in the Aspen Ridge III development, are the main irrigation storage facilities for the McCall Golf Course. All five storage ponds are interconnected by streams, ditches, wetlands, and culverts. Water is conveyed to the irrigation/recreation storage pond located near the pump station. Water is diverted from the pond to a wet well in the pump station. Vertical turbine pumps in the pump station pump water from the wet well to irrigate the McCall Golf Course.

OVERLAP ANALYSIS:

Place of Use: The beneficial uses for Water Right No. 65-13119, Water Right Permit No. 65-13476, and Water Right Permit No. 65-13796, are irrigation and recreation storage of ground water for the McCall Golf Course. Although the places of use are vary between each right, each right provides ground water to the same irrigation/recreation storage system within the McCall Golf Course. Therefore, all three rights have a place of use overlap.

Place of Use: City of McCall municipal water rights 65-10344, 65-10345, and 65-12067 were initially used to irrigate the McCall Golf Course. These water rights are no longer used for the irrigation of the McCall Golf Course, so there are no place of use overlaps associated with these rights.

Point of Diversion: Each water right or water right permit has a separate ground water well, so there are no point of diversion overlaps.

Have conditions of permit approval been met? ☒ Yes ☐ No

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	6.40	&/or	40.0
Beneficial Use Limit	6.40	&/or	N/A
System Measurement	1.26 (theoretical)	&/or	435.0
Proof Fee Amount	7.00	&/or	700.0
Recommended Amount	0.58	&/or	475.0

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION FROM STORAGE	4/15 to 10/15		40.00 AF
RECREATION STORAGE	1/01 to 12/31		40.00 AF
DIVERSION TO STORAGE	1/01 to 12/31	1.26 CFS	
IRRIGATION STORAGE	1/01 to 12/31		40.00 AF
IRRIGATION	4/15 to 10/15	1.26 CFS	435.0 AF
<u>Totals:</u>		1.26 CFS	475.0 AFA

2. Recommended Amendments

☐ Change P.D. as reflected above ☒ Add P.D. as reflected above ☐ None

☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

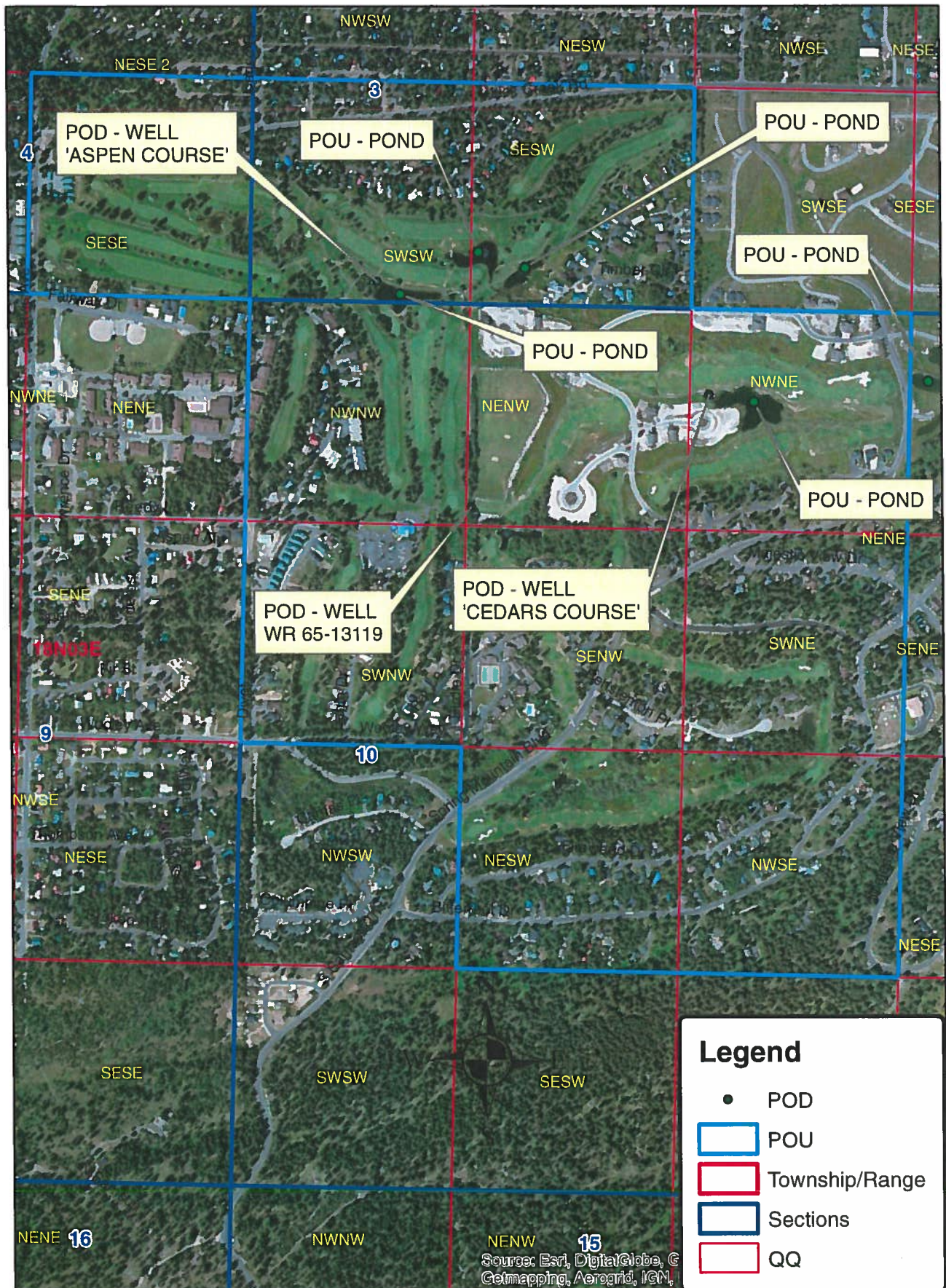
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 6/19/13

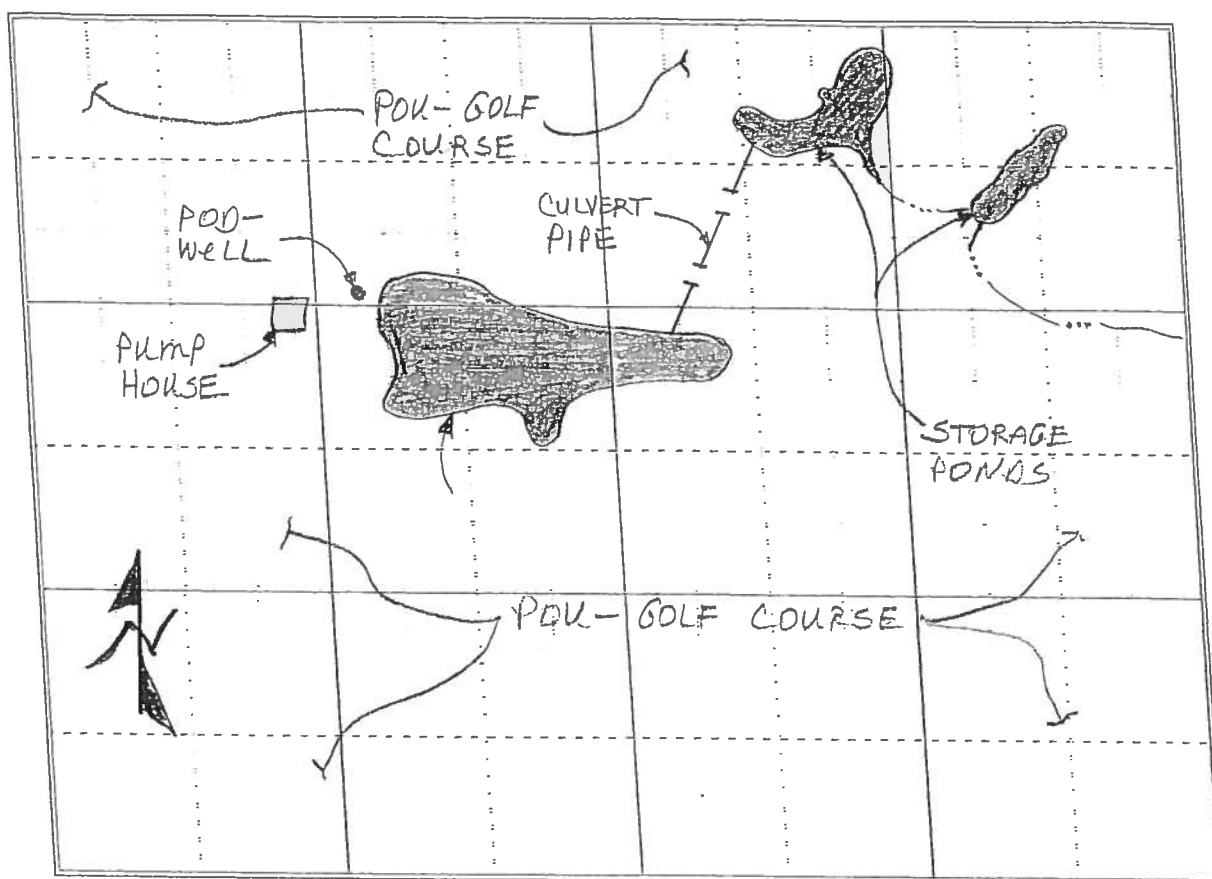
Reviewer _____ Date _____

65-13796

ESRI AERIAL PHOTO - 2012



- 3 Delivery System Diagram: Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached



Scale: 1" = _____

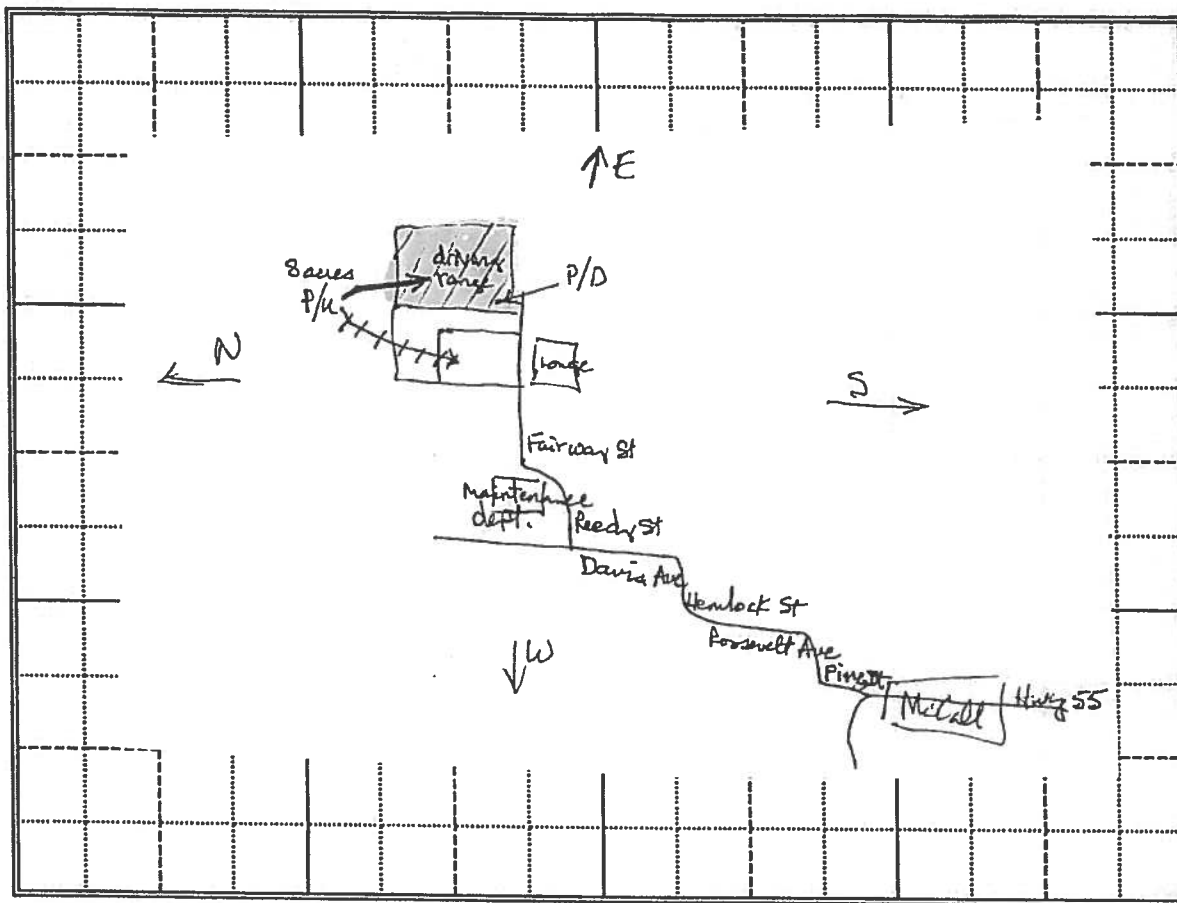
- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
- ☒ Aerial photo attached (required for irrigation of 10+ acres)
- ☒ Photo of diversion and system attached

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources
within 30 days after the completion or abandonment of the well.

1. WELL OWNER Name <u>M^cCall GOLF Course FOUNDATION</u> Address <u>Box 187 M^cCall, IDAHO</u> Owner's Permit No. <u>65-89-12-025-000</u>		7. WATER LEVEL Static water level <u>7</u> feet below land surface. Flowing? ☐ Yes ☒ No G.P.M. flow _____ Artesian closed-in pressure _____ p.s.i. Controlled by: ☐ Valve ☐ Cap ☐ Plug Temperature <u>43</u> °F Quality <u>good</u> Describe artesian or temperature zones below																																																																																									
2. NATURE OF WORK <u>WR-65-13119</u> ☒ New well ☐ Deepened ☐ Replacement ☐ Well diameter increase ☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		8. WELL TEST DATA ☐ Pump ☐ Bailer ☒ Air ☐ Other _____ <table border="1"><thead><tr><th>Discharge G.P.M.</th><th>Pumping Level</th><th>Hours Pumped</th></tr></thead><tbody><tr><td><u>150</u></td><td><u>85</u></td><td><u>4</u></td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>		Discharge G.P.M.	Pumping Level	Hours Pumped	<u>150</u>	<u>85</u>	<u>4</u>																																																																																		
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3. PROPOSED USE ☐ Domestic ☒ Irrigation ☐ Test ☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other _____ (specify type)		9. LITHOLOGIC LOG <table border="1"><thead><tr><th rowspan="2">Bore Diam.</th><th colspan="2">Depth</th><th rowspan="2">Material</th><th colspan="2">Water</th></tr><tr><th>From</th><th>To</th><th>Yes</th><th>No</th></tr></thead><tbody><tr><td>10</td><td>0</td><td>2</td><td>Top Soil</td><td></td><td>X</td></tr><tr><td>10</td><td>2</td><td>10</td><td>Brown Sandy Clay</td><td></td><td>X</td></tr><tr><td>10</td><td>10</td><td>16</td><td>Fine Brown Sand</td><td>X</td><td></td></tr><tr><td>10</td><td>16</td><td>19</td><td>Fine Brown Sand + some gravel</td><td>X</td><td></td></tr><tr><td>8</td><td>19</td><td>22</td><td>Fine Brown Sand + some gravel</td><td>X</td><td></td></tr><tr><td>8</td><td>22</td><td>30</td><td>Blue Clay</td><td></td><td>X</td></tr><tr><td>8</td><td>30</td><td>35</td><td>Fine Gray Sand</td><td>X</td><td></td></tr><tr><td>8</td><td>35</td><td>47</td><td>Blue Clay</td><td></td><td>X</td></tr><tr><td>8</td><td>47</td><td>51</td><td>Gray Sand + Gravel</td><td>X</td><td></td></tr><tr><td>8</td><td>51</td><td>65</td><td>Fine Gray Sand</td><td>X</td><td></td></tr><tr><td>8</td><td>65</td><td>75</td><td>Fine Gray Sand + some gravel</td><td>X</td><td></td></tr><tr><td>8</td><td>75</td><td>88</td><td>Gray Sand + Gravel</td><td>X</td><td></td></tr><tr><td>8</td><td>88</td><td>90</td><td>Fine Gray Sand</td><td>X</td><td></td></tr></tbody></table> <u>A 3' CEMENT SEAL WAS USED AT BOTTOM OF CASING TO PREVENT SAND FROM ENTERING THE BOTTOM OF THE CASING</u>		Bore Diam.	Depth		Material	Water		From	To	Yes	No	10	0	2	Top Soil		X	10	2	10	Brown Sandy Clay		X	10	10	16	Fine Brown Sand	X		10	16	19	Fine Brown Sand + some gravel	X		8	19	22	Fine Brown Sand + some gravel	X		8	22	30	Blue Clay		X	8	30	35	Fine Gray Sand	X		8	35	47	Blue Clay		X	8	47	51	Gray Sand + Gravel	X		8	51	65	Fine Gray Sand	X		8	65	75	Fine Gray Sand + some gravel	X		8	75	88	Gray Sand + Gravel	X		8	88	90	Fine Gray Sand	X	
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4. METHOD DRILLED ☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary ☐ Cable ☐ Dug ☐ Other _____		RECEIVED DEC 5 1989 RECEIVED DEC 6 1989 RECEIVED DEC 6 1989																																																																																									
5. WELL CONSTRUCTION Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____ <table border="1"><thead><tr><th>Thickness</th><th>Diameter</th><th>From</th><th>To</th></tr></thead><tbody><tr><td><u>.250</u> inches</td><td><u>8</u> inches</td><td><u>1</u> feet</td><td><u>89</u> feet</td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table> Was casing drive shoe used? ☒ Yes ☐ No Was a packer or seal used? ☒ Yes ☐ No Perforated? ☒ Yes ☐ No How perforated? ☐ Factory ☒ Knife ☐ Torch ☐ Gun Size of perforation <u>5/32</u> inches by <u>1</u> inches <table border="1"><thead><tr><th>Number</th><th>From</th><th>To</th></tr></thead><tbody><tr><td><u>125</u> perforations</td><td><u>76</u> feet</td><td><u>83</u> feet</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table> Well screen installed? ☐ Yes ☒ No Manufacturer's name _____ Type _____ Model No. _____ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>19</u> Material used in seal: ☐ Cement grout ☒ Bentonite ☐ Puddling clay ☐ _____ Sealing procedure used: ☐ Slurry pit ☒ Temp. surface casing ☐ Overbore to seal depth Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata Describe access port <u>SANITARY Well Seal</u>				Thickness	Diameter	From	To	<u>.250</u> inches	<u>8</u> inches	<u>1</u> feet	<u>89</u> feet													Number	From	To	<u>125</u> perforations	<u>76</u> feet	<u>83</u> feet																																																														
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6. LOCATION OF WELL Sketch map location must agree with written location. <table border="1"><tr><td>N</td><td></td><td></td><td></td></tr><tr><td>W</td><td></td><td>X</td><td>E</td></tr><tr><td>S</td><td></td><td></td><td></td></tr></table> Subdivision Name <u>MICROSECTED</u> Lot No. _____ Block No. _____ County <u>VALLEY</u> <u>NE 1/4 NE 1/4 Sec 9, T. 18 N. R. 3 W.</u>		N				W		X	E	S				10. Work started <u>11-22-89</u> finished <u>12-7-89</u>																																																																													
N																																																																																											
W		X	E																																																																																								
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11. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>BESTER HANKE Well Firm No. 408</u> Address <u>HC 38 Box 10 Donald</u> Date <u>12-1-89</u> Signed by (Firm Official) <u>Robert L. Heston</u> and (Operator) <u>Robert L. Heston</u>		11. Department of Water Resources Western Regional Office Department of Water Resources																																																																																									

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe I.d. as applicable.



Scale: 1" = _____

☒ Copy of USGS Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required).

☒ Aerial Photo Attached (required for irrigation of 10+ acres)

☒ Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Submersible	Franklin	10	ser. # 070080	Sta Rite	2"
			model # LS150L6		no serial # available

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements: _____

MICROFILMED

NOV 14 1995

THEORETICAL PUMP EFFICIENCY CALCULATIONS

FILE: 65-13119

DATE: 7-SEP-95

COMPLETE BY: SANDY HEMENWAY

HORSEPOWER = 10 per Caron Pump 939-9198/shelly

PUMP EFFICIENCY = 70%

DYNAMIC LIFT = 17 FEET 7' Static + 10' = 17

SYSTEM PRESSURE = 80 PSI per Charlie Denham/Head Greensman,

QUANTITY = 0.30 CFS

since unable to gauge pressure on
Hunter nozzles, + no pressure gauge.
(Charlie Denham said it was
gauged @ 80 psi + 200 gpm)

12-14-95

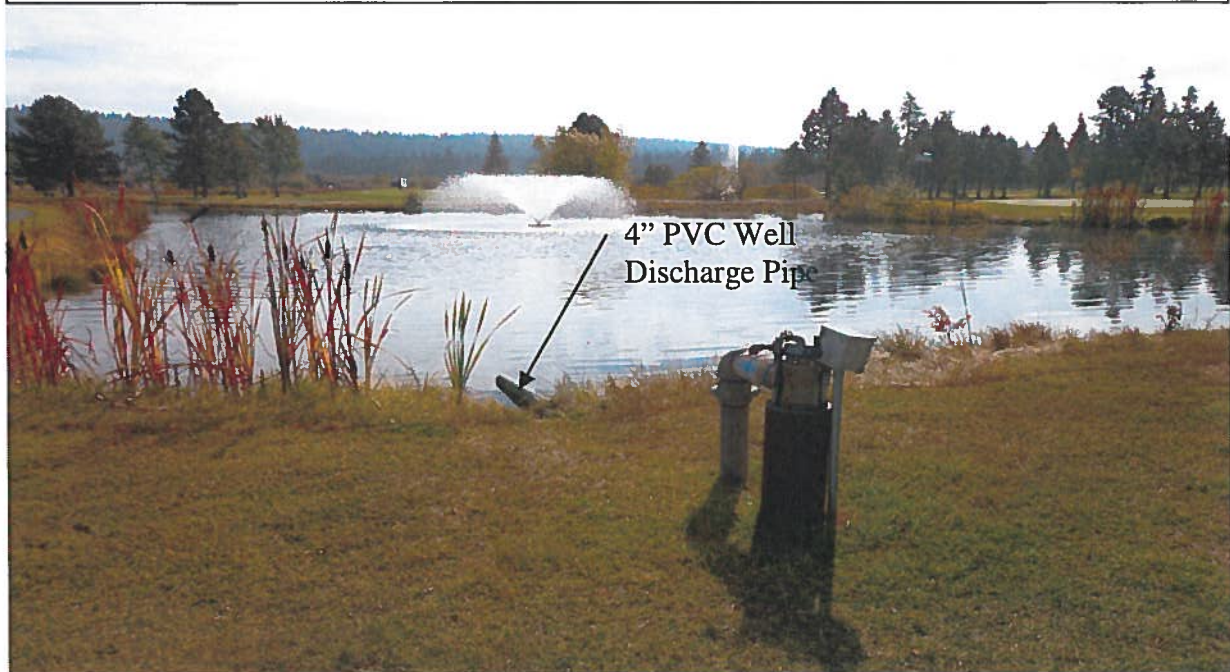
FIELD EXAM PHOTOS

Water Right Permit: 65-13796

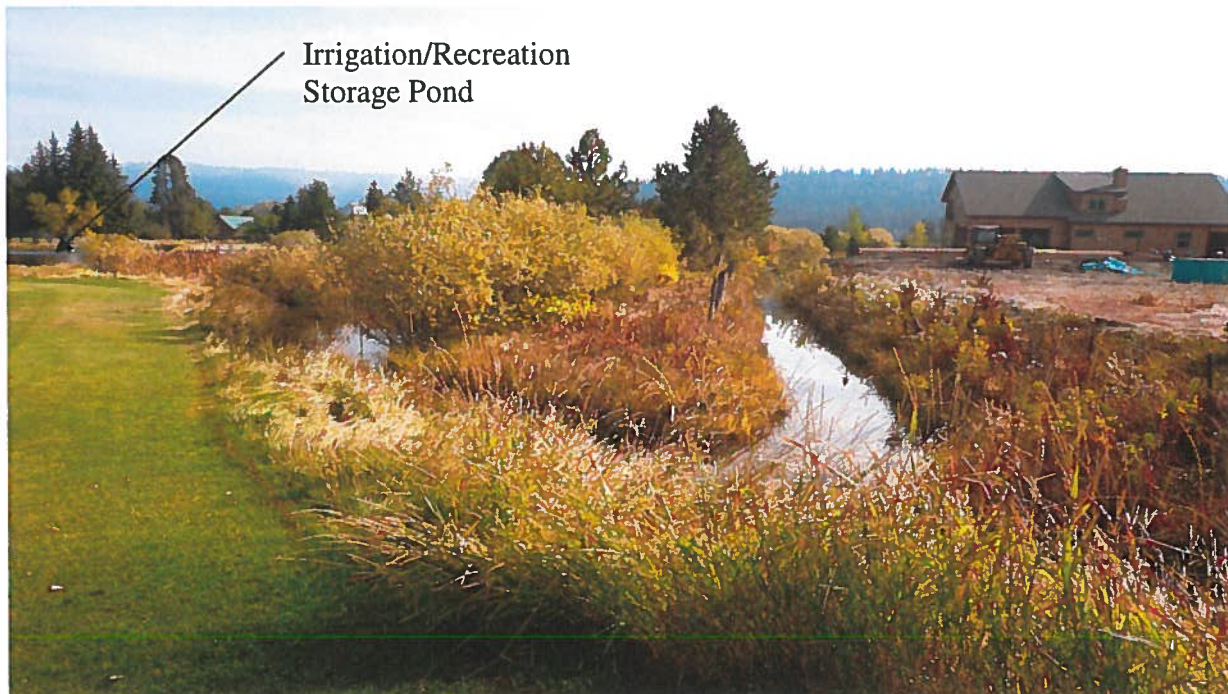
Field Exam Date: 9-24-12

PLS: SW1/4, SW1/4 Section 3, T.18N, R.03E.

Field Examiner: RC



Point of Diversion: View easterly of the ground water well located near the irrigation/recreation storage pond which diverts water to the pump station wet well for irrigation of the McCall Golf Course. The ground water well's 4" PVC discharge line is shown extending into the storage pond.



View northeasterly of a typical stream/ditch channels which provide interconnectivity between the five (5) main irrigation/recreation storage ponds. An irrigation/recreation storage pond located in the 'Aspen 9-Hole Golf Course is shown at the left.



Place of Use: View northwesterly of an irrigation/recreation storage pond and a portion of the 'Aspen 9-Hole Golf Course'.



Point of Diversion: View of ground water well adjacent to and north of an irrigation/recreation storage pond located in the 'Cedars 9-Hole Golf Course'.



View westerly of the 4" PVC discharge line from the 'Cedars 9-Hole Golf Course' ground water well. The 4" steel pipe operates as a pressure relief mechanism for the golf course irrigation system.



Place of Use: View easterly from the 'Cedars 9-Hole Golf Course' ground water well of the irrigation/recreation storage pond near the well. This storage pond is one of five (5) irrigation/recreation storage ponds which are interconnected to the irrigation/recreation storage pond which diverts water to the pump station wet well for irrigation of the McCall Golf Course.



Place of Use: View easterly of the second irrigation/recreation storage pond which receives water from the 'Cedars 9-Hole Golf Course' ground water well. The storage pond is located outside the limits of the golf course in the Aspen Ridge III development. The ground water well conveys water to the storage pond through approximately 1,300 lineal feet of 4" PVC pipe.



Place of Use: View westerly of a golf hole fairway located in the 'Cedars 9-Hole Golf Course' which is irrigated by the McCall Golf Course irrigation system.



Point of Diversion: View northerly of the ground water well located within the McCall Golf Course driving range. The well is the point of diversion for Water Right 65-13119.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

RECEIVED

JAN 13 2014

WATER RESOURCES
WESTERN REGION

August 6, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

CITY OF MC CALL
216 EAST PARK ST
MCCALL ID 83638

RE: Water Right Permit No. 65-13796

Dear Permit Holders:

The Department of Water Resources is reviewing the permit referenced above prior to issuing a water right license. By issuing a license, the Department confirms the extent of development that has been established in compliance with the terms of the permit. The examiner who verified your water use reported that certain elements of the permit have been developed differently than described on your permit. Changes that do not increase the authorized use of water under the permit can be requested and approved in accordance with Section 42-211, Idaho Code. Before a license can be issued, your permit must be amended to depict your water use as it was actually developed.

Based on the examiner's report, the following elements were developed differently than described on your permit:

☒ Points of Diversion

☒ Places of Use

The enclosed Application for Amendment form depicts the elements of the water right as they will appear on the license when it is issued. Please review the amendment form carefully. If you concur with the information presented, please sign the form and return it with the \$100.00 filing fee within 14 days.

If you have any questions, please call me at (208)334-2190.

Sincerely,

KAY WALKER
Sr. Water Resource Agent

Enclosure

DEPARTMENT APPROVAL	
ACCOUNT	60-64-150-496
SIGNATURE	[Signature]
DATE	1/3/14
OTHER	



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

January 6, 2014

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

CITY OF MC CALL
ATTN: PETER BORNER
216 E PARK ST
MC CALL ID 83638

RE: Permit Amendments for Rts. 65-13796 and 65-13476

Dear Mr. Borner:

We received the licensing amendments for the above referenced permits on December 20, 2013. I called you, upon receipt of the forms, and requested you submit the filing fees at your earliest convenience. As of this date, we still have not received the filing fees for the submittal of the amendment applications. Please note that we cannot issue water right licenses for these permits, as proposed on the amendment applications, without the necessary filing fees. The filing fee is \$100.00 per amendment application, for a total of \$200.00.

As I mentioned during our December 20th phone conversation, we must have the filing fees before January 15th or we will reject the licensing amendments and licenses will be issued for the portion of the permits that can be licensed without the amendments. In the case of Permit 65-13476, we will have to void the permit if no fee is submitted. In the case of Permit 65-13796, we can issue a license for the well in the SWSW, Sec. 3 only, for an amount of 0.82 cfs. You may seek additional time to provide the fees by making a written request to interrupt processing. Your response, including the filing fees or a request for more time to submit the filing fees must be received by January 15, 2014.

If you have any questions in regard to this matter, please feel free to contact our office.

Sincerely,

KAY WALKER
Sr. Water Resource Agent

December 19, 2013

RECEIVED

DEC 20 2013

State of Idaho Department of Water Resources
Western Region
2735 Airport Way
Boise, ID. 83705-5082

**WATER RESOURCES
WESTERN REGION**

RE: Permit No. 65-13796 & 61-13476

Dear Ms. Walker,

Attached please find the completed Application for Amendment forms as per your letters of December 9, 2013.

Sincerely,



Peter Borner
Public Works Director
208-634-3458



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

December 9, 2013

CITY OF MC CALL
216 EAST PARK ST
MC CALL ID 83638

RE: Permit No. 65-13796

Dear Permit Holders:

We previously forwarded to you an Application for Amendment so that you could amend Permit No. 65-13796 to correspond with the findings of the Department's field examiner. We have not yet received your response.

If I do not receive the amendment within fourteen (14) days, your Water Right **License will be issued for less** than could have been allowed. In case the amendment form previously sent to you has been misplaced, a new one is enclosed. Please review the form and if you concur with the information presented, sign the form and return it with the \$100.00 filing fee.

If you have any questions, please contact me as soon as possible at (208)334-2190.

Sincerely,

A handwritten signature in black ink that reads "Kay Walker". The signature is written in a cursive, flowing style.

KAY WALKER
Sr. Water Resource Agent

Enclosure



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

November 13, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

CITY OF MC CALL
216 EAST PARK ST
MCCALL ID 83638

RE: Water Right Permits Nos. 65-13476 and 65-13796

Dear Permit Holders:

We have received and reviewed information provided by SPF Water Engineering in regard to the amount of water that can be diverted from your wells. We are in agreement that your system can produce more water than what we had originally recommended and have revised the enclosed licensing amendments to reflect the information provided.

The enclosed Application for Amendment forms depict the elements of the water rights as they will appear on the licenses when they are issued. Please review the amendment forms carefully. If you concur with the information presented, please sign the forms and return them with a \$100.00 filing fee for each amendment within 14 days.

If you have any questions, please feel free to contact me at (208)334-2190.

Sincerely,

KAY WALKER
Sr. Water Resource Agent

Enclosures



RECEIVED

NOV 01 2013

WATER RESOURCES
WESTERN REGION

November 1, 2013

Idaho Department of Water Resource
Western Region
Kay Walker
2735 Airport Way
Boise, ID 83705-5082

*Subject: Well Capacity – City of McCall Golf Course Wells
Permit Nos. 65-13476, 65-13796*

Dear Kay,

IDWR staff recently conducted beneficial use field examinations for water right permits 65-13476 and 65-13796. During the licensing process, IDWR identified a need to amend the permits as to point of diversion and place of use, and sent correspondence to the City of McCall dated August 6, 2013 requesting submittal of the permit amendments. The City of McCall reviewed the *Application for Amendment* (essentially a draft license) for each permit, and asked SPF to review the rate of diversion and annual volume as shown on the amendments.

The location of each well is shown in Figure 1. It is our understanding the wells were not operating at the time of IDWR's field exam, and the combined diversion rate shown on the amendments is the result of theoretical calculations for two of the three wells (the Cedars and Main wells). We believe the capacity of the Driving Range well determined during licensing of water right 65-13119 (0.30 cfs) may have been used by IDWR when determining the total diversion rate of the three water rights shown on the amendment (1.29 cfs).

SPF conducted a site visit on September 10, 2013. The wells were operational at the time of our visit and we were able to measure diversion rate from the Main and Cedars wells using a GE TransPort portable ultrasonic flow meter. Measurement results at the Main well are acceptable and included in Appendix A. Cedars well diversion rate was measured but the transducer location was poor and the results were not believed to be accurate.

We were not able to conduct a measurement of diversions from the Driving Range well using the portable meter due to a lack of appropriate site for meter installation, but did estimate diversion rate by measuring velocity with the float method in a section of culvert pipe. We have calculated theoretical diversion capacity for the Driving Range and Cedars wells using the best available information (see Appendix B and Appendix C).

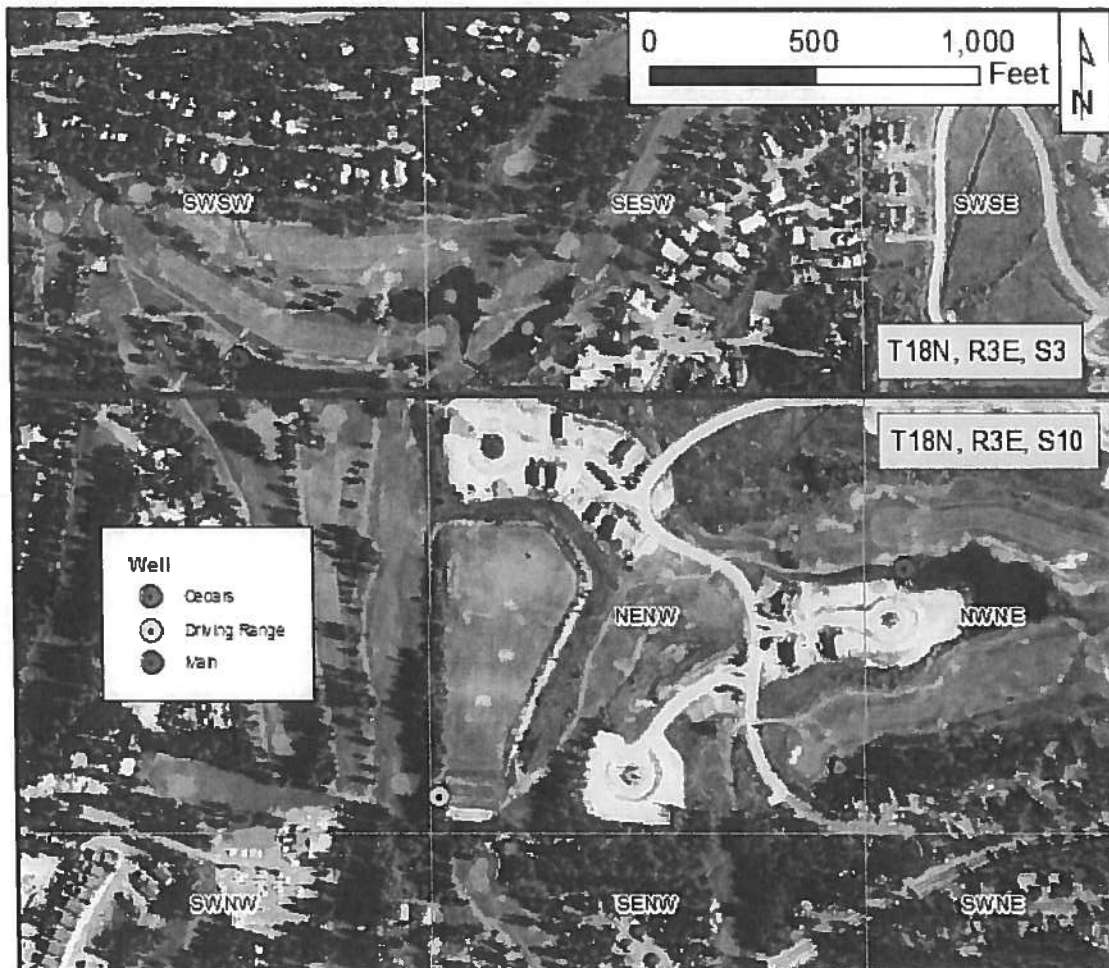


Figure 1. Well Locations

Diversion Rate Measurement – Main Well

The measurement was conducted on September 10, 2013 using a GE TransPort PT878 portable ultrasonic flow meter. The meter was last calibrated on March 27, 2013. The flow meter installation location was consistent with manufacturer's guidelines and recommendations and we believe the resulting measurement was accurate. A copy of the data collected during the measurement is included as Appendix A. The rate of diversion from the Main well determined by this measurement was 0.82 cfs.

Diversion Rate Estimate – Cedars Well

A measurement was conducted on September 10, 2013 using the GE TransPort PT878 described above. Transducers were located immediately downstream of a 90-degree elbow at the well's discharge head, a location not consistent with manufacturer's guidelines for meter placement. Flow readings fluctuated significantly while signal strength was poor and

signal often lost. Recorded flow rates ranged from 181 to 226 gpm. Due to poor available location for meter placement and questionable results, this measurement is not considered accurate.

An "Estimated Pumping Rate" spreadsheet developed by IDWR in 2000 was used to estimate diversion rate from the Cedars well.¹ Pump horsepower (10 hp) information was supplied by the City of McCall. Discharge pressure (10 psi) was estimated at the time of the site visit and is a realistic value representative of column, fitting, pipe, and valve friction losses. The well open-discharges to the nearby pond. Pumping water level (65') was estimated by determining the well's specific capacity based on the Well Driller's Report for the Cedars well. This Driller's Report documents a static water level of seven feet, a pumping level of 62 feet, and drawdown of 55 feet while being test pumped at 300 gpm. The estimated pumping level of 65 feet and flow of 310 gpm on the attached spreadsheet is consistent with that measured during the Driller's report well test. A copy of the calculation spreadsheet is included as Appendix B. Diversion rate from the Cedars well was estimated to be 0.69 cfs.

Diversion Rate – Driving Range Well

The capacity of the Driving Range delivery system was estimated to be 0.30 cfs at the time of licensing water right 65-13119 in 1995. The well is currently equipped with a 10-hp submersible pump. The pumping water level measured during our site visit was 66', with an estimated discharge pressure of 5 psi. The well open-discharges to a nearby ditch. Flow was measured at 0.29 cfs using the float method in a length of culvert pipe. This flow is consistent with that estimated during licensing of 65-13119.

A theoretical calculation of flow from the Driving Range well determined an estimated 0.79 cfs (see Appendix C). We do not believe this is a reasonable estimate because it is inconsistent with well test results from the Driller's Report (0.33 cfs at 85 ft water level).

According to IDWR's 1995 field exam report for water right 65-13119, the pump was originally installed to discharge to a pressurized system. It currently pumps to open discharge. If the same pump is in use, it was unlikely designed for the the low-pressure open-discharge condition and likely operates very inefficiently and may have suffered from cavitation damage. For this reason, we believe a reasonable estimate of discharge from the Driving Range well is the diversion capacity estimated in 1995, which is 0.30 cfs. This flow is consistent with the float-method measurement of 0.29 cfs also reasonably consistent with the well test results of 0.33 cfs.

¹ The spreadsheet was developed by Scott King as an employee of IDWR.

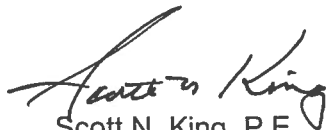
Summary - Diversion Rate for the System

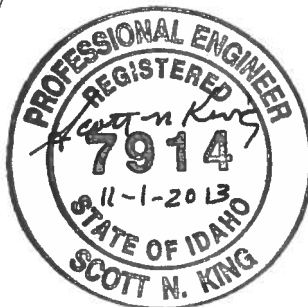
The three golf course wells (Main, Cedars and Driving Range) pump directly to ditches and ponds. Irrigation is accomplished by pumping from the ponds to the pressurized irrigation system serving the golf course. SPF collected information about the system, and measured flows from the Main well during a site visit conducted September 10, 2013. Additional information was supplied by City of McCall and golf course staff. Our findings concerning the diversion rates of the three wells are summarized in Table 1.

Well	Location (T18N, R3E)	Diversion Rate (cfs)	Method of Determination
Main	SWSW, Sec. 3	0.82	Measured (2013)
Cedars	NWNE, Sec. 10	0.69	Estimated (2013)
Driving Range	NENW, Sec. 10	0.30	Estimated (1995)
Total		1.81	

Based on our findings, we respectfully request the licenses for water right permits 65-13476 and 65-13796 be issued with individual diversion rates equaling 1.81 cfs, with a combined diversion rate limitation of 1.81 cfs. Other elements of these water rights should remain as described on the August 6, 2013 amendment applications.

Sincerely,


Scott N. King, P.E.
Supervising Engineer



cc: Peter Borner, City of McCall Public Works Director
Eric McCormic, City of McCall Golf Course Superintendent
Brian Foote, Horrocks Engineers

File: 606.0080

Appendix A – Flow Measurement for Main Well

Permit: 65-13796
 Owner: City of McCall (Golf Course)
 Site Name: Main Irrigation Well
 POD Location: 18N 3E 3 SWSW
 Tag No: D0007710
 Meter: GE TransPort PT878
 Type: Portable Ultrasonic Time Flight Liquid Flow Meter
 Serial Number: 7140
 Calibration Date: March 27, 2013
 Operator: Scott King

Date/Time	Volume (gal/m)	(+)Total (gal)	(-)Total (gal)	Error #
9/10/2013 16:25:04	368	72295	0	0
9/10/2013 16:26:03	371	72641	0	0
9/10/2013 16:27:03	362	73024	0	0
9/10/2013 16:28:04	363	73390	0	0
9/10/2013 16:29:03	366	73755	0	0
9/10/2013 16:30:03	360	74118	0	0
9/10/2013 16:31:03	363	74485	0	0
9/10/2013 16:32:03	365	74852	0	0
9/10/2013 16:33:04	367	75214	0	0
9/10/2013 16:34:03	362	75582	0	0
9/10/2013 16:35:04	361	75965	0	0

Time	10 minutes
Volume	3670 gallons
Rate	367 gpm
Rate	0.82 cfs

Appendix B – Flow Estimate for Cedars Well

ed 1/6/2000

Estimated Pumping Rate Computer

Flow Analysis Performed by: **Scott King**

Date: **10/30/2013**

Page 1 of 1

Record ID		Measured Flow:	
Water Right No.		Designed Flow:	
Name City of McCall Golf Course		HP/Eff Flow:	0.69 cfs <--Max
pod Cedar Well		Sprinkler Flow:	
year: 2013		Pivot/System Flow:	
Flow Measurement: gpm =			
Curve/Pump Design: gpm =			
Horsepower / Efficiency Method			
Horsepower	10 hp		
PWL	65 ft		
Disch Psi	10 psi, (includes miscellaneous friction losses)		
PUMP Eff Estimate	69%		
TDH	88 ft		
OHP	6.9 hp		
Flow	310 gpm =	0.69 cfs	
System Method:			
No Lines		Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$	
Birds per line		C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	0	r=	0.0000 ft Nozzle radius
Nozzle size	in	A=	0.00000 ft^2 Nozzle area
Nozzle pressure	psi	h=	0 ft Head
Flow per nozzle	0.00 gpm	g=	32.2 ft/sec^2 Gravitational constant
Sprinkler Flow	0 gpm	Q=	0.000 cfs Flow per nozzle
Percent Leaks	%	=	0.000 gpm Flow per nozzle
Total Flow	0 gpm =		
Pivot / System rating	gpm =		

Comments / Data Supplied:

Driller's Report	7 ft, swl
Driller's Report	62 ft, pwl
Driller's Report	55 ft, drawdown
Driller's Report	300 gpm, pumping rate
Calculated	5.5 gpm/ft, specific capacity
Theoretical Flow	310 gpm, flow from above
Calculated PWL	64 ft, anticipated pwl at flow above

Appendix C – Flow Estimate for Driving Range Well

ed 1/6/2000

Estimated Pumping Rate Computer

Flow Analysis Performed by: Scott King

Date: 10/30/2013

Page 1 of 1

Record ID		Measured Flow:	
Water Right No.		Designed Flow:	
Name City of McCall Golf Course		HP/Eff Flow:	0.79 cfs <--Max
pod Driving Range Well		Sprinkler Flow:	
year: 2013		Pivot/System Flow:	
Flow Measurement: gpm =			
Curve/Pump Design: gpm =			
Horsepower / Efficiency Method			
Horsepower	10 hp		
PWL	66 ft		
Disch Psi	5 psi, (includes miscellaneous friction losses)		
PUMP Eff Estimate	69%		
TDH	78 ft		
OHP	6.9 hp		
Flow	352 gpm =	0.79 cfs	
System Method:			
No Lines		Nozzle Equation: $Q = C \cdot A \cdot \sqrt{2 \cdot g \cdot h} / \sqrt{1 - r^4}$	
Birds per line		C=	1.00 Nozzle coefficient; typical 0.97 to 1.00
Ttl no nozzles	0	r=	0.0000 ft Nozzle radius
Nozzle size	in	A=	0.00000 ft^2 Nozzle area
Nozzle pressure	psi	h=	0 ft Head
Flow per nozzle	0.00 gpm	g=	32.2 ft/sec^2 Gravitational constant
Sprinkler Flow	0 gpm	Q=	0.000 cfs Flow per nozzle
Percent Leaks	%	=	0.000 gpm Flow per nozzle
Total Flow	0 gpm =		
Pivot / System rating	gpm =		

Comments / Data Supplied:

Measured	66 ft, pumping water level during site visit (snk, 2013)
Estimated	5 psi, discharge pressure is reasonable for an open-discharge system.
Driller's Report	7 ft, swl
Driller's Report	85 ft, pwI
Driller's Report	78 ft, drawdown
Driller's Report	150 gpm, well test rate
Driller's Report	0.33 cfs, well test rate
Calculated	1.9 gpm/ft, specific capacity
Theoretical Flow	352 gpm, flow from above calculations
Calculated PWL	190 ft, anticipated pwI at flow above (this level is inconsistent with actual conditions)

Walker, Kay

From: Walker, Kay
Sent: Thursday, September 19, 2013 1:56 PM
To: Roxanne Brown
Cc: Walker, Kay; Collingwood, Rick
Subject: RE: Permit Nos. 65-13476, 65-13796 - City of McCall

Roxanne:

Thank you for the update concerning the licensing amendments that we had forwarded to the City of McCall on August 6, 2013. We will continue to hold any further action on these permits until November 1, 2013.

Kay Walker

Sr. Water Resource Agent

From: Roxanne Brown [<mailto:RBrown@spfwater.com>]
Sent: Thursday, September 19, 2013 1:39 PM
To: Walker, Kay
Subject: Permit Nos. 65-13476, 65-13796 - City of McCall

Kay,

As we discussed on the telephone earlier this week, this email will serve as a record of the City of McCall's progress on reviewing the amended permits received from IDWR in August 2013.

The City would like additional time to confirm the diversion rate for each of the three wells in the system that irrigates the golf course. SPF staff conducted a site visit September 10, 2013 and was able to measure flow from two of the wells. The third well (near the driving range) is older and very little is known about the well and pump. SPF was unable to use our portable ultrasonic meter at this location, and unable to determine groundwater level due to lack of access. However, the City has plans to conduct routine pump maintenance in October 2013 and can provide water level and details about the pump at that time.

We hope to collect the information from the City about the driving range well and provide a memo to IDWR about our findings concerning the pumping rate from the three wells on or before November 1, 2013. Please let us know if this is acceptable to IDWR. Thank you for your patience while we collect this information.

Roxanne Brown | Sr. Water Right Specialist

SPF Water Engineering, LLC
300 E Mallard Drive, Suite 350 | Boise, ID 83706
p. 208.383.4140 | f. 208.383.4156 | d. 208.489.2136
e. rbrown@spfwater.com | w. www.spfwater.com



Walker, Kay

From: Roxanne Brown [RBrown@spfwater.com]
Sent: Wednesday, August 21, 2013 2:56 PM
To: Walker, Kay
Cc: Collingwood, Rick; Cathy Cooper
Subject: City of McCall water right permit amendments

Hi Kay,

I spoke with Rick today concerning the theoretical calculations for the McCall golf course wells. He was very helpful.

The City of McCall has asked us to review the suggested permit amendments, and we will be doing that as quickly as we can. We would appreciate your patience while we get that done.

Thanks!

Roxanne Brown | Sr. Water Right Specialist

SPF Water Engineering, LLC

300 E Mallard Drive, Suite 350 | Boise, ID 83706

p. 208.383.4140 | f. 208.383.4156 | d. 208.489.2136

e. rbrown@spfwater.com | w. www.spfwater.com



SPF WATER
ENGINEERING

9-17-13
Discussed amendment submittal w/Roxanne
They have been working on gathering
info; ^(Scott King) measuring wells at golf
course. Oldest well will have pump
pulled in October to find where
it sits in well & for regular maintenance.
tw



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

August 12, 2013

CITY OF MC CALL
216 EAST PARK ST
MC CALL ID 83638

RE: Water Permit Amendments for 65-13476 and 65-13796

Gentlemen:

Last week I sent you two licensing amendments so we could amend the above referenced permits and issue licenses based on what our field examiner found. I inadvertently forgot to send you the GIS layouts of the proposals so you could see what is being licensed on aerial photos. Enclosed, for your information, are two layouts that show what will be licensed under these permits if amended.

If you have any questions concerning these layouts, or the licensing amendments of the permits, please feel free to contact this office.

Sincerely,

A handwritten signature in black ink that reads "Kay Walker". The signature is fluid and cursive, with the first name "Kay" and last name "Walker" clearly distinguishable.

KAY WALKER
Sr. Water Resource Agent

kw
Enclosures



Idaho Department of Water Resources

Water Rights 65-13796
65-13476

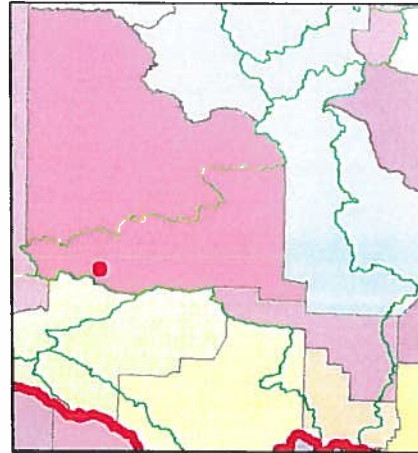
(RECREATION STORAGE)
(Irrigation Storage)

- Point of Diversion
- Place of Use
- State Outline
- Townships
- PLS Sections
- Quarter Quarters

03E



18N



Valley County
IDWR Basin 65

Prepared by Walker, Kay
On August 12, 2013
2009 Aerial Photography





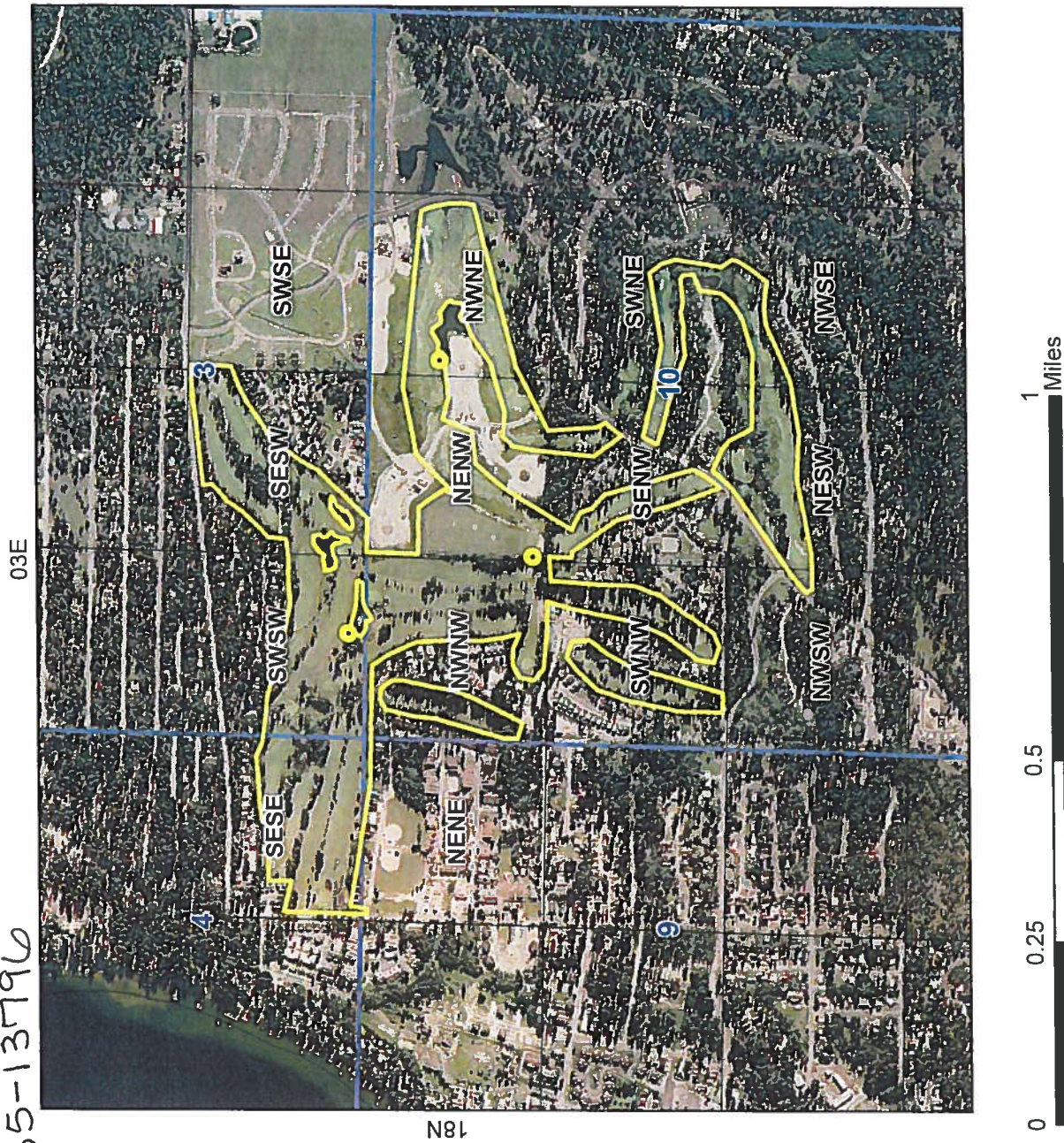
Point of Diversion
Storage)

- (IRRIGATION)**



Prepared by Walker, Kay

2009 Aerial Photography





State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

August 6, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

CITY OF MC CALL
216 EAST PARK ST
MCCALL ID 83638

RE: Water Right Permit No. 65-13796

Dear Permit Holders:

The Department of Water Resources is reviewing the permit referenced above prior to issuing a water right license. By issuing a license, the Department confirms the extent of development that has been established in compliance with the terms of the permit. The examiner who verified your water use reported that certain elements of the permit have been developed differently than described on your permit. Changes that do not increase the authorized use of water under the permit can be requested and approved in accordance with Section 42-211, Idaho Code. Before a license can be issued, your permit must be amended to depict your water use as it was actually developed.

Based on the examiner's report, the following elements were developed differently than described on your permit:

☒ **Points of Diversion**

☒ **Places of Use**

The enclosed Application for Amendment form depicts the elements of the water right as they will appear on the license when it is issued. Please review the amendment form carefully. If you concur with the information presented, please sign the form and return it with the \$100.00 filing fee within 14 days.

If you have any questions, please call me at (208)334-2190.

Sincerely,


KAY WALKER
Sr. Water Resource Agent

Enclosure

MEMORANDUM

TO: Exams 65-13476 and 65-13796

FROM: Kay Walker 

RE: Modifications of Field Exams

Date: July 22, 2013

.....

While reviewing the field examinations for the above permits it was noticed that the examiner had just created a general GIS shape for these permits. I went in and made the shape for the golf course based on tax lot data which worked out very well. Based on discussion with the field examiner and GIS shape for the golf course it was determined that they could have 160 acres of irrigation. This amount is 15 acres more than originally recommended but the field examiner said the shape file is accurate and we should use it for licensing. Since Permit 65-13476 was originally issued for municipal purposes (for the golf course) there is no limit on the number of acres that can be licensed.

In review of the system capacity for each of the wells, it was determined that the amount of water found under License 65-13119 (well and land included in this system) was 0.28 cfs but the system could produce 0.31 cfs. I have discussed with the field examiner and he is in agreement that we should include the additional 0.03 cfs as part of the rate to be licensed under these new permits. The system capacity to be licensed will be 1.29 cfs, and a condition limiting the system to 1.29 cfs will be used when all the rights (65-13119, 65-13476 and 65-13796) are combined.

The second permit, 65-13796, was issued for irrigation, irrigation storage, and irrigation from storage, recreation, recreation storage and diversion from storage. This permit does not add any additional land or diversion rate to the system but does add an additional 40 acre feet of water to the storage parameter of the system.

We will request a licensing amendment to change the nature of use, place of use and points of diversion on Permit 65-13476. A licensing amendment will also be needed to add points of diversion and place of use to Permit 65-13796.

THEORETICAL PUMP EFFICIENCY CALCULATIONS

FILE: 65-13119

DATE: 7-SEP-95

COMPLETE BY: SANDY HEMENWAY

HORSEPOWER = 10 per Caron Pump 939-9198/shelly

PUMP EFFICIENCY = 70%

DYNAMIC LIFT = 17 FEET 7' static + 10' = 17

SYSTEM PRESSURE = 80 PSI per Charlie Denham/Head Greensman,
since unable to gauge pressure on
Hunter nozzles, + no pressure gauge.
(Charlie Denham said it was
gauged @ 80 psi + 200gpm)

$$Q = \frac{8.814 \times 0.7 \times 10 \text{ hp}}{(2.31 \times 80 \text{ psi}) + 17'} = \frac{61.698}{201.8} = 0.3057$$

$$\approx 0.31 \text{ cfs}$$

KW
7/9/95

NO. 14 1995