

4/2014

IN-OFFICE BENEFICIAL USE EXAM REPORT

Permit No. 63-33454

Prepared by Phill Hummer

Date 10/23/2015

Same as permit Different than permit

Owner Name	☒	☐ _____
Owner Address	☒	☐ _____
Source	☒	☐ _____
Tributary	☒	☐ _____
POD	☐	☒ <u>Actual Location by GPS at 03N02E Sec 16 NENE</u>
POU	☒	☐ _____
Beneficial Use(s)	☒	☐ _____

Exam Fee Required for Permitted Rate \$50.00

Exam Fee Paid \$50.00 W039571

Overlaps ☒ No ☐ Yes, summarize _____

Amendment ☐ No ☒ Yes, summarize Change location of POD

Technical Confirmation Tools

ArcMap	☒	GPS	☒
Taxlot	☒	Photos	☒
Well Log	☒	Diagrams	☐
Other	☒ explain: <u>Pump and well data submitted by applicant</u>		

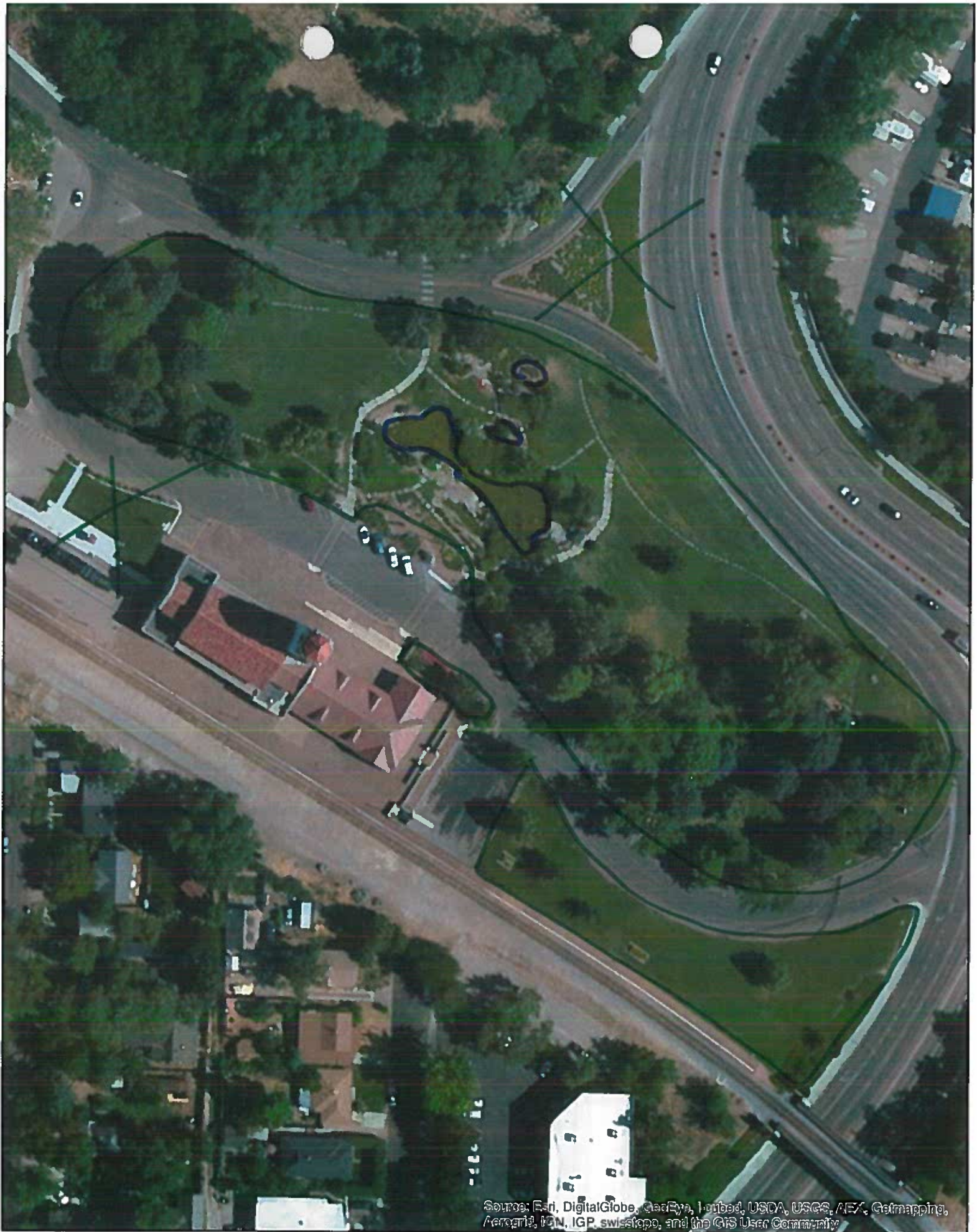
Conditions/Comments Used theoretical horsepower euquation worksheet to calculate a rate of flow, recommend the lesser amount 0.15 cfs.

Applicant is currently in compliance with permit based on pumping records submitted by applicant and no objections from the water master.

Exam Date Entered ☒

Draft License Created ☒

Shapes Updated ☒



Source: Esri, DigitalGlobe, GeoEye, IGN, IGP, swisstopo, and the GIS User Community

63-33454 Aerial Photo 2012

Park: Platt Gardens (Depot)

WELL SUMMARY

Year Drilled	Total Depth	Borehole Diameter	Original Static Water Level	Casing Diameters and Depths	Screen Diameters and Intervals	Well Log on File?
1992	145	8	40	8" 0-120/6" 100-145	6" SS, 30 -slot, 130-140,	Yes

PUMP SUMMARY

Designed for gpm	psi	Pump Mfg. and Model Number	Pump Type	Pump Diameter	Setting Depth	Column Diameter	Motor Mfg.	Motor HP	Volt/Phase
80	80	Robbco 5LLE (Pump curve in file)	Submersible 6 stages	5.4	105	2	Franklin	7.5	460/3

Discharge is equipped with pressure tank for constant pressure.
Water level measuring point is (top of casing).
Flow rate measured by counting sprinkler heads.

Date	Static Depth to Water (feet)	Pumping Depth to Water (feet)	Pumping Rate (gpm)	Discharge Pressure (psi)	Sprinkler Pressure (psi)	Number of heads running	Remarks (sand, pump vibration or noise, Valve operation, etc.)
10/21/96	40	52	66	60	38	station 2 (side hill by track)	12 R50s, 5 w/ #3 noz @ 3.5 gpm, 5 w/ #4 noz @ 4.8 gpm, 2 w/ #6 noz @ 6.0 gpm; 1 rainomatic impact @ 6 gpm; 2 hunter I20s w/ # 7 noz @ 6.2 gpm
9/30/97	38.5	47.0		60	40	Station 2	Same heads, same station
10/8/98	38.9	47.9			30	Station 2	
10/21/99	38.5	45.5			30		
9/6/00	41	46				Station 2	No pressure gage or saddle for flow meter.
9/19/01	40	47	66		58	Station 2	9 Falcon heads
9/1/02	38	46	68		40	Station 2	9 Falcon heads; no gage for discharge pressure
9/25/03	37	48	67		44	Station 2	9 Falcon heads; no gage for discharge pressure
9/17/2004	38.5	45.5	62		58	Station 2	9 Falcon heads; no gage for discharge pressure
10/3/05	39.9	47.5	62		60	Station 2	9 Falcon heads; no gage for discharge pressure
9/26/06	35'11"	42'11"	63		55	Station 2	9 Falcon heads
9/12/07	34' 1"	42' 3"	62		59	Station 2	9 Falcons No gauge for discharge
5/08							Replaced pump and motor.
8/26/08	35.58	43	66		60	Station 2	
8/12/09	36' 3"	46	82		46	Station 2	9 Falcons
8/27/10	36'1"	43'2"	70		60	Station 2	9 Falcons
9/20/11	35'5"	41'7"	65		67	Station 2	9 Falcons
7/16/12	32'11"	40'4"	65	73 lbs	62	Station 2	9 Falcons

Depot Pond Fill Times and Occurrences – 01-08-2013

In the summer we would hit a maximum of about 60 minutes (twice a day – 9,600 gallons total) and also do a manual fill of 30 to 45 minutes (2,400 to 3,600 gallons) or more, two or three times a week. Just before the repair we were re-filling the pond every 3 to 4 days (105,000 gallons) about an hour every other hour. In the winter we were filling at the minimum about 40 minutes (twice a day – 6,400 gallons total). Currently we maxed out in the summer at 40 minutes (twice a day - 6,400 gallons each day) with no manual fills and we are currently at 26 minutes (twice a day – 4,160 gallons each day). We are probably using about 2/3 less water than we were using before (not counting the manual fills we used to do).

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 63-33454
 Reviewer: Angie Grimm
 Date of Review: 10/17/2013

P/D No.:	Scenario 1	Scenario 2	
PUMP HORSEPOWER	7.5	7.5	
BOOSTER HORSEPOWER	0	0	
PUMPING LEVEL	95	95	
DISCHARGE PRESSURE	60	80	
RATE OF FLOW (cfs)	0.20	0.17	AVE 0.18

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes: Data collected on 10-17-13 during field exam.
 Depth to water (Z) = assumed 10 ft above pump setting for small horsepower system (< 10 hp).
 PSI = assumed 60 psi standard for closed system irrigation Scenario 1.
 PSI = assumed 80 psi standard based on system design per specificatio sheet provided by operator Scenario 2.
 Average of these theoretical calculations is greater than permitted rate. Recommend permitted rate of 0.15 cfs for licensing.

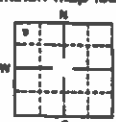
Place of Use Overlap Analysis

Process	Basin Sequence	Owner	Source	POD/POU	NENE	Total Acres	Use	Overlap
Water Permit	63-33454	CITY OF BOISE	GROUND WATER	POU	X	0	M	The applicant proposes irrigation and aesthetic storage, The City of Boise requests proposed use be labeled "Municipal"
Water Right	63-10150	UNITED WATER IDAHO INC*	GROUND WATER	POU	X	0	M	No Overlap Different Beneficial Use
Water Right	63-10386	UNITED WATER IDAHO INC	GROUND WATER	POU	X	0	M	No Overlap Different Beneficial Use

*There are many water rights owned by United Water Idaho Inc for municipal use that overlap the applicants property.

Since all water rights are similar are not for the same use those rights were not included in this list

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>MORRISON-KNUDSEN CORP</u> Address <u>720 PARK BLVD. BOISE, ID 83729</u> Drilling Permit No. <u>63-92-C-0773-000</u> Water Right Permit No. <u>63-11871</u> 2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Well diameter increase ☐ Modification ☐ Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. In lithologic log, section 9.) 3. PROPOSED USE ☐ Domestic ☒ Irrigation ☐ Monitor ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other _____ (specify type) 4. METHOD DRILLED ☐ Rotary ☐ Air ☐ Auger ☐ Reverse rotary ☒ Cable ☐ Mud ☐ Other _____ (backhoe, hydraulic, etc.) 5. WELL CONSTRUCTION Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____ <table border="1" style="width: 100%; font-size: small;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>.250 inches</td> <td>8 inches</td> <td>+ 1 feet</td> <td>120 feet</td> </tr> <tr> <td>.250 inches</td> <td>6 inches</td> <td>100 feet</td> <td>130 feet</td> </tr> <tr> <td>.250 inches</td> <td>6 inches</td> <td>140 feet</td> <td>145 feet</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? _____ inches by _____ inches <table border="1" style="width: 100%; font-size: x-small;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> Well screen installed? ☒ Yes ☐ No Manufacturer <u>HOUSTON</u> Type <u>STAINLESS 304 6</u> Top Packer or Headpipe <u>K PACKER 30' 6"</u> Bottom of Tailpipe <u>5' SET 145'</u> Diameter <u>6"</u> Slot size <u>.030 Set from 130 feet to 140 feet</u> Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☒ No Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>21</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 _____ 6. LOCATION OF WELL Sketch map location must agree with written location.  Subdivision Name <u>Rose Hill</u> <u>AND South Boise</u> Lot No. _____ Block No. _____ County <u>ADA</u> Address of Well Site <u>1701 EASTOVER TERRACE BOISE</u> (give at least name of road) T. <u>3 N</u> N ☒ or S ☐ NW ☐ NE ☐ SE ☐ SW ☐ R. <u>2 E</u> EX ☐ or W ☐	Thickness	Diameter	From	To	.250 inches	8 inches	+ 1 feet	120 feet	.250 inches	6 inches	100 feet	130 feet	.250 inches	6 inches	140 feet	145 feet	Number	From	To	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	7. WATER LEVEL Static water level <u>40</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 _____ °F. Quality _____ Describe artesian or temperature zones below: 8. WELL TEST DATA ☐ Pump ☒ Baller ☐ Air ☐ Other _____ <table border="1" style="width: 100%; font-size: x-small;"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Pumping Level</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> 9. LITHOLOGIC LOG 90280 <table border="1" style="width: 100%; font-size: x-small;"> <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>12</td> <td>0</td> <td>21</td> <td>TOP SOIL GRAVEL COBBLESTONES</td> <td> </td> <td>X</td> </tr> <tr> <td>8</td> <td>21</td> <td>31</td> <td>GRAVEL COBBLESTONES</td> <td> </td> <td>X</td> </tr> <tr> <td>8</td> <td>31</td> <td>39</td> <td>GRAVEL COBBLESTONES</td> <td> </td> <td>X</td> </tr> <tr> <td>8</td> <td>39</td> <td>55</td> <td>GRAVEL COBBLESTONES</td> <td> </td> <td>X</td> </tr> <tr> <td>8</td> <td>55</td> <td>82</td> <td>SANDY CLAY</td> <td>X</td> <td> </td> </tr> <tr> <td>8</td> <td>82</td> <td>100</td> <td>SANDY</td> <td>X</td> <td> </td> </tr> <tr> <td>8</td> <td>100</td> <td>120</td> <td>SANDY</td> <td>X</td> <td> </td> </tr> <tr> <td>8</td> <td>120</td> <td>130</td> <td>BLUE CLAY</td> <td> </td> <td>X</td> </tr> <tr> <td>8</td> <td>130</td> <td>140</td> <td>COURSE SAND</td> <td>X</td> <td> </td> </tr> <tr> <td>8</td> <td>140</td> <td>145</td> <td>COURSE SANDY CLAY</td> <td>X</td> <td> </td> </tr> </tbody> </table> RECEIVED NOV 5 Department of Water Resources Western Regional Office NOV 5 1992 RECEIVED AUG 9 1992 Department of Water Resources 10. Work started <u>10-15-92</u> finished <u>10-28-92</u> 11. DRILLER'S CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>BILL DOTY DRILLING CO., INC.</u> Firm No. <u>49</u> Address <u>106 CALLOWAY CADDEN, ID 83605</u> Signed by Drilling Supervisor <u>[Signature]</u> and (Operator) _____ (If different than the Drilling Supervisor)	Discharge G.P.M.	Pumping Level	Hours Pumped										Bore Diam.	Depth		Material	Water		From	To	Yes	No	12	0	21	TOP SOIL GRAVEL COBBLESTONES		X	8	21	31	GRAVEL COBBLESTONES		X	8	31	39	GRAVEL COBBLESTONES		X	8	39	55	GRAVEL COBBLESTONES		X	8	55	82	SANDY CLAY	X		8	82	100	SANDY	X		8	100	120	SANDY	X		8	120	130	BLUE CLAY		X	8	130	140	COURSE SAND	X		8	140	145	COURSE SANDY CLAY	X	
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water bearing zone 130-140 ft.

*

Now for 63-33454

4/20/2011

63-33454 AP thru legal B.F.
Pg 16

Actual Location 3N 2E sec 16 NE NE

GPS 43.601691 -116.213888

Hummer, Phill

From: Hummer, Phill
Sent: Friday, October 23, 2015 3:51 PM
To: 'waterdistrict63@qwestoffice.net'
Subject: Mitigation agreement

Hi Rex,

I am working on approving a license for the City of Boise Department of Parks and Recreation, water right number 63-33454. The right is for the purposes of irrigation and aesthetic ponds at the Boise Train Depot using a shallow ground water well (water bearing zone is 130 to 140 ft). As a mitigation plan they submitted an agreement with South Boise Mutual Irrigation Company Ltd to leave 0.10 cfs of water right 63-283A undiverted from the Boise River. Can you verify the applicant is in compliance with this mitigation plan or supply data that confirms this water has been left undiverted. Thank you for your time addressing these matters.

Phill Hummer

*Water Resource Agent
Idaho Department of Water Resources
Phone: (208) 334-2190
Fax: (208) 334-2348
Email: phill.hummer@idwr.idaho.gov*



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

October 3, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

CITY OF BOISE PARKS & RECREATION DEPT
ATTN BRIAN JORGENSEN
1104 ROYAL BLVD
BOISE ID 83706

RE: Scheduling Field Exam for Water Right Permit No. 63-33454

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **during the weeks of 10/23/13 to 11/8/13**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes municipal use of ground water for landscape irrigation and pond filing and maintenance of Platt Gardens and Boise Depot. **If you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit or if you did develop that use, but subsequently abandoned it, a license cannot be issued. Please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required). The permit will be voided if beneficial use under the permit was not developed or was developed, but is now abandoned and you do not relinquish the permit.

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Assignment of Permit form with the applicable \$25 processing fee.

Please contact me within the next thirty (30) days to either schedule an examination, submit a relinquishment, or submit an assignment. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.

Please call me at 208-334-2190 if you have any questions. I appreciate your attention in this matter and I look forward to hearing from you.

Sincerely,

Angela M. Grimm, P.G.
Water Resource Agent, Sr.

Enclosure(s): Relinquishment of Permit form
Assignment of Permit form