

State of Idaho
Department of Water Resources
Water Right License
WATER RIGHT NO. 37-20742

PRIORITY: September 02, 2002

Maximum Diversion Rate: 2.00 CFS

Maximum Diversion Volume: 136.0 AF

It is hereby certified that:

ROBERT G FRIEDMAN
289 HOMEWOOD RD
LOS ANGELES CA 90049

has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated July 11, 2002, and has submitted Proof of Beneficial Use on December 20, 2007. An examination confirms water is diverted from:

SOURCE:
GROUND WATER

and a water right has been established as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL DIVERSION VOLUME</u>
AESTHETIC STORAGE	01/01 to 12/31		14.4 AF
RECREATION STORAGE	01/01 to 12/31		14.4 AF
AESTHETIC	04/15 to 10/31	2.00 CFS	136.0 AF
RECREATION	04/15 to 10/31	2.00 CFS	136.0 AF

LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER SE¼SW¼ Sec. 14, Twp 05N, Rge 17E, B.M. BLAINE County

PLACE OF USE: AESTHETIC STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
05N	17E	14												X					

PLACE OF USE: AESTHETIC

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
05N	17E	14												X					

PLACE OF USE: RECREATION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
05N	17E	14												X					

PLACE OF USE: RECREATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
05N	17E	14												X					

State of Idaho
Department of Water Resources
Water Right License
WATER RIGHT NO. 37-20742

CONDITIONS OF APPROVAL

1. Use of water under this approval shall be non-consumptive. The right holder shall not divert ground water under this right unless the same or a larger amount of water is simultaneously discharged to the original Eagle Creek Irrigation Company return flow recharge site identified in the application.
2. Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 37.
3. The right holder shall install and maintain measuring devices at the point of diversion (at the well), on the ditch from Eagle Creek where the ditch enters the right holders property, and at a location to measure pond outflow to the recharge area.
4. A lockable device subject to the approval of the Department shall be maintained on the diverting works in a manner that will provide the watermaster suitable control of the diversion.
5. The two ponds established by the storage of water under this right shall not exceed a total capacity of 14.4 acre-feet or a total surface area of 1.8 acres,
6. This right authorizes the continued storage of up to 14.4 acre-feet of water that was initially supplied through a separate authorization for the storage facilities (ponds). If the ponds are depleted for maintenance or other reasons, the right holder shall seek a separate authorization, such as a Water Supply Bank rental, to fill the ponds.
7. The right holder shall retain ownership of the 10 shares of Eagle Creek Irrigation Company water stock and shall use two shares of water, to the extent the water is available, for use in the ponds.
8. Right 37-863F authorizes the diversion of 0.04 cfs to be used for the replacement of losses caused by evaporation from the ponds authorized under Right 37-20742.
9. Place of use is also known as Homestead Entry Survey No.129.
10. This right does not grant any right-of-way or easement across the land of another.

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. The water right confirmed by this license is subject to all prior water rights and shall be used in accordance with Idaho law and applicable rules of the Department of Water Resources.

Signed this 1st day of December, 2016.



COREY SKINNER
Southern Regional Manager

State of Idaho
Department of Water Resources
Attachment to Water Right License
37-20742

This map depicts the AESTHETIC, AESTHETIC STORAGE, RECREATION, and RECREATION STORAGE place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections

0 0.035 0.07 0.14 Miles





State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region • 650 Addison Ave W, Suite 500 • Twin Falls, Idaho 83301-5858
Phone: (208) 736-3033 • Fax: (208) 736-3037 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

December 1, 2016

ROBERT G FRIEDMAN
289 HOMEWOOD RD
LOS ANGELES CA 90049

RE: License No. 37-20742

Issuance of License

Dear Water Right Holder(s):

The Department of Water Resources has issued the enclosed Water Right License confirming that a water right has been established in accordance with your permit. Please be sure to thoroughly review the conditions of approval and remarks listed on your license.

The license is a PRELIMINARY ORDER issued by the Department pursuant to section 67-5243, Idaho Code. It can and will become a final order without further action by the Department unless a party petitions for reconsideration or files an exception and/or brief within fourteen (14) days of the service date as described in the enclosed information sheet.

Please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Failure to report these changes could result in a \$100 late filing fee. Contact any office of the Department or visit the Department's homepage on the Internet to obtain the proper forms and instructions.

If you have any questions, please contact me at 208-736-3033.

Sincerely,

A handwritten signature in black ink, appearing to read 'Corey Skinner', is written over a white background.

Corey Skinner
Southern Regional Manager

Enclosure(s)

cc: JAMES P SPECK
BROCKWAY ENGINEERING PLLC

CERTIFICATE OF SERVICE

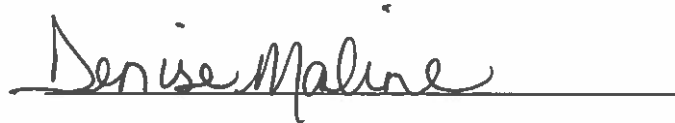
I hereby certify that on December 1, 2016 I mailed a true and correct copy, postage prepaid, of the foregoing PRELIMINARY ORDER (Approved License) to the person(s) listed below:

RE: WATER RIGHT NO. 37-20742

**ROBERT G FRIEDMAN
289 HOMEWOOD RD
LOS ANGELES CA 90049**

**JAMES P SPECK
SPECK & AANESTAD
PO BOX 987
KETCHUM ID 83340**

**BROCKWAY ENGINEERING PLLC
2016 N WASHINGTON ST STE 4
TWIN FALLS ID 83301**

A handwritten signature in cursive script, reading "Denise Maline", is written over a horizontal line.

**Denise Maline
Administrative Assistant**

EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was **not** held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "Preliminary Order" issued by the department pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. **Note: the petition must be received by the department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:

- (a) The petition for reconsideration is disposed of; or
- (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

- i. A hearing was held,
- ii. The final agency action was taken,
- iii. The party seeking review of the order resides, or
- iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

Skinner, Corey

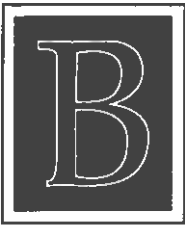
From: Skinner, Corey
Sent: Friday, November 25, 2016 8:45 AM
To: charles.e.brockway@brockwayeng.com; 'Jim Speck'
Cc: Jones, Doug; Keen, Shelley
Subject: Draft Friedman 37-20742 License
Attachments: 37-20742-draftLicense with draft stamp.docx

Chuck & Jim,

Attached is a draft license for Robert Friedman that I am prepared to sign. There has been quite a bit of back and forth on this over the last year or so. I thought I would give you two a chance to look it over before I sign it. Let me know after you have a chance to look it over. I would like to get this signed and mailed out sooner rather than later.

Thanks,

Corey



BROCKWAY
ENGINEERING
P.L.L.C.

Hydraulics

Hydrology

Water Resources

RECEIVED

SEP 19 2016

DEPT OF WATER RESOURCES
SOUTHERN REGION

September 15, 2016

Doug Jones
Idaho Department of Water Resources
650 Addison Ave. W., Ste. 500
Twin Falls, ID 83301

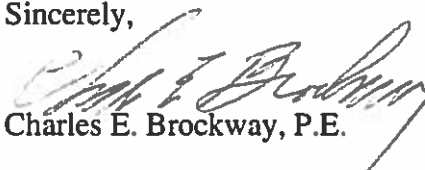
Re: Beneficial Use Exam Narrative Supplement-Friedman 37-20742

Dear Doug,

I am responding to the additional requests for information, which we discussed and agreed to on our last meeting of August 24 with Corey Skinner. The enclosed Beneficial Use Exam Report Supplement provides additional information on the water measuring devices for the Eagle Creek Irrigation Company ditch diversion, the weir for the lower pond outlet to the recharge basin, and additional information on the operation of the system.

Please review this submittal and call if you need to discuss.

Sincerely,



Charles E. Brockway, P.E.

Enclosures:

Narrative Addendum-Beneficial Use Exam-37-20742
Fox Creek Ranch Pond Construction Drawing- Weirs
Eagle Creek Irrigation Company Ditch Weir Discharge Table
Lower Pond Outflow Weir Discharge Table

Cc: Rob Friedman
Jim Speck

CHARLES E.
BROCKWAY,
PH.D., P.E.

CHARLES G.
BROCKWAY,
PH.D., P.E.

2016 NORTH
WASHINGTON
STREET • SUITE 4

TWIN FALLS,
IDAHO 83301

208•736•8543

FAX: 736•8506

RECEIVED

SEP 19 2016 Narrative Supplement –Beneficial Use Exam Water Permit 37-20742

DEPT OF WATER RESOURCES
SOUTHERN REGION

Robert G. Friedman

Brockway Engineering P.L.L.C. September 16, 2016

The Beneficial Use Field Examination was performed by Charles E. Brockway P.E. on November 28, 2007 for permit 37-20742 and the report was submitted to the Southern District IDWR office on November 18, 2007. A review of the submitted report by Doug Jones of the Southern District IDWR office (letter of September 30, 2015) indicated that some additional information was required, specifically regarding the operation of the well with respect to irrigation pumping from the lower pond, diversion from the Eagle Creek Irrigation Company ditch, and outlet measuring device and inlet measuring device from the ECIC ditch. A letter was sent by Brockway Engineering on November 25, 2015 in an attempt to provide the required information but was deemed insufficient by Mr. Jones.

Two meetings were held between Doug Jones and Cory Skinner of the IDWR Southern Region office and Charles E. Brockway of Brockway Engineering PLLC to determine any remaining information that would be required. At the August 24, 2016 meeting, two concerns were identified by IDWR: 1) Information on the flow metering facilities and 2) identification of volume allowances for aesthetic and recreational uses.

The measuring devices which were not in-place at the time of the field exam have been designed and constructed and discharge tables have been provided for the 4.0 ft rectangular sharp crested weir at the outlet of the lower pond to the recharge area and for the 1.5 ft sharp crested rectangular weir at the diversion from the ECIC ditch.

The lower pond which is 1.423 acres in area and an estimated 8 ft average depth, is utilized both as an aesthetic and recreation pond as well as an irrigation management pond in connection with the irrigation of the 8 acres allowed for irrigation under the permit using two shares of the allowed 10 shares (10 miners inches) from ECIC. The 24 hour rule for utilization of the pond as an irrigation management pond would therefore allow a fluctuation of the pond volume of 0.396 acre feet (0.2 cfs for 24 hours) with the pond being refilled with Eagle Creek water. Mike Koleno, manager and irrigator of the project indicates that the irrigation scenario includes 20 sprinkler zones which he irrigates in two days or 10 zones per day. Each zone is operated for 45 minutes with a discharge of up to 110 gpm. A water budget analysis indicates that the decrease in pond volume due to daily irrigation using 10 zones of 45 minutes with 110 gpm discharge from the pond will require 6,618 cubic feet or 0.152 acre feet per day for irrigation delivered in 7.5 hours. This irrigation use would lower the water level in the lower pond by .105 ft. if no other inflow was occurring.

With ECIC ditch providing at least 10 shares or 10 miners inches during the irrigation period and for the remaining 16.5 hours with no other input, the lower pond would, with no irrigation diversion, would increase in volume by 0.396 acre feet per day or an increase in water level of .278 feet. The increase in water level of .278 feet per day is .173 feet more than the depletion caused by daily irrigation (-0.152 ft). Therefore, with no additional well water added, the lower pond will spill over the weir each day. Any well water added will therefore not be used consumptively and will spill out of the lower pond into the recharge area.

The well is used for flow-through water quality maintenance and for emergency fire flow. The manager indicates that during hot weather, algae blooms are a real problem and the water temperature is borderline for the rainbow trout stocked in the lower pond. He

indicates that he may need to operate the well at a discharge of 897 gpm (2.0cfs) continuously or as needed, during the summer normally from about June 15 through September 15 (90 days). No water quality parameters are measured and the need for flow-through water from the well is determined based on visual observation of algae on the ponds and observation of fish activity. The pumped volume is therefore a maximum of 356 acre feet per season. Since the operating volume of the lower pond is 11.38 acre feet, the turnover time at an inflow of 2.0 cfs is 2.87 days or approximately once every 3 days. This is a reasonable design rate for a recreation or aesthetic pond and/or for fish viability. The annual volume use for the well for the authorized aesthetic and recreational use after the first fill is therefore 356 acre feet.

Attachments:

Discharge Rating Table for Lower Pond Outlet

Construction Drawing for Outlet Weir and Eagle Creek Ditch Inflow Weir

Discharge Measurement Weir Rating Curve

Brockway Engineering, PLLC 6/22/2016

PROJECT: Friedman-Eagle Creek Ditch Diversion
 DATE: 9/15/2016 CEB
 LOCATION: Outlet
 TYPE OF WEIR: Rectangular Contracted-Francis Formula
 CREST LENGTH (FT): 1.5
 VELOCITY CORRECTION: None

DISCHARGE IN CUBIC FEET PER SECOND

HEAD IN FEET	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0	0.00	0.00	0.01	0.03	0.04	0.06	0.07	0.09	0.11	0.13
0.1	0.16	0.18	0.20	0.23	0.26	0.28	0.31	0.34	0.37	0.40
0.2	0.43	0.47	0.50	0.53	0.57	0.60	0.64	0.68	0.71	0.75
0.3	0.79	0.83	0.87	0.91	0.95	0.99	1.03	1.07	1.11	1.15
0.4	1.20	1.24	1.28	1.33	1.37	1.42	1.46	1.51	1.55	1.60
0.5	1.65	1.70	1.74	1.79	1.84	1.89	1.94	1.99	2.04	2.09
0.6	2.14	2.19	2.24	2.29	2.34	2.39	2.44	2.49	2.55	2.60
0.7	2.65	2.71	2.76	2.81	2.87	2.92	2.97	3.03	3.08	3.14
0.8	3.19	3.25	3.30	3.36	3.41	3.47	3.53	3.58	3.64	3.70
0.9	3.75	3.81	3.87	3.92	3.98	4.04	4.10	4.15	4.21	4.27

DISCHARGE IN IDAHO MINER'S INCHES

HEAD IN FEET	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0	0.0	0.2	0.7	1.3	2.0	2.8	3.6	4.6	5.6	6.7
0.1	7.8	9.0	10.2	11.5	12.8	14.2	15.6	17.1	18.6	20.2
0.2	21.7	23.4	25.0	26.7	28.4	30.2	32.0	33.8	35.6	37.5
0.3	39.4	41.3	43.3	45.3	47.3	49.3	51.4	53.4	55.5	57.7
0.4	59.8	62.0	64.2	66.4	68.6	70.9	73.1	75.4	77.7	80.1
0.5	82.4	84.8	87.2	89.6	92.0	94.4	96.8	99.3	101.8	104.3
0.6	106.8	109.3	111.8	114.4	117.0	119.5	122.1	124.7	127.3	130.0
0.7	132.6	135.3	137.9	140.6	143.3	146.0	148.7	151.4	154.2	156.9
0.8	159.6	162.4	165.2	168.0	170.7	173.5	176.3	179.2	182.0	184.8
0.9	187.7	190.5	193.4	196.2	199.1	202.0	204.8	207.7	210.6	213.5

DISCHARGE IN GALLONS PER MINUTE

HEAD IN FEET	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0	0	2	6	12	18	25	33	41	50	60
0.1	70	81	92	103	115	128	140	154	167	181
0.2	195	210	225	240	255	271	287	303	320	337
0.3	354	371	388	406	424	443	461	480	499	518
0.4	537	556	576	596	616	636	657	677	698	719
0.5	740	761	782	804	826	847	869	891	914	936
0.6	959	981	1004	1027	1050	1073	1096	1120	1143	1167
0.7	1190	1214	1238	1262	1286	1310	1335	1359	1384	1408
0.8	1433	1458	1483	1508	1533	1558	1583	1608	1633	1659
0.9	1684	1710	1736	1761	1787	1813	1839	1865	1891	1917

**Not recommended

Discharge Measurement Weir Rating Curve

Brockway Engineering, PLLC 6/22/2016

PROJECT: Friedman-Eagle Creek Lower Pond
 DATE: 8/25/2016 CEB
 LOCATION: Outlet
 TYPE OF WEIR: Rectangular Contracted-Francis Formula
 CREST LENGTH (FT): 4.0
 VELOCITY CORRECTION: None

DISCHARGE IN CUBIC FEET PER SECOND

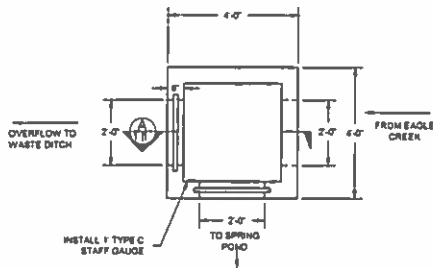
HEAD IN FEET	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0	0.00	0.01	0.04	0.07	0.11	0.15	0.20	0.25	0.30	0.36
0.1	0.42	0.48	0.55	0.62	0.69	0.77	0.85	0.93	1.01	1.09
0.2	1.18	1.27	1.36	1.45	1.55	1.64	1.74	1.84	1.95	2.05
0.3	2.16	2.26	2.37	2.48	2.60	2.71	2.83	2.94	3.06	3.18
0.4	3.30	3.43	3.55	3.68	3.80	3.93	4.06	4.19	4.32	4.46
0.5	4.59	4.73	4.86	5.00	5.14	5.28	5.43	5.57	5.71	5.86
0.6	6.00	6.15	6.30	6.45	6.60	6.75	6.91	7.06	7.22	7.37
0.7	7.53	7.69	7.84	8.00	8.17	8.33	8.49	8.65	8.82	8.98
0.8	9.15	9.32	9.49	9.65	9.82	9.99	10.17	10.34	10.51	10.69
0.9	10.86	11.04	11.21	11.39	11.57	11.75	11.93	12.11	12.29	12.47

DISCHARGE IN IDAHO MINER'S INCHES

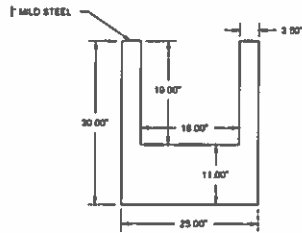
HEAD IN FEET	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0	0	1	2	3	5	7	10	12	15	18
0.1	21	24	28	31	35	38	42	46	50	55
0.2	59	63	68	73	77	82	87	92	97	103
0.3	108	113	119	124	130	135	141	147	153	159
0.4	165	171	177	184	190	197	203	210	216	223
0.5	230	236	243	250	257	264	271	278	286	293
0.6	300	308	315	323	330	338	345	353	361	369
0.7	376	384	392	400	408	416	424	433	441	449
0.8	457	466	474	483	491	500	508	517	526	534
0.9	543	552	561	570	578	587	596	605	614	624

DISCHARGE IN GALLONS PER MINUTE

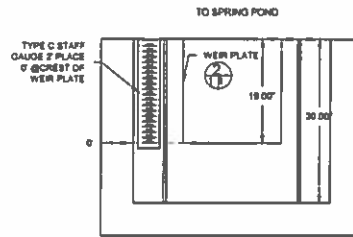
HEAD IN FEET	0	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0	0	6	17	31	48	67	88	110	135	161
0.1	188	217	247	278	311	345	380	415	452	490
0.2	529	569	610	652	694	738	782	827	873	920
0.3	968	1016	1065	1115	1165	1216	1268	1321	1374	1428
0.4	1482	1537	1593	1649	1706	1764	1822	1881	1940	2000
0.5	2061	2122	2183	2245	2308	2371	2435	2499	2564	2629
0.6	2695	2761	2828	2895	2963	3031	3100	3169	3238	3308
0.7	3379	3449	3521	3592	3665	3737	3810	3884	3958	4032
0.8	4106	4181	4257	4333	4409	4486	4563	4640	4718	4796
0.9	4874	4953	5033	5112	5192	5272	5353	5434	5515	5597



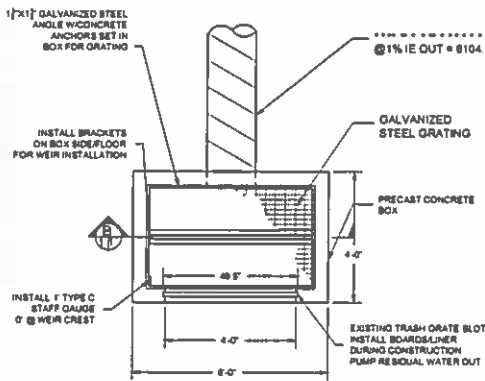
1 EAGLE CREEK DIVERSION & BYPASS BOX
SCALE 1/2"=1'



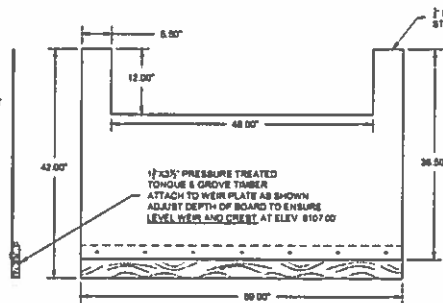
2 RECTANGULAR WEIR - EAGLE CREEK
SCALE 1"=1'



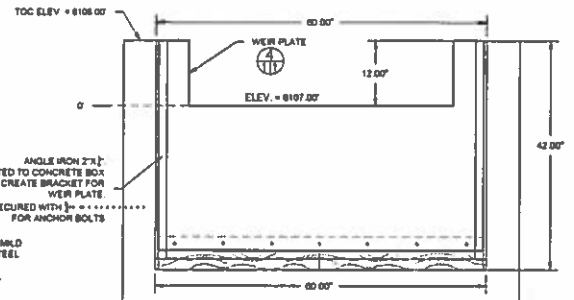
A EAGLE CREEK DIVERSION BOX
SCALE 1"=1'



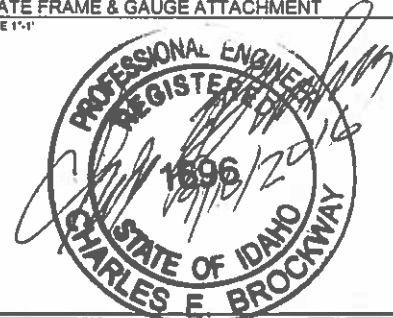
3 WEST LAKE OUTLET WEIR BOX
SCALE 1/4"=1'



4 RECTANGULAR WEIR - WEST LAKE OUTLET
SCALE 1"=1'



B GRATE FRAME & GAUGE ATTACHMENT
SCALE 1"=1'



THIS DRAWING WAS DESIGNED BY BROCKWAY ENGINEERING, PLLC FOR THE PROJECT AND IS NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF BROCKWAY ENGINEERING, PLLC.				BROCKWAY ENGINEERING, PLLC 2016 NORTH WASHINGTON BLVD. # 2 TWIN FALLS, ID 83301 (208) 738-8843		FRIEDMAN - FOX CREEK RANCH DIVERSIONS MEASURING DEVICES		PROJECT # 2016-02-2016
REV.	DESCRIPTION	DATE	APPRO.	REFERENCE DRAWINGS	DATE	BY	DATE	BY
A	ISSUE FOR REVIEW	8/21/16						
B								

FRIEDMAN LOWER POND OPERATION ceb APRIL 11, 2016

NARRATIVE: Based on Mike Coleno testimony

Data:

1 Surface area of lower pond #2	1.423 acres	
Surface area of Pond #1	0.376 acres	
2 Irrigated ares	7 acres	
3 Irrigation :		
No of sets	20	
No of sets/day	10	
Discharge	110 GPM AVG	
Time per set	45 min	
Irrigation from 10 pm to 6 am		
Volume per set	4950 gal/set	
Volume per day	49500 gal/day	
	6618 ft ³ /day	
	0.152 af/day	
Area of Pond #2	1.423 acres	
Change in elevation of Pond#2 due to irrigation		
per day-no inflow	-0.107 ft/day	
Eagle Crk inflow max	10 miners inches	
	89.76 gpm	
	129254 gal/day	
	17280 ft ³ /day	
	0.397 af/day	
	0.279 ft/day	
Change in elevation of Pond #1 Due to Eagle Crk Inflow only		
if total Eagle Crk infloweq	10	0.279 ft/day
	9	0.251 ft
	8	0.201 ft
	7	0.141 ft
	6	0.084 ft
Evaporation from Pond #1 & #2	0.3 in/day	
	0.025 ft/day	
Evap volume	0.045 af/day	
Change in elev. Pond 2 due to evap.	-0.032 ft	
		min inches
Net Daily Change in Pond #2 Elev	0.140 ft positive for Eagle Creek inflow	10
Eagle Crk-irrigation-seepage-evap	0.113 ft positive for Eagle Creek inflow	9
	0.062 ft positive for Eagle Creek inflow	8
	0.002 ft positive for Eagle Creek inflow	7
	-0.054 ft negative for Eagle Creek inflow	6

Friedman=Potential Pond/Irrigation operation

The Friedman well is permitted for 2.0 cfs. IDWR says the well can only be used for maintaining water quality(temperature and DO) but no criteria for temperature and/or DO levels has been set or suggested.

IDWR infers that the permit allows operation of the well up to 2.0 cfs, only if the Pond #2 elevation is above the outlet weir elevation and the pond is spilling.

IDWR also infers that the pond use for recreation, aesthetics and wildlife is fully non consumptive, but the dedication of 2 (two shares (miners inches)) of ECIC water to mitigation is adequate.

However, Pond #2 is also authorized to be used as an irrigation management pond under the 24 hour rule based on the ECIC Irrigation water right.

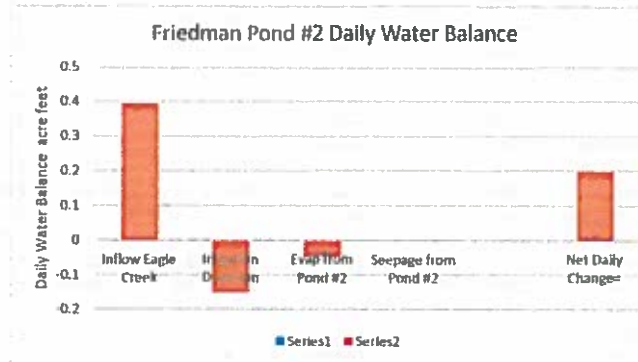
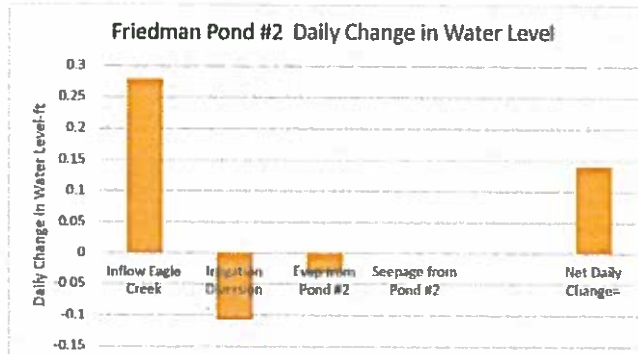
Use of Pond #2 as an irrigation management pond allows a daily change in storage volume equal to the volume of irrigation water flowing in a 24 hour period. The irrigation shares from the EDIC equal 10 miners inches or .397 ac ft per day.

Pond #2 AREA = 1.425 acres

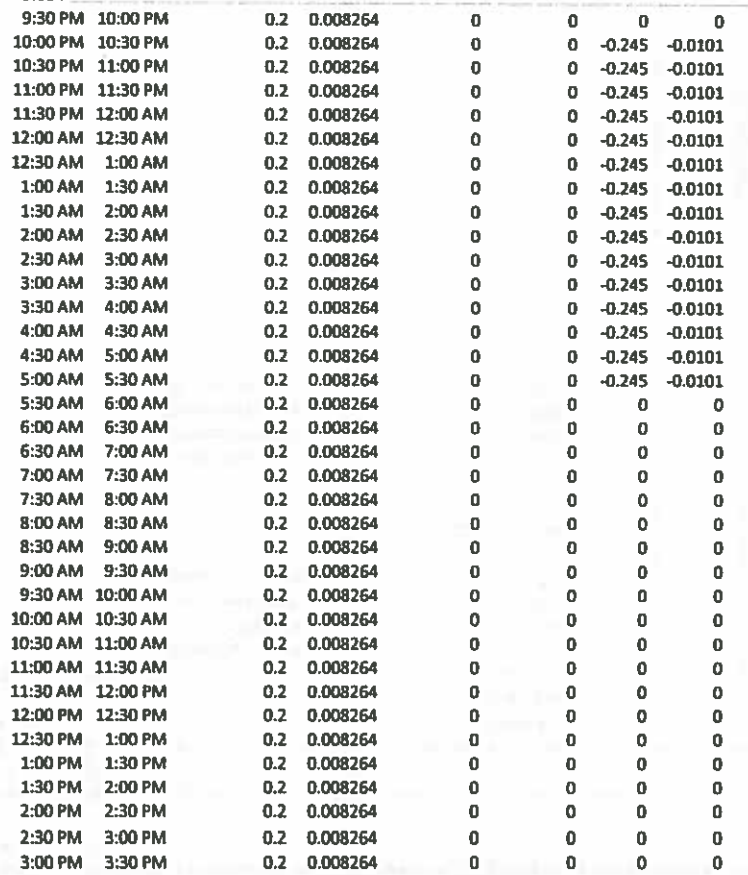
Both Pond #1 and Pond #2 are lined with a membrane liner and it assumed that pond seepage is negligible.

Water Balance(Pond #2)	af/day	Change in pond 2 Elev ft/day
Inflow Eagle Creek	0.397	0.279
Irrigation Diversion	-0.152	-0.107
Evap from Pond #2	-0.045	-0.032
Seepage from Pond #2	0.000	0.000
Net Daily Change=	0.200	0.140

Water Balance(Pond #2)	af/day	Change in pond 2 Elev ft/day
Inflow Eagle Creek	0.397	0.279
Irrigation Diversion	-0.152	-0.107
Evap from Pond #2	-0.045	-0.032
Seepage from Pond #2	0.000	0.000
Net Daily Change=	0.200	0.140



		INFLOW				OUT FLOW				CHANGE				WEIR			
		EAGLE CREEK DITCH		WELL		IRRIGATION		EVAPORATION		SEEPAGE		NET WATER LEVEL		WATER LEVEL ELEV		DISCHARGE	
TIME		CFS	AF	CFS	AF	CFS	AF	PERCENT	CFS	AF		AF	FT	START	END	AVG HD	CFS
8:00 AM	8:30 AM	0.2	0.008264	0	0	0	0	1.9	-0.0207	-0.0009	0	0.0074	0.010557874	100.000	100.011	0.005	-0.00510886
8:30 AM	9:00 AM	0.2	0.008264	0	0	0	0	1.9	-0.0207	-0.0009	0	0.0023	0.003277704	100.011	100.014	0.012	-0.01794193
9:00 AM	9:30 AM	0.2	0.008264	0	0	0	0	2.4	-0.02615	-0.0011	0	-0.0108	-0.01533034	100.014	99.999	0.006	-0.00645617
9:30 AM	10:00 AM	0.2	0.008264	0	0	0	0	2.4	-0.02615	-0.0011	0	0.0007	0.001036966	99.999	100.000	-0.001	0
10:00 AM	10:30 AM	0.2	0.008264	0	0	0	0	2.7	-0.02942	-0.0012	0	0.0070	0.010044585	100.000	100.010	0.005	-0.00410765
10:30 AM	11:00 AM	0.2	0.008264	0	0	0	0	2.8	-0.03051	-0.0013	0	0.0029	0.004126982	100.010	100.014	0.012	-0.01674977
11:00 AM	11:30 AM	0.2	0.008264	0	0	0	0	2.9	-0.0316	-0.0013	0	-0.0098	-0.01395231	100.014	100.000	0.007	-0.00736654
11:30 AM	12:00 PM	0.2	0.008264	0	0	0	0	3	-0.03269	-0.0014	0	-0.0005	-0.00064529	100.000	99.999	-0.001	0



3.1	-0.03378	-0.0014	0	0.0069	0.009787941	99.999	100.009	0.004	-0.00338255
3.2	-0.03487	-0.0014	0	0.0034	0.004903616	100.009	100.014	0.011	-0.01611899
3.3	-0.03596	-0.0015	0	-0.0093	-0.01331009	100.014	100.000	0.007	-0.00805764
4.9	-0.05339	-0.0022	0	-0.0020	-0.00284917	100.000	99.998	-0.001	0
5.9	-0.06429	-0.0027	0	0.0056	0.007991433	99.998	100.006	0.002	-0.00088804
6.5	-0.07082	-0.0029	0	0.0044	0.006341004	100.006	100.012	0.009	-0.01101535
6.4	-0.06973	-0.0029	0	-0.0056	-0.00802634	100.012	100.004	0.008	-0.00947342
5.8	-0.0632	-0.0026	0	-0.0038	-0.00544412	100.004	99.999	0.001	-0.00057636
5.4	-0.05884	-0.0024	0	0.0053	0.007490926	99.999	100.006	0.002	-0.00142721
4.6	-0.05012	-0.0021	0	0.0048	0.006791737	100.006	100.013	0.009	-0.01213403
4.3	-0.04685	-0.0019	0	-0.0058	-0.0082731	100.013	100.005	0.009	-0.0107281
3.8	-0.0414	-0.0017	0	-0.0042	-0.00594882	100.005	99.999	0.002	-0.00080938
3.2	-0.03487	-0.0014	0	0.0060	0.008570404	99.999	100.007	0.003	-0.00203345
2.8	-0.03051	-0.0013	0	0.0050	0.007082746	100.007	100.014	0.011	-0.01470762
2	-0.02179	-0.0009	0	-0.0073	-0.01046478	100.014	100.004	0.009	-0.01135757
1.4	-0.01525	-0.0006	0	-0.0037	-0.00530596	100.004	99.998	0.001	-0.00049032
1.2	-0.01308	-0.0005	0	0.0072	0.010308289	99.998	100.009	0.004	-0.00288641
1	-0.0109	-0.0005	0	0.0049	0.007022161	100.009	100.016	0.012	-0.01811043
0.8	-0.00872	-0.0004	0	-0.0102	-0.01454388	100.016	100.001	0.009	-0.01046069
0.8	-0.00872	-0.0004	0	-0.0026	-0.00364293	100.001	99.998	-0.001	0
0.4	-0.00436	-0.0002	0	-0.0020	-0.00290645	99.998	99.995	-0.004	0
0.4	-0.00436	-0.0002	0	-0.0020	-0.00290645	99.995	99.992	-0.007	0
0.4	-0.00436	-0.0002	0	-0.0020	-0.00290645	99.992	99.989	-0.010	0
0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.989	99.986	-0.013	0
0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.986	99.983	-0.015	0
0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.983	99.981	-0.018	0
0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.981	99.978	-0.021	0
0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.978	99.975	-0.024	0
0.1	-0.00109	0.0000	0	-0.0019	-0.00271397	99.975	99.972	-0.026	0
0.1	-0.00109	0.0000	0	-0.0019	-0.00271397	99.972	99.970	-0.029	0
0.1	-0.00109	0.0000	0	-0.0019	-0.00271397	99.970	99.967	-0.032	0
0.1	-0.00109	0.0000	0	-0.0019	-0.00271397	99.967	99.964	-0.035	0
0.3	-0.00327	-0.0001	0	-0.0020	-0.00284229	99.964	99.961	-0.037	0
0.3	-0.00327	-0.0001	0	-0.0020	-0.00284229	99.961	99.958	-0.040	0
0.4	-0.00436	-0.0002	0	-0.0020	-0.00290645	99.958	99.956	-0.043	0
0.6	-0.00654	-0.0003	0	0.0080	0.011391967	99.956	99.967	-0.039	0
0.9	-0.00981	-0.0004	0	0.0079	0.011199484	99.967	99.978	-0.027	0
1.2	-0.01308	-0.0005	0	0.0077	0.011007001	99.978	99.989	-0.016	0
1.4	-0.01525	-0.0006	0	0.0076	0.010878679	99.989	100.000	-0.005	0
1.9	-0.0207	-0.0009	0	0.0074	0.010557874	100.000	100.011	0.005	-0.00513418
1.9	-0.0207	-0.0009	0	0.0023	0.003241619	100.011	100.014	0.012	-0.01794057
1.9	-0.0207	-0.0009	0	-0.0105	-0.01500761	100.014	99.999	0.006	-0.00668144
2.4	-0.02615	-0.0011	0	0.0005	0.000715954	99.999	100.000	-0.001	0
2.4	-0.02615	-0.0011	0	0.0072	0.010237068	100.000	100.010	0.005	-0.00421517
2.7	-0.02942	-0.0012	0	0.0028	0.00403793	100.010	100.014	0.012	-0.01703312
2.8	-0.03051	-0.0013	0	-0.0100	-0.01429193	100.014	100.000	0.007	-0.00723033
2.9	-0.0316	-0.0013	0	-0.0003	-0.00038703	100.000	99.999	-0.001	0
3	-0.03769	-0.0014	0	0.0069	0.009852102	99.999	100.009	0.004	-0.00342975
3.1	-0.03378	-0.0014	0	0.0034	0.004900051	100.009	100.014	0.011	-0.01626346
3.2	-0.03487	-0.0014	0	-0.0094	-0.01345179	100.014	100.000	0.007	-0.00804978
3.3	-0.03596	-0.0015	0	-0.0013	-0.00181139	100.000	99.999	0.000	0
4.9	-0.05339	-0.0022	0	0.0061	0.008633043	99.999	100.007	0.003	-0.00210959
5.9	-0.06429	-0.0027	0	0.0035	0.004985246	100.007	100.012	0.010	-0.01279684
6.5	-0.07082	-0.0029	0	-0.0075	-0.01062915	100.012	100.002	0.007	-0.00765847
6.4	-0.06973	-0.0029	0	-0.0023	-0.00324276	100.002	99.998	0.000	0

3:30 PM	4:00 PM	0.2	0.008264	0	0	0	0	5.8	-0.0632	-0.0026	0	0.0057	0.008055594	99.998	100.006	0.002	-0.00155138
4:00 PM	4:30 PM	0.2	0.008264	0	0	0	0	5.4	-0.05884	-0.0024	0	0.0043	0.006101514	100.006	100.013	0.009	-0.01226254
4:30 PM	5:00 PM	0.2	0.008264	0	0	0	0	4.6	-0.05012	-0.0021	0	-0.0061	-0.00864871	100.013	100.004	0.008	-0.00987236
5:00 PM	5:30 PM	0.2	0.008264	0	0	0	0	4.3	-0.04685	-0.0019	0	-0.0035	-0.00505019	100.004	99.999	0.001	-0.00065369
5:30 PM	6:00 PM	0.2	0.008264	0	0	0	0	3.8	-0.0414	-0.0017	0	0.0059	0.008407297	99.999	100.007	0.003	-0.00220952
6:00 PM	6:30 PM	0.2	0.008264	0	0	0	0	3.2	-0.03487	-0.0014	0	0.0046	0.006575201	100.007	100.014	0.011	-0.01435236
6:30 PM	7:00 PM	0.2	0.008264	0	0	0	0	2.8	-0.03051	-0.0013	0	-0.0073	-0.01047181	100.014	100.003	0.009	-0.01055267
7:00 PM	7:30 PM	0.2	0.008264	0	0	0	0	2	-0.02179	-0.0009	0	-0.0032	-0.00454393	100.003	99.999	0.001	-0.00045583
7:30 PM	8:00 PM	0.2	0.008264	0	0	0	0	1.4	-0.01525	-0.0006	0	0.0072	0.010229113	99.999	100.009	0.004	-0.00323998
8:00 PM	8:30 PM	0.2	0.008264	0	0	0	0	1.2	-0.01308	-0.0005	0	0.0045	0.006389998	100.009	100.015	0.012	-0.01796287
8:30 PM	9:00 PM	0.2	0.008264	0	0	0	0	1	-0.0109	-0.0005	0	-0.0101	-0.01446192	100.015	100.001	0.008	-0.00983688
9:00 PM	9:30 PM	0.2	0.008264	0	0	0	0	0.8	-0.00872	-0.0004	0	-0.0019	-0.002754	100.001	99.998	0.000	0
9:30 PM	10:00 PM	0.2	0.008264	0	0	0	0	0.8	-0.00872	-0.0004	0	0.0079	0.011263645	99.998	100.009	0.004	-0.00314129
10:00 PM	10:30 PM	0.2	0.008264	0	0	-0.245	-0.0101	0.4	-0.00436	-0.0002	0	-0.0052	-0.00738281	100.009	100.002	0.006	-0.00581914
10:30 PM	11:00 PM	0.2	0.008264	0	0	-0.245	-0.0101	0.4	-0.00436	-0.0002	0	-0.0079	-0.01119878	100.002	99.991	-0.004	0
11:00 PM	11:30 PM	0.2	0.008264	0	0	-0.245	-0.0101	0.4	-0.00436	-0.0002	0	-0.0020	-0.00290645	99.991	99.988	-0.011	0
11:30 PM	12:00 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.988	99.985	-0.013	0
12:00 AM	12:30 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.985	99.982	-0.016	0
12:30 AM	1:00 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.982	99.980	-0.019	0
1:00 AM	1:30 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.980	99.977	-0.022	0
1:30 AM	2:00 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.2	-0.00218	-0.0001	0	-0.0019	-0.00277813	99.977	99.974	-0.025	0
2:00 AM	2:30 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.1	-0.00109	0.0000	0	-0.0019	-0.00271397	99.974	99.971	-0.027	0
2:30 AM	3:00 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.1	-0.00109	0.0000	0	-0.0019	-0.00271397	99.971	99.969	-0.030	0
3:00 AM	3:30 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.1	-0.00109	0.0000	0	-0.0019	-0.00271397	99.969	99.966	-0.033	0
3:30 AM	4:00 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.1	-0.00109	0.0000	0	-0.0019	-0.00271397	99.966	99.963	-0.035	0
4:00 AM	4:30 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.3	-0.00327	-0.0001	0	-0.0020	-0.00284229	99.963	99.960	-0.038	0
4:30 AM	5:00 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.3	-0.00327	-0.0001	0	-0.0020	-0.00284229	99.960	99.958	-0.041	0
5:00 AM	5:30 AM	0.2	0.008264	0	0	-0.245	-0.0101	0.4	-0.00436	-0.0002	0	-0.0020	-0.00290645	99.958	99.955	-0.044	0-
5:30 AM	6:00 AM	0.2	0.008264	0	0	0	0	0.6	-0.00654	-0.0003	0	0.0080	0.011391967	99.955	99.966	-0.040	0
6:00 AM	6:30 AM	0.2	0.008264	0	0	0	0	0.9	-0.00981	-0.0004	0	0.0079	0.011199484	99.966	99.977	-0.028	0
6:30 AM	7:00 AM	0.2	0.008264	0	0	0	0	1.2	-0.01308	-0.0005	0	0.0077	0.011007001	99.977	99.988	-0.017	0
7:00 AM	7:30 AM	0.2	0.008264	0	0	0	0	1.4	-0.01525	-0.0006	0	0.0076	0.010878679	99.988	99.999	-0.006	0
7:30 AM	8:00 AM	0.2	0.008264	0	0	0	0	1.9	-0.0207	-0.0009	0	0.0074	0.010557874	99.999	100.010	0.004	-0.00386031
8:00 AM	8:30 AM	0.2	0.008264	0	0	0	0	1.9	-0.0207	-0.0009	0	0.0035	0.005056897	100.010	100.015	0.012	-0.01791994

Daily	0.801653	0	-0.3037	-0.045025	0.0103	-0.41462195
	EAGLE CREEK DITCH	WELL	IRRIGATION	EVAPORATION	SEEPAGE	NET WATER LEVEL
WATER BALANCE	INFLOW= 0.802 AF					WATER LEVEL ELEV
	OUTFLOW= -0.763 AF					DISCHARGE

RECTANGULAR WEIR WIDTH= 4.00 FT
 Q=3.33*L*H^{1.5} CFS CREST ELEVATION 100
 POND #1 AREA 0.376 AC POND #2 AREA 1.425 AC TOT# 1.801 AC
 MAX DAILY EVAP= 0.3 IN OR 0.045025 ACFT TOTAL POND #1 +POND#2
 EVAP DAILY DISTRIBUTION BEGINNING AT 8AM, HOURLY

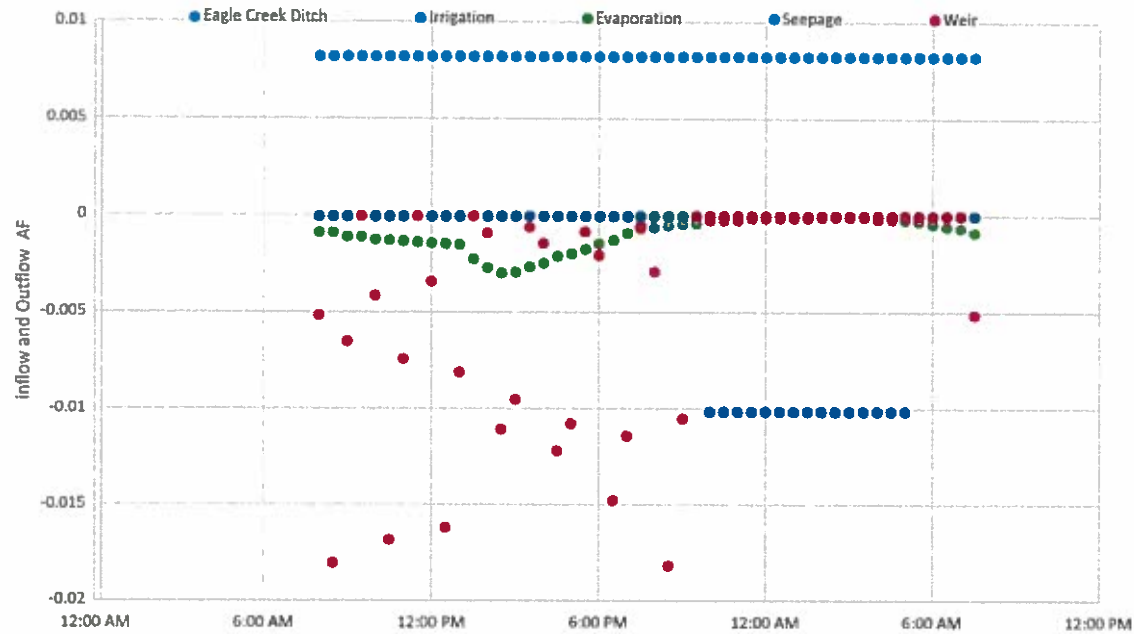
EAGLE CREEK DITCH C	0.2 CFS					
IRRIGATION	110 GPM OR	0.245 CFS OR				
EVAPORATION POND #1						
				MAX	100.0158	0.0000
				MIN	99.956	-0.018
					0.0602	0.0181

0.70175 AF CHANGE IN POND #2 VOL = 1 FT CHANGE IN WATER LEVEL

PERMIT DISCHARGE
24 HR RULE

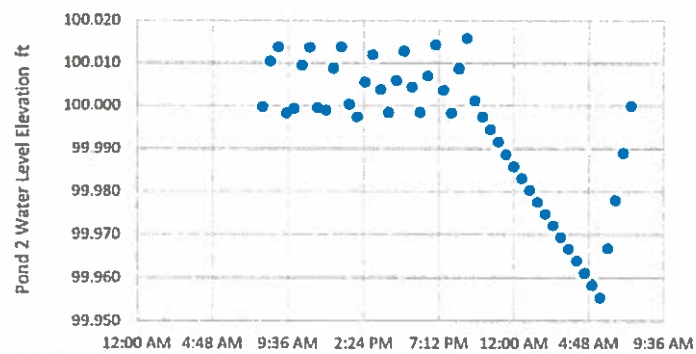
0.2 CFS MAXIMUM ALLOWABLE VOLUME CHANGE= 0.396 ACRE FEET
THEREFORE MAXIMUM ALLOWABLE CHANGE IN POND ELEV= 1.00

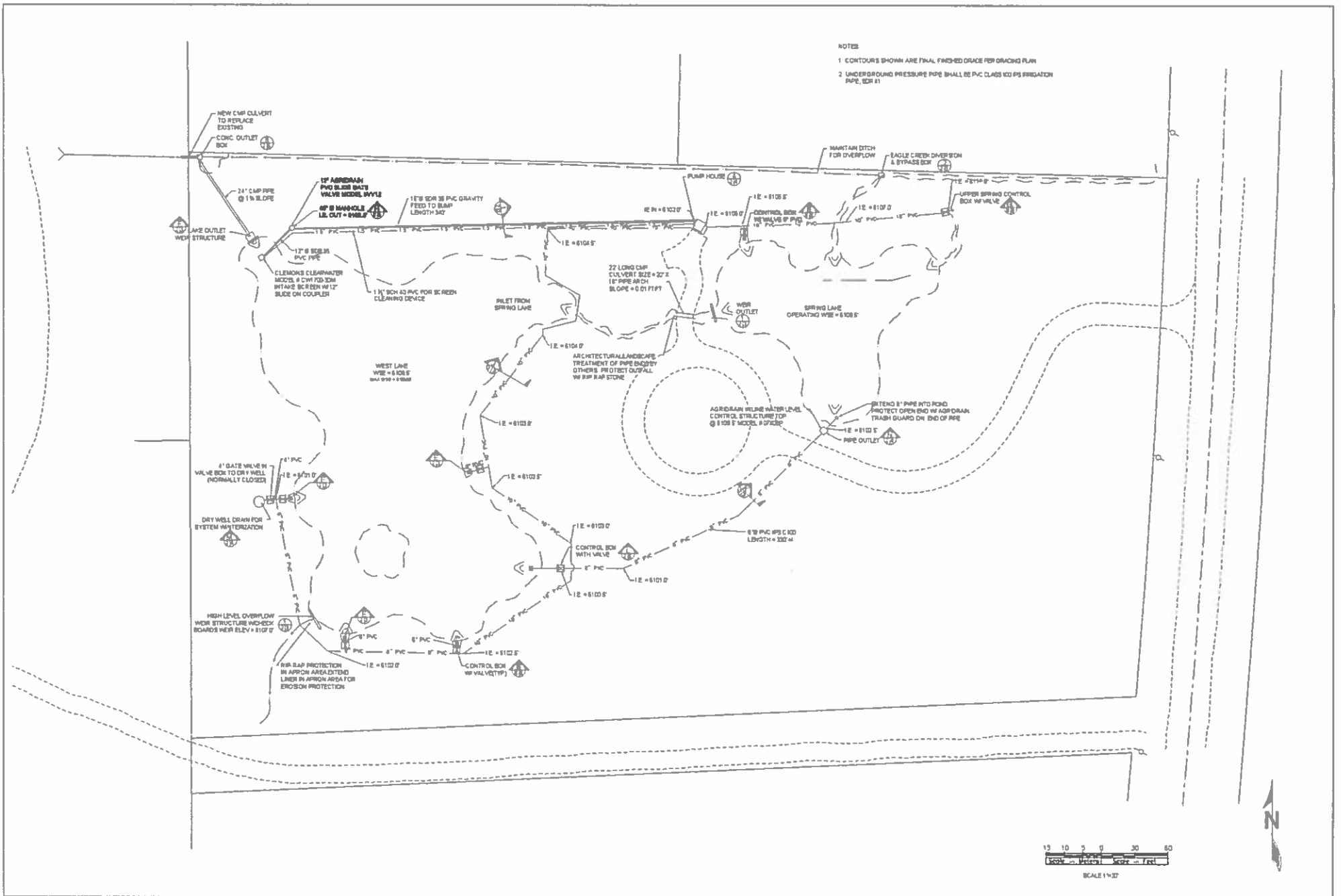
Friedman Pond #2 Daily Operation



8:00 AM	100.000
8:30 AM	100.011
9:00 AM	100.014
9:30 AM	99.999
10:00 AM	100.000
10:30 AM	100.010
11:00 AM	100.014
11:30 AM	100.000
12:00 PM	99.999
12:30 PM	100.009
1:00 PM	100.014
1:30 PM	100.000
2:00 PM	99.998
2:30 PM	100.006
3:00 PM	100.012
3:30 PM	100.004
4:00 PM	99.999
4:30 PM	100.006
5:00 PM	100.013
5:30 PM	100.005
6:00 PM	99.999
6:30 PM	100.007
7:00 PM	100.014
7:30 PM	100.004
8:00 PM	99.998
8:30 PM	100.009
9:00 PM	100.016
9:30 PM	100.001
10:00 PM	99.998
10:30 PM	99.995
11:00 PM	99.992
11:30 PM	99.989
12:00 AM	99.986
12:30 AM	99.983
1:00 AM	99.981
1:30 AM	99.978
2:00 AM	99.975
2:30 AM	99.972
3:00 AM	99.970
3:30 AM	99.967
4:00 AM	99.964
4:30 AM	99.961
5:00 AM	99.958
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6:30 AM	99.978
7:00 AM	99.989
7:30 AM	100.000

Pond 2 Weir

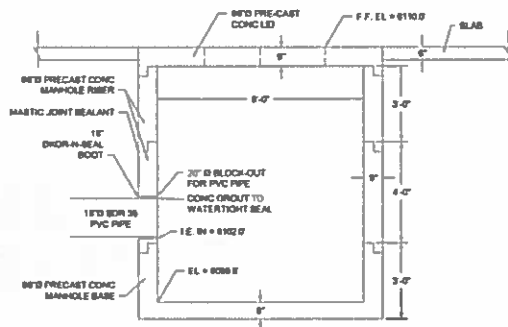




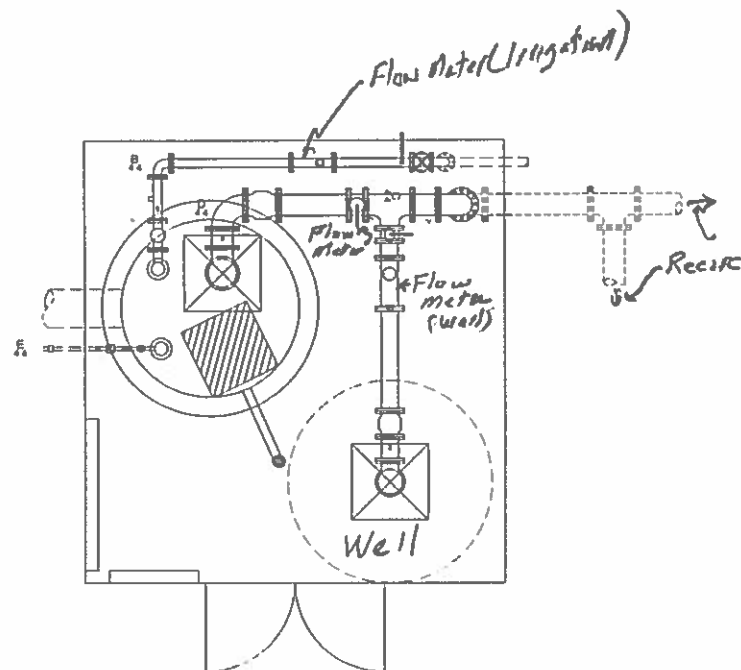
- NOTES
1. CONTOURS SHOWN ARE FINAL FINISHED GRADE PER GRADING PLAN
 2. UNDERGROUND PRESSURE PIPE SHALL BE PVC CLASS 300 PS PRECAST PIPE, SCH 81



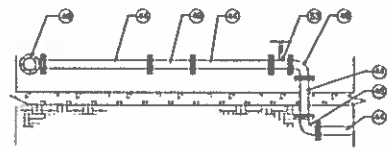
THIS DRAWING HAS BEEN PREPARED BY BROCKWAY ENGINEERING, PLLC FOR A SPECIFIC PROJECT. IT IS TO BE USED ONLY FOR THE PROJECT AND LOCATION SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE OF THIS DRAWING FOR ANY PURPOSE IS PROHIBITED. NO WARRANTIES ARE MADE BY BROCKWAY ENGINEERING, PLLC OR THE CLIENT IS ADVISED.						GRAPHIC SCALE 0 10 20 FEET AS SHOWN	BROCKWAY ENGINEERING, PLLC HYDRAULIC - HYDROLOGY - WATER RESOURCES 3015 NORTH WASHINGTON, SUITE 4 TWIN FALLS, ID 83401 (208) 736-8543	FOX CREEK RANCH POND RECIRCULATION SYSTEM		PROJECT # 410-01-2000			
											DWG # 2	REV A	
	0	ISSUED FOR CONSTRUCTION	6/28/08	JBR	4	DETAIL AND SECTIONS 1							
	A	ISSUED FOR BIDDING			3	DETAIL AND SECTIONS 1							
	REV	DESCRIPTION	DATE	APP'D		REFERENCE DRAWING							



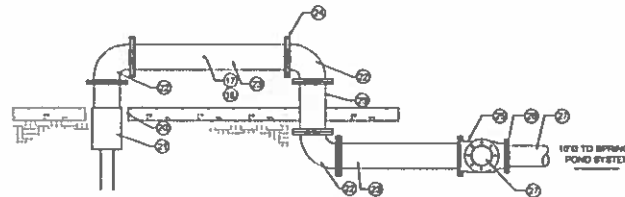
PUMP SUMP SECTION
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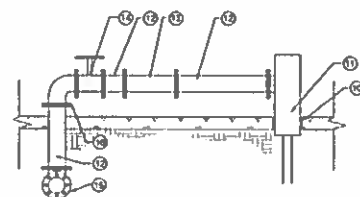
4 PUMP HOUSE PLAN
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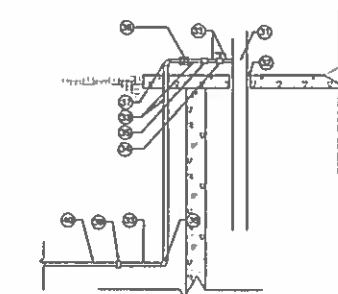
IRRIGATION PUMP STRING DETAIL
SCALE 1/2\"/>



RECIRCULATION PUMP STRING DETAIL
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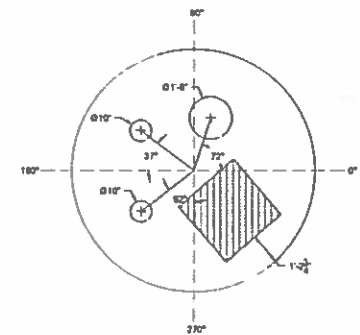


WELL PIPING STRING DETAIL
SCALE 1/2\"/>



SCREEN PUMP STRING DETAIL
SCALE 1/2\"/>

LIST OF MATERIALS			
PART NO.	DESCRIPTION	MATERIAL	REMARKS
1	PUMP ELECTRICAL CONTROL PANELS		
2	6" STAINLESS STEEL FLUSH DRAIN	SS	DRAIN LINE INVERT EL. = 8108.0
3	4" STD STEEL FLANGE, 150 LB. FLANGE	STEEL	ANCHOR MODEL 3200
4	1/2" STD WELD NUT	STEEL	TOUGHEN CORRAL, SET PLUG ANCHOR #1107
5	1/2" STD WELD NUT	STEEL	ANCHOR MODEL 3200
6	1/2" STD WELD NUT	STEEL	ANCHOR MODEL 3200
7	1/2" STD WELD NUT	STEEL	ANCHOR MODEL 3200
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70	1/2" STD WELD NUT	STEEL	ANCHOR MODEL 3200



7 SUMP LID PENETRATION LOCATION DETAIL
SCALE 1/2\"/>



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region • 650 Addison Ave W, Suite 500 • Twin Falls, Idaho 83301-5858

Phone: (208) 736-3033 • Fax: (208) 736-3037 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

29 March, 2016

Robert G Friedman
289 Homewood RD
LOS ANGELES CA 90049

Dr. Charles E. Brockway, P.E.
2016 Washington St N Ste #4
TWIN FALLS ID 83301
(by email)

Re: Permit 37-20742, Licensing Review

Gentlemen,

Last September a letter was sent to Brockway Engineering regarding some issues that came to light during review of the licensing field examination completed by them as part of the proof of completion of works and putting water to beneficial use. The letter sought information to corroborate the development and operation of the system consistent with conditions on the permit (see attached page from field exam with missing required elements highlighted). Certain recommendations for several required field exam report elements were missing from the report and these values were requested. The letter also pointed out current operating procedures that conflict with the final order of the Director approving the permit and the permit condition requiring discharge from the pond simultaneously at the same or greater flow rates as flowing into the pond from the well (i.e. well not used to refill pond).

In November Brockway Engineering submitted a response that provided some of the information requested. The system was described in further detail and diagrams showing the general system layout and pipe-work detail were attached. The response also included a general, but incomplete, description of the operating conditions such as irrigation pump usage, recirculation pump operation and Eagle Creek share inflow variability. Information that was not provided included details documenting acceptable measuring devices on the inflow and outflow weirs, including photos showing installed staff gages and rating tables for the devices (used by operator and watermaster). Also not provided was documentation that the pond was discharging at the time of well start up and during operation. Missing diversion volumes for Aesthetic and Recreation use and Total Volume were not provided in the response letter.

The present circumstances surrounding the permit, development and beneficial use exam have been discussed with Region and Permit Section management. This letter has been prepared to give direction on how to proceed to get an appropriate license issued and to provide an opportunity for the water user to avoid future non-compliance and potential illegal diversion enforcement action. 1) It is imperative that the field exam document that suitable measuring devices be in place at the **"point of diversion (at the well), on the ditch from Eagle Creek where the ditch enters the right holders property and at a location to measure pond outflow to the recharge area"** [Permit Condition #4, copy enclosed]. Please describe weirs and staff gage locations and include stage-discharge tables in the documentation. 2) Suitable control and locking devices must be in place at the well for the watermaster to manage the flow, including VFD control of the well discharge flows and lockable switch to manage

well operation. 3) Volumes for each of the Aesthetic and Recreation uses and Total Rate & Volume must be recommended, based on historical diversion, and the actual or calculated temperature and dissolved oxygen maintenance requirements of the pond. Please explain in detail how the system has actually been operated to comply with Permit Condition #5 **"Use of water under this approval shall be non-consumptive. The right holder shall not divert ground water under this right unless the same or a larger amount of water is simultaneously discharged to the recharge site identified in the application."** These conditions are based on the intent of the application and the 10/14/2003 Final Order approving the permit, an excerpt is included below:

The approved permit will authorize the non-consumptive use of ground water to regulate temperature and dissolved oxygen levels in the proposed ponds. The source of the water to maintain water levels in the ponds is from Eagle Creek. The water consumed through evaporation from the ponds during the irrigation season is to be mitigated by permanently drying up two of the ten acres that Friedman was authorized to irrigate with his ECIC shares. Friedman is to use surface water from two ECIC shares that have been changed to aesthetic use to maintain the water levels in the ponds. If ECIC surface water is not available, Friedman is not permitted to use ground water to maintain the water levels in the ponds. Ground water is not a source of mitigation water for the ponds, nor is it a source of water to maintain the water levels in the ponds. Rather, the use of ground water is for the sole purpose of regulating temperature and dissolved oxygen levels in the ponds.

Further, IDWR strongly recommends that a detailed operation plan be prepared for the system operator to follow in order to run the present system configuration in conformance to the conditions of the permit. The plan should provide for recording the staff gage readings of the pond level (discharge weir) and Eagle Creek inflow at times crucial to the proper operation of the various pumps in conformance with the permit conditions. For instance, Eagle Cr inflow gage readings during irrigation pump operation, pond discharge gage reading prior to well operation. Discontinuing the irrigation pump operation at a pond level equivalent to 24-hour inflow volume or 0.32 acre feet (whichever is less) is required. Monthly recordings of well pump discharge volume meter readings be kept and made available to watermaster and IDWR as needed.

Alternatively, modifications to the system may need to be made to prevent operation out of compliance with the permit and the potential liability for violations. Modifications would include setting the existing float control switch to manage the irrigation pump and to cut off the pump when pond level is equal to the Eagle Creek 24-hour inflow volume or 0.32 acre feet (whichever is less) has been withdrawn from the pond and not allow pump to come on until the pond is full and discharging. A float control switch needs to be installed to prevent the well pump from operating if the pond is not full and discharging, nor should it operate when the irrigation pump is running. Well discharge must be set to 2.0 cfs (898 gpm), not 2.67 cfs, and control be provided to the water master, if it is not already. It is also recommended that pond design temperature and dissolved oxygen criteria be established.

In the absence of the required field exam information the Department may commence steps to void the permit or issue a severely restrictive license and retain jurisdiction to evaluate the validity of the right in the future if operated in non-compliance. Thank you for your attention to these matters and look forward to completing the process in the near future.

Sincerely,

Douglas Jones, P.E.
Technical Engineer 1

cc Jim Speck (email)

MEMORANDUM

To File: 37-20742, Friedman

Date: 2/18/2016

From: Douglas Jones

RE: Certified Examiner Field Exam Review and Resulting Draft License

Application 37-20742 was filed in July, 2002 and sought 2.0 cfs for Diversion to Storage, 2.0 cfs for Recreation/Aesthetic use, and 16 acre feet for Recreation/Aesthetic Storage. The application states the water will be utilized as "flow through" for the ponds. The application was protested and extensive pre-hearing briefing was exchanged. The hearing was held in November, 2002 and the final order was issued August, 2003. Permit was formally issued pursuant the contested case order on 10/14/2003. Permit holder submitted proof of beneficial use along with a field exam completed by a Certified Examiner, Dr. Charles E. Brockway, P.E. in December, 2007.

This memorandum summarizes the information 1) contained in the application, 2) developed during the hearing as it relates to the conditions of approval of the permit and 3) contained in the beneficial use examination. This memo also summarizes the issues and questions that arose during review of the examination. Correspondence seeking information for missing licensing recommendations that are required by Rule is also characterized.

The Order included several statements about the intention of the applicant regarding the purpose and use of the water sought. In the final order section Finding of Facts, #11 (pg 7) states that the applicant intends that the well would be operated only periodically and only when the water temperature was too high or the dissolved oxygen was too low. Further, the opening paragraph of the section Analysis (pg 9) reiterates the water quality aspect and further states the intent of the well use is NOT to keep the ponds full (emphasis added). Later in the Analysis, in the section titled Mitigation (pg 11), the nature of the use and the interrelationship with Eagle Creek Irr. Co. (ECIC) is described. The paragraph is provided in its entirety here:

The approved permit will authorize the non-consumptive use of ground water to regulate temperature and dissolved oxygen levels in the proposed ponds. The source of the water to maintain water levels in the ponds is from Eagle Creek. The water consumed through evaporation from the ponds during the irrigation season is to be mitigated by permanently drying up two of the ten acres that Friedman was authorized to irrigate with his ECIC shares. Friedman is to use surface water from two ECIC shares that have been changed to aesthetic use to maintain the water levels in the ponds. If ECIC surface water is not available, Friedman is not permitted to use ground water to maintain the water levels in the ponds. Ground water is not a source of mitigation water for the ponds, nor is it a source of water to maintain the water levels in the ponds. Rather, the use of ground water is for the sole purpose of regulating temperature and dissolved oxygen levels in the ponds.

The approved permit contained conditions that would accomplish the stated intention of the appropriation and provide the permit holder with the measuring tools needed to operate the system, to wit: Conditions #4 and #5.

The examiner's report consisted of the standard field exam form and a narrative of the development and operation of the system along with several figures supporting the narrative. In the narrative the examiner describes the property location and the appurtenance of the ECIC shares. It then discusses the ponds that "serve as irrigation storage ponds and for recreation and aesthetics". Next the narrative discusses in general how water enters the property from ECIC and routes through the two ponds and out to the recharge site. A recirculation pump pulls water from the lower pond and discharges into the upper pond. Well water is described as being injected into the upper pond and allowed to flow through system and out to the recharge area. Later in the narrative the system was described as having been "winterized" and not operated for over a month. No water was flowing into the system from ECIC, the ponds were ice covered and within 2" of full indicating the pond lining minimizes or eliminates seepage.

Having reviewed the permit and conditions, going back into the Final Order to understand the evolution of this right and studying the Beneficial Use Field Report it became clear that elements of the system were not completely described. It was also noticed that diversion volumes for the aesthetic and recreation uses were not recommended by the examiner. Although Diversion to Storage does not require a volume the other uses do. Furthermore the statement in the exam narrative that the ponds were irrigation storage appeared to indicate that conditions on the permit were not met -- that an equal or greater flow has to simultaneously discharge from the ponds as is pumped from the well. Photos of the measuring devices into and out of the pond system did not appear to be complete because staff gauges were not visible in the image and the outlet weir appeared more like a flashboard than a sharp crested weir. Since the irrigation system is tied into the ponds then descriptions of the interconnection and operation of the entire system should be included in the exam.

On September 30, 2015 I wrote to Dr Brockway seeking measurement data, volume recommendations for Recreation and Aesthetic uses and documentation corroborating that permit conditions were met. I also sought details on the operation of irrigation system and asserting that the ponds are not to be used for irrigation storage, or that the refill is completed using ECIC shares before the well can be operated.

Dr Brockway replied on November 25, 2015 and provided partial information on the irrigation system operation. In his response Brockway further described the system and provided diagrams of the overall plan and pump house plumbing details. The system operator describes the operation of the irrigation system including the pumping rate (120 gpm OR 0.27 cfs) through one zone at a time across 20 zones, but duration of operation per zone and return frequency is not discussed. No records of inflow to the system from ECIC and discharge from the outflow to the recharge site have been kept. The well pump under this permit is on a float control according to the examiner, however, the minimum water level setting was not reported in the exam or narrative. The remainder of the response letter rebuts the assertion, in the September 30 letter requesting additional information, that the permit conditions were not met if the ponds were utilized for irrigation storage and irrigation use replacement water.

The response letter asserts that the permitted Diversion to Storage use provides that the permit holder can operate the ground water well to refill the pond depleted by irrigation pumping at rates greater than the flow into the pond from ECIC, or up to the 24 hour volume of the 10 shares (0.20 cfs nominally) of water, or roughly 0.39 acre feet. It is admitted in Brockway's response there is not adequate flow data to support that discharge to the recharge area is the same or greater than the flow pumped from the well as required by permit condition. Furthermore there does not appear to be staff gauges on the weirs, nor reference tables for the weirs, to indicate stage-discharge for operator use. The permit condition specifies that measuring devices are required at the three places and while the well is metered the inflow and outflow devices can't be readily used without staff gauges.

Lastly, the field examiner's report and response letter neglected to include recommendations for Aesthetic and Recreation use volumes as required by Rule 37.03.02.035.01.j, though he did recommend a total volume that represents only the storage itself. Operation records supporting any other volume were not provided.

Conclusions

Responsibility to operate the system in compliance with the permit conditions resides with the permit holder. The present configuration of the system does not provide for sufficient measuring devices and operating protocols to allow the permit holder/operator to comply with the conditions. It is incorrect to maintain that the ponds can be utilized for irrigation management purposes and to operate the well on an automated float control system. Water **MUST** be discharging from the pond to the recharge site prior to operating the well under this permit. The Final Order dictates that 2 shares are dedicated to keeping the pond full, therefore if irrigation management is permitted by IDWR, then the management volume would be $0.16 \text{ cfs} \times 1.9835 \text{ AF/cfs} = 0.32 \text{ AF}$.

Alternatives:

- 1) Issue Order to Void Permit based on noncompliance.
- 2) Reject and return the field exam report to the examiner for completion per 37.03.02.035.02.b. It is also recommended that a detailed list of system deficiencies be sent to the permit holder to more fully inform him of limitations and restrictions.
- 3) Issue Order Approving License with restrictive limitations on volume and/or explicit operating conditions that must be met.

Attached is a draft license with restrictive volume limitations, but without additional operating conditions. If additional conditioning is desirable then it is suggested that:

- a) a condition be added to require staff gauges be installed at inflow and outflow weirs and records be kept documenting flow rates at times well pump is operating,
- b) the variable frequency drive shall be set to limit diversion to 900 gpm (2.0 cfs) and not nearly 1200 gpm (2.67 cfs),
- c) the float control on the well operation be removed or changed to prevent operation at less than full and not contemporaneously with the irrigation pump,
- d) install float control switch to cut off irrigation pump when 0.32 acre feet has been removed from the pond.



BROCKWAY
ENGINEERING
P.L.L.C.

Hydraulics

Hydrology

Water Resources

RECEIVED

NOV 27 2015

DEPT OF WATER RESOURCES
SOUTHERN REGION

November 25, 2015

Doug Jones
Idaho Department of Water Resources
650 Addison Ave. W., Ste. 500
Twin Falls, ID 83301

Re: Beneficial Use Exam-Friedman 37-20742

Dear Doug,

I am replying to your letter of September 30, 2015 requesting additional information on the water system at the Friedman property.

As outlined in the report accompanying the Beneficial Use Exam, the system consists of two lined ponds, a well, recirculating system, and an irrigation system. The system recirculates water between the ponds for aesthetic use, pumps from pond No. 2 to the sprinkler system for irrigation and pumps from the well also into the recirculating system. Inflow to the upper pond (No. 1) is from the Eagle Creek Irrigation Company which provides 8 miner's inches of irrigation water for the sprinkler system and 2 miner's inches for mitigation of evaporation from the ponds. The attached figure shows the concept plan for the project. Also attached is a schematic drawing of the piping system which shows all of the features.

The irrigator, Mike Koleno, indicated on a field visit on October 23, 2015 that the irrigation pump, which pumps out of the sump fed from pond No. 2, provides 120 gpm (0.27 cfs), one zone at a time, to 20 irrigation zones which cover the entire 8 irrigated acres allowed. He could not provide the number of nozzles or size. The flow is indicated by the flow meter attached to the irrigation pump, the irrigation system was not operating at the time of my visit on October 23, 2015. The recirculation pump was operating and the flow meter indicated 575 gpm (1.28 cfs).

The well was not operating on October 23, 2015 however; the capacity of the well was measured during the beneficial use exam in 2007 and exceeds the permitted discharge. The approved permit does not require reporting of the water input or output so no records have been kept on the inflow from Eagle Creek Irrigation Company nor on the outflow from Pond 2 to the recharge area. Mr. Koleno indicated that the flow in the Eagle Creek Irrigation Company ditch is variable, even daily, and he sometimes gets 30 or more inches into Pond 1 which includes the 10 miner's inches from Eagle Creek

CHARLES E.
BROCKWAY,
PH.D., P.E.

CHARLES G.
BROCKWAY,
PH.D., P.E.

2016 NORTH
WASHINGTON
STREET • SUITE 4

TWIN FALLS,
IDAHO 83301

208•736•8543

FAX: 736•8506

Irrigation Company shares and wastewater which ultimately goes to recharge. The measuring device on the diversion from the Eagle Creek Irrigation Company ditch to the Friedman property is a 2.0 ft. wide sharp crested weir in a concrete check structure. The Eagle Creek ditch which runs west of the check structure has a 4.0 ft. rectangular opening returning water west to the recharge area. At the time of my visit on October 23, 2015 the flow to Friedman pond No. 1 from the Eagle Creek Ditch was 0.06 cfs (26.9 gpm) and the flow in the Eagle Creek Ditch to the recharge area was 0.45 cfs (20.2 gpm).

Mr. Koleno testified that the head on the boards at the outflow from Pond 2 to the recharge area is usually 2 to 2.5 inches over the weir which is a 4.0 foot check board. This would be approximately 0.90 cfs to 1.27 cfs on a 4.0 ft. rectangular suppressed weir. Some of the return flow from Pond 2 will be excess irrigation water from Eagle Creek and some could be from the well. The well is on a float control and the discharge is variable depending on the water level in Pond 2. It is therefore not possible to determine the exact percentage of the outflow from Pond 2 that is Eagle Creek water.

You indicated in your letter that "If ponds are drawn down for irrigation then the ponds must be refilled by Eagle Creek water prior to diversion from the well for Recreation and Aesthetic use" and that "either the pumped flow rate varies with inflow from Eagle Creek or refill of the ponds must be by Eagle Creek water only, otherwise conditions of the permit are not met". This criteria would require that the well could never operate if the pond water level was below full because well water would be adding to the pond volume, unless you could prove that the water level in the pond was below full because of some reason other than irrigation use.

Permit 37-20742, includes uses for diversion to storage, aesthetic storage, recreation storage, aesthetic and recreation and requires the dedication of 2 miner's inches of irrigation water from Eagle Creek for mitigation for pond evaporation. It was explained in the narrative accompanying the application for permit that the irrigation water would be comingled with the well water and the monitoring and flow measurement devices would be adequate for IDWR and/or the Watermaster to administer the water right and have access to the site as required on the approved permit. The criteria placed on the use of the facilities by your letter, severely restricts the use of the ponds for the intended and approved uses, particularly the diversion to storage allowed use. The testimony of Mr. Koleno indicates that the outflow discharge from the ponds is always the same or greater than the discharge from the well during

operation. This would indicate that there is always some wastewater from Eagle Creek added to the well discharge. However, I do not have adequate flow data to show that that criteria is met at all times and, in my opinion, the need for this proof is onerous and not needed for reasonable administration of the water right.

There is no opportunity for expansion of this right or expansion of the irrigation shares as long as the irrigated area is less than 8 acres and the 24 hour diversion is less than the volume allowed by the irrigation right (0.4 af). Any water from Eagle Creek which enters the property and is not used for irrigation and any water pumped from the well returns to the system via the outlet of Pond 2 and is therefore not consumptively used. The discharge rates at the well, irrigation system, and recirculating system are measured and available at the control panel readout. The discharge from Eagle Creek Irrigation Company at the diversion control structure and the outflow from Pond 2 can be measured by sticking the overflow weirs. However, the historical discharges have not been recorded.

With the water measurement devices currently in place, the Watermaster or IDWR or the property operator can secure discharge measurements to allow the determination of whether or not the outflow from the lower pond is equal to or greater than the Eagle Creek inflow, and also when the well and pond discharges are balanced. However, conformance to the criteria which you outlined in your October 1 letter does not allow the use of the facility as outlined either in the application or by the approved permit.

It is my understanding that:

- As long as the amount pumped from the pond for irrigation does not exceed the volume allowed from Eagle Creek for 24 hours for the 10 shares then there is no reason why the well cannot continue to be pumped at the permitted 2 cfs rate.
- There should not be any requirement to refill the ponds from any source with the amount used for irrigation
- The permit restricts storage of well water to 16 AF and an instantaneous diversion rate of 2 cfs, the discharge and volume do not appear to be tied together. The well diversion rate is not tied by the permit in any way to the flow of Eagle Creek water to the pond.
- Pumping out of the pond does NOT have to be the same rate or times that Eagle Creek water flows into the pond pursuant to the 10 shares as long as no more than the 24 hour flow rate is ever stored in the pond.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles E. Brockway". The signature is fluid and cursive, with the first name "Charles" being more prominent and the last name "Brockway" written in a more compact, cursive style.

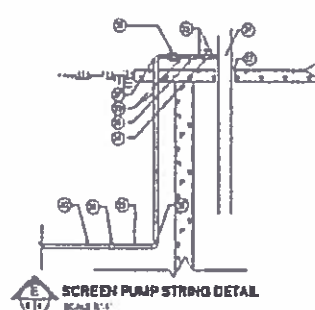
Charles E. Brockway, P.E.

Enclosures: Fox Creek Ranch Pond Circulation System Drawings 1 and 2

Cc: Rob Friedman
Jim Speck



4 PUMP HOUSE PLAN
3 9 SCALE 1/4" = 1'

7 BUMP UP PENETRATION LOCATION DETAIL
8 8 MARKS[illegible][illegible][illegible]

BROCKWAY ENGINEERING, PLLC.

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**FOX CREEK RANCH
POND CIRCULATION SYSTEM**

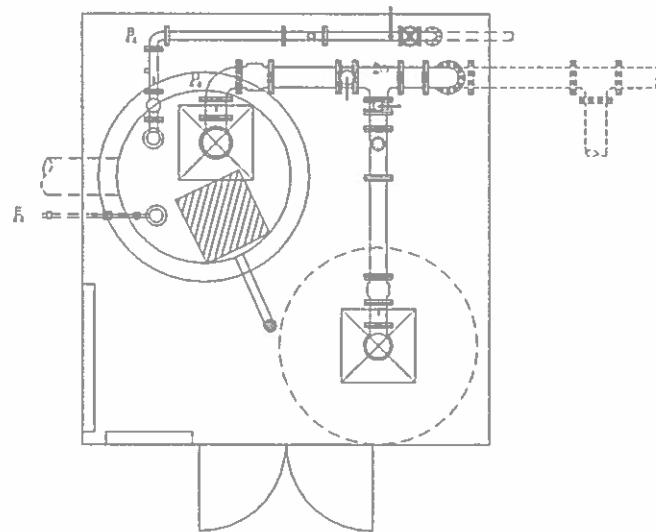
DETAIL AND SECTIONS II

PROJECT 0

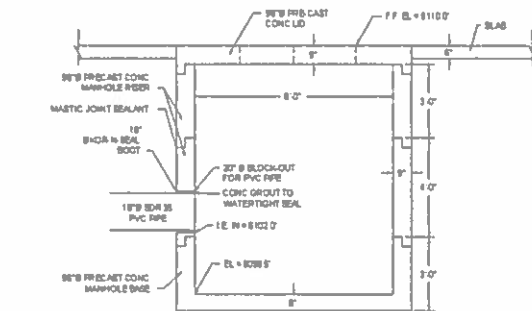
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CVS ●

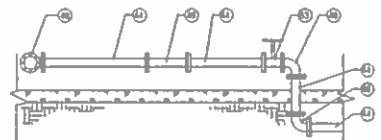
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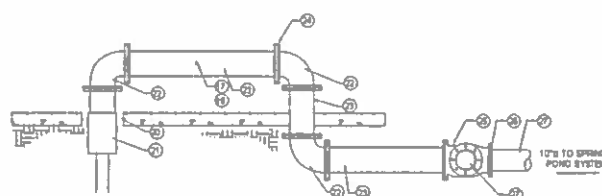
4 PUMP HOUSE PLAN
SCALE 1/4"=1'



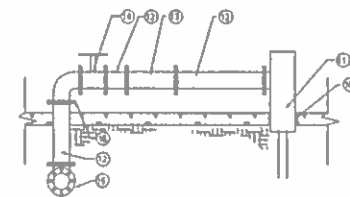
A PUMP SUMP SECTION
SCALE 1/4"=1'



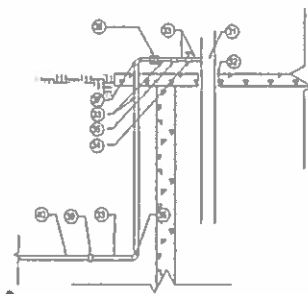
B IRRIGATION PUMP STRING DETAIL
SCALE 1/4"=1'



C RECIRCULATION PUMP STRING DETAIL
SCALE 1/4"=1'

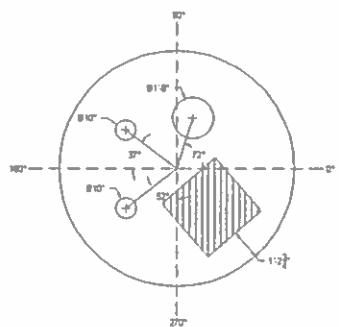


D WELL PIPING STRING DETAIL
SCALE 1/4"=1'



E SCREEN PUMP STRING DETAIL
SCALE 1/4"=1'

LIST OF MATERIALS			
PART NO.	DESCRIPTION	MATERIAL	REMARKS
1	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
2	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
3	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
4	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
5	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
6	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
7	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
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18	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
19	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
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21	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
22	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
23	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
24	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
25	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
26	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
27	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
28	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
29	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
30	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	
31	1" 1/2" ELECTRICAL CONDUIT (PVC)	PVC	



7 SUMP LID PENETRATION LOCATION DETAIL
SCALE 1/4"=1'



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region • 650 Addison Ave W, Suite 500 • Twin Falls, Idaho 83301-5858

Phone: (208) 736-3033 • Fax: (208) 736-3037 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

Sept 30, 2015

Charles E Brockway
Brockway Engineering
2016 N Washington St, Ste 4
Twin Falls ID 83301

RE: Friedman Beneficial Use Field Exam 37-20742

Dear Dr Brockway,

In December 2007 IDWR received the above referenced exam for the permit from you and your office. Review of the exam and preparation of a draft license was assigned to me recently from the State Office. During review it became evident that certain measurement data, information corroborating permit conditions and recommendations of annual volume for Recreation and Aesthetics uses were absent from the exam documentation.

From the exam and accompanying narrative it appears that the surface water irrigation is comingled with the Recreation and aesthetic ponds. Please provide a schematic of the pump house plumbing system that shows whether and how the systems are interconnected, including piping, valving, metering and horsepower of the various pumps tied into the system.

The permit was issued for non-consumptive use only and was authorized provided that flow diverted from the wells corresponds to the flow discharging from the ponds to the recharge area. It was noted in the field exam narrative that the ponds were used for irrigation storage; however, irrigation storage is not authorized. If ponds are drawn down for irrigation then the ponds MUST be refilled by Eagle Creek water prior to diversion from the well for Recreation and Aesthetic use. Please provide supporting measurements that discharge from the ponds is the same or greater than the discharge from the well during operation.

In order to support that the conditions of permit are followed, and since the irrigation system appears to be tied to the ponds, please provide details of the irrigation system operation. Flow rate per circuit, number of circuits, time of operation and other details to assess irrigation practice as needed.

37-20742 Letter
9/30/2015 pg2

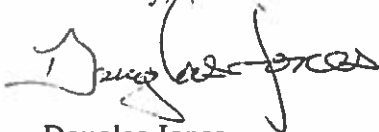
Either the pumped flow rate varies with inflow from Eagle Creek or refill of the ponds must be by Eagle Creek water only, otherwise conditions of the permit are not met.

The photos of the Eagle Creek ditch diversion box and the pond discharge box do not show nor does the narrative describe what measurement devices are in place nor show the staff gauges installed to measure the flow. Please provide this information, perhaps along with pond discharge staff gauge readings that would enable the water master or property operator to know when outflow equals Eagle Creek inflow and also when the well and pond discharges are balanced.

Lastly, diversion volumes for the Aesthetic and Recreation uses, that represent the diversions in compliance with permit conditions, need to be determined and recommended for licensing.

Thank you for your attention to these details and look forward to hearing from you soon.

Sincerely,

A handwritten signature in black ink, appearing to read 'Douglas Jones', written over a horizontal line.

Douglas Jones
Technical Engineer