

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED**JUL 25 2016****DEPARTMENT OF
WATER RESOURCES**

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATIONPermit No. 37-22779

1. Owner Robert G. and or Carol F. Stevens Phone No. 208-726-8836
Current address P.O. Box 308 Ketchum, ID 83340
2. Examiner's name Charles E. Brockway and Zach Latham EXAM DATE 6/28/16
3. Accompanied by Robert G. Stevens Email _____
Address P.O. box 308 Ketchum, ID 83340
Relationship to permit holder Permit Holder Phone No. _____
4. Source Ground Water tributary to N/A.

B. OVERLAP REVIEW

1. Other water rights with the same place of use 37-863E and 37-21427
2. Other water rights with the same source and point of diversion 37-21427

C. DIVERSION AND DELIVERY SYSTEM

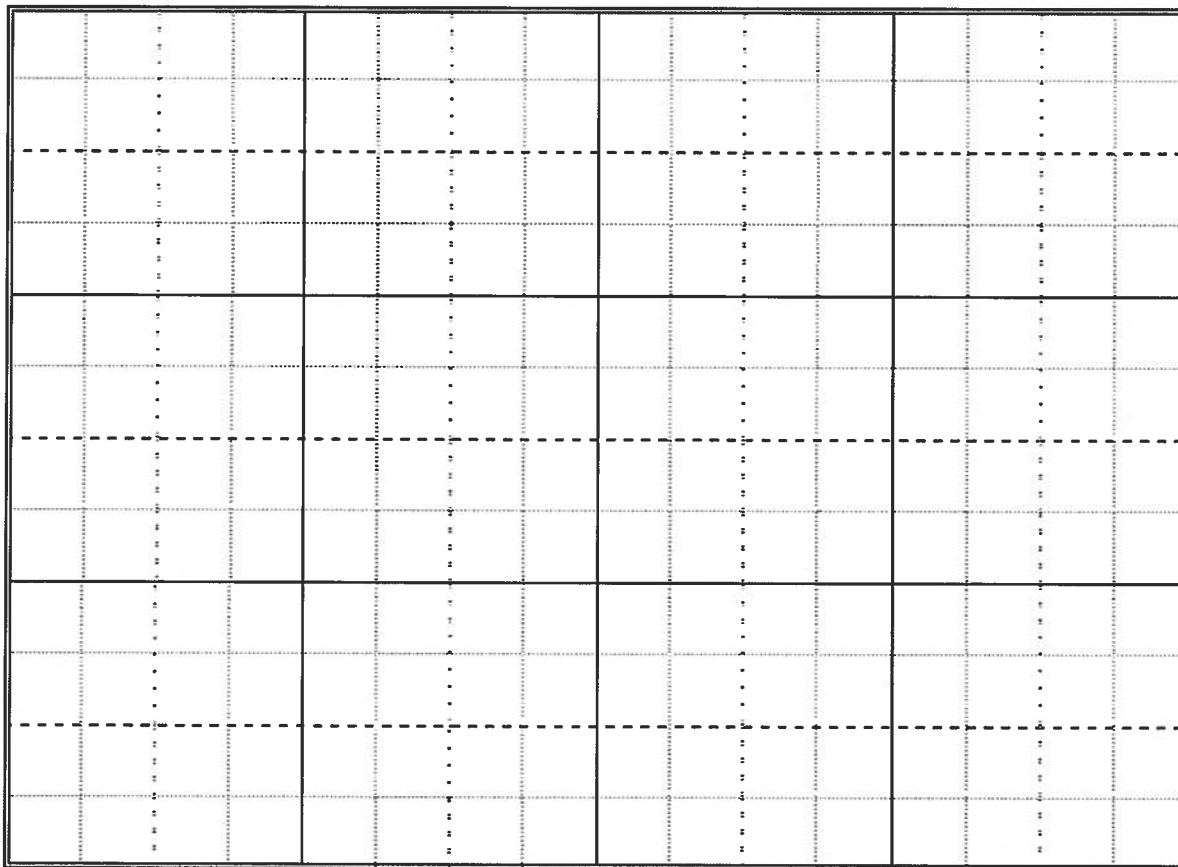
1. Point(s) of Diversion:

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
		SW	SW	SE	14	05N	17E	BLAINE	Physical Site Visit and Locate on 2015
									NAIP Aerial Image

2. Place(s) of Use: Method of determination Using Arc GIS methods and 2015 NAIP aerial imagery

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															12.9		12.9

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

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Irrigation Well	Grundfos	7.5		Grundfos	6F-150S75-4 4" Discharge

*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
In-line magnetic meter	Magnetic	Badger	AG2000-400	04124929	4"	Unknown
Test meter	Ultrasonic	Fuji	S2011	N5L3138		2015

2. **Measurements:** _____

Measurement with test meter was performed on well discharge line downstream of existing Badger meter approximately 12". See attached narrative for details.

F. FLOW CALCULATIONS☐ Additional computation sheets attached

Measured Method:

Test Meter; Fuji Ultrasonic. Test meter was attached to well discharge line immediately downstream of existing in-line meter. Maximum flow rate observed through line as registered by test meter was 0.22 cfs. Existing in-line meter is approved by IDWR, batteries need replacement and meter was non-functional at the time of exam.

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

 $V_{I,R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$ _____ $V_{D,R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 =$ _____ $V = \text{Smaller of } V_{I,R} \text{ and } V_{D,R} =$ _____

2. Volume Calculations for Other Uses:

Not applicable, see narrative.

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Irrigation	4/15	10/31	0.22	
Totals:			0.22	

2. Recommended Amendments

☐ Change P.D. as reflected on page 1☐ Add P.D. as reflected on page 1☒ None☐ Change P.U. as reflected on page 1☐ Add P.U. as reflected on page 1☐ Other**I. AUTHENTICATION**

Field Examiner's Signature

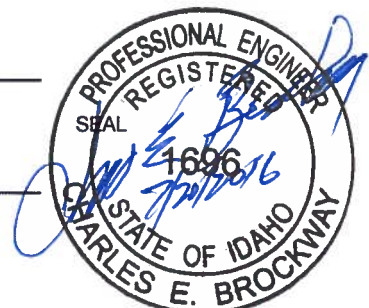


Date

7/20/2016

Reviewer

Date



Narrative for Beneficial Use Examination Permit 37-22779 in the name of Robert G. Stevens

Brockway Engineering, PLLC
Zach Latham, M.S.
C. E. Brockway, P.E.
July 20, 2016

Overview of Permit

Permit 37-22779 allows the irrigation of 12.9 acres from a ground water well on Mr. Steven's property located approximately 5.6 miles north of Ketchum, ID. At the time of the filing of the water right permit, Mr. Stevens could not receive water from the Eagle Creek Irrigation Co. under valid IDWR water right 37-863E due to the decommission of the delivery ditch on upstream land owner's properties. Brockway Engineering filed for a new water right under permit 37-22779 which proposed to allow the diversion of up to 0.26 cubic feet per second (cfs) of ground water in exchange for allowing 0.26 cfs of 37-863E to flow into the Big Wood river, and 0.08 cfs to be diverted into the Eagle Creek Irrigation Co.'s High Ditch. Water right permit was approved on August 4th, 2014 and proof is due under the permit on August 1st 2016.

Irrigation Well and Pump

The well associated with 37-22779 is located in T.05N R.17E Section 14 SW ¼ SE ¼. This well is used only for irrigation under 37-22779 and under irrigation water right 37-21427 (also owned by Stevens). The 6" well is approximately 80 feet deep and the submersible pump is set at 52' per Walker Water Systems who services the well. The discharge mainline from the well is 4". The well has an IDWR GPS tag with the number A0017383 written on the tag. An overview picture of the well can be seen in Figure 1 below. Logs for two wells on the property exist and are attached, although it is unclear which log goes with this well, if at all, since the maximum depth associated with the logs is 71'.

Flow Meter, Distribution System and Usage

Currently, the irrigation water delivery and distribution system is comprised of the following; the irrigation well provides water to buried 4' steel mainline, which distributes water between thirty two irrigation zones on the property. Water exiting the well above ground travels through a 4" Seametrics AG2000-400 (serial no. 04124929) in-line magnetic meter and into the steel mainline where it dives underground to serve the place of use for distribution (Figure 3). The meter appears to be installed properly as there are 2 pipe diameters upstream (8"+) and five pipe diameters downstream (20"+) free and clear of any valving, thus meeting the manufacturer's installation requirements. While performing a flow test on the well, the in-line Seametrics meter's readout was

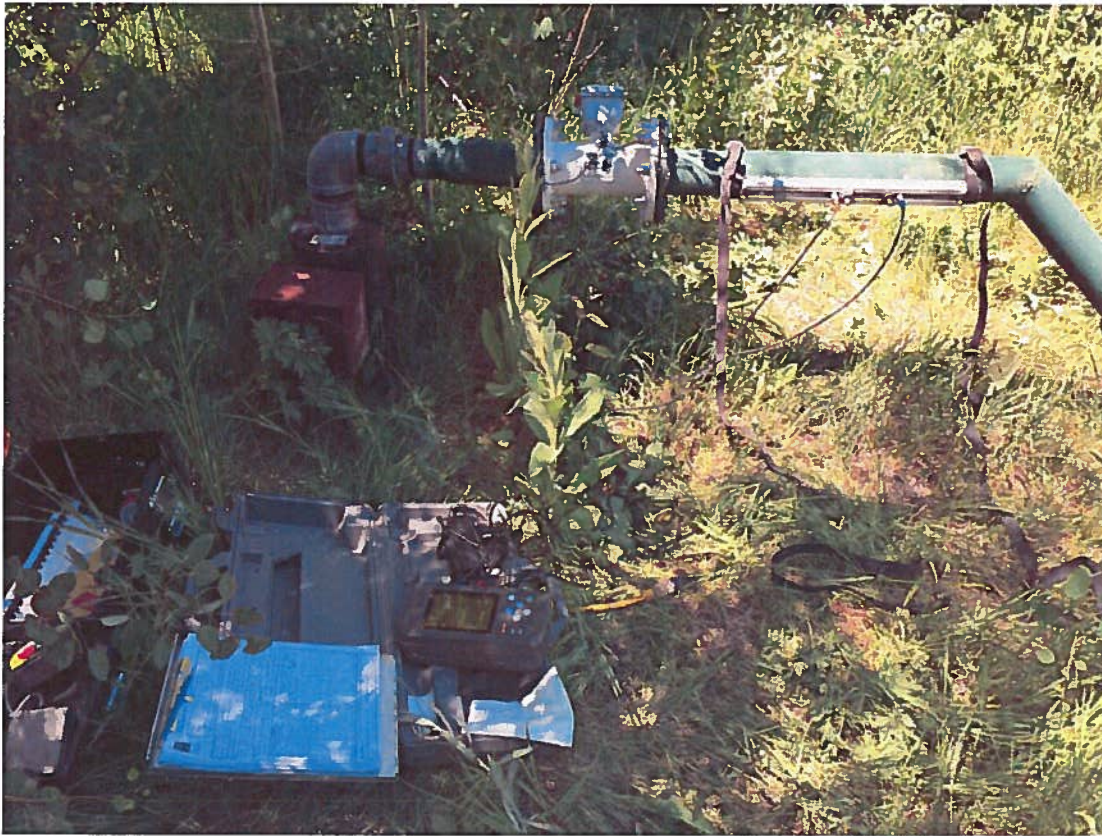


Figure 1: Well, meter and discharge pipe associated with 37-22779.

not functioning due to low battery power. Although the Seametrics AG2000-400 AC powered meter is currently accepted by IDWR, the DC version of the meter was approved by the department when it was installed in 2012. Because the in-line meter was not functional during the beneficial use exam, Brockway Engineering's portable Fuji Ultrasonic meter was used to determine the maximum operating flow rate out of the well as can be seen in Figure 1.

The irrigated area associated with 37-22779 has been determined through use of aerial photographs and verified during the beneficial use exam site visit. 12.9 acres are currently being irrigated on the property as can be seen in Attachment 1, which matches the amount of acreage authorized under 37-22779. Additionally, Figures 2 through 5 shows the extent of irrigation as observed during the field exam.



Figure 2: North East Property Corner Looking South.



Figure 3: Mid-Point of Property Looking North, as Taken 50' East of Irrigation Well.



Figure 3: Mid-point of Property Looking North East to South, as Taken 50' East of Irrigation Well.



Figure 4: Pasture East of Residence Looking South.



Figure 5: Tree Strip Irrigated Along State Highway 75 Looking South.

Capacity measurement

A site visit was made on June 28, 2016 for the purpose of measuring the maximum capacity of the system. During the examination, approximately 10 rainbird model 7005 heads (10 gpm per head) and six additional impact heads (3gpm per head estimated) were being used when the irrigation well was running. This zone represented the largest amount of discharge required by the buried pressurized irrigation system. When the well was running, 99 gpm or 0.22 cfs was measured by the test meter. The test meter's measured discharge comports with the number of heads and flow rate per head being used during the capacity measurement portion of the exam.

Condition #4 requires 0.26 cfs to be delivered through the last diversion and into the Big Wood River and 0.08 cfs into the Eagle Creek Irrigation Company High Ditch when the Stevens irrigation well is in use. At the time of the field exam, Eagle Creek was running past the last diversion headgate on the Miller property and into the Big Wood River. The Miller slide gate acts as a sluice gate with the flow rate under the gate being controlled by the opening of the gate and the height of water on the upstream side of the gate.



Figure 6: 8' Wide Vertical Slide Gate with Custom Opening and Staff Gauge.



Figure 7: Downstream Side of 8' Vertical Slide Gate and Custom Sharp Crested Weir.

During the site visit, the wide vertical slide gate was open approximately 1.5 inches with approximately 0.99' of head on the 7.73' wide slide gate. Additionally, 0.16' of water was passing through the custom 0.5' x 0.3' opening that operates as a rectangular sharp crested contracted weir when the water level passing through the opening is below 0.30' and a submerged orifice when the water depth is above 0.3' (see Figures 6 and 7). During the site visit, the opening was acting as a rectangular sharp crested contracted weir as the observed water level of 0.16' was below 0.30'.

The flow rate passing under the 7.73' vertical slide gate opening was calculated at 4.73 cfs and the flow through the custom sharp crested weir was calculated at 0.11 cfs. The combined flow rate of 4.84 cfs returning back to the river at this location exceeded 0.26 cfs of mitigation as required in condition #4 on the permit. It is not known whether or not 0.08 cfs was being diverted into the High Ditch by the Eagle Creek Irrigation Company during the time of the field exam, distribution of this amount of water for seepage loss in the ditch which historically served the Stevens property is at the discretion of the Irrigation Company. The Irrigation Company has installed and maintains a parshall flume on the High Ditch with a lockable and controllable slide gate upstream of the flume.

Also attached to this beneficial use exam and narrative submittal are a drawing of the large slide gate and the small orifice gate for the Stevens mitigation water bypass, a discharge rating table for the small slide gate which acts as a submerged orifice or a rectangular weir depending on the water level upstream of the gate and a discharge rating table for the large slide gate.

Annual volume determination

There is no annual volume for irrigation purposes associated with water right permit 37-22779. Mr. Stevens could feasibly divert 0.26 cfs from April 15th through October 31st (200 days) if the flow in Eagle Creek was sufficient enough to meet the delivery obligations as established by the Eagle Creek Irrigation Co. This seasonal diversion volume would equate to 103.0 acre feet. An annual volume limitation for irrigation under this permit is not recommended.

Condition compliance analysis

The permit holder appears to have adequately complied with all pertinent conditions listed under 37-22779.



0 50 100 200 Feet

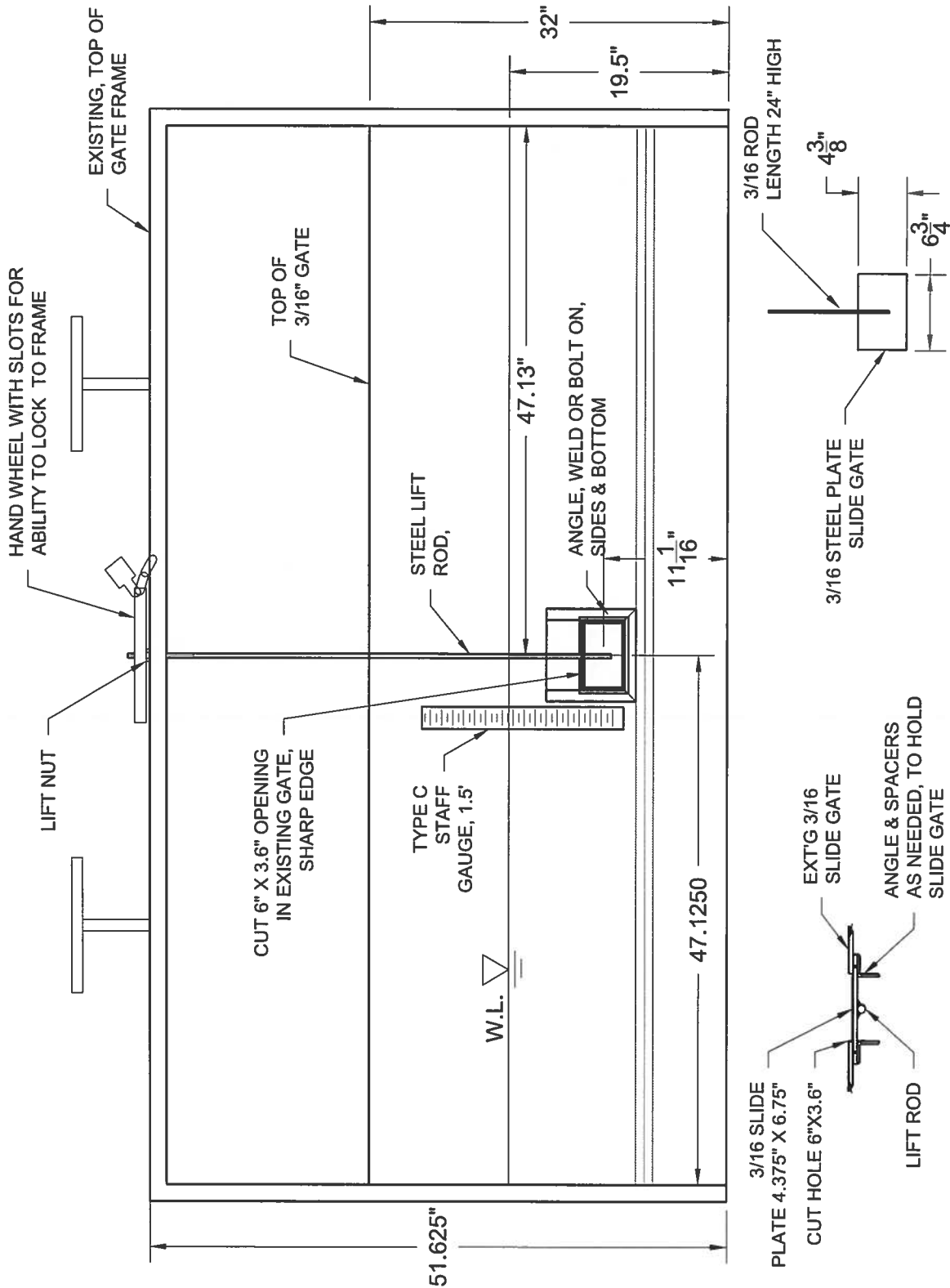
BROCKWAY ENGINEERING, PLLC.
ZL - Date: 7/15/2016

**STEVENS, ROBERT G.
BENEFICIAL USE EXAM
PERMIT 37-22779
NAIP 2015 AERIAL**

Legend

-  Stevens Irrigation Well
-  B.U. Exam Irrigated Area
-  Stevens Parcels
-  twnshp
-  Section_Lines
-  ladesec





HORIZONTAL SECTION

SLIDE PLATE DETAIL

THIS DRAWING HAS BEEN PREPARED BY BROCKWAY ENGINEERING, PLLC FOR A SPECIFIC PROJECT TAKING INTO ACCOUNT THE PROJECT'S REQUIREMENTS OF THIS PROJECT. REUSE OF THIS DRAWING FOR ANY PURPOSE IS PROHIBITED WITHOUT THE WRITTEN PERMISSION FROM BOTH BROCKWAY ENGINEERING & THE CLIENT IF GRANTED.

REV	DESCRIPTION	DATE	APPRO. BY
B	ISSUE FINAL	4/7/15	
A	ISSUE FOR REVIEW	3/23/15	

DESIGNED BY CEB
DRAFTED BY XXX

BROCKWAY ENGINEERING, PLLC
HYDRAULICS - HYDROLOGY - WATER RESOURCES
2016 NORTH WASHINGTON, SUITE 4
TWIN FALLS, ID 83301
(208) 736-8543

ROBERT STEVENS PERMIT 37-22779
EAGLE CREEK MEASURING DEVICE

PROJECT # 842-02-2014
DWG# 1
REV A

Sluice Gate Discharge Rating

Brockway Engineering, PLLC

CONTROL GATE ON EAGLE CREEK-

Miller Property

Width measured by R. Stevens 12/31/2013

PROJECT: Robert Stevens

DATE: 17-Dec-13

LOCATION / DEVICE: Eagle Creek

GATE WIDTH: 7.73 ft (between steel angles)

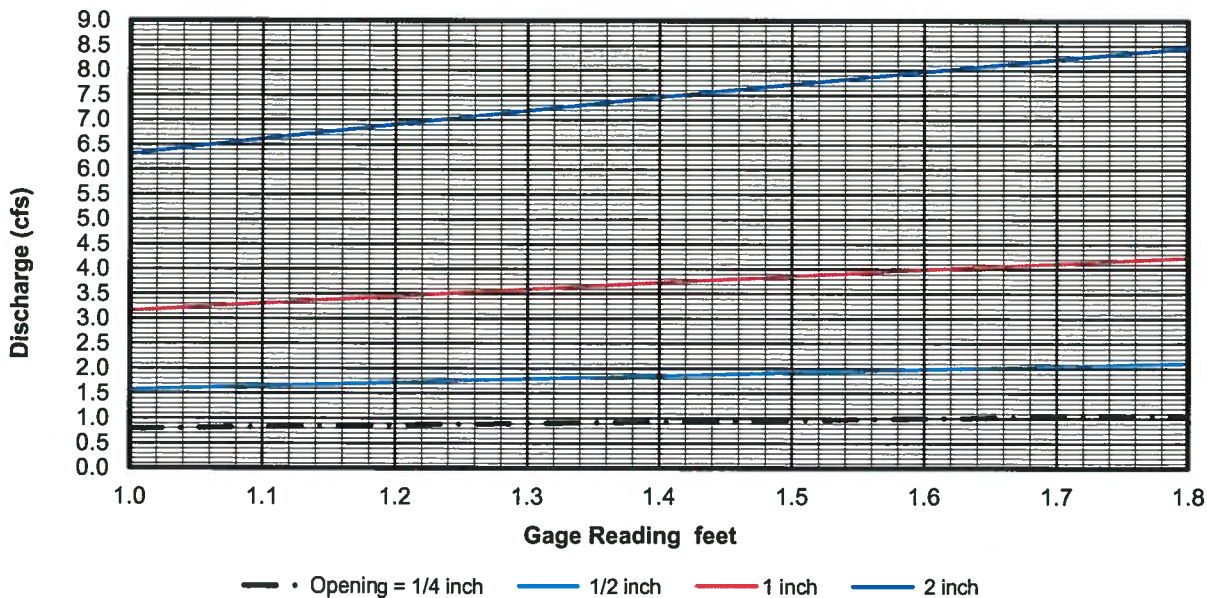
CONTRACTION COEFF: 0.61 Free discharge

GAUGE ZERO ABOVE FLOOR: 0 ft

DISCHARGE IN CUBIC FEET PER SECOND

GATE OPENING		GAUGE READING (FT)								
(INCHES)	(INCHES)	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
1/4	0.250	0.79	0.83	0.86	0.90	0.93	0.97	1.00	1.03	1.06
3/8	0.375	1.18	1.24	1.30	1.35	1.40	1.45	1.50	1.54	1.59
1/2	0.500	1.58	1.65	1.73	1.80	1.87	1.93	1.99	2.06	2.12
5/8	0.625	1.97	2.07	2.16	2.25	2.33	2.41	2.49	2.57	2.64
3/4	0.750	2.37	2.48	2.59	2.70	2.80	2.90	2.99	3.08	3.17
7/8	0.875	2.76	2.89	3.02	3.15	3.26	3.38	3.49	3.60	3.70
1	1.000	3.15	3.31	3.45	3.60	3.73	3.86	3.99	4.11	4.23
1 1/8	1.125	3.55	3.72	3.89	4.04	4.20	4.34	4.49	4.63	4.76
1 1/4	1.250	3.94	4.13	4.32	4.49	4.66	4.83	4.99	5.14	5.29
1 3/8	1.375	4.34	4.55	4.75	4.94	5.13	5.31	5.48	5.65	5.82
1 1/2	1.500	4.73	4.96	5.18	5.39	5.60	5.79	5.98	6.17	6.35
1 5/8	1.625	5.12	5.37	5.61	5.84	6.06	6.28	6.48	6.68	6.87
1 3/4	1.750	5.52	5.79	6.05	6.29	6.53	6.76	6.98	7.20	7.40
1 7/8	1.875	5.91	6.20	6.48	6.74	7.00	7.24	7.48	7.71	7.93
2	2.000	6.31	6.61	6.91	7.19	7.46	7.72	7.98	8.22	8.46
2 1/8	2.125	6.70	7.03	7.34	7.64	7.93	8.21	8.48	8.74	8.99
2 1/4	2.250	7.10	7.44	7.77	8.09	8.39	8.69	8.97	9.25	9.52

7.73 FT SLUICE GATE-EAGLE CREEK-Existing



PROJECT: GATED SUBMERGED ORIFICE

Brockway Engineering, PLLC CEB

Existing large sluice gate is 92.75 inches(7.73 ft) wide

PROJECT:

DATE: 7-Apr-15

LOCATION / DEVICE:

ORIFICE WIDTH

ORIFICE HEIGHT

ORIFICE AREA

CONTRACTION COEFF Orifice

WEIR COEF

GAUGE ZERO ABOVE BOTTOM OF ORIFICE

Eagle Creek

6.0 in = 0.50 ft

3.6 in = 0.30 ft

0.15 FT²

0.61 Free discharge

3.33 sharp edged, contracted weir (Francis Equation corrected for drawdown

0 ft

ROBERT STEVENS-EAGLE CREEK

CONTROL GATE ON EAGLE CREEK-

Miller Property Water Right 37-

Sluice gate to release mitigation water for Stevens

Gated orifice opening is 0.50 ft wide

and 0.30 ft high

with a design mitigation flow of 0.26 cfs

or greater

Zero of staff gage is at bottom of orifice cut-out

cut-out for orifice is 6.00 in. wide by 3.60 in. high

slide gate for orifice is 6 3/4 in by 4 3/8 in

Bottom of cutout is 9 1/4 in above bottom of large gate

When gate opening=0.0 ft, top of rod above handwheel is 1.25 inches

When the water level is lower than the gate opening and less than 3.6 inches

then the discharge is depicted as a contracted rectangular

weir with a head equal to the staff gage reading on the water level.

When the water level on the staff gage is above

the gate opening, then the discharge is depicted as a rectangular

submerged orifice with width of 6.0 inches and height equal to

3.6 inches and a head equal to the staff gage reading minus the gate

opening divided by 2.

EQUATION: $Q = C^*A*\sqrt{2Gh}$ h=distance from center of orifice opening to upstream water level(ft)

A = area of opening =width x height =orifice width x gate opening (ft²)

Use a Type C enameled staff gage 1.5 ft long mounted on large gate.

DISCHARGE IN CUBIC FEET PER SECOND

Gage reading to normal water level=0.86 ft

GATE STEM	GATE OPENING	STAFF GAGE READING FEET(WATER LEVEL)																	
		0.05	0.10	0.15	0.20	0.25	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50
1 1/4	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 3/8	0.010	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
1 1/2	0.021	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06
1 5/8	0.031	0.01	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.09
1 3/4	0.042	0.02	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.08	0.09	0.10	0.10	0.11	0.11	0.12	0.12	0.12
1 7/8	0.052	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.10	0.11	0.12	0.13	0.13	0.14	0.14	0.15	0.15
2	0.063	0.02	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.12	0.13	0.13	0.14	0.15	0.16	0.17	0.17	0.18	0.19
2 1/8	0.073	0.02	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.22
2 1/4	0.083	0.02	0.05	0.07	0.08	0.09	0.10	0.12	0.14	0.15	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25
2 3/8	0.094	0.02	0.05	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.19	0.20	0.21	0.22	0.24	0.25	0.26	0.27	0.28
2 1/2	0.104	0.02	0.05	0.08	0.10	0.11	0.13	0.15	0.17	0.19	0.21	0.22	0.23	0.25	0.26	0.27	0.28	0.30	0.31
2 5/8	0.115	0.02	0.05	0.09	0.11	0.12	0.14	0.16	0.19	0.21	0.22	0.24	0.26	0.27	0.29	0.30	0.31	0.32	0.34
2 3/4	0.125	0.02	0.05	0.09	0.11	0.13	0.15	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.31	0.33	0.34	0.35	0.37
2 7/8	0.135	0.02	0.05	0.10	0.12	0.14	0.16	0.19	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.35	0.37	0.38	0.40
3	0.146	0.02	0.05	0.10	0.13	0.15	0.17	0.20	0.23	0.26	0.28	0.30	0.32	0.34	0.36	0.38	0.40	0.41	0.43
3 1/8	0.156	0.02	0.05	0.10	0.13	0.16	0.18	0.22	0.25	0.28	0.30	0.32	0.35	0.37	0.39	0.41	0.42	0.44	0.46
3 1/4	0.167	0.02	0.05	0.10	0.14	0.17	0.19	0.23	0.26	0.29	0.32	0.35	0.37	0.39	0.41	0.43	0.45	0.47	0.49
3 3/8	0.177	0.02	0.05	0.10	0.14	0.17	0.20	0.24	0.28	0.31	0.34	0.37	0.39	0.41	0.44	0.46	0.48	0.50	0.51
3 1/2	0.188	0.02	0.05	0.10	0.15	0.18	0.21	0.25	0.29	0.33	0.36	0.39	0.41	0.44	0.46	0.48	0.50	0.52	0.54
3 5/8	0.198	0.02	0.05	0.10	0.15	0.19	0.22	0.27	0.31	0.34	0.38	0.41	0.43	0.46	0.48	0.51	0.53	0.55	0.57
3 3/4	0.208	0.02	0.05	0.10	0.15	0.19	0.23	0.28	0.32	0.36	0.39	0.43	0.45	0.48	0.51	0.53	0.56	0.58	0.60
3 7/8	0.219	0.02	0.05	0.10	0.15	0.20	0.23	0.29	0.33	0.38	0.41	0.44	0.48	0.51	0.53	0.56	0.58	0.61	0.63
4	0.229	0.02	0.05	0.10	0.15	0.21	0.24	0.30	0.35	0.39	0.43	0.46	0.50	0.53	0.56	0.58	0.61	0.64	0.66
4 1/8	0.240	0.02	0.05	0.10	0.15	0.21	0.25	0.31	0.36	0.41	0.45	0.48	0.52	0.55	0.58	0.61	0.64	0.66	0.69
4 1/4	0.250	0.02	0.05	0.10	0.15	0.22	0.26	0.32	0.37	0.42	0.46	0.50	0.54	0.57	0.60	0.63	0.66	0.69	0.72
4 3/8	0.260	0.02	0.05	0.10	0.15	0.21	0.26	0.33	0.39	0.44	0.48	0.52	0.56	0.59	0.63	0.66	0.69	0.72	0.75
4 1/2	0.271	0.02	0.05	0.10	0.15	0.21	0.27	0.34	0.40	0.45	0.50	0.54	0.58	0.62	0.65	0.68	0.72	0.75	0.77
4 5/8	0.281	0.02	0.05	0.10	0.15	0.21	0.27	0.35	0.41	0.47	0.51	0.56	0.60	0.64	0.67	0.71	0.74	0.77	0.80
4 3/4	0.292	0.02	0.05	0.10	0.15	0.21	0.28	0.36	0.42	0.48	0.53	0.58	0.62	0.66	0.70	0.73	0.77	0.80	0.83
4 7/8	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
5	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
5 1/8	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
5 1/4	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
5 3/8	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
5 1/2	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
5 5/8	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
5 3/4	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
5 7/8	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
6	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85
6 1/8	0.300	0.02	0.05	0.10	0.15	0.21	0.27	0.37	0.43	0.49	0.54	0.59	0.64	0.68	0.72	0.75	0.79	0.82	0.85

STEVENS ORIFICE GATE -EAGLE CREEK

