

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

OCT 01 2015

WATER RESOURCES
WESTERN REGION

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. 63-334001. Owner Rivers End Neighborhood Assn Inc.Phone No. (208) 939-6000Current address 9601 W State, #203, Boise, ID 837142. Examiner's name David ShawEXAM DATE 9/22/2015 & 9/29/20153. Accompanied by Jerry Blair, Bill ColeEmail georgia@dev-services.comAddress Rivers End Neighborhood Assn, Inc, 9601 W State St, #203, Boise, ID 83714Relationship to permit holder HOA Board MembersPhone No. (208) 939-60004. Source Ground Water

tributary to _____

B. OVERLAP REVIEW1. Other water rights with the same place of use 63-32614 for mitigation and 63-315152. Other water rights with the same source and point of diversion 63-31515**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
1	7		NW	SE	16	4N	1E	Ada	GIS and NAIP Photography
2	7		NW	SE	16	4N	1E	Ada	"
4	7		SW	SE	16	4N	1E	Ada	"
5	7		SW	SE	16	4N	1E	Ada	"

2. Place(s) of Use:

Method of determination GIS and NAIP Photography

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
4N	1E	16														X/L7	X/L7	X/L8	
		21	X/L1	X/L2															
		16													11.0	1.9	32.0	16.0	60.0
		16														6.6			6.6
		21	13.0	11.0		0.2													24.2

Ident. No. 63-33400

Ident. No. 63-33400

Attachment to: ☐ Application for Permit to Appropriate Water ☐ Application for Transfer** ☐ Adjudication Claim
☐ Application for Amendment of Permit ☒ Beneficial Use Field Report ☐ Statutory Claim

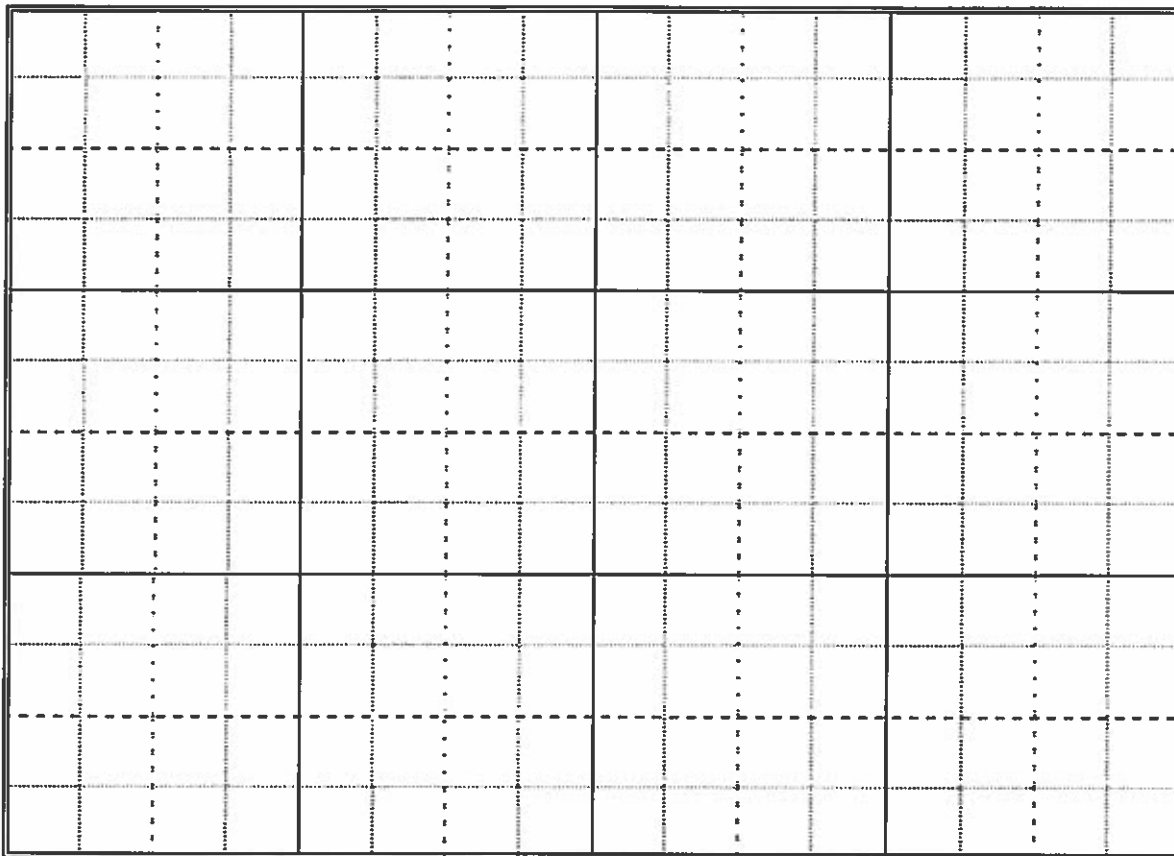
[illegible]

a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.

b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below.

[illegible]

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
All pumps are		5			2" discharge
submerged		25			4" discharge
		25			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
Data Industrial Meter	Propeller	Data Ind.	1500		8"	Unknown

2. **Measurements:** _____

Observed display showing gallons per minute continuously updated. Maximum observed pumping rate was 405 gpm on 9-29-2015.

E. NARRATIVE/REMARKS/COMMENTS

This permit covers both irrigation and pond evaporation. Each pond is the point of diversion for evaporation from that pond and pond 8 is the point of diversion for the irrigation water supply. Ponds 8 and 11 are interconnected. The permit was issued as a PPU for 67 acres of irrigation within a 91.7 acre PPU. The actual irrigation under this right is a 41.2 acre PPU when all hardened areas are removed and the total surface area of the ponds is 12 acres.

Some of the areas shown as irrigated were irrigated to establish wetland vegetation but may not be currently irrigated. I observed that irrigation and have attached photos of representative areas that were irrigated.

The irrigation pumping system was installed prior to 6/27/2003 with a proposed application for transfer to move the point of diversion of the Boise River water that was historically used to irrigate the property to pond 8 where the irrigation pumps are currently installed. The flow meter was installed with the original installation and the meter setup was confirmed on September 24, 2015. After a number of years attempting to find a way to have the transfer processed, the application for the current permit was filed in 2010 after most of the development had been completed. No new land was irrigated since the entire subdivision had been irrigated prior to development. Boise River water right no. 63-32614 provides mitigation for the irrigation and pond evaporation under this permit.

The water distribution from the irrigation pumps is all underground piping throughout the subdivision. Individual lot owners control the irrigation on their lots and common area irrigation is controlled by the landscape company that maintains the common areas. All water features have pumping and distribution systems separate from the irrigation system.

The recommended diversion rate for irrigation is slightly larger than 0.02 cfs per acre to account for the desire of most homeowners to irrigate at night. With the available storage in ponds 8 and 11, the actual diversion from the ground water source of 0.82 cfs continuous would be adequate to supply irrigation to the subdivision. Unfortunately, there isn't any means to accurately measure the rate of ground water entering the ponds so the pumping rate is recommended for licensing purposes. If an amendment is necessary to change some of the existing pond storage to irrigation storage an amendment could be filed to meet that need but no amendment is included until IDWR can evaluate whether an amendment is needed.

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

F. FLOW CALCULATIONS

☐ Additional computation sheets attached

Measured Method:

Observed display in gpm on Data Industries meter display. Since all lots are operated by their respective owners and each lot may have multiple areas controlled by time clock the pumping rate varies with time throughout the day and night. Maximum observed pumping rate may or may not be maximum potential given the number of variables controlling demand at any given time.

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 41.2 \times 4.5 + 12 \times 3.5 = 227.4 \text{ afa}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 405/448.83 \times 260 \times 1.9835 = 465.3$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \underline{227.4}$$

2. Volume Calculations for Other Uses:

The surface areas of the ponds were measured using a GIS shape file based on 2013 NAIP photography. The irrigated area was digitized using Google Earth Pro and was then imported into ArcMap to determine irrigated area. The Google Earth April 2015 photo was used as the most recent evidence of irrigated area. Pond surface evaporation was permitted at 3.5 afa and that amount will be recommended here.

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion	Annual Volume
	From	To	Q (cfs)	V (afa)
Aesthetic Storage	1/1	12/31		42
Irrigation	3/1	11/15	0.90	185.4
		Totals:	0.90	227.4

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

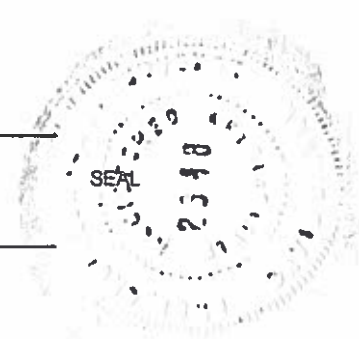
I. AUTHENTICATION

Field Examiner's Signature

Date 9-30-2015

Reviewer

Date _____



Rivers End Subdivision

In Twp 4N Rge 1E, B.M.



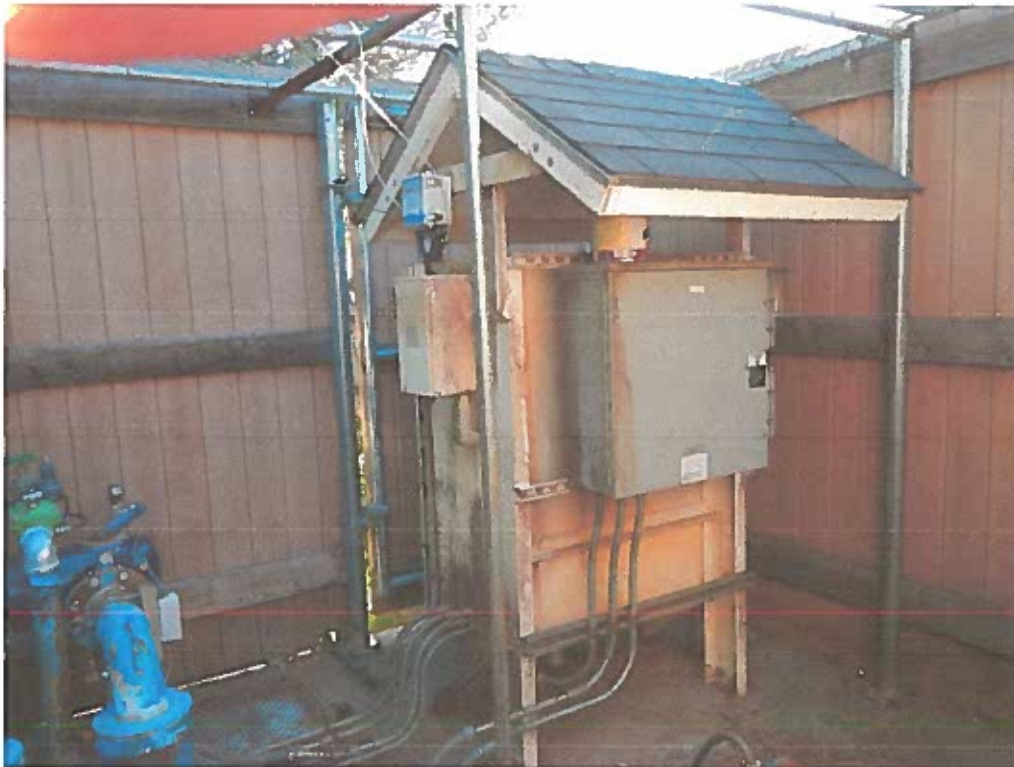
Based on 2013 NAIP Photography

Prepared for Rivers End Neighborhood Assn Inc by ERO 9-2015

Photos for Permit No. 63-33400 Field Exam



Manifold for Irrigation Pumps with Filter



Power Supply, Near Panel is for Water Feature & Far Panel is for Irrigation



Irrigation in Southwest Area of Subdivision



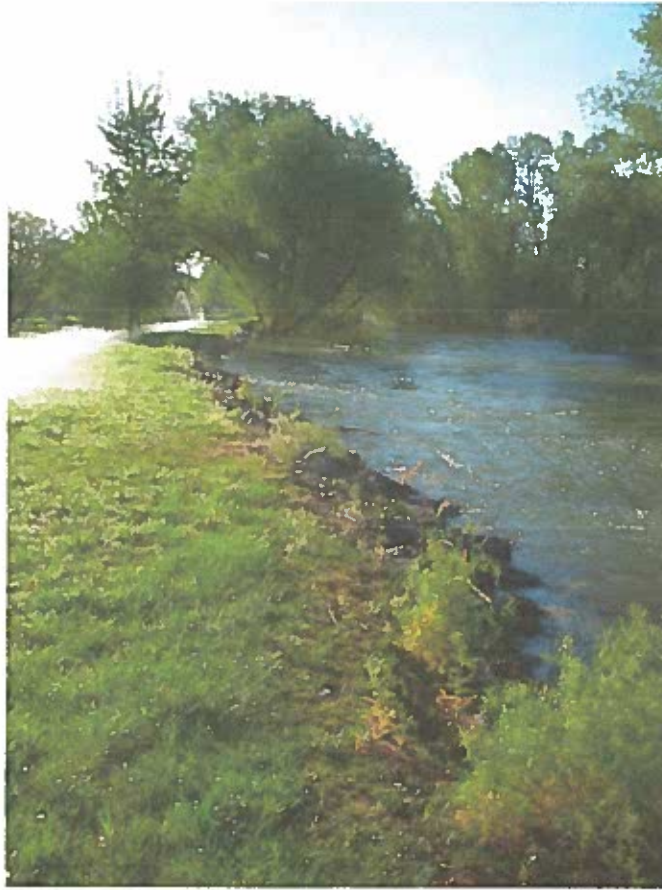
Wetland Area that was established with Irrigation



Undeveloped Lots on South Side have Irrigated Everything but Building Pad



Another Undeveloped Lot with Landscape Irrigation



Irrigation of Levee and Adjacent Wetland



Irrigation near Pond 17



Home and Landscape on what appears to be Vacant Lot North End of Subdivision

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
STATEMENT OF COMPLETION
FOR SUBMITTING PROOF OF BENEFICIAL USE

FOR OFFICE USE ONLY

Amt. of Fee \$: _____
Receipt No.: _____
Receipt By: _____
Date Received: _____

The Idaho Department of Water Resources considers this form a statement by the permit holder(s) that development of a water right has been completed and that water has been applied to beneficial use to the extent described below. This form must be accompanied by an examination fee, when necessary, or by a completed Beneficial Use Field Report prepared by a certified water right examiner. Please refer to the instructions and fee schedule for this form. If ownership of the permit has changed, please contact any Department office or visit the Department's website at: www.idwr.idaho.gov for an Assignment of Permit form. If you wish to relinquish your permit because you have not established the authorized use of the water and are not applying for an extension, please notify the Department in writing.

1. Permit No.: 63-33400 Telephone No.: (208) 939-6000

2. Name of Permit Holder(s): Rivers End Neighborhood Assn Inc

3. Mailing Address: 9601 W State St, #203 City: Boise

State: ID Zip: 83714 Email: Georgia Mackley <georgia@dev-services.com>

4. Source of Water: Ground Water If **GROUND WATER** (well), Date Drilled: mo. _____ / yr. _____

Well Driller: Sources are open aesthetic ponds Drilling Permit Number: No driller was involved

5. Extent of use(s) completed (as authorized by the water right permit):

Domestic (No. of households): _____ Stockwater (No. and type of stock): _____

Irrigation (No. of acres): 67 Other: Evaporation from 12 acres of aesthetic ponds.

6. Total rate of diversion or storage volume for which proof is submitted: 1.34 cfs OR 42.0 acre-feet.

7. Compliance with a measuring device requirement, lockable controlling device requirement, and/or other conditions of permit: **Refer to the approval conditions on your permit and respond accordingly. The Department will not issue a license if permit conditions are not met.**

Measuring Device: Is a measuring device required?

If yes, has the measuring device been installed?

Yes ☒	No ☐
Yes ☒	No ☐

Lockable Controlling Device: Is a lockable device required to control the diversion?

If yes, has the lockable device been installed?

Yes ☒	No ☐
Yes ☒	No ☐

Other Conditions of Permit: Do the approval conditions on your permit require you to submit additional information in connection with your proof of beneficial use? If yes, list the conditions below and attach documents with the required information.

None Completed?

Yes ☐	No ☐
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8. Fee Enclosed: \$ None See fee schedule on back of the instructions for filing proof of beneficial use. Proofs filed without an appropriate fee, will be considered incomplete.

9. Person to contact to accompany the Department representative during field examination of the water system.

Name: Field exam accompanies this Proof Notice Telephone Number: _____

Mailing Address: _____ City: _____

State: _____ Zip: _____ Email: _____

The information given on this form is my true statement of the extent to which the above numbered permit has been developed and water has been diverted and applied to a beneficial use. I understand that any undeveloped portion of the permit is relinquished to the State of Idaho.

Signature of permit holder:

Jerry D. Blair President
(Include your title, if on behalf of company or organization)

Date: 9/20/2015

Mail to: Idaho Department of Water Resources, PO Box 83720, Boise, ID 83720-0098