

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

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. 63-32602

1. Owner C L Butch Otter Phone No. 208-286-9833
 Current address 1009 S. Star Rd. Star, ID 83669
2. Examiner's name Steve Lester EXAM DATE 8/29/2011
3. Accompanied by Rick Harmon Email _____
 Address C/O owner
- Relationship to permit holder Ranch manager Phone No. 208-871-5147
4. Source Ground Water (shallow) tributary to Boise River

B. OVERLAP REVIEW

1. Other water rights with the same place of use 63-183 etc., Pioneer Ditch Company (for mitigation now)
2. Other water rights with the same source and point of diversion none

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			NE	SW	18	4N	1W	Ada	pond (use approximate center point)
2			NE	SW	18	4N	1W	Ada	irrigation sump pump

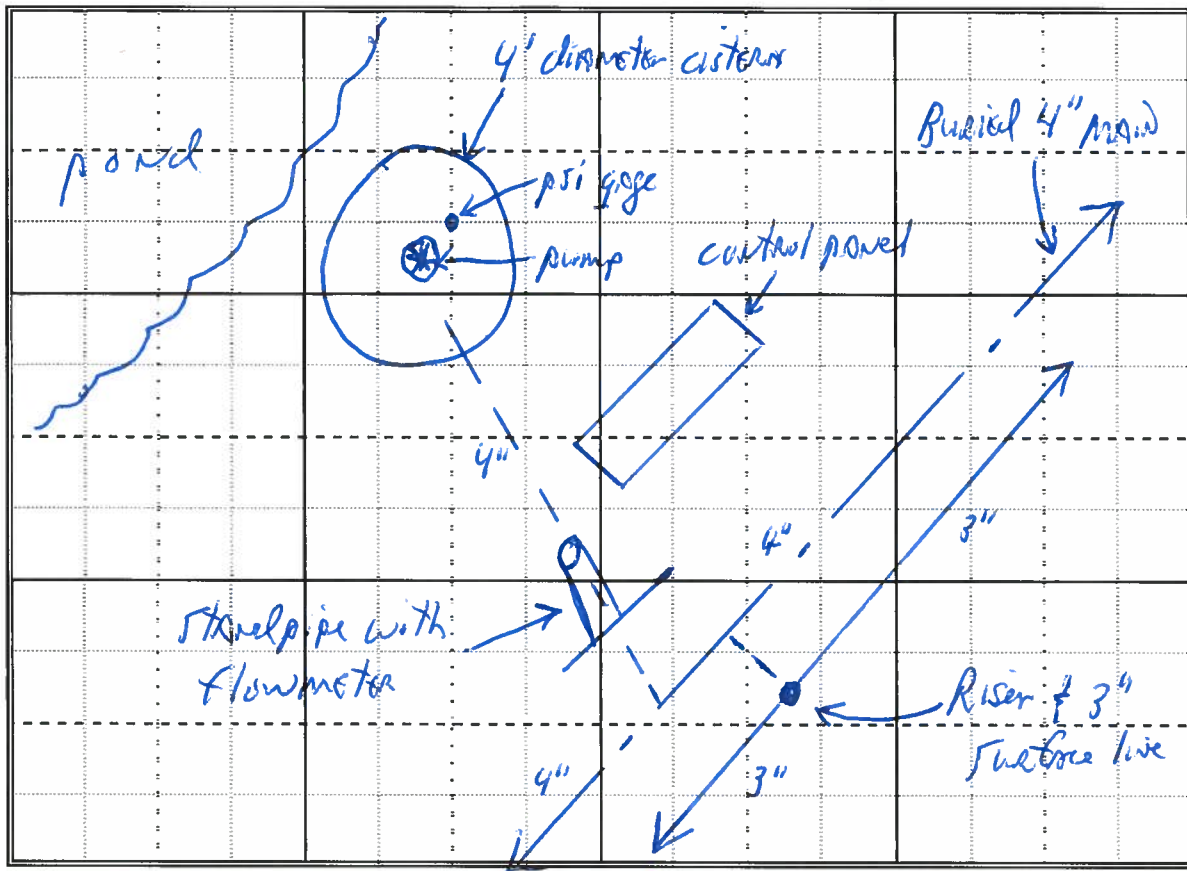
2. Place(s) of Use: Method of determination 2011 aerial photo

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	1W	18			5					1	6				1	6			19
															L7	L6			
					X					X	X					X			

X = storage

also see

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" = N/A

- ☒ 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
2	Franklin	10	2822029330	same	4 inch mainline
			(model #)		

*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
McCrometer Flowmeter				09-03839		

2. Measurements:

250-300 gpm

50 psi at gage next to pump

lift about 5 ft.

E. NARRATIVE/REMARKS/COMMENTS

Shallow ground water system on banks of Boise River just downstream from Star Bridge includes an amenity pond and an irrigation sump pump. The pond covers about 7 acres. Irrigation is directly from the shallow aquifer instead of being pumped from the pond. A submerged 10 hp pump sits in a 4 ft. upright cement culvert that is covered by a lockable grate. Pressure gage is next to the pump. A buried 4 inch mainline branches and runs to opposite ends of the POU. The mainline has numerous 3 inch lateral lines serving 2 wheel lines and numerous handlines. Sprinklers are mixed bag but include many Nelson F33 or similar types. Most of the irrigation is south and east of the pond, but a few acres are served west and north of the pond. Some misc. irrigation occurs near the home (lawn, garden, ornamentals) and by the front gate (landscaping beds). See aerial photo labeled as "diagram" for system layout.

A flowmeter is accessed via a standpipe near the cistern. System was operating normally during the exam, and flowmeter showed 250-300 gpm. Irrigation POD can be locked and measured by watermaster as required by the permit. Similar controls n/a to excavated pond that fills naturally without additional water diverted to pond.

Consumptive use under this permit is covered by an approved mitigation plan. The owner's Pioneer Ditch Company shares are left undiverted in the river (condition of approval states 31 shares/0.62 cfs). See Pioneer right 63-183 for details. This permit can be licensed for 19 acres irrigation and the pond covering 7 acres, resulting in 26 acres of use to be mitigated. The examiner will send a follow up letter to the ditch company to inform the directors that they have over-mitigated by 0.10 cfs (5 acre difference between plan 31 acres and license 26 acres equivalent). Their decision in this regard does not affect licensing this permit.

See exam correspondence for ownership information regarding small portion of recommended POU at north end of the ranch. Owner's information is adequate to license all the developed uses. Condition 004 should be added to highlight a few acres under separate land ownership but not separate water right ownership.

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?

Add 004.

Delete X27.

Update mitigation condition to show 26 shares, 0.52 cfs.

Replace 01J with R43.

Add R65 for 0.02 cfs/4.5 af standards.

Make sure water district # remains on this right in database.

NOTE: Mitigation for shallow ground water was required in 2007 when original application was filed. Due to significant backlogs (mostly transfers), the application was not processed until after early 2008 when ground water downstream from Star Bridge - as in this case - no longer needed to be mitigated per amended Appl Memo #59. The owner decided to stick with the original plan instead of deleting mitigation.

F. FLOW CALCULATIONS☐ Additional computation sheets attached

Measured Method:

250 to 300 gpm / 448.8 gpm/cfs = 0.56 to 0.67 cfs

HP Equation, 10 hp, 50 psi, 5 ft. lift: $(8.8 \times 0.7 \times 10) / [(2.31 \times 50) + 5] = 61.6 / 120.5 = 0.51$ cfs

Allow 0.38 cfs for 19 acres irrigation.

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 19 \times 4.5 = 85.5$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 0.38 \times 260 \times 1.9835 = 196$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 85.5$$

2. Volume Calculations for Other Uses:

pond capacity: 7 acres x 30 to 31 ft average depth = 210 to 217 af, allow 215 from permit limit

see attached rate/storage worksheet to support license recommendations

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion	Annual Volume
	From	To	Q (cfs)	V (afa)
Irrigation	3/1	11/15	0.38	85.5
Aesthetic Storage	1/1	12/31	N/A	215
Recreation Storage	1/1	12/31	N/A	215
Wildlife Storage	1/1	12/31	N/A	215
Totals:			0.38	300.5

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

5/18/2012

SEAL

Reviewer

Date

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

LESSER OF FOUR CHOICES

63.32602

1) Permit amount	.48	cfs	&/or	215	af storage
2) Beneficial use limit	.38	cfs	&/or	215	af storage
3) System measurement	MAX → .67	cfs	&/or	215	af storage
4) Proof fee amount	up to 3.00	cfs	&/or	201-300	af storage
Recommended Amount	.38	cfs	&/or	215	af storage

NOTES

1) Can never exceed permit amount.

2) Beneficial use limits are recognized standards: 0.03 cfs for up to 5 acres, 0.02 cfs beyond 5 acres, stockwater chart, in-house domestic chart etc. Some exceptions acceptable if already approved in permit: excessive rate for parks etc.

3) System measurement can be actual measurement reflecting typical operations or theoretical measurement or some combination of both if actual measurement does not reflect true capacity of system based on other supporting information. Be cautious about using just theoretical measurement to limit the amount of water.

4) Confirm correct proof fee was paid. See "wr field exams/proof fees-2 schedules" for pre 11/1/1991 schedule and for on/after 11/1/1991 schedule.

If permit includes rate of flow and storage, fee is the greater amount for those two categories. Example with current filing fees:

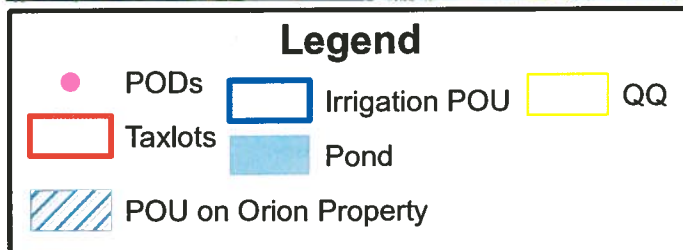
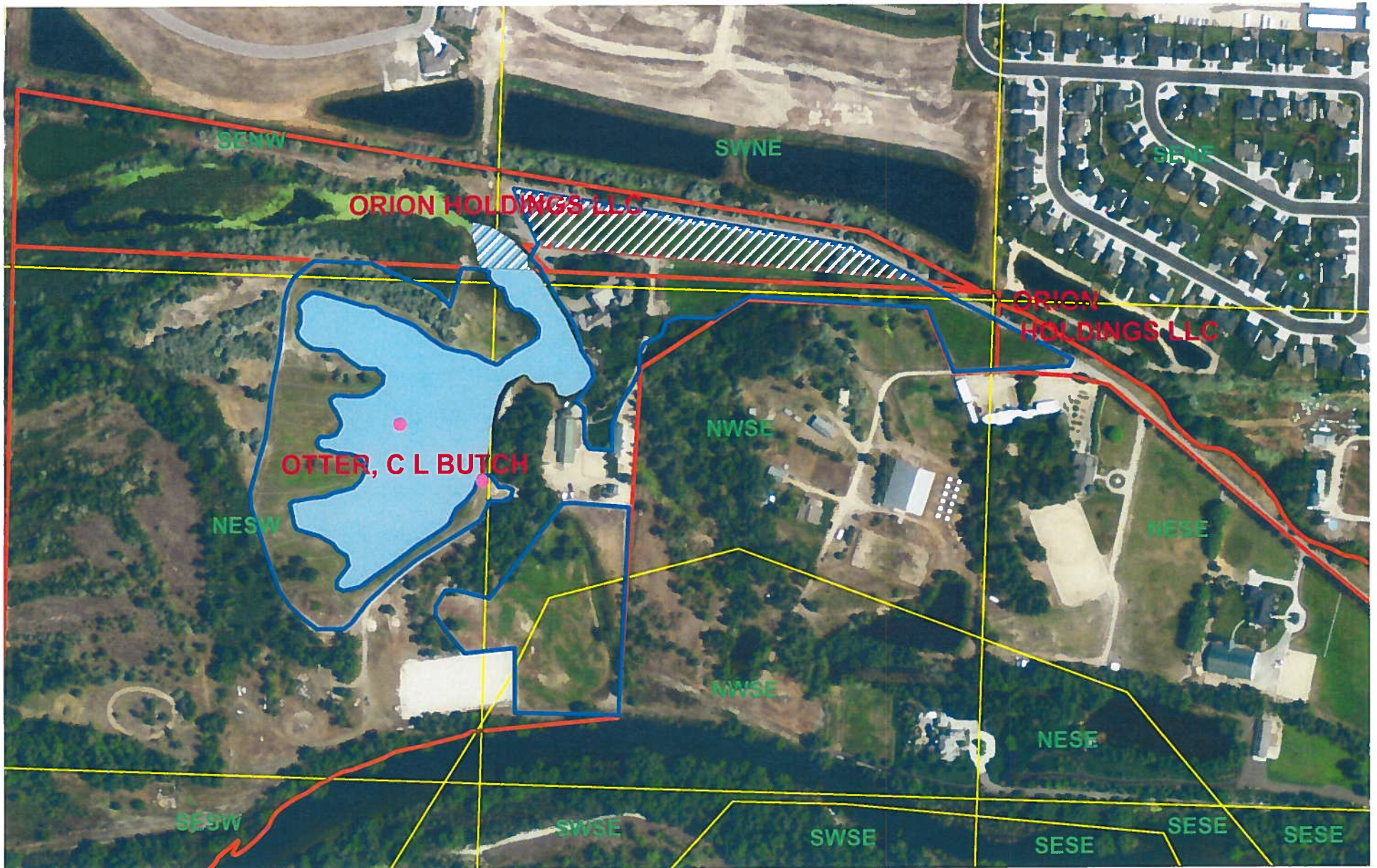
1.0 cfs = \$100

15 af = \$50

required fee = \$100

If proof paid amount is the limiting factor for recommended flow/storage, confirm this was addressed in proof process but owner declined to pay more. If cannot confirm owner was provided a chance to pay correct fee, use 30-day letter for last chance to pay. Without additional payment, allow maximum rate/storage per fee paid.

63-32602



T4N, R1W, Section 18

*2011 NAIP Imagery
November, 2011*

0 0.05 0.1 Miles



ORION HOLDINGS LLC TAX LOT

center of section

Pioneer irra d. 72

Other Lw. Access Rural

SE NW

SW NE

GATE

HOUSE

#1 POND
POD

#2 irra
POD

BARN
ETC.

NW SE

NE SW

BURIED
4" LINES

ARENA
ETC.

TO
STAR
RIVER

NE SE

SE SW

RIVER

63-32602
Diagram

(#) = photographs

GATE = EAST END OF irra.

63-32602 EXAM PHOTOS, 8/29/2011



POD – Amenity Pond, photo #2 on exam diagram map. View to west from adjacent irrigation sump pump.



POD – Irrigation Pump, photo #1 on exam diagram map. Shallow ground water cistern, submersed pump. Control panel seen, flowmeter in upright light blue standpipe, 3" surface lines in foreground (4" main from pump is buried). Lockable blue grate covers top of cistern.



POU – Pasture, photo #4 on exam diagram map. Pasture southeast of pond/pump and south of barn area. Sprinklers on risers observable in picture. Handlines used here.



POU – Pasture, photo #7 on exam diagram map. Pasture bordered by property access road (Otter Lane), owner's home seen in background. Wheel lines and handlines used here. Pond and irrigation pump are on other side of home to southeast.



POU – Pasture, ranch entrance, photo #8 on exam diagram map. Northeast edge of property. More pasture in left (south) view, easternmost extent of irrigation covers landscaping plants at gate.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

FIELD NOTES - 82

A. GENERAL INFORMATION

Permit No. 83.32602

1. Owner: Same Phone No. _____

Current Address: _____

2. Accompanied by: Rick Harmon EXAM DATE: 8/29/11

Address: c/o owner Phone No. _____

Relationship to Permit Holder: property manager

3. Source: _____ tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use: diff co. share (contingent)

2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident No.	Gov't Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
1			NE	SW	18	4N	1W	Ada	± center of pond
2			"	"					1st Sump pump next to pond

2. Place(s) of Use:

Indicate Method of Determination 2011 aerial photo

TWP	RGE	SEC	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
		18			✓				✓	✓					✓	✓			

✓ for all
- change " except NESE

E. NARRATIVE/REMARKS/COMMENTS

✓
1/4" e 5'

✓ - Shallow gas pool

✓ - 1/2" pump — cistern w/ metal grate top — can lock this ✓

4" buried main to 3" surface line

2 wheel 1/2"

many movable sprinker pipes (hand lines)

~~NO 8 1/2" hose~~ not sure -

mostly Nelson F33 (mixture brands, models)

" 7/32" nozzle

✓ - system on 3 manual gauge → 250-300 gpm

psi gauge in "cistern" e 50 psi

✓ - said 1/2" e 16 AC positive with fuel }
e 4" e pool } 24 ACs?
e 4" e front, to gate } Check later to see

? Contact ditch co. if excess shaver e
noting - what they want to do?

✓ Have conditions of permit approval been met? ___ yes ___ no

N/A → ~~1/2" zone~~ ✓
✓ mess deriv ✓
✓ lockable ✓ OK ✓

noting e ditch water ✓
permit: ↓
7 AC pump
24 AC 1/2"
31 ACs total not gate

plung 1.7 e 5' psi e 50'

F. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method:

✓ Flume $250 \times 30 \times 91 =$

✓ HP $\frac{(8.8)(.7)(14)}{(2.31 \times 50) + 5} =$

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

✓ $V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = () (4.5) =$

✓ $V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = \text{cfs} \times 260 \text{ days} \times 1.9835$

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

2. Volume Calculations for Other Uses:

✓ Average volume - pond e 7 Acres
 - depth e 30-31 ft average
 - capacity e

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Totals:			_____	_____

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name _____ Date _____

Reviewer _____ Date _____

SEAL