

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 51-13127
Exam Date: 09/20/2019

1. Current Owner:
ACE BLACK RANCHES 28892 HOT SPRINGS RD BRUNEAU ID 83604-5007
2. Accompanied by: Terry Black
Phone No: Same
Address: Same
Relationship to permit Holder: Owner/Manager

3. **SOURCE:**
WASTE WATER

Tributary
BRUNEAU RIVER

Method of Determination: Application, protest proceedings, site visit

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
51-7318	Unnamed Drain	Irrigation	License
51-7319	Unnamed Drain	Irrigation	License

ALSO: Bruneau Buckaroo Ditch Company water rights

Comments: The wastewater is excess from the Buckaroo Ditch which is spilled down the Jones Wasteway

2. Other water rights with the same point-of-diversion: NO Overlap

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

WASTE WATER L1 (NW¼ NW¼), Sec. 31, Twp 06S, Rge 06E, B.M. OWYHEE County
WASTE WATER NE¼ NW¼, Sec. 31, Twp 06S, Rge 06E, B.M. OWYHEE County

Method of Determination: GPS, digital PLS map

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06S	05E	25													28.0			11.0	39.0
06S	06E	30										15.0	26.0	7.0					48.0
06S	06E	31		1.0			19.0	6.0											26.0

Total Acres: 113

Method of Determination: 2017 aerial imagery shows full area is irrigated. The permit was meant to cover an existing project, so the POU is the same as the permit.

3. Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- Aerial Photo Attached (required for irrigation of 10+ acres).
- Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size

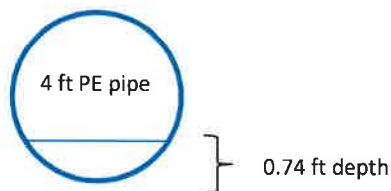
D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NA						

2. Measurements:

Water depth in the open channel was too shallow for a Flowtracker measurement.



Cross sec area of flow = 1.60 square ft.

Time to travel 27 ft:

11.7 sec

10.2 sec

11.2 sec

Average = 11.0 sec

E. FLOW CALCULATIONS
 Additional Computation Sheets Attached

Measured Method:

Measurement: $1.60 \text{ ft}^2 \times 27 \text{ ft} / 11.0 \text{ sec} = 3.93 \text{ cfs}$

Permit: 2.26 cfs

BU Standard: 113 acres $\times$ 0.02 cfs/acre = 2.26 cfs

Exam Fee: 3.00 cfs

RECOMMEND 2.26 cfs**F. VOLUME CALCULATIONS**

1. Volume Calculations for irrigation:

 $V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 113 \text{ acres} \times 4.0 \text{ afa/acre} = 452 \text{ afa}$ $V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 2.26 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 1166 \text{ afa}$ $V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = \mathbf{452 \text{ afa}}$

2. Volume Calculations for Other Uses:

No other uses

G. NARRATIVE/REMARKS/COMMENTS

This permit was approved on June 24, 2019 authorizing the diversion of water from wastewater and an unnamed drain for irrigation purposes. The permit was intended to cover an existing irrigation project, so Proof of Beneficial Use was submitted before the application was approved (February of 2019). I completed this field exam on September 20, 2019.

The Jones Waste Ditch enters the permit holders property to the east. Waste and overflow water from the Buckaroo Ditch are sent down this ditch. The ditch runs approximately 0.5 miles straight west. In that reach, it collects water from two separate tile drains which empty into it. Water then reaches the first diversion. Here, the water can be sent either to the south or north to be used to flood fields. Otherwise, the water can continue to be sent down the Jones Waste Ditch to the second point of diversion. At the second point of diversion, water may be sent northwest to the 30-hp pump which runs the western most pivot, or water may be sent south back into the Bruneau River (which would be the natural course of the Jones Waste Ditch).

I have included only the points of diversion described above in my recommendation. Other POD's on the permit turned out to be re-diversions of previously diverted water, or areas where recaptured irrigation water was put into the Jones Waste Ditch (as in the case of the two permitted PODs located in the SE¼ of Sec 30).

The irrigation existed prior to the application. 2017 aerial imagery does not show all of the recent modifications to the system. However, the place of use shape for the permit was developed with the help of the landowner and seems to match fairly closely with what I observed in the field. Therefore, I have made no changes to the place of use shape or acres.

I measured the flow rate by calculating the cross-sectional area of flow through a 4 ft polyethylene culvert and by measuring the flow rate of the water through that same pipe using a time-float method. The rate I calculated was 3.93 cfs. The permit holder says he could use the full flow when flooding the fields for irrigation. The permit rate is limiting, so I have recommended the full permit rate for the license.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	03/01 to 11/15	2.26 CFS	

Totals: 2.26 CFS

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

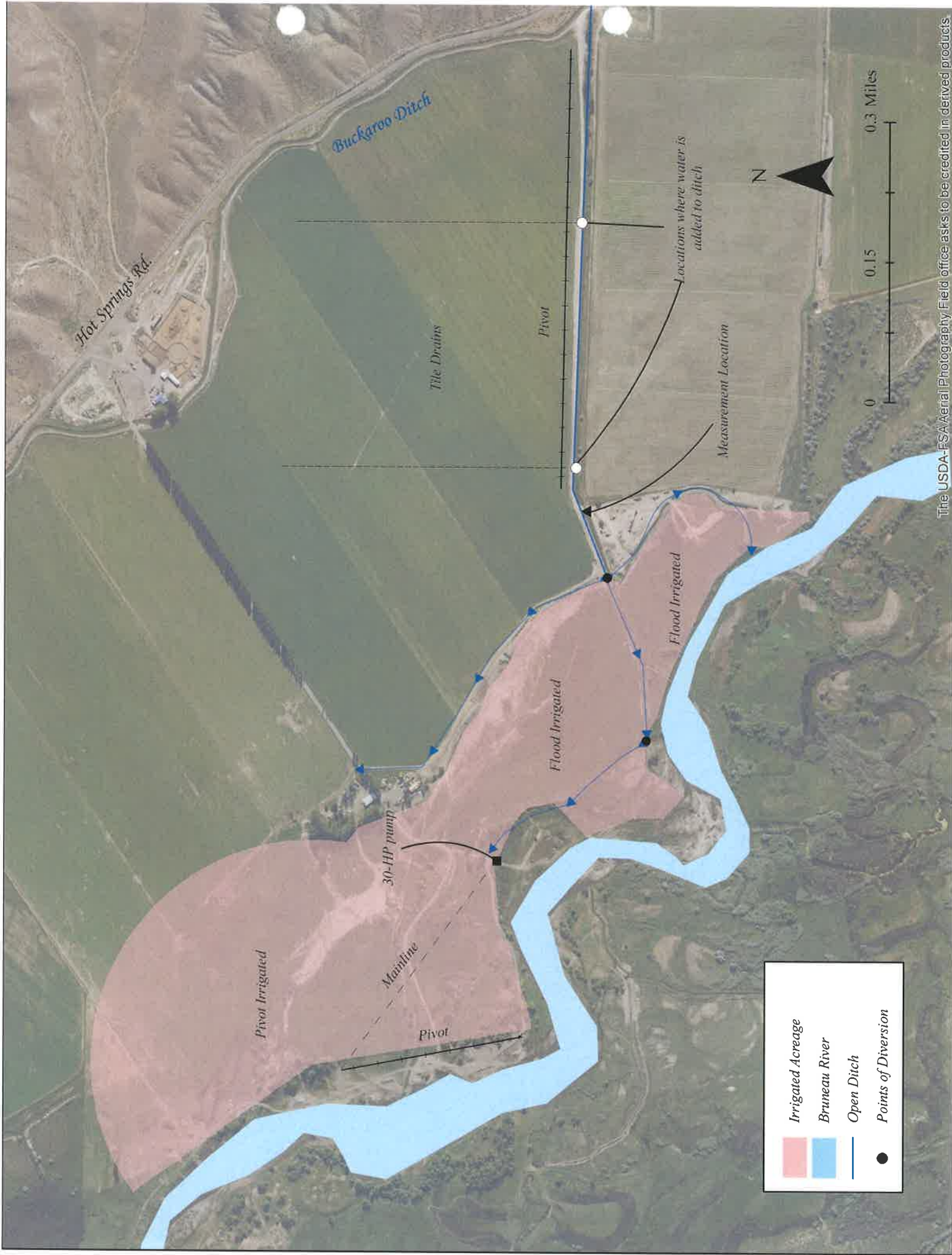
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION

Cody Parker - Water Resource Agent, Senior

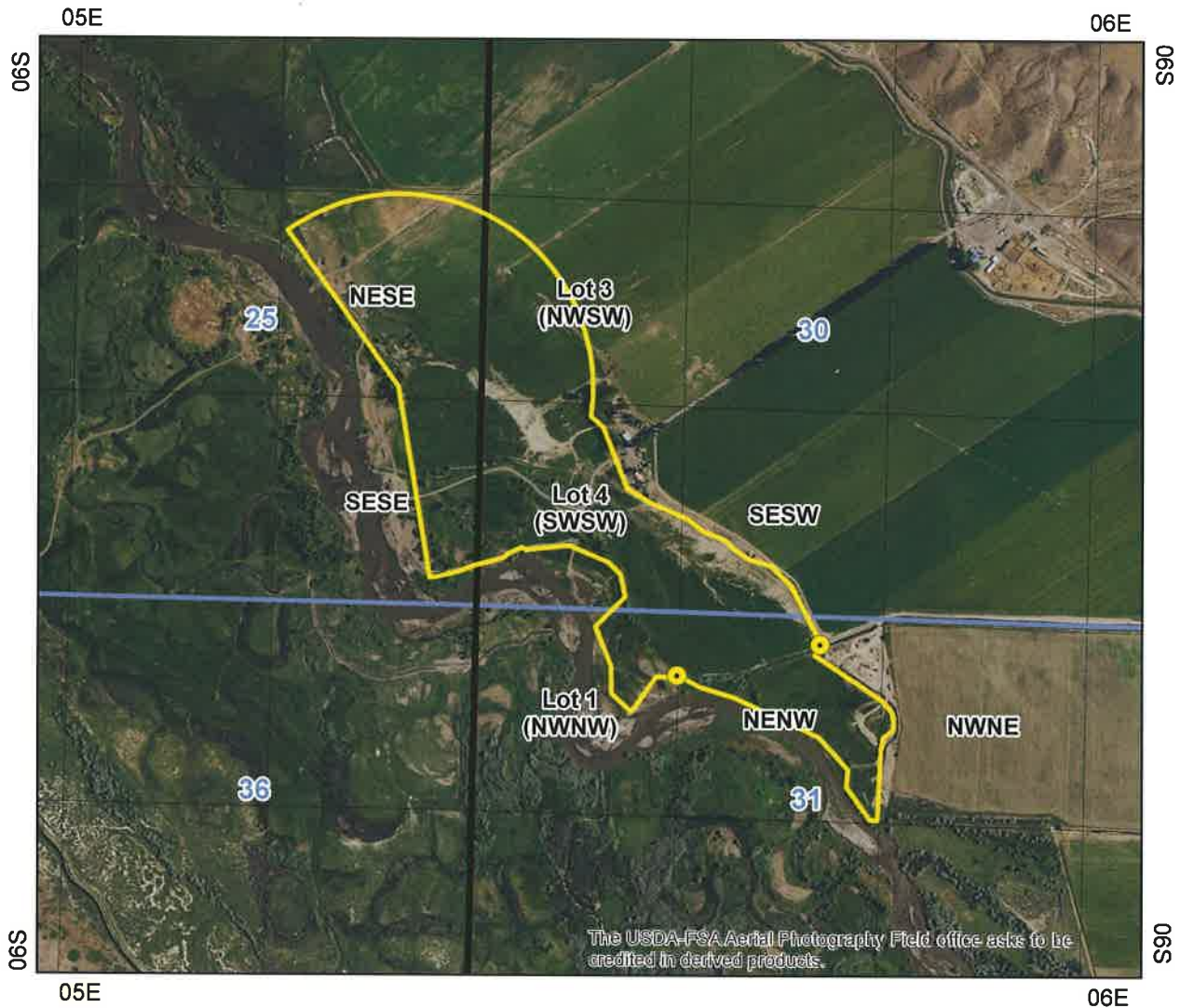
Field Examiner's Name Cody Parker Date 9-23-19

Reviewer Patrick Wiley Date 9-23-2019



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Department of Water Resources
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51-13127

IRRIGATION



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

0 0.125 0.25 0.5 Miles





The POD in the NENW. When the stream is boarded up water can be diverted to either the north or the south.



The POD in the NWNW. Here water is either diverted to the northwest to the pump for the pivot, or is allowed to run back into the Bruneau River.



The culvert just upstream of the first diversion. I estimated the flow rate by calculating the cross-sectional area of flow through this pipe and measuring the speed of the water through the pipe using a float test.



The end of one of the two tile drains which divert excess irrigation water back into the Jones Waste Ditch.



A lateral delivery ditch off of the Jones Wasted Ditch at the location of the pump which provides water to the pivot.



The pump which supplies water to the pivot.

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Specs for the pump.

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BENEFICIAL USE FIELD REPORT

06S05E25

BasinSeq	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
51-10252	BLACK, A	BRUNEAI	IRRIGATION									41			40	8.9	33	41	15	173.9
51-10271	BRUNEAI	BRUNEAI	IRRIGATION	X	X	X	X	X	X		X					X	X		X	
51-10350	BRUNEAI	BRUNEAI	IRRIGATION	X	X	X	X	X	X		X					X	X		X	
51-10351	BRUNEAI	BRUNEAI	IRRIGATION	X	X	X	X	X	X		X					X	X		X	
51-13127	ACE BIA WASTE	W	IRRIGATION													28			11	39
51-2	BRUNEAI	BRUNEAI	IRRIGATION	X	X	X	X	X	X		X					X	X		X	
51-2133	J R SIMPI	BRUNEAI	IRRIGATION			35.5		40.3	39	36	37.8		40	16						244.6
51-27B	BLACK, A	BRUNEAI	IRRIGATION									41			40	8.9	33	41	15	173.9
51-28B	BLACK, A	BRUNEAI	IRRIGATION									41			40	8.9	33	41	15	173.9
51-29B	BLACK, A	BRUNEAI	IRRIGATION									41			40	8.9	33	41	15	173.9
51-3	BRUNEAI	BRUNEAI	IRRIGATION	X	X	X	X	X	X		X					X	X		X	
51-30	BLACK, A	BRUNEAI	IRRIGATION									41			40	8.9	33	41	15	173.9
51-31	J R SIMPI	BRUNEAI	IRRIGATION			35.5		40.3	39	36	37.8		40	16						244.6
51-32	J R SIMPI	BRUNEAI	IRRIGATION			35.5		40.3	39	36	37.8		40	16						244.6
51-33	J R SIMPI	BRUNEAI	IRRIGATION			35.5		40.3	39	36	37.8		40	16						244.6
51-5	BRUNEAI	BRUNEAI	IRRIGATION	X	X	X	X	X	X		X					X	X		X	
51-7318	ACE BLAI	UNNAME	IRRIGATION																6	6

Irrigation company water rights, overlap

Irrigated land across the Bruneau River, no overlap

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06S06E30

BasinSeq	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
51-10271	BRUNEAI	BRUNEAI	IRRIGATION			X		X	X	X	X	X	X	X	X	X	X	X	X	
51-10350	BRUNEAI	BRUNEAI	IRRIGATION			X		X	X	X	X	X	X	X	X	X	X	X	X	
51-10351	BRUNEAI	BRUNEAI	IRRIGATION			X		X	X	X	X	X	X	X	X	X	X	X	X	
51-13127	ACE BLA WASTE	W	IRRIGATION										15	26	7					48
51-2	BRUNEAI	BRUNEAI	IRRIGATION			X		X	X	X	X	X	X	X	X	X	X	X	X	
51-3	BRUNEAI	BRUNEAI	IRRIGATION			X		X	X	X	X	X	X	X	X	X	X	X	X	
51-5	BRUNEAI	BRUNEAI	IRRIGATION			X		X	X	X	X	X	X	X	X	X	X	X	X	
51-7318	ACE BLA	UNNAME	IRRIGATION											17	4.4					21.4

Irrigation company water rights, overlap

Overlapping irrigation different source

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06S06E31

BasinSeq	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
51-10	HOT SPR. BRUNEAU IRRIGATION					6.4		12	32	41	40	40	X	X	X	2.3	18	32	41	293.7
51-10166	HARLEY, BRUNEAU IRRIGATION							12					29			2.3				14.3
51-10169	HARLEY, BRUNEAU IRRIGATION												29					32		101
51-10218	HARLEY, BRUNEAU IRRIGATION											40	29					32		101
51-10219	HARLEY, BRUNEAU IRRIGATION											40	29					32		101
51-10225	HARLEY, BRUNEAU IRRIGATION											40	29					32		101
51-10235	PROW, C BRUNEAU IRRIGATION												9.7	37.2	29.2			2.9		79
51-10236	PROW, C BRUNEAU IRRIGATION												9.7	37.2	29.2			2.9		79
51-10237	PROW, C BRUNEAU IRRIGATION												9.7	37.2	29.2			2.9		79
51-10255	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		
51-10256	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		
51-10257	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		
51-10258	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		
51-10259	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		
51-10260	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		
51-10261	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		
51-10262	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		
51-10270	PROW, C BRUNEAU IRRIGATION											X	9.7	37.2	29.2			2.9		79
51-10271	BRUNEAU BRUNEAU IRRIGATION			X	X	X	X	X	X							X	X			
51-10350	BRUNEAU BRUNEAU IRRIGATION			X	X	X	X	X	X							X	X			
51-10351	BRUNEAU BRUNEAU IRRIGATION			X	X	X	X	X	X							X	X			
51-11	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		
51-13127	ACE BLA WASTE IRRIGATION			1	19	6														26
51-2	BRUNEAU BRUNEAU IRRIGATION			X	X	X	X	X	X							X	X			
51-2149	PROW, C GROUND IRRIGATION												9.7	36.9	29			2.9		78.5
51-24A	GENNET BRUNEAU IRRIGATION					9	1									12	3			25
51-24A	GENNET GROUND IRRIGATION					9	1									12	3			25
51-24B	HARLEY, BRUNEAU IRRIGATION					6.4											18			24.4
51-25A	GENNET BRUNEAU IRRIGATION					9	1									12	3			25
51-25A	GENNET GROUND IRRIGATION					9	1									12	3			25
51-25B	HARLEY, BRUNEAU IRRIGATION					6.4										12	3			24.4
51-26A	GENNET BRUNEAU IRRIGATION					9	1									12	3			25
51-26A	GENNET GROUND IRRIGATION					9	1									12	3			25
51-26B	HARLEY, BRUNEAU IRRIGATION					6.4										12	3			24.4
51-27A	HARLEY, BRUNEAU IRRIGATION																			113
51-28A	HARLEY, BRUNEAU IRRIGATION																			113
51-3	BRUNEAU BRUNEAU IRRIGATION			X	X	X	X	X	X							X	X			
51-42A	HARLEY, BRUNEAU IRRIGATION																		41	41
51-43A	HARLEY, BRUNEAU IRRIGATION																		41	41
51-5	BRUNEAU BRUNEAU IRRIGATION			X	X	X	X	X	X							X	X			
51-53B	PROW, C BRUNEAU IRRIGATION												9.7	37.2	29.2			2.9		79
51-7318	ACE BLA UNNAME IRRIGATION							6.6	1.7											8.3
51-7319	ACE BLA UNNAME IRRIGATION			0.3				11												11.3
51-9	HOT SPR. BRUNEAU IRRIGATION											X	X	X	X			X		

Irrigation company water rights, overlap

Irrigated land across the Bruneau River, no overlap

Overlapping irrigation different source

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06S06E31

BasinSeq: Owner Source

51-13107 HONSINC UNNAMED DRAIN
51-13127 ACE BLA WASTE WATER
 51-24A GENNETT BRUNEAU RIVER
 51-24A GENNETT GROUND WATER
 51-25A GENNETT BRUNEAU RIVER
 51-25A GENNETT GROUND WATER
 51-26A GENNETT BRUNEAU RIVER
 51-26A GENNETT GROUND WATER
 51-7319 ACE BLA UNNAMED DRAIN

NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE
	X			X	X										
												X			
												X			
												X			
												X			
												X			
	X											X			