

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 57-7533

Exam Date: 7/1/2014

1. Current Owner: ECHO L HALL
138 EAST IDAHO AVE
HOMEDALE ID 83628
(208)249-5540
2. Accompanied by: Echo Hall
Phone No: above
Address: above
Relationship to Permit Holder: same

3. SOURCE

SPRING
UNNAMED STREAM

TRIBUTARY

SUCCOR CREEK
SUCCOR CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use:
2. Other water rights with the same point of diversion:

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

UNNAMED STREAM	NW1/4NE1/4	Sec. 7,	Twp 03N,	Rge 05W, B.M.
OWYHEE County				
UNNAMED STREAM	NW1/4NE1/4	Sec. 7,	Twp 03N,	Rge 05W, B.M.
OWYHEE County				
SPRING	SE1/4SW1/4SE1/4	Sec. 6,	Twp 03N,	Rge 05W, B.M.
OWYHEE County				

Method of Determination:

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
03N	05W	7		12.0															12.0

Total Acres: 12

PLACE OF USE: STOCKWATER STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
03N	05W	6															X		

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.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
<u>Stream PODs</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	
<u>pond POD</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
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2. Measurements: none taken

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

1) IDWR standard of 0.02 cfs per acre = 12 acres irrigated x 0.02 cfs = 0.24 cfs

2) there is no way to measure the diversion from the stream into the gated pipe but field observations during the exam confirm there is ample flow in the stream and the pipe is capable of delivering at least 0.24 cfs.

Measured Method: no measurements taken

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 12 \text{ acres irrigated} \times 4.5 = 54 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.24 \text{ cfs} \times 1.9835 \times 260 = 123.77 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 54 \text{ af}$$

2. Volume Calculations for Other Uses: stockwater storage

Pond is < 0.1 acres x estimated 15 feet deep = 1.0 af – recommend for licensing

G. NARRATIVE/REMARKS/COMMENTS

This permit was originally issued to Echo Hall for 4 af for a pond for recreation, stockwater and irrigation storage, and 0.76 cfs for irrigation from storage. The sources of water were permitted as springs, and an unnamed stream, both tributary to Succor Creek.

Echo Hall sold a portion of the place of use, with the pond, to Jeremy and Abby Sutfin. An assignment of permit was submitted, and it will be processed, and the permit split, during licensing. Mrs. Hall also submitted a change of address. The Hall license will retain the original water right number and the Sutfin license will be issued a new water right number. Field exams for both owners and their portions of the permit were conducted on 7/1/2014. A split analysis is attached.

Based on older methods and apparent flaws in how the permit was issued, licensing presents problems regardless of the solution used. This report discusses challenges and proposes reasonable solutions to avoid additional complications.

Differences between permit approval, permit development and storage jargon pose these problems:

- Outdated beneficial use terms for natural flow & storage. Here storage covers capacity & refills assumed as "irrigation";
- Non-irrigation POUs are not identified: and,
- The type and number of stock are not identified in conditions of approval.

Additional complications result from an assignment splitting the permit and separate systems for separate owners. Complications include the Hall portion with natural flow irrigation plus a stockwater pond, and Sutfin with on-stream storage pond used for irrigation and stockwater with undetermined number of possible refills. Recreation storage is not found for either owner.

Sutfin storage appears to be fed by natural flow, wastewater captured in the stream [where it becomes natural flow] and perhaps some Gem Irrigation District water [or wastewater from using Gem Irrigation district water]. The system is obviously capable of irrigating the land from pumping from the pond. Awkward retrofitting of flow/storage jargon is not helpful, so will allow older method for natural flow and storage mix.

The assignment assigns the point of diversion in the on-stream pond for irrigation of 12 acres and stockwater uses. The assignment is silent for non-irrigation uses but is assumed to provide some of those uses for each owner. A literal reading of the assignment is probably unworkable if we assume Hall keeps all stockwater storage and Sutfin gets none, because Sutfin diverts storage water for stockwater. This would require a very minor filing for new application to cover Sutfin stockwater storage for about 15 animals, further complicating the situation without adding value. We will assume the stockwater storage is split. Rebuttal, if necessary, will be per the preliminary license orders.

Determining the license amount for stockwater storage and stockwater from storage typically depends on the type and number of animals and the volume required for the use. The application listed 100

cattle, implying 3.1 af/year for stockwater [$V_r = 100 \times 0.0134$; V_d comparison n/a for storage]. Sometimes stockwater storage is limited to V_r for stock even if the pond is bigger. Other times the pond capacity exceeding stock V_r is allowed – there are different results found in permits and licenses.

Hall has about 175 mixed stock. Sutfin has about 15 horses. The total pond capacity is 4 af. A reasonable way to provide stockwater for each owner, for the total pond capacity, not exceed the permit, and avoid another nearly frivolous application is:

- Do not use 3.1 af stock V_r as stockwater storage limit;
- Allow 1 af for stockwater storage for Hall;
- Allow 3 af stockwater storage for Sutfin;
- The pond capacity is covered for both owners in same way regarding stockwater; and,
- Assume there is no stockwater enlargement which compensates for our failure to properly condition stock use and for omitting non-irrigation POU in permit.

Although not required, an irrigation diversion volume is recommended for licensing to avoid some uses with volume and some uses without.

This narrative is for the Hall right. Echo Hall accompanied me on the field exam. The source is an unnamed stream or drain that originates northeast of the Hall property. Mrs. Hall stated that there are several springs in the stream, and these springs were included as sources on the application. They have excavated and cleaned out the stream, which flows all year, but the springs in the stream have not been developed. There are no overlapping rights.

There is buried PVC piping connected to six 30' lengths of 8" gated pipe, for a total of 180' of gated pipe. There are 2 PODs in the stream about 20' apart. I GPSed a point between them. The coordinates are: N 43.61675, W -116.98061. Mrs. Hall stated that the gated pipe stays full and gravity irrigates the pasture south – southeast of the stream, even though it appears not to be irrigated in aeriels, because the Halls do not mow, and the older growth of vegetation is dry, but the new growth is visible. The field was being irrigated on the day of the exam. The Halls pasture up to 22 horses and 150 head of range cattle here and horses were grazing the day of the exam.

The maximum number of acres that it appears can be irrigated from the pipe, given the topography, is 12 acres. The diversion rate recommended for licensing is the IDWR standard of 0.02 cfs per acres or 0.24 cfs.

Stockwater storage is in a small excavated pond in the T3N R5W S6 SWSE quarter-quarter that is not visible on an aerial. The source is a developed spring in the pond. The surface area of the pond is less than 0.1 acres in size, and Mrs. Hall is not sure of the depth. The pond capacity is assumed to be about 1.0 af. Combined with the volume of the pond now owned by the Sutfins, the permitted 4 af would not be exceeded.

The volume recommended for licensing for irrigation is 54 af, the smaller of the Vir and Vdr values, and 1.0 af for stockwater storage, for a total volume of 55.0 af.

The 1 cfs diversion to storage was omitted because there is no diversion to storage component. It does not alter the results.

The season of use for irrigation was updated to the current standard season 3/1 – 11/15.

An amendment is needed to add the second POD in the unnamed stream.

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

Add X02: Stockwater use is for 150 range cattle and 22 horses.

H. RECOMMENDATIONS

- 1) Permit amount .76 cfs &/or 4 af storage
- 2) Beneficial use limit .24 cfs &/or 1 af storage
- 3) System measurement .24 cfs &/or 1 af storage
- 4) Proof fee amount 1 cfs &/or 100 af storage

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/01 to 11/15	0.240 CFS	54.00 AF
STOCKWATER STORAGE	01/01 to 12/31		1.00 AF
<u>Totals:</u>		0.240 CFS	55.00 AF

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

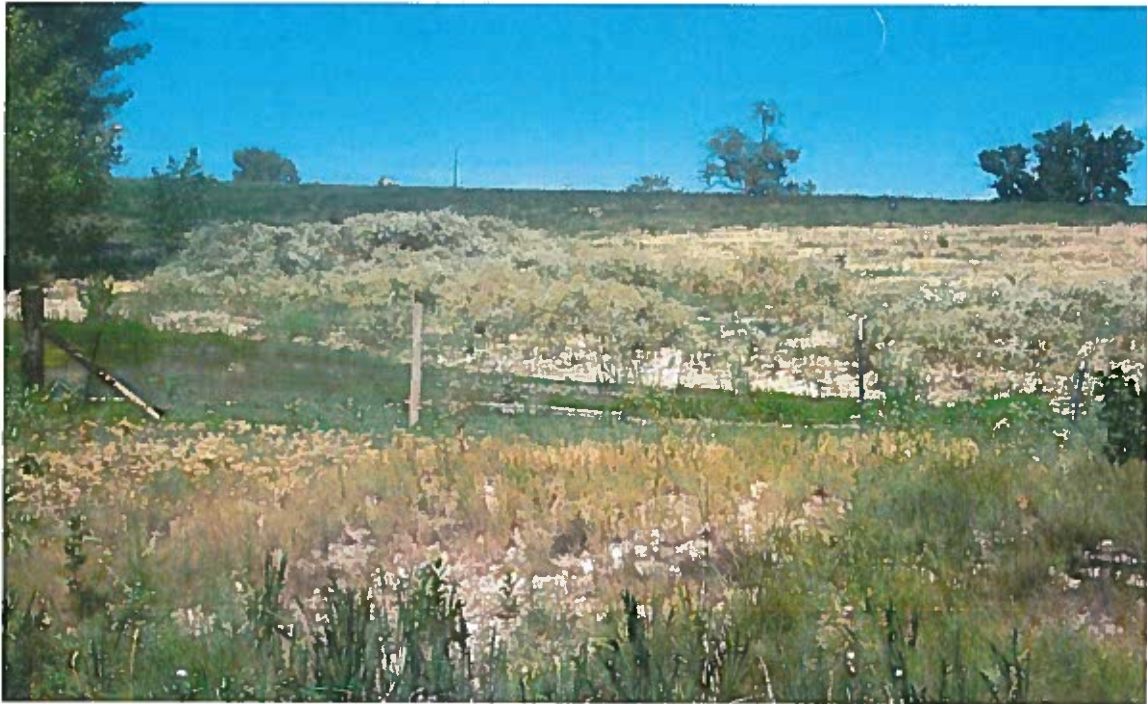
Field Examiner's Name Windy Unsic Date 10-21-14

Reviewer _____ Date _____



57-7533 -- 2013 NAIP. This is the Hall portion of the permit. There are 2 PODs in the unnamed stream and 1 POD in the stockwater pond. The POUs, outlined in red, are the stockwater pond and the field irrigated from the stream.

57-7533 – Hall field exam photographs



Excavated stockwater pond. Spring source.



Unnamed drain that flows all year. There are several springs in the drain, per Echo Hall.



This valve in the drain was being repaired. There is another about 20 feet to the east. The piping diverts water to the 8 inch gated pipe.



Photographs is of the gated pipe and irrigated place of use used for grazing - range cattle and horses.

SPLIT 57 7533

HALL (57.7533, Reduced)

	ACRES	CFS	AF
IRR	12	.24	54 ← not required but included
stock storage			1
HALL TOTAL	12	.24	55

SUTFIN (issue now #)

IRR	12	.24	54
IRR storage			3
irr from storage	12		3
stock storage			3
stock from storage			3

SUTFIN TOTAL 12 .24 57 *

COMBINED
OK ✓

24 .48 112
ACRES CFS AF

N/A either owner:
• Div to storage
• Recreation Storage

* OK NAT. FLOW + STORAGE VOLUME SAME ACRES

-SL
8/19/2014



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

August 7, 2014

ECHO HALL
138 E IDAHO AVE
HOMEDALE, ID 83628

Re Permit To Appropriate Water No. 57-7533

Hi Echo:

To be able to officially change your address with IDWR, you must authorize it. Will you please fill out the attached form and submit it in the enclosed envelope? IDWR can then complete licensing your water right.

Regarding your water right, it appears that, due to the topography of your property, and the irrigation system, that perhaps 12 acres of pasture can be irrigated, so that is what I am recommending for licensing. Also, the source for irrigation will be the unnamed stream or drain. You applied for a spring source, but to approve a spring source, the springs must be developed and diversion made directly from the spring. In your situation, there are many springs that contribute to the stream flow, and you divert from the stream for irrigation.

I will be recommending that the small stockwater pond with a spring source and point of diversion be licensed.

Please submit the change of address by **August 22, 2014**. Call me if you have questions at 208.334.2190. Thank you.

Sincerely,

Vicky Music
Sr. Water Resource Agent

Enclosure: Change of Address form, envelope



State of Idaho

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C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

April 4, 2014

ECHO HALL
138 E IDAHO AVE
HOMEDALE, ID 83628

Re Permit To Appropriate Water No. 57-7533

Dear ECHO HALL:

The permit referenced above was issued for 1 cfs and 4 af for the following uses: diversion to storage; irrigation, stockwater and recreation storage; and, irrigation from storage of 38 acres. The sources are a spring and an unnamed stream, both tributary to Succor Creek. This letter is to request that you call me to schedule the field exam for this permit. A field exam is required by Idaho law before a license can be issued, at which time it becomes a water right. The license is the end product needed for continued water use.

Aerial photography indicate that William and Abby Sutfin own the pond and point of diversion, and approximately 12 acres of the 38 acre place of use, and the spring sources are on your property. When you call me, we can discuss the ownership issues.

Please have available at the exam someone familiar with the system and its construction, as well as the documentation regarding the diversion and conveyance system such as pumps, motors, and sprinkler nozzles.

Please call me as soon as possible at 208.334.2190, to set an appointment for the exam that I hope to conduct in May of 2014. Failure to respond to this letter request by **May 5, 2014**, may result in the permit being voided or a license issued for less than the permitted amount. Thank you.

Sincerely,

Vicky Music
Sr. Water Resource Agent