

[illegible]

Method of Determination: ARCMAP & aerial photos

3. _____ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable. *See design drawings in IDWR dam safety file 45-0257 for Point of Rock Dam*

✓ 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 *See attached August 25, 2005 IDWR Dam Safety inspection report*

4. *N/A Permit/right is for on stream wildlife storage (diversion consists of Point of Rock Dam)*

<u>Well or Diversion 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 Size</u>
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_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

D. FLOW MEASUREMENTS *N/A Permit/right is for on stream wildlife storage (no flow, only volume allowed by right)*

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

2. Measurements:

E. FLOW CALCULATIONS *N/A Permit/right is for on stream wildlife storage (no flow, only volume allowed by right)*

_____ Additional Computation Sheets Attached

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: *N/A Permit/right is for on stream wildlife storage (no irrigation use)*

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

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

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

2. Volume Calculations for Other Uses:

Wildlife storage volume value determined from reservoir capacity curve shown on As-Built Volume Calculations Point of Rock Dam document prepared by Bush & Gudge, Inc. See narrative for more discussion.

G. NARRATIVE/REMARKS/COMMENTS

Permit 45-13897 was approved on June 9th, 2005 and proof of beneficial use was submitted on April 18th, 2006. The permit is for 105 acre-feet of storage in the reservoir impounded by Point of Rock Dam located on Marsh Creek, northeast of Albion. IDWR regulates and routinely inspects Point of Rock Dam per the dam safety provisions of Idaho Code. I have personally inspected Point of Rock Dam and observed the reservoir on multiple occasions from its initial construction in 2004 until the most recent inspection in October of 2009. I was accompanied on most, if not all, of these inspections by Pat McCommon the ranch manager for Six S Ranch (permit holder). This field examination report is based on my observations made during these inspections and information from IDWR dam safety records. In particular, a copy of the August 25, 2005 dam safety inspection report (last inspection report prior to proof of beneficial use being filed) and an as built drawing entitled "As-Built Volume Calculations Point of Rock Dam" prepared by Bush & Gudge, Inc (engineering firm that designed and oversaw the construction of Point of Rock Dam).

Water right 45-14110 allows for irrigation storage of water in the Point of Rock Reservoir described by permit 45-13897. Right 45-14110 allows for 478 acre-feet of storage in Point of Rock Reservoir and the reservoir behind Dewey Dam, located a couple of miles downstream of Point of Rock Dam. Dewey Dam impounds a maximum of 253 acre-feet of water in its reservoir. Accounting for this 253 acre-feet of water, right 45-14110 would allow for 225 acre-feet of storage in Point of Rock Reservoir (478 - 253 = 225), if Dewey Dam were full. After the construction of Point of Rock Dam, it was discovered that the reservoir was larger than originally designed. A survey of the reservoir revealed that the dam actually impounded 358 acre-feet of water rather than the expected 225 acre-feet (see as built drawing entitled "As-Built Volume Calculations Point of Rock Dam" prepared by Bush & Gudge, Inc). This difference in storage amounted to 105 acre-feet (358 - 225 = 105). In order to account for the difference in storage allowed by right 45-14110 and what was actually constructed, an application for permit (45-13897) was filed. The application included a mitigation plan that dried up enough acres irrigated with Marsh Creek rights for a single irrigation season to account for the one time impoundment of 105 acre-feet. Point of Rock dam has a low level outlet that can be opened to drain almost the entire reservoir, discharging water into the Marsh Creek channel below the dam, in the event of an emergency. It also has another outlet, referred to as the "canal outlet" that can divert irrigation water from the reservoir for irrigation of lands downstream of the dam. The reservoir capacity curve shown on the as built drawing entitled "As-Built Volume Calculations Point of Rock Dam" prepared by Bush & Gudge, Inc indicates that the volume in the reservoir below the "canal outlet" intake is approximately 105 acre-feet, with 50 acre-feet of this 105 acre-feet being dead storage below the low level outlet intake. The 105 acre-feet of water described by 45-13897 would be the volume in the reservoir below the "canal outlet" intake and would only be diverted from the reservoir if the reservoir were ever drained for some reason. The irrigation volume described by right 45-14110 represents the volume of the reservoir above the "canal outlet" intake.

The August 25, 2005 inspection report documents that the dam and reservoir were constructed prior to proof of beneficial use being filed in April of 2006. Also note that the August 25, 2005 inspection report indicates that the reservoir was full and experienced high spillway flows earlier in 2005 documenting that the reservoir was completely full and storing the maximum amount of water prior to proof of beneficial use being filed.

Permit 45-13897 describes the storage use as "wildlife storage". Since the 105 acre-feet of water represents the bottom of the reservoir, wildlife storage seems like an appropriate use since this storage could provide permanent fish habitat. Note that the dam has a fish ladder as shown in the August 25, 2005 inspection report. The fish ladder was installed in an effort to maintain existing and future fisheries. In addition, the reservoir provides habitat for various waterfowl and includes an island in the middle of the reservoir (visible in aerial photos) that would provide nesting habitat. I can also recall seeing deer tracks on the dam during past inspections.

It appears that the permit holder has complied with all the conditions of the permit. One of the conditions on the permit indicates that irrigation of a specific 38.6 acres could not occur during the 2005 irrigation season to account for the initial

diversion and storage of the 105 acre-feet described by the permit. In my numerous visits to the site during the last few years, including three visits during the 2005 irrigation season (see various documents in dam safety file), I observed that these lands were not being irrigated. I recommend that this particular condition not be carried forward to the license, since the condition has been satisfied. Note that a condition on the permit indicating that if the reservoir drops below gage height 4489.0 feet (105 acre-feet of storage), and storage is not reduced by an equivalent amount in Dewey Dam, then the Department must approve a mitigation plan allowing for storage under 45-13897 will be retained and carried forward to the license. Storage has been continually authorized at Point of Rock Dam by the IDWR Dam Safety Section since December of 2004 with the current authorization expiring on December 31, 2013. If needed, the low level outlet works could be opened and locked in the open position, which would provide the water master suitable control of the diversion.

Permit 45-13897 includes condition "051" and is flagged as "trust water" in the Department's water right database. However, the permit is for diversion and use of a surface water source (Marsh Creek) that is tributary to the Snake River upstream of Milner Dam. By definition, surface water tributary to the Snake River upstream of Milner Dam is not considered trust water (see subsection b, Section 01, Rule 30 of the Water Appropriation Rules). Therefore, no trust water conditions will be recommended for license 45-13897 and the record will be identified as "non trust water" in the Department's water right database.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
WILDLIFE STORAGE	01/01 to 12/31		105.00 AF
<u>Totals:</u>			105.00 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 Borey Skinner Date 3/22/2011
 Reviewer Allen Merritt Date 4/21/2011

Map for 45-13897 Licensing Field Exam

