

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-16656
Exam Date: 09/15/2020

1. Current Owner:
HAYDEN ORCHARDS HOMEOWNERS ASSOC 5746 E CORTLAND RD HAYDEN ID 83835-0040
2. Accompanied by: Norman Schmidt
Phone No: 808-295-8667
Address: 5762 E Cortland Rd Hayden ID 83835
Relationship to permit Holder: Permit Holder's representative

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap and DRG.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

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

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NW¼ SE¼, Sec. 4, Twp 51N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS. POD located at -116°42.469, 47°47.622. Well D-TAG D0061205.

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
51N	03W	4														X			

Method of Determination: Field exam and Arcmap aerial imagery

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
D0061205		3			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: Unable to perform flow measurement because system pumped directly into a community storage tank.

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

Measured Method: Theoretical pumping equation estimates flow at **0.05 cfs**, with pump depth of 345 ft and system operating pressure of 40 PSI.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

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

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

2. Volume Calculations for Other Uses:

$$\text{DOMESTIC annual volume / maximum diversion volume} = 8 \text{ homes/stub-ins} \times 1.2 \text{ af} = \mathbf{9.6 \text{ af}}$$

G. NARRATIVE/REMARKS/COMMENTS

Field exam conducted on 9/15/2020 with the applicant's representative, Norman Schmidt, showed a well providing groundwater for home service connections on 8 parcels. At the groundwater POD, the applicant's well has a 3 hp pump that diverts water directly to a community storage tank, and as such flow measurements were not attainable. Theoretic Pump Equation derived a diversion rate of 0.05 cfs considering department rounding standards, with pump at depth of 345 ft, and system operating pressure of 40 psi. The applicant had permitted for 0.13 cfs for domestic beneficial use, but is limited to pump performance at time of field exam, which is **0.05 cfs**, that will be applied to license. The applicant was permit approved for two groundwater PODs; during the field exam a second well D0013926 was identified, but Mr. Schmidt verified that this well was not connected to the water system, and had been drilled by the original owner of the permit, Mr. Scott Broder. As the well was not in use nor connected to the water system, the second POD well D0013926 was removed from the permit during licensing review.

Eight lots were walked during the field exam, and I observed 3 homes that were built out and service connected, 2 homes that were in the construction phase for service connection, and 3 parcels that had water line stub-ins qualifying them for domestic beneficial use credit. Water from the well flowed direct to a 3,000 gallon community storage reservoir, and from there through a manifold assembly that routed water to each home's service connection. The Hayden Orchards Homeowners Assn requires each home to have an additional 3,000 gallon storage tank on their parcel prior to home use. Mr. Schmidt asserted that as homes are built the individual storage tanks will be added to the system. Stub-ins were observed on three parcels and photographs were taken to provide proof for domestic credit. The three homes that were built out had lawns and landscaping up to ½ acre per parcel taking place at time of the field exam.

Due to only 3 of 8 parcels having homes and irrigation fully developed, the applicants elected to remove the separate irrigation beneficial use component from the permit during licensing review, and assume the ½ acre per parcel for irrigation occurring under the domestic beneficial use component; see email correspondence added to file dated 20 November 2020. Field maps were used to determine the domestic POU, and during licensing review Arcmap aerial imagery was used to trace out the domestic POU with the 3 built out homes and 2 in process construction POUs being assigned accurate rectangle shapes; the 3 stubbed-in parcel shapes applied are the entirety of the parcel boundaries, as IDWR cannot determine where each respective parcel's future development will occur with regard to a precise POU location. Conditions were added during licensing review limiting each platted subdivision lot to ½ acre of irrigation associated with domestic use.

Condition 046, 26A and R66 were removed from the permit during licensing review. Condition 132 was replaced with X04 and 070 to describe the 8 homes and irrigation occurring under the domestic use shall not exceed ½ acre per platted subdivision lot. Condition X59 was added to describe the well POD being located in a subdivision lot. Condition X60 was added to describe that the domestic POU is located in both Orchard North Subdivision and Orchard South Subdivision. All other conditions on permit will remain on the license. There are no overlap concerns for this water right.

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>
DOMESTIC	01/01 to 12/31	0.05 CFS	9.6 AF

Totals: 0.05 CFS 9.6 AF

2. Recommended Amendments

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

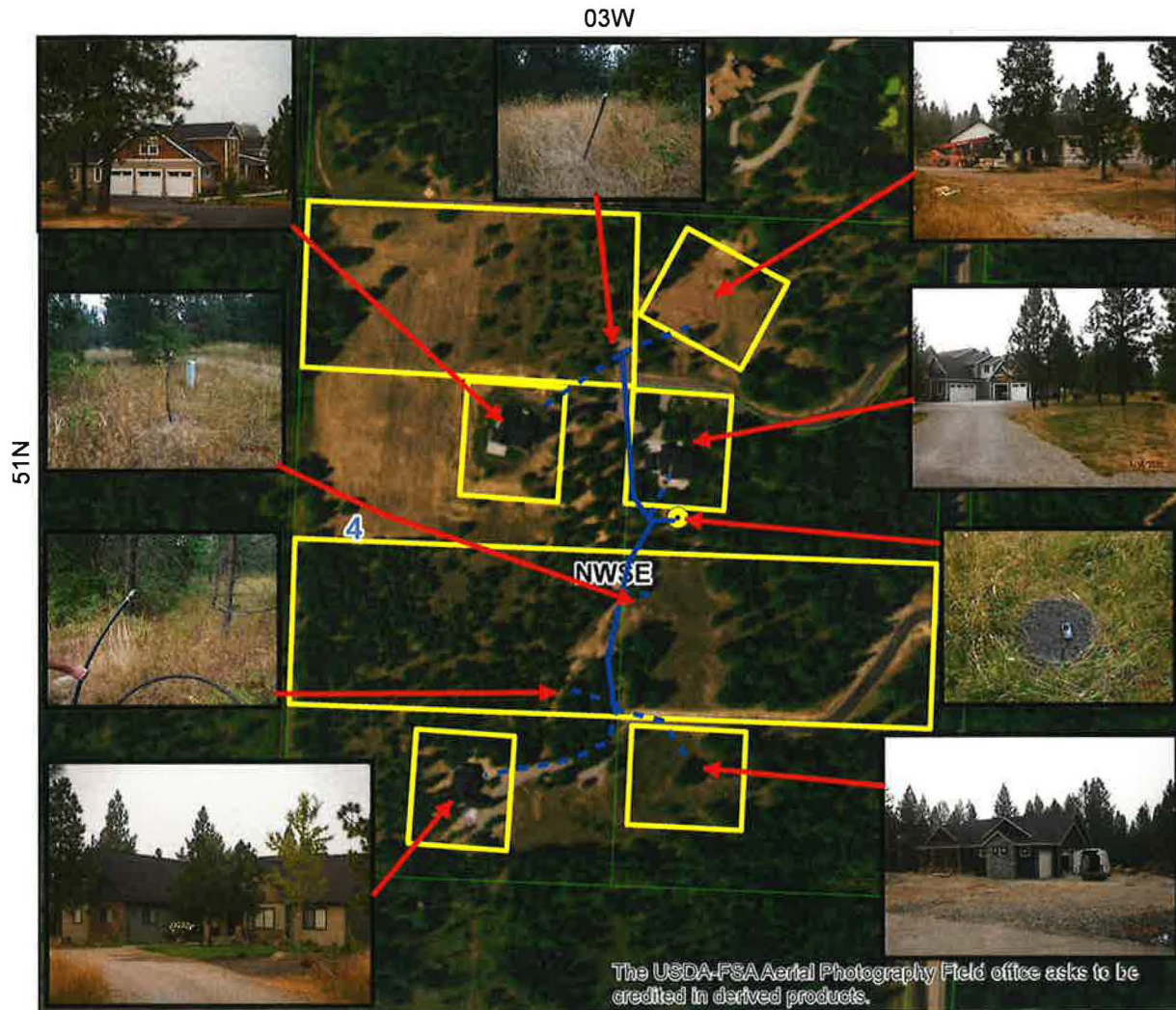
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name Joe Bates Date 11/23/2020
 Reviewer Adrian Fink Date 11/30/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-16656

DOMESTIC system diagram.



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

0 0.0425 0.085 0.17 Miles



From: Norman Schmidt <nrsmax@gmail.com>
Sent: Friday, November 20, 2020 4:26 PM
To: Bates, Luke
Cc: clintonschroeder
Subject: Re: Field exam note 95-16656

Hi Luke,

Please proceed with finalizing the permit for licensing (permit #95-16656) We will follow your recommendation, (2.b.) outlined in your Field Exam letter from September 16, 2020:

'Remove irrigation as a separate use, and use the 1/2 acre per parcel associated with domestic beneficial use'

Once finalized, please provide us a copy.
Thank you in advance.

Regards,
Norm Schmidt

On Thu, Nov 19, 2020 at 2:34 PM Bates, Luke <Luke.Bates@idwr.idaho.gov> wrote:

Good afternoon Mr. Schroeder and Mr. Schmidt,

I wanted to follow up on what path you would like to take regarding the irrigation beneficial use associated with water permit 95-16656. I am prepared to finalize that permit for licensing once I receive direction on whether you would like to keep the irrigation as a separate use, or remove it and use the ½ acre per parcel associated with domestic beneficial use.

Thank you for your consideration of this request,

Luke Bates

Water Resource Agent

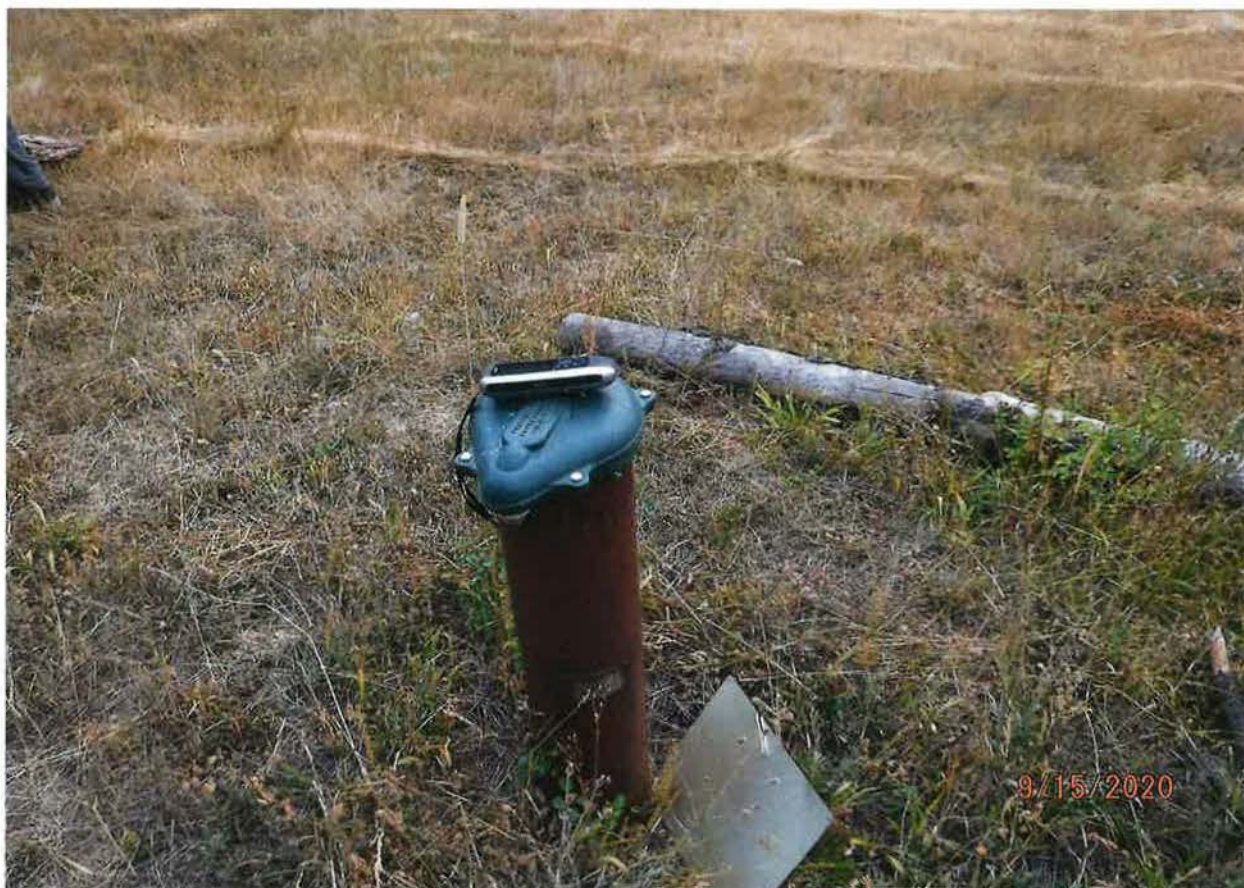
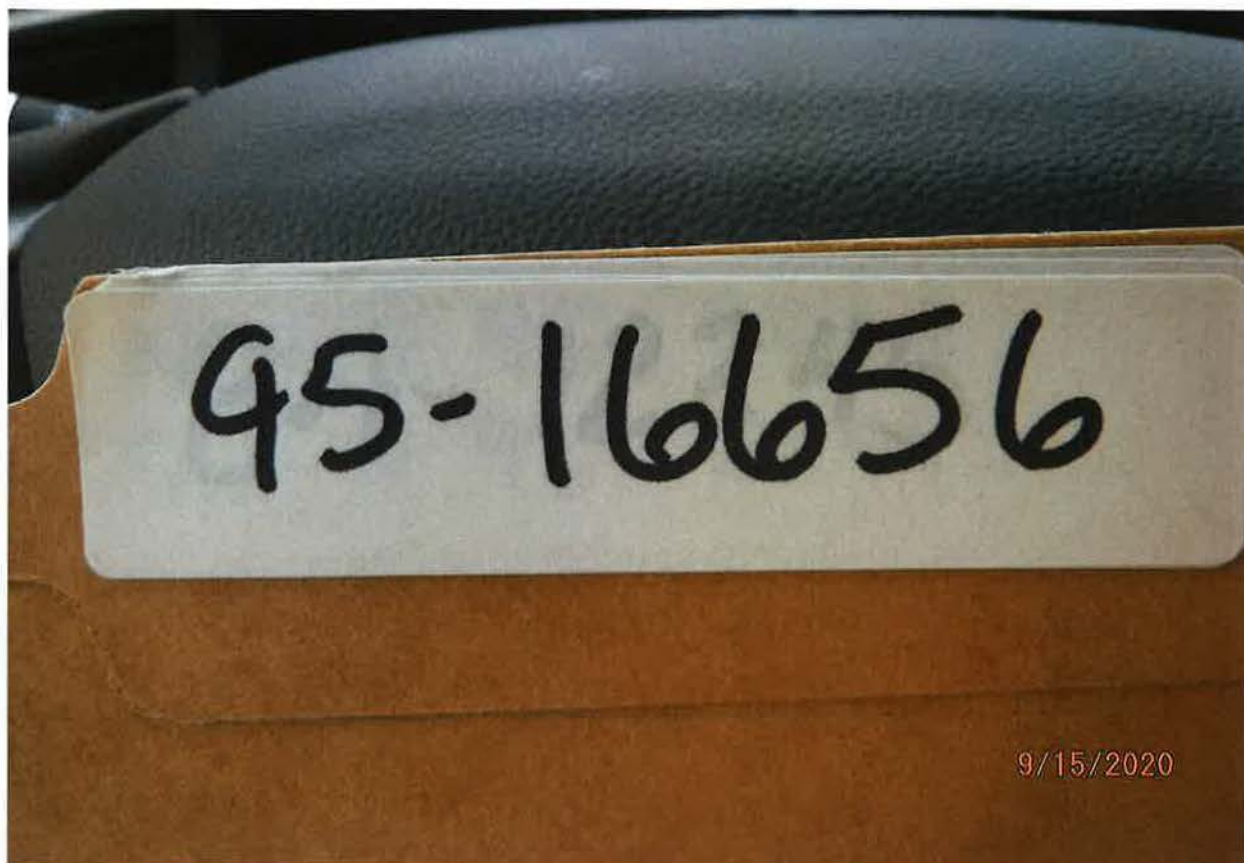
Idaho Dept. of Water Resources

Northern Regional Office

P: (208) 762-2800

F: (208) 762-2819

Luke.bates@idwr.idaho.gov



WELL D0013926 – NOT HOOKED UP TO SYSTEM AT TIME OF FIELD EXAM.



WELL TAG D0013926 – NOT HOOKED UP TO SYSTEM



POD WELL D0061205



WATER SYSTEM PUMPING CONTROL VAULT



3 HP WELL PUMP



WATER CONVEYANCE SYSTEM



1EA 3,000 GALLON COMMUNITY WATER RESERVOIR



EACH DEVELOPED PARCEL HAS SEPARATE 3,000 GALLON STORAGE RESERVOIR



DOMESTIC POU – STUB IN PARCEL PIN: 0L0030010010; LT 1 BLK 1, ORCHARD NORTH SUBDIVISION



DOMESTIC POU – 5733 E CORTLAND RD; LT 2 BLK 1, ORCHARD NORTH SUBDIVISION



DOMESTIC POU – 5762 E CORTLAND RD; LT 3 BLK 1, ORCHARD NORTH SUBDIVISION



DOMESTIC POU – 5746 E CORTLAND RD; LT 4 BLK 1, ORCHARD NORTH SUBDIVISION



DOMESTIC POU – STUB IN PARCEL PIN: 0L0020010010; LT 1 BLK 1, ORCHARD SOUTH SUBDIVISION



DOMESTIC POU – STUB IN PARCEL PIN: 0L0020010020; LT 2 BLK 1, ORCHARD SOUTH SUBDIVISION



DOMESTIC POU – LT 3 BLK 1, ORCHARD SOUTH SUBDIVISION



DOMESTIC POU – 5740 E MCINTOSH RD; LT 4 BLK 1, ORCHARD SOUTH SUBDIVISION



EXAMPLE TYPE OF SPRINKLERS IN USE FOR DOMESTIC ½ ACRE IRRIGATION THROUGHOUT SUBDIVISION