

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**

Permit No: 57-12073

Exam Date: 8/22/2024

08/29/2024  
CP

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)?   X  Y   N
- a.   X   Irrigation of 5 acres or less
- b.        Storage of up to 14.6 AF for stockwater purposes only
- c.        Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
- d.        Other <     >

2. Current Owner: Name: Bruneau Grandview JNT School #365
- Owner of Record Correct?   X  Y   N
- Address of Record Correct?   X  Y   N

3. Fees have been paid:   X  Y   N Receipt No: C117168 From Proof of BU

**4. SOURCE**

Unnamed Ditch – Snake River

Method of Determination: GIS

Change in Source:       Y   X  N**B. OVERLAP REVIEW**

1. Other water rights with the same place of use:   NONE

| Water Right No. | Source      | Purpose of Use | Basis  |
|-----------------|-------------|----------------|--------|
| 57-11780        | Groundwater | Municipal      | Closed |

Comments: Water right 57-11780 is not an overlap concern due to differing purpose of use and sources.

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

| Water Right No. | Source                    | Purpose of Use | Basis  |
|-----------------|---------------------------|----------------|--------|
| 57-12084        | Drain Ditch – Snake River | Irrigation     | Closed |

Comments: This point of diversion has one overlapping water right, belonging to the City of Grandview. This right is for irrigation of 3.4 acres and a rate of 0.1cfs. This is not a concern considering my theoretical calculation (see item E) proves that the pump at this POD can deliver 0.23cfs and this permit only utilizes 0.13cfs.

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

| Source                      | Govt. Lot | ¼ | ¼  | ¼  | Sec. | Twp. | Rge. |      | County |
|-----------------------------|-----------|---|----|----|------|------|------|------|--------|
| Unnamed Ditch – Snake River | 6         |   | NW | SW | 15   | 05S  | 03E  | B.M. | Owyhee |
|                             |           |   |    |    |      |      |      | B.M. |        |
|                             |           |   |    |    |      |      |      | B.M. |        |

Method of Determination: GIS + APPLICANT DIAGRAM CP

Change in POD?       Y   X  N Amendment Required?       Y   X  N

2. **PLACE OF USE:** Use: Irrigation

| TWP           | RGE | Sec   | NE |    |    |    | NW |    |    |    | SW |     |     |    | SE |    |    |    | Totals |
|---------------|-----|-------|----|----|----|----|----|----|----|----|----|-----|-----|----|----|----|----|----|--------|
|               |     |       | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW  | SW  | SE | NE | NW | SW | SE |        |
| 05N           | 01W | 16    |    |    |    |    |    |    |    |    |    | 3.5 | 0.7 |    |    |    |    |    | 4.2    |
|               |     | Lot # |    |    |    |    |    |    |    |    |    | L6  |     |    |    |    |    |    |        |
| Total Acres = |     |       |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |    | 4.2    |

Method of Determination: ArcMap

Change in POU? \_\_\_\_Y \_\_X\_\_N      Amendment Required? \_\_\_\_Y \_\_X\_\_N

3.   X   Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.   Aerial Photo Attached (required for irrigation of 10+ acres).  X   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 |
|------------------------------------------|-----------------|----|------------------|-----------|-----------------------------------|
| N/A                                      | Baldor Reliance | 5  | LTH-5            | P1000     | Max. 250 GPM                      |

\*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 |
|-------------------------|------|------|-----------|------------|------|-------------|
| NONE                    | NA   | NA   | NA        | NA         | NA   | NA          |

2. Measurements: This system operates on a pump at the point of diversion. Actual horsepower and PSI were provided by permit holder. A conservative, theoretical lift was gathered using ArcMap DRG layer.**E. FLOW CALCULATIONS**   Additional Computation Sheets Attached

Measured Method:

Theoretical calculation using actual horsepower and PSI provided by water user. Lift was concluded by DRG layer in ArcMap. Topography shows area being relatively flat and five-foot lift is assumed from pump on surface pulling water from sub-surface drainage ditch. Pump efficiency was assumed to be 70% efficient.

$$Q = (8.8)(5hp)(0.70) / (5) + (55psi \times 2.31) = 0.23 \text{ cfs}$$

**Measurement = 0.23 cfs****Permit allowed = 0.13 cfs****Standard irrigation: 4.2 acres x 0.03cfs = 0.13 cfs****License recommend for 0.13 cfs.**

**F. VOLUME CALCULATIONS**

## 1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 4.2 \text{ acres} \times 4.5 \text{ AF} = 18.9 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (0.13 \text{ cfs} \times 259 \text{ days}) \times 1.9835 = 66.8 \text{ cfs}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 18.9 \text{ AFA}$$

## 2. Volume Calculations for Other Uses:

**G. PURPOSE OF USE**Irrigation ☒ Y ☐ N # Stock \_\_\_\_\_ Domestic # of Homes \_\_\_\_\_

Other: \_\_\_\_\_

Change in Purpose of Use? ☐ Y ☒ X ☐ N

Method of Determination: Statement of Completion, Owyhee County Maps

If Yes: From Use \_\_\_\_\_ To Use \_\_\_\_\_ Amount \_\_\_\_\_ CFS \_\_\_\_\_ AFA \_\_\_\_\_

**H. NARRATIVE/REMARKS/COMMENTS**

This permit qualifies for an in-house examination for license, as it irrigates 4.2 acres with a total diversion rate of 0.13cfs. The permit holder confirmed that 4.2 acres is irrigated using a rate of 0.13cfs by submitting a statement of completion to the department which was received by us on October 13, 2023. The extent of irrigation area was determined using a diagram that was hand-drawn by the representative of this permit (figure 1). Water is pumped out of an unnamed drainage ditch from the Snake River and delivered to three lawns, one of which includes a soccer field and baseball field. The total area of these three fields totals 4.2 acres, allowing 0.03cfs per acre pursuant to administrator's memorandum #17. Water is pumped using a 5-horsepower pump set to deliver 31.3 gallons per minute to a 4" underground pipe which feeds the sprinkler system. The point of diversion has one overlapping water right, belonging to the City of Grandview. This right is for irrigation of 3.4 acres and a rate of 0.1cfs. This is not a concern considering my theoretical calculation indicates that the pump at this POD can deliver 0.23cfs and this permit only utilizes 0.13cfs.

Have conditions of permit approval been met? ☒ X Yes ☐ No**I. RECOMMENDATIONS**

## 1. Recommended Amounts

| <u>BENEFICIAL USE</u> | <u>PERIOD OF USE</u> | <u>DIVERSION RATE</u> | <u>ANNUAL VOLUME</u> |
|-----------------------|----------------------|-----------------------|----------------------|
| Irrigation            | 03/01-11/15          | 0.13 CFS              | 18.9 AFA             |
| <u>Totals:</u>        |                      | 0.13 CFS              | 18.9 AFA             |

## 2. Recommended Amendments

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

**J. AUTHENTICATION**

Field Examiner's Name Kate Englund Date 8/22/2024

Reviewer  for Cody Parker Date 10/13/2020

SCANNED

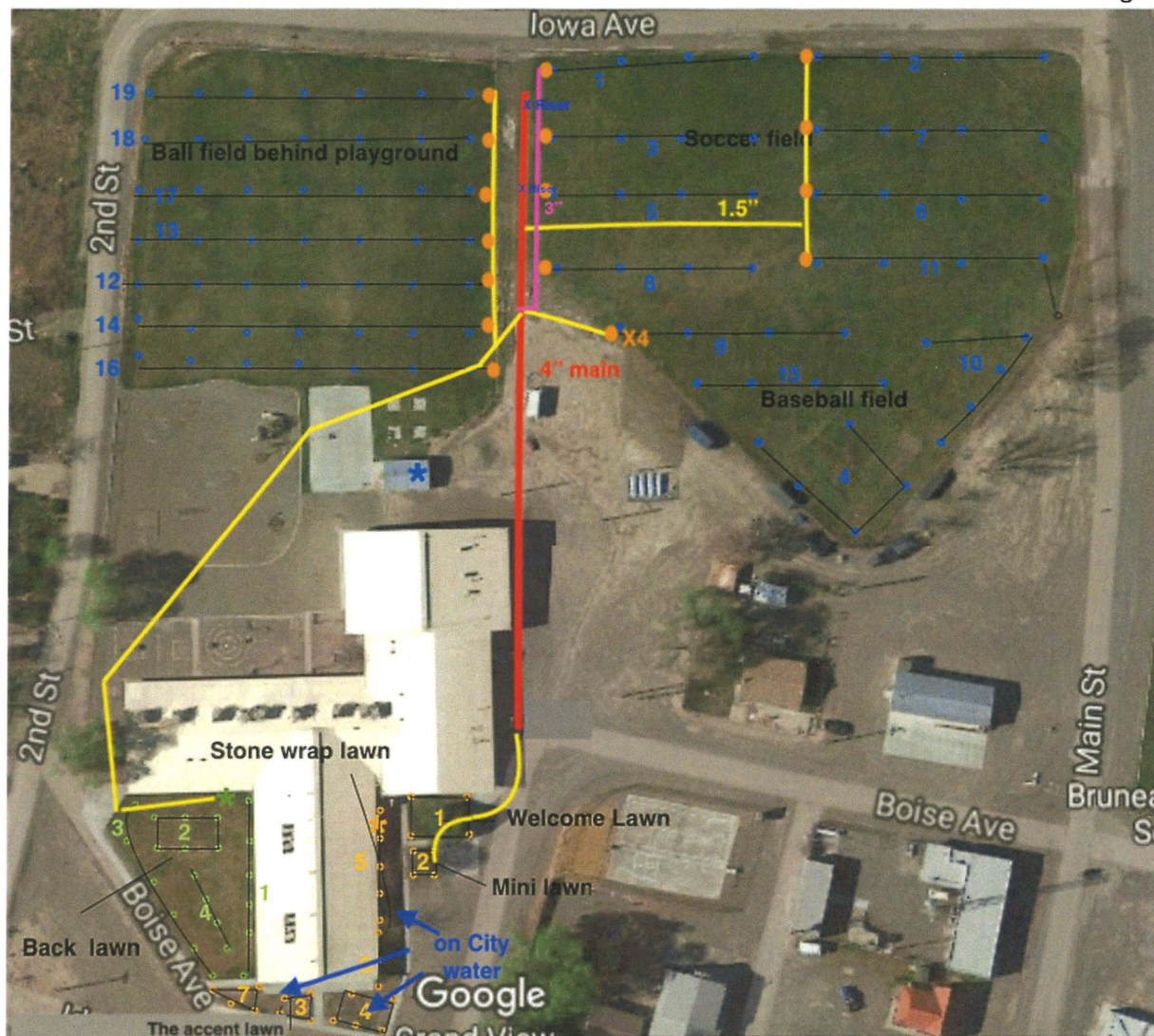


Figure 1 Aerial diagram provided by permit holder to represent water delivery system from point of diversion to sprinkler heads. The welcome lawn, mini lawn, back lawn, and both fields mapped in the diagram are all supplied water under this permit.



Figure 2 Aerial image provided by permit holder to represent the Snake River drainage ditch including the point of diversion location, labeled "manhole pump location". The orange line represents a water pipe which delivers water to a 4" main pipe between the two main fields, which is then distributed to the sprinklers throughout both fields.



Figure 3 Photos provided by permit holder to show diversion location, including pump and control panel.



Figure 4 Pump setting allows for 31.34 GPM. Photo provided by water user.

## Englund, Kate

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**From:** Englund, Kate  
**Sent:** Friday, August 16, 2024 10:11 AM  
**To:** jmcclure@sd365.us  
**Subject:** Request for Information Permit 57-12073  
**Attachments:** Aerial Image.pdf

Dear Jonathan,

The Department of Water Resources has received your statement of completion for permit 57-12073. I am currently processing an in-house examination for licensing, which will expedite the licensing process by using information submitted by the permit holder. Before completing this examination, I will need to review a diagram of your water delivery system. I understand that you are using water to irrigate 4.2 acres from a nearby drain ditch. I have attached a satellite image of the irrigated land on the school's property. You can either print that off, hand draw a diagram, and scan a copy to me or draw a diagram electronically. Can you also send a photo of the point of diversion? I also need a clear photo of the water diversion, such as a headgate or pump that pulls water from the drainage ditch.

I appreciate your help!

Kate E.  
Water Resources Agent

## Englund, Kate

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**From:** Englund, Kate  
**Sent:** Friday, August 16, 2024 11:00 AM  
**To:** Jonathan McClure  
**Subject:** RE: Request for Information Permit 57-12073

These are very useful. While you are in the area, can I have you grab a close-up photo of the pump including any present information as far as pump make/model or horsepower information?

Thanks!

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**From:** Jonathan McClure <jmclure@sd365.us>  
**Sent:** Friday, August 16, 2024 10:48 AM  
**To:** Englund, Kate <Kate.Englund@idwr.idaho.gov>  
**Subject:** Re: Request for Information Permit 57-12073

**CAUTION:** This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

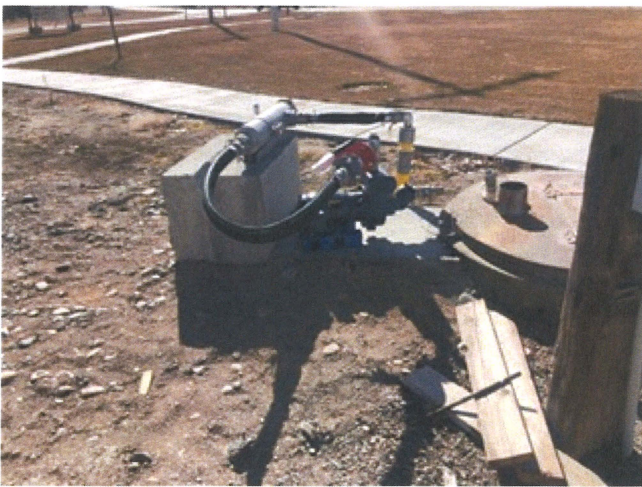
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These are documents and photos I already have.

Will this work ?

Let me know if anything could be better and ill get it done.

I'll be in the area later and can take additional photos if needed.





On Aug 16, 2024, at 10:10 AM, Englund, Kate <[Kate.Englund@idwr.idaho.gov](mailto:Kate.Englund@idwr.idaho.gov)> wrote:

Dear Jonathan,

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I appreciate your help!

Kate E.  
Water Resources Agent

<Aerial Image.pdf>