

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33924
Exam Date: 06/21/2019

1. Current Owner:
J C WATSON CO INC PO BOX 300 PARMA ID 83660

2. Accompanied by: Brad Watson
Phone No: 208-722-5141
Address: P.O. Box 300 Parma, ID 83660
Relationship to permit Holder:

3. **SOURCE:**
CONWAY GULCH CREEK

Tributary
BOISE RIVER

Method of Determination: field visit

OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis

Comments: The only other water rights associated with the land are for surface water rights associated with the Black Canyon Irrigation District and Farmers Cooperative Ditch Company.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: This is a new point of diversion.

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

CONWAY GULCH CREEK NW¼ NW¼, Sec. 35, Twp 05N, Rge 04W, B.M. CANYON County

Method of Determination: field visit and GIS points taken during visit

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	
05N	04W	35		5.0			22.0	19.0	40.0	40.0									126.0

Right Acre Limit: 126.0

Total Acres: 126.0

Method of Determination: field visit and GIS

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

X 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

X 1:24,000 or greater.X Aerial Photo Attached (required for irrigation of 10+ acres).X 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
POD Parma Pump		15	OCH06177017042	Westing House	10" discharge
South Relift	GE	20	5k8256DAE6075B	AMP	8" discharge
North Relift	GE	40	5k5324DAJ6005A	AMP	8" discharge

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
S.O. Thyme Flyte						

2. Measurements:

1385 gpm or 3.08 cfs (see attached copy of measurement)

E. FLOW CALCULATIONS Additional Computation Sheets Attached

Measured Method:

The amount of water that can be diverted under this right was limited in the permit to 0.02 cfs/acre in accordance with Administrative Memo #17. Since there are 126 acres under irrigation in the developed system the diversion rate should be 0.02 cfs/acre * 126 acres = 2.52 cfs. The Permit allows 2.86 cfs and the pump was measured with capacity for 3.08 cfs. Therefore I recommend this permit be licensed for 2.52 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 126 \text{ acres} \times 4.5 \text{ acre-feet / acre} = 567 \text{ acre-feet}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 2.52 \text{ cfs} \times 260 \text{ days} = 655 \text{ acre-feet}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 567 \text{ acre-feet}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

JC Watson Company applied for two permits to provide supplemental irrigation water on their farm located at the southeast corner of Conway Road and Purple Sage Road. The farm is located within NW Quarter and NE Quarter Quarter of the Northeast Quarter of Township and 05N, Range 04W, Section 25. The first permit (65-33299) was applied for with a priority date of 11/23/2009 and sought to develop groundwater. The groundwater permit indicated that this farm has 50 shares in the Farmers Cooperative Ditch Company. To irrigated 100 acres and an additional 57.1 ac-ft of storage water supplied from Black Canyon Irrigation District. The groundwater permit 65-33299 appears not to have been developed. A second permit was applied for with a priority date of 3/4/3014 to divert water from Conway Gulch Creek (also known as Conway Gulch & Conway Drain) which conveys excess irrigation diversions from the Farmers Cooperative Ditch Company and the Black Canyon Irrigation District to the Boise River. The JC Watson Company indicates they need this water right to finish irrigated crops when the water rights on Farmers Cooperative Ditch Company are cut during water short years.

To divert water under this permit a pump was installed on the south bank of Conway Gulch Creek about 270 yards east of where Conway Gulch Creek crosses under Conway Road. A road along the south of Conway Gulch provides access to the pump. The access road runs between Conway Gulch Creek and a regulation pond constructed for this project. The regulation pond is 750 feet long and 25 feet wide. JC Waterson Company installed a Parma Lift Pump a the east end of the regulation pond to pull water out of Conway Gulch Creek into the regulation pond. At the far west side of the regulation pond are two re-lift pumps. One pump provides pressurized water to two pivots, while the second re-lift pump provides pressurized water to a linear irrigation system and a field of onions that is being drip irrigated.

Calculation determining that the regulation pond can be filled within 24 hours:

diversion rate = 2.52 cfs

$2.52 \text{ cfs} \times 1.9835 \text{ ac-ft/(cfs day)} = 5.0 \text{ ac-ft / day}$

pond dimensions = 750 feet by 25 feet = $18,750 \text{ ft}^2 = 0.43 \text{ acres}$

Depth to fill in 24 hours = pumping rate per day / surface area of pond = $[5.0 \text{ ac-ft / day}] / 0.43 \text{ acres} = 11.63 \text{ ft}$ for average depth.

Since the average depth of a 25 foot wide pond could not possibly be 11.63 feet. The maximum depth would have to be even deeper. So it seems very reasonable to assume that the pond can be filled in 24 hours.

Originally the JC Watson Company proposed irrigating 143 acres from their proposed POD, however at the time they submitted proof of beneficial use, they had only developed capacity to irrigate 126 acres using the pressurized irrigation system that irrigates from the new POD. The portion of land north of the Sebree Canal (which is owned by Farmers Cooperative Ditch Company) at the time of the beneficial use field examination, were still being irrigated using gravity irrigation methods from the Sebree Canal.

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

The permit states that the diversion required a measurement device and lockable controlling headgate. A measurement device or locking controlling headgate was not installed on the diversion at the time of the field exam. On July 3, 2019, Dan Nelson sent a letter to the permit holder requiring these devices be installed on the diversion in order for licensing of the permit to continue. On July 29, 2019 the permit holder sent photos in an email showing the mearuement device that was installed on the system. The measurement device meets Department standards. On August 7, 2019, the permit holder contacted Mr. Nelson and stated that a controlling headgate would be very difficult and costly to install. He requested the power panel be used as a means of locking off the pump if needed. Mr. Nelson contacted

the watermaster and discussed this issue with him. The watermaster stated that locking the power panel and the outflow control works would be sufficient to control the water at this diversion. Mr. Nelson contacted the permit holder concerning the watermaster's decision in an email dated August 20, 2019.

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	2.52 CFS	572.0 AF

Totals: 2.52 CFS 572.0 AF

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

I. AUTHENTICATION David Hoekema - Hydrologist, Technical

Field Examiner's Name David Hoekema Date 11/20/2019

Reviewer Cody Date 12/24/19

USGS Quadrangle of 63-33924

Return flow from
stilling basin to
Conway Gulch

pumps to pressurize
irrigation system.

Headgates for
Gravity System
from Farmers Cooperative
Ditch Company

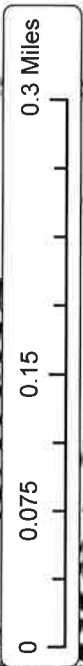
Grange

CONWAY

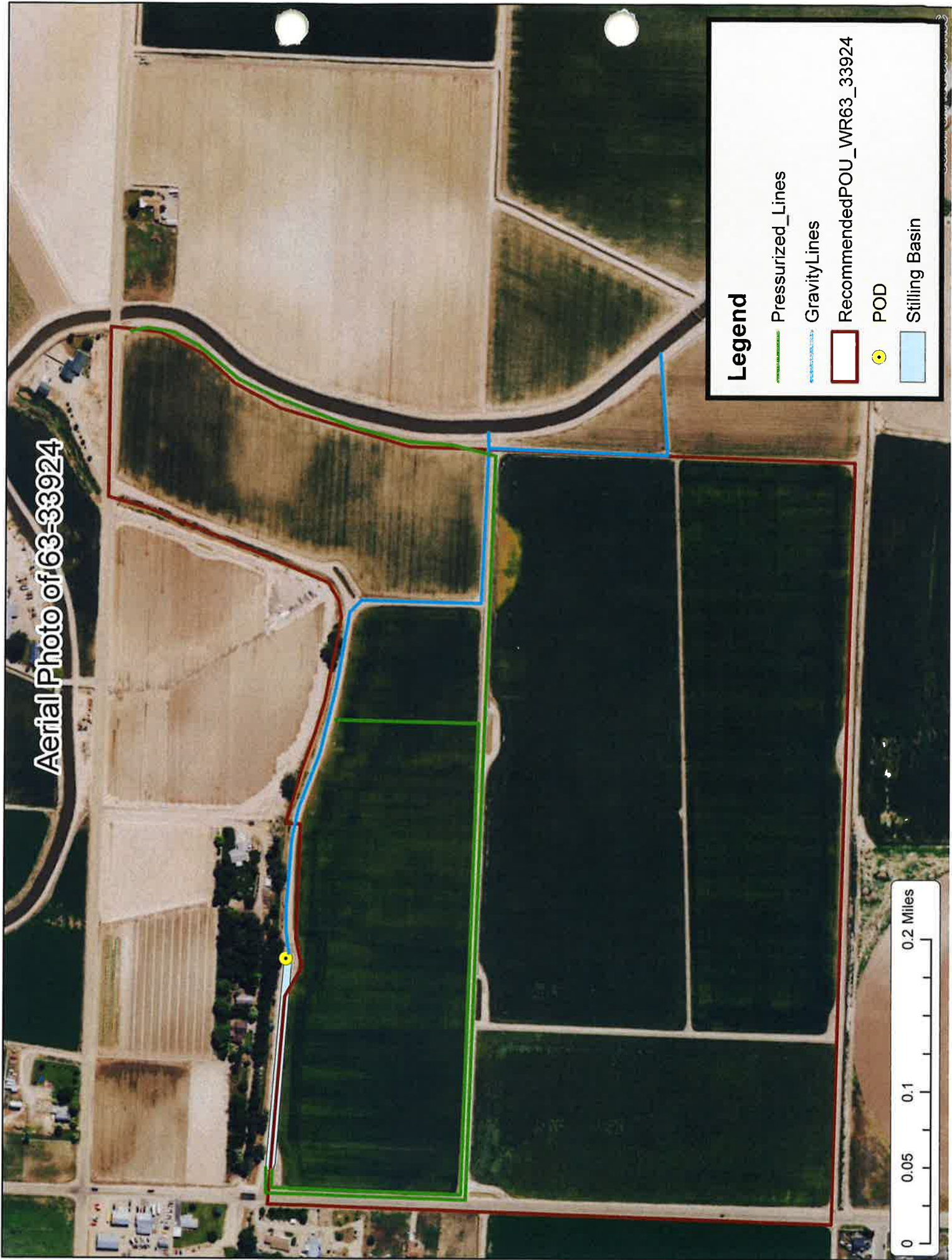
SEB

Legend

- POD
- Pressurized_Lines
- GravityLines
- Stilling Basin
- RecommendedPOU_WR63_33924



Aerial Photo of 63-33924





Parma low-lift pump (POD) capable of diverting 3.08 cfs out of Conway Gulch (above) into the stilling basin (below). Surface water from Farmers Cooperative Irrigation Ditch Company is also diverted using gravity flow into the stilling pond, through submerged outlet pipes.





Two AMP re-lift pumps (above) diverting water from the stilling basin to pressurize the irrigation system. Excess irrigation water returns to Conway Gulch drain via the weir shown below.



Hoekema, David

From: Nelson, Dan
Sent: Tuesday, August 20, 2019 8:29 AM
To: Daniel VanRiet
Cc: Hoekema, David
Subject: RE: Watson Agriculture Flow Meter installation permit# 63-33924

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Dear Mr. VanRiet,

I apologize for it taking so long to get back to you. The reason for the delay was that we needed to contact the watermaster to determine if using the power box and the outflow structure as a means to regulate flow if necessary. I spoke with Rex Berry, the watermaster for Water District 63, today, and he stated that he didn't foresee any issues with your proposal to use the power box and the outflow structure to regulate the diversion on Conway Gulch Creek. Mr. Berry also stated that this was approximately the last diversion on Conway Gulch Creek, so unless a new permit is developed down stream of your diversion, your diversion is virtually self-regulating.

With this conclusion, we feel that the conditions have been met, and we will move forward with processing the license. If you have any further questions, please don't hesitate to contact me or David Hoekema.

Respectfully,

Daniel Nelson
Water Right Analyst 3
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

From: Daniel VanRiet [mailto:danielv@SOOBRAND.COM]
Sent: Wednesday, August 07, 2019 2:46 PM
To: Nelson, Dan <Dan.Nelson@idwr.idaho.gov>
Subject: RE: Watson Agriculture Flow Meter installation permit# 63-33924

Good Afternoon Dan,

Unfortunately with how we are set up it will be very difficult to install the butterfly valve after the pump. Can we lock the power disconnect handle in the off position with a padlock? This would be the panel that supplies power to the Parma water lifter. It is controllable, -we can turn the pump on or off, and when in off we can install a padlock to keep in the off position. If we had a butterfly valve we would only ever have it full open or closed. The service disconnect should provide the same function as a butterfly valve in terms of shutting down water supply, and it is lockable. I have attached some pictures, let me know if we can make this work.

Thankyou,

Daniel

Hoekema, David

From: Nelson, Dan
Sent: Monday, August 12, 2019 12:02 PM
To: Rex Barrie
Cc: Hoekema, David
Subject: Question on Controlling Works for a Permit
Attachments: Watson Company Pond.docx

Hello Rex;

We are working on licensing permit 63-33924. This permit was filed to supply supplemental water to the existing canal shares from Conway Gulch Creek. The system is composed of a Parma Pump in Conway Gulch Creek that is diverted into an irrigation pond. The water from the irrigation pond is then diverted into an irrigation system composed of pivots, linear sprinklers, hand lines and drip system. The pond has a cement check with board inserts that control the water level of the pond. The overflow water flows back into Conway Gulch Creek. The permit has the following condition:

Prior to diversion of water under this right, the right holder shall install and maintain a measuring device and lockable controlling works of a type acceptable to the Department as part of the diverting works.

When we performed the field examination we discovered that they did not have a measurement device or a headgate. Since the field visit they have installed a flow meter that meets Department standards. They stated that it would be difficult to install a control valve on the system and have asked if they could use the power switch on the pump's electrical panel. A padlock can be placed on the control panel to keep the pump from operating. This would make it an all on or all off type of system.

My only concern is that we measured 3.08 cfs and their permit is only for 2.86 cfs. However, with the overflow diverting back into the Conway Gulch Creek, this may not be an issue. If push came to shove, you could require them to add or remove boards if necessary. There are no other diversions in between the diversion pump and the outflow channel.

I have spoken to my supervisors and they feel this will work for our purposes, but wanted me to check with you to determine if this would be a suitable controlling device for this system. I agree with that you should be satisfied with the system. Please let me know if you have any questions. I have attached an aerial photo to this email to show you the layout of the pond. Please don't hesitate to call me if you have questions.

Respectfully,

Daniel Nelson
Water Right Analyst 3
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

Hoekema, David

From: Nelson, Dan
Sent: Tuesday, July 30, 2019 8:14 AM
To: Hoekema, David
Subject: FW: Watson Agriculture Flow Meter installation permit# 63-33924
Attachments: Ranch 1 flow meter.jpg

David,

Please make sure this photo and the emails are in the file for these folks.

Dan

From: Daniel VanRiet [mailto:danielv@SOOBRAND.COM]
Sent: Monday, July 29, 2019 4:14 PM
To: Nelson, Dan <Dan.Nelson@idwr.idaho.gov>
Cc: Erica Stumbaugh <Ericas@SOOBRAND.COM>; Brad Watson <brad@SOOBRAND.COM>
Subject: Watson Agriculture Flow Meter installation permit# 63-33924

Good Afternoon,

Attached is a picture of the flow meter assembly completed between the Parma lift pump and settling pond. I am sending this as confirmation of installation to satisfy the measuring device condition under permit # 63-33924. The flowmeter is a 10" Growsmart IM3000. The flowmeter is set level, with 3 ft of strait pipe before the intake to the meter, and over 2 feet after the meter. Let me know if there is anything else we need to send over.

Thankyou,

Daniel Van Riet
Irrigation Manager
Watson Agriculture
208-739-2649



On July 29, 2019 this photo was sent to IDWR by the Watson Company to provide proof that a flow meter was installed.

Hoekema, David

From: Nelson, Dan
Sent: Tuesday, July 30, 2019 11:57 AM
To: Hoekema, David
Subject: FW: Watson Agriculture Flow Meter installation permit# 63-33924

From: Nelson, Dan
Sent: Tuesday, July 30, 2019 11:57 AM
To: 'Daniel VanRiet' <danielv@SOOBRAND.COM>
Subject: RE: Watson Agriculture Flow Meter installation permit# 63-33924

Dear Mr. VanRiet,

You would need to maintain the recommended distances upstream and downstream of the flow meter recommended by the flow meter manufacturer. On your system, I would be more inclined to put it right after the pump. That wouldn't negatively affect the flow meter, and it shouldn't harm the pump. It all depends on the manufacturer specifications for the flow meter installation.

Dan Nelson

From: Daniel VanRiet [<mailto:danielv@SOOBRAND.COM>]
Sent: Tuesday, July 30, 2019 11:30 AM
To: Nelson, Dan <Dan.Nelson@idwr.idaho.gov>
Subject: Re: Watson Agriculture Flow Meter installation permit# 63-33924

Dan, can the butterfly valve be directly before the flow meter?

-Daniel

Sent from my iPhone

On Jul 30, 2019, at 8:13 AM, Nelson, Dan <Dan.Nelson@idwr.idaho.gov> wrote:

Ladies and Gentlemen,

This meter and the meter installation complies with the measurement portion of the condition requirement. However, you did not provide any proof of the Lockable Controlling works. I have highlighted the portion of the letter that states a lockable valve or headgate is required. This requirement is usually satisfied by installing a butterfly valve on this type of system. I apologize for not making this clear in our telephone conversations on this issue. I was under the impression that you had installed both devices.

I included a copy of the letter and highlighted the portion that speaks to the lockable controlling device.

Respectfully,

Daniel Nelson
Water Right Analyst 3
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

From: Daniel VanRiet [<mailto:danielv@SOOBRAND.COM>]
Sent: Monday, July 29, 2019 4:14 PM
To: Nelson, Dan <Dan.Nelson@idwr.idaho.gov>
Cc: Erica Stumbaugh <Ericas@SOOBRAND.COM>; Brad Watson <brad@SOOBRAND.COM>
Subject: Watson Agriculture Flow Meter installation permit# 63-33924

Good Afternoon,

Attached is a picture of the flow meter assembly completed between the Parma lift pump and settling pond. I am sending this as confirmation of installation to satisfy the measuring device condition under permit # 63-33924. The flowmeter is a 10" Growsmart IM3000. The flowmeter is set level, with 3 ft of strait pipe before the intake to the meter, and over 2 feet after the meter. Let me know if there is anything else we need to send over.

Thankyou,

Daniel Van Riet
Irrigation Manager
Watson Agriculture
208-739-2649

<JC Watson Letter.pdf>



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 E Front Street, Suite 648 • PO Box 83720 • Boise ID 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700

Website: idwr.idaho.gov • Email: idwrinfo@idwr.idaho.gov

BRAD LITTLE
Governor

GARY SPACKMAN
Director

July 3, 2019

JC Watson Company
Attn: Brad Watson
PO Box 300
Parma, Idaho 83660

RE: Water Appropriation Permit No. 63-33924

Dear Mr. Watson:

The Department of Water Resources (IDWR) is reviewing the above referenced permit so we can issue a license for the uses developed. On June 21, 2019, David Hoekema and I met you to conduct an examination to verify the water use developed under permit 63-33924. During this field examination, I noticed that you have not complied with the 7th condition of approval of the permit:

Prior to diversion of water under this right, the water right holder shall install and maintain a measuring device and lockable controlling works of a type acceptable to the Department as part of the diverting works.

Idaho Code § 42-219(8), states the following:

In the event that the department shall find that the applicant has not fully complied with the law and the conditions of permit, it may issue a license for that portion of the use which is in accordance with the permit, or may refuse issuance of a license and void the permit. Notice of such action shall be forwarded to the permit holder by certified mail. The applicant may contest such action by the department pursuant to section 42-1701A(3), Idaho Code.

As stated above, we cannot move forward with the licensing of your permit until we have confirmation that a measuring device and lockable controlling works are on the point of diversion or the Parma Pump diverting into the pond.

You have some options to resolve this problem. You can submit documentation that you have complied with this condition and I was not informed of the compliance at the time of the exam, you can install the required lockable device and submit documentation of the installation, or you can request a waiver of this condition. If you submit a waiver request, you should also submit documentation that this request would be acceptable to the watermaster of Water District No. 63. If you request a waiver of the requirement, IDWR will consider your request and notify you of the decision in writing.

IDWR will withhold further action on your permit for 30 days from the date of this letter in order to allow you time to respond. If IDWR does not receive a response from you within this time period, it will be

assumed that you are not interested in pursuing a water right license, and action will be taken to void your permit. If you need additional time to respond, please contact me to discuss your options.

If you have any questions in regard to this matter, please do not hesitate to contact me.

Sincerely,

Daniel A. Nelson
Staff Hydrologist
Idaho Department of Water Resources
Telephone # (208) 287-4856
Fax (208) 287-6700 (C/O Dan Nelson)