

Nelson, Dan

From: Nelson, Dan
Sent: Friday, February 12, 2016 11:13 AM
To: 'Dave Shaw'
Subject: RE: Field Exam for Permit 63-33721

Hello Dave,

I apologize for the long wait in responding to your email. We have discussed the need for a data logger in several different meetings. We have determine that if we receive a formal request to waive the data logger requirement, that we would seriously consider waiving the data logger requirement until such time that we determine that it would be necessary to require closer monitoring of the system. Your request for a waiver would need to include confirmation that all three wells are being measured with a flow meter that has a non-resettable totalizer, and a commitment from your client to **read, record, and maintain** the totalizer readings on a regular basis. The waiver should also include the frequency that the readings will be taken.

As I informed you in my earlier emails, I will be returning the field exam that you submitted for water right permit 63-33721. We will not accept this field exam until the diversion capacity from all three wells are measured and included in the field exam report. If you still wish to limit permit 63-33721 to a single well, you may make that request when the field exam is returned, but it will not influence the requirement to attain a system capacity from all three wells, since all three wells are included on the other two existing water rights. I am hoping to have the second field exam correspondence completed today, so you should receive the returned field exam sometime next week.

Thank you Dave,

Daniel Nelson
Staff Hydrologist
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

From: Dave Shaw [mailto:dshaw@erresources.com]
Sent: Thursday, January 14, 2016 1:40 PM
To: Nelson, Dan
Cc: Peppersack, Jeff
Subject: RE: Field Exam for Permit 63-33721

Dan,

The email exchange between Jeff and I was primarily regarding a data logger and measuring device to capture the surface water portion of the water delivered to the irrigation system. Surface water, particularly waste water does vary with time and a data logger could capture that variability. The final conditions of approval did not require the surface water component to be measured at the present time.

You are correct, 15 minute intervals are the standard USGS time steps for recording surface water discharge. As I keep pointing out, we are not, at the present time, required to measure the surface water component, we are measuring pumped ground water. The pumps are on or off, I don't understand the benefit of a data logger for pumped ground water diversions over a totalizing meter. At the end of the season, both will report the total volume of ground water pumped, if there is an advantage to knowing the amount of ground water pumped on 15 minute intervals, please let me know.

Thank you,
Dave

David Shaw

ERO Resources Corporation

208.365.7684 dshaw@eroresources.com | www.eroresources.com

From: Nelson, Dan [<mailto:Dan.Nelson@idwr.idaho.gov>]

Sent: Thursday, January 14, 2016 11:14 AM

To: Dave Shaw

Cc: Peppersack, Jeff

Subject: RE: Field Exam for Permit 63-33721

Dave,

I checked with our Water Distribution staff, and we still do not have official guidance or limitations on data loggers. The Water Distribution staff did say that the standard recording time is generally every 15 minutes, but can be increased if there are issues with the memory. They stated that 15 minutes allows a good profile of the water usage.

My review of the measurement device literature you sent leads me to believe that this measurement device installed on the new well appears to be compatible with attaching a data logger to the device. Without official guidance submitted by the Department, I cannot give any recommendations on brands or types of data loggers to install on the flow meters.

Your client will need to purchase a data logger that is compatible with the flow meters installed to measure the flow from the 3 wells, and able to record and store the needed data.

As for your question on the need to install a data logger on the flow meter, I would like to refer you to the email exchange you had with Jeff Peppersack at the time the permit was issued and the water right transfer was approved. I have attached copies of the email exchange in the file. Our position on this issue has not changed.

If you have any further questions, I will certainly do my best to answer your questions.

Daniel Nelson
Staff Hydrologist
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

From: Dave Shaw [<mailto:dshaw@eroresources.com>]

Sent: Monday, January 04, 2016 8:36 AM

To: Nelson, Dan

Subject: RE: Field Exam for Permit 63-33721

Dan,

Thank you for the "heads-up" email.

I have researched IDWR's web site for guidance as to the criteria for a data logger and have not found any. I can understand if a surface water source is being measured there could be useful information gained from reporting

diversion rate and time data but for a ground water pump that is on or off I don't see that time stamped diversion data is particularly useful. We know there is a whole range of pressure transducers that record pressure with time stamps at selected intervals but I don't believe the same is true for closed conduit meters.

The reason for my concern is I went through the exercise of finding a data logger for a closed conduit measuring device that would record time stamped diversion data and the choices were limited and expensive. When I contacted most closed conduit meter vendors, their view of a data logger is a totalizer, not a device that time stamps diversion rate. Since the prospective reporting requirements are unknown at this time it is hard to visualize what useful information will be requested that could not be supplied from a diversion rate and totalizer meter.

Some guidance on this issue would be appreciated.

Thanks again,
Dave

David Shaw

ERO Resources Corporation

208.365.7684 dshaw@eroresources.com | www.eroresources.com

From: Nelson, Dan [<mailto:Dan.Nelson@idwr.idaho.gov>]

Sent: Thursday, December 31, 2015 7:57 AM

To: Dave Shaw

Cc: Peppersack, Jeff

Subject: Field Exam for Permit 63-33721

Hello Dave,

We received your response and the return of the field exam for water right permit 63-33721. First I would like to apologize including the place of use as a reason for rejecting the original field exam report. You did designate the place of use as a 229.7 acre place of use. I was looking at the approved water right transfer 78338 on water rights 63-2958 and 63-31988. This was my error.

However, it does look as though we still cannot accept the field exam without additional information concerning the capacity of the system and confirmation of installation of a data logger on the new well and confirmation of a measurement device and data logger on the two existing wells. I wanted to explain the other two issues that needed addressed in a bit more detail, before sending out another letter rejecting the field exam submitted with your December 21, 2015 letter. The issues are as follows:

The Points of Diversion and System Capacity:

Permit 63-33721 was approved with 3 points of diversion, a point of injection, and a point of re-diversion. The 3 points of diversion included the two existing wells and a proposed new well. Water right transfer 78338 for water rights 63-2958 and 63-31988 was approved with the same 3 points of diversion, point of injection, and point of re-diversion. Whereas all three wells are on permit 63-33721 and water right licenses 63-2958 and 63-31988, we cannot license water right permit 63-33721 until we know if additional system capacity has been developed and put to beneficial use under water right permit 63-33721. The argument that the new proposed well doesn't divert directly into the pond is not sufficient to separate out the proposed well as a stand-alone system with absolutely no connection to the 2 existing wells. Water right permit 63-33721 and water right licenses 63-2958 and 63-31988 all describe the system used on this farm as a single system. Since water right licenses 63-2958 and 63-31988 include the well described in your field report, we will need to know capacity of the entire system before moving forward with the licensing of this permit.

If you client wishes to limit themselves by removing the two existing wells from permit 63-33721, I would assume that they could do that, but we will still need measurements from the two existing wells to determine if additional beneficial use has been developed under permit 63-33721. Water right permit 63-33721 and water right licenses 63-2958 and 63-31988 all state that this is a single system, so we need the entire capacity of the system before we can license 63-33721. As long as the existing water right licenses include the new well and state it is a single system, we need the total system capacity to determine if additional beneficial use of water has been developed.

The Data Loggers:

In your letter dated December 21, 2015, you state that the flow meter on the well has a totalizer. The condition specifically stated the following:

Prior to the diversion and use of water under this right, the right holder shall install and maintain acceptable measuring device(s), including data logger(s), to measure the diversion of ground water in accordance with Department specifications.

The condition requires that the measuring devices for all three wells have a data logger. This requirement was also included in the water right transfer 78338 for water rights 63-2958 and 63-31988. In an email exchange between you and Jeff Peppersack and Tim Luke from May 19, 2014 to May 27, 2014, you discussed in detail the need and the costs of measurement devices and data loggers for the 3 points of diversion from ground water and the measurement device for the waste water right. There is no doubt from this email exchange that you and your client were aware of the need to have measurement devices with data loggers on all three wells. When I discussed this issue with staff, it was determined that a totalizer is not an acceptable replacement for a data logger. Whereas this condition is on both the water right permit and the water right licenses 63-2958 and 63-31988 we need verification that all three wells have measurement devices and data loggers.

Conclusion:

I am sorry Dave, but we simply cannot license water right permit 63-33721 without flow measurements and confirmation of measurement devices with data loggers on all three well diversions. In your emails with Mr. Peppersack it appears as though the two existing wells are diverted into the pond through a single pipe, and Mr. Peppersack informed you that he was not opposed to having one measurement device and data logger for the two existing wells, and the one measurement device and data logger for the new well. If your client wishes to limit water right permit 63-33721 to a single point of diversion, we may be able to accommodate that request, but that doesn't prevent the need for proof of compliance with the conditions under water right permit 63-33721 and water right licenses 63-2958 and 63-31988 required by water right transfer 78338 to have measurement devices and data loggers on all three wells. It also doesn't prevent the need to determine if additional beneficial use was developed with the drilling of the new well. We simply cannot license water right permit 63-33721 without knowing how much ground water is being used in the system.

Fortunately, the proof of beneficial use for water right permit 63-33721 is not due until June 1, 2016, so they have ample time to install the measurement devices and data loggers on all three wells, and provide measurements of the total system capacity including measurements from all three wells. We cannot accept a theoretical calculation on any of these wells, since they are all required to have measurement devices. We will need photos of the measurement devices to confirm the conditions of the permit and the water right transfer have been met. I am currently preparing a letter to reject the field exam you sent back with your December 21, 2015 letter. I hope to have it out as soon as I can complete the letter and get it approved.

Respectfully,

Daniel Nelson
Staff Hydrologist

Idaho Department of Water Resources

Telephone (208) 287-4856

Fax (208) 287-6700 (attn: Dan Nelson)