

Edl, Michele

From: Christian Petrich <CPetrich@spfwater.com>
Sent: Thursday, August 24, 2017 4:36 PM
To: Edl, Michele
Cc: Howie Royal (hroyal@blaineschools.org)
Subject: PBU for 37-22545
Attachments: LTR to Michele Edl from CRP 8-24-17.pdf

Michele,

Please see attached letter requesting permission to submit proof of beneficial use for Permit 37-22545. In advance, thank you for your consideration. Please call me on my cell phone (208-869-4569) if you have any questions.

Regards,
Christian

Christian R. Petrich, Ph.D., P.E., P.G.
Principal Engineer/Hydrologist
SPF Water Engineering, LLC
300 E Mallard Drive, Suite 350 | Boise, ID 83706
Tel: 208.383.4140
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August 24, 2017

Michele Edl
Idaho Department of Water Resources
State Office
PO Box 83720
Boise, Idaho 83720-0098

Subject: Permit 37-22545

Dear Michele,

Permit 37-22545 authorizes the diversion of 9.4 cfs by the Blaine County School District for heating and cooling purposes at the Fox Acres Campus (which includes the Blaine County High School). A Request for Extension of Time to submit the Proof of Beneficial Use (which was originally due on December 30, 2013) was submitted on December 23, 2013 to allow more time for monitoring pumping and injection impacts. The proof-due date was then extended to 2020 to allow more time for monitoring system production and groundwater levels (see January 11, 2016 letter from Ashley Newbry to the Blaine County School District – attached).

The purpose of this letter is to request authorization to submit proof of beneficial use in 2017. My understanding is that the primary motivation for monitoring requirements was potential injury to existing water rights as a result of injection under Permit 37-22545. Based on data collected so far, I see is no evidence of injury to existing water rights as a result of diversions and injection under Permit 37-22545, and believe that additional groundwater-level monitoring will not change this conclusion.

As I outlined in my letter to you dated May 5, 2017 (attached), injection-well water levels since October 2015 ranged from 58 to 68.5 feet below ground surface. These injection-well groundwater levels are consistent with those measured in Irrigation Well 8 (which is not used during winter months), and which is located roughly between Injection Well 2 and Injection Well 3 (Figure 1). Heating- and cooling-season groundwater levels have remained less than seasonal maximum groundwater levels (which occur in April through June). These observations are consistent with those measured during testing (described in my letter to Ashley Newbury dated December 26, 2013 – also attached). Injection of spent heating-system water into an aquifer with these depths to groundwater do not, in my opinion, represent risk of injury to existing rights. Furthermore, given the observed groundwater depths, the consistency between measurements, and knowledge regarding the extent of groundwater-level fluctuations in this area, I do not believe that additional groundwater-level measurements will change this finding.

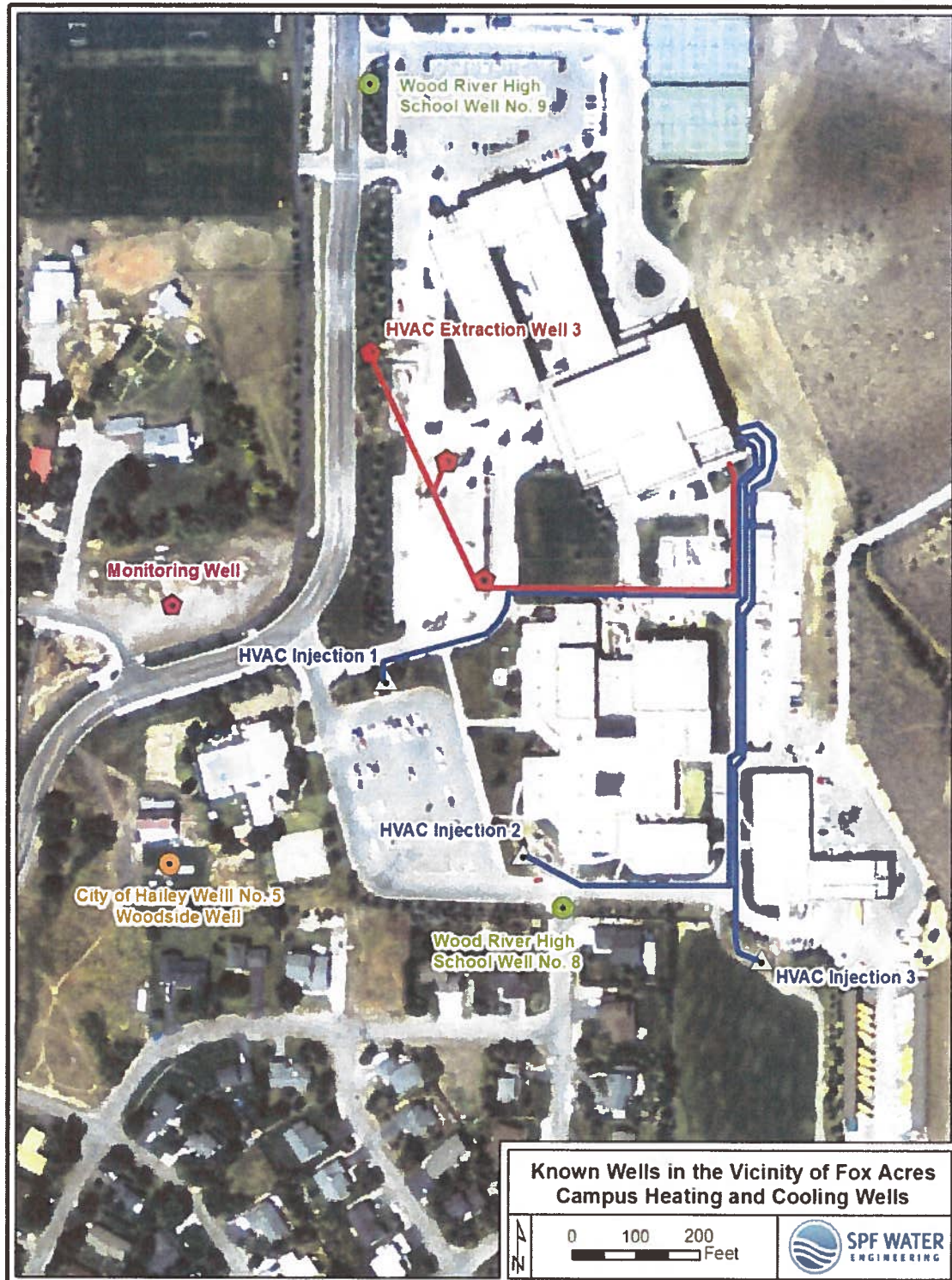


Figure 1. Fox Acres Campus Heating and Cooling Wells.

In summary, the District is prepared to submit Proof of Beneficial Use for Permit 37-22545 in 2017 instead of continuing to monitor groundwater levels through 2020. Please let me know if the Department will accept this earlier proof. In advance, thank you very much for your telephone support regarding this permit, and for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Christian R. Petrich", with a long horizontal flourish extending to the right.

Christian R. Petrich, Ph.D., P.E., P.G.
Principal Engineer/Hydrologist

cc: Howie Royal

File: 322.0060

Attachments:

1. Letter from Ashley Newbry to the Blaine County School District, January 11, 2016.
2. Letter to Michele Edl from Christian Petrich, May 5, 2017.
3. Letter to Ashley Newbry from Christian Petrich, December 26, 2013.



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720 0098

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C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

January 11, 2016

BLAINE CO SCHOOL DISTRICT
C/O SPF WATER ENGINEERING
CHRISTIAN R PETRICH
300 E MALLARD DRIVE STE 350
BOISE ID 83706

COPY

RE: Monitoring Requirements for Permit 37-22545

Dear Mr. Petrich:

I am writing in response to your December 22, 2015 letter and proposed alternative monitoring plan associated with Permit 37-22545. The Department is generally agreeable to the proposed alternative plan outlined in your letter, but must recommend a few points of specification to the timeline of execution.

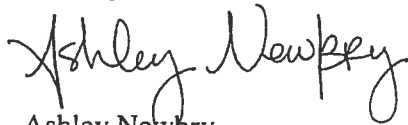
1. *Monitor and record aggregate production volumes (i.e., totalizer readings) and flow rates during the days in which the school is open for operation (may include summer, but excludes measurements on weekends and school holidays) through July 2020.*
2. *Note the number of production wells in operation at the time of each production reading noted in Item 1.*
3. *Measure and record injection-well water levels.*
 - a. *Measure injection-well groundwater levels on an approximate monthly basis in December, January, February, July, and August (months of peak production).*
 - b. *Attempt to have measurements coincide with days of peak system production and injection rates.*
 - c. *Measure and record groundwater levels in the Wood River High School Well No. 8 on the same days that groundwater levels are measured in the injection wells.*
 - d. *Continue injection-well and Well No. 8 measurements as described above through March 2017.*
4. *Compile and interpret data and information collected as part of the above-listed monitoring activities during the spring of 2017 to address the question of potential injury to existing water users as a result of injection under Permit 37-22545.*
 - a. *Include annual diversion volumes through heat exchangers.*
 - b. *Include maximum flow rates through heat exchangers.*
 - c. *If the system has a bypass (extraction directly to injection), include annual volumes of bypassed water.*
 - d. *Provide an analysis of the potential to raise groundwater levels in the vicinity of the injection wells (i.e., in the vicinity of the school campus and surrounding area). Discuss whether the system operation could create a perched water table. Discuss the likelihood that Well No. 8 effectively represents any fluctuations in local groundwater levels.*

- e. Confirm that the capacity of the heat exchangers is congruent with the pumping rate (i.e., indicate whether or not pumped water is beneficially used).*
- 5. *Submit a revised proof of beneficial use after July 31, 2020 but prior to October 1, 2020.*
 - a. Include a compilation of water diverted under Permit 37-22545 through July 2020.*
 - b. Include a copy of the above-described analysis addressing the question of potential injury to existing water users as a result of injection under Permit 37-22545.*

In conjunction with item no. 4, the permit holder or their designated representative shall submit a check-in report during the month of April 2017. The report should include measurements and discussion points necessary to fully interpret item nos. 1 through 4 above, for early 2016 through March 2017.

The Department will review the report and make a determination of the need to perform further depth-to-water measurements (item no. 3) during the development period. If necessary, the Department will notify the permit holder or their designated representative that further measurements outlined in item no. 3 should be obtained. The Department also reserves the right to require depth-to-water measurements (item no. 3) for the remainder of 2017, 2018, 2019, and/or 2020. Item nos. 1, 2, 4, and 5 should be carried out through the remainder of the development period, through 2020.

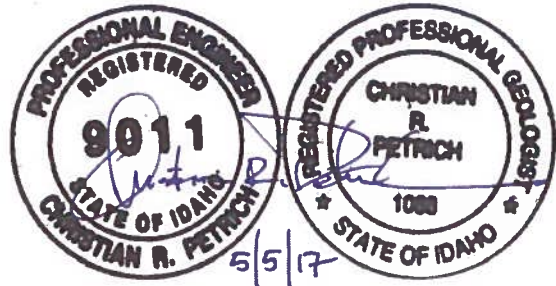
Thank you,



Ashley Newbry
Associate Engineer

MEMORANDUM

DATE: May 5, 2017
TO: Michele Edl, IDWR
FROM: Christian R. Petrich, Ph.D., P.E., P.G.
CC: Howie Royal, Blaine County School District
RE: Permit 37-22545 Monitoring Report



A. Introduction

This memorandum provides groundwater-usage and groundwater-level data requested in your January 11, 2016 letter regarding Permit 37-22545 (Attachment 1).

B. Heating/Cooling System Production

The accompanying spreadsheet contains (1) totalizer readings (recorded daily when school is in session), (2) the number of pumps operating at the time when the totalizer was read, and (3) the observed flow at the time that the totalizer was read. The spreadsheet also contains estimates of daily volumes and average daily flows calculated using the reported data (Figure 1, page 3). Annual volumes in the 4 heating seasons with available data ranged from 87 AF in 2013-2014 to 185 AF in 2014-2015 (Table 1), although data from 2 heating seasons (2013-2014 and 2016-2017) are incomplete.

The heating and cooling system has no bypass.¹ All of the water pumped flows through the heating and cooling system heat exchanger.

C. Injection-Well Water Levels

Injection-well water levels since October 2015 ranged from 58 to 68.5 feet below ground surface (Table 2). Most of these measurements were taken at times when there are two or less pumps in operation. The measurements are consistent with injection-well water levels measured under controlled conditions with 1, 2, or 3 wells in operation in

¹ Scott Davis, BCSD, May 4, 2017.

December 2013 (Table 3).² Most importantly, injection-well water levels are consistent with those measured in Irrigation Well 8, which is located roughly between Injection Well 2 and Injection Well 3 (Figure 2). Well 8 is not in use during the winter months; groundwater levels in this well reflect local static groundwater levels. Hydrographs from these wells (Figure 3 and Figure 4) show seasonally-high groundwater levels in April through June (in response to regional, seasonal recharge) and seasonally-low groundwater levels during the fall and winter months. These hydrographs, and other data presented here or in an earlier December 26, 2014 memo, do not show evidence of a perched water table caused by heating- and cooling-system injection.

D. Summary

Based on limited and incomplete data, annual volumes under Permit 37-22545 have been less than 185 AF/year. However, the heating/cooling system has capacity for greater annual volumes during particularly cold winters or hot summers. Groundwater-level data from injection wells and a nearby irrigation well (which is not used during winter months) are consistent with groundwater levels in this general area, and do not reflect the presence of a perched aquifer or broad groundwater-level increases caused by heating/cooling system injection.

E. Attachments

Attachment A: Letter from Ashley Newbry to the Blaine County School District dated January 11, 2016.

Attachment B: Memorandum from Christian Petrich to Darla Block, Alan Merritt, and Cindy Yenter dated December 26, 2013.

² Some of the groundwater level measurements with 3 well in operation almost certainly reflect borehole storage and/or well inefficiency – not groundwater levels in the aquifer outside of the wells.

F. Figures and Tables

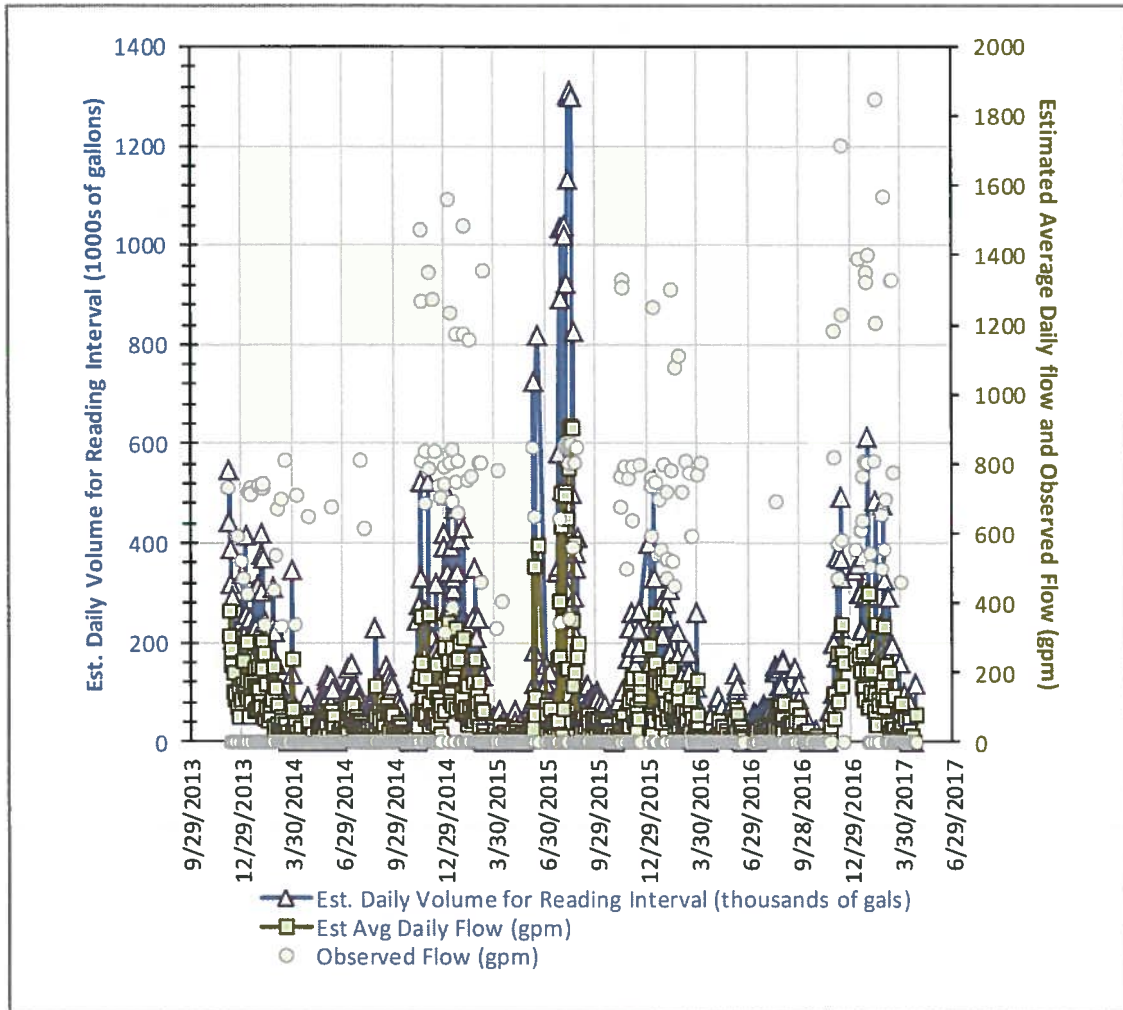


Figure 1. Hailey Fox Acres Campus estimated daily heating/cooling volume, estimated average daily flow, and observed flow (12/5/2013 through 4/26/2017).

Hailey Fox Acres Campus Heating/Cooling Volumes		
Heating Season (10/1 through 9/30)	Estimated Heating- Season Volume (AF)	Comment
2013-14	87	Incomplete data; data collection began on 12/5/2013
2014-15	185	
2015-16	95	
2016-17	89	Incomplete data; includes data only through 4/26/2017

Table 1. Hailey Fox Acres Campus heating/cooling volumes.

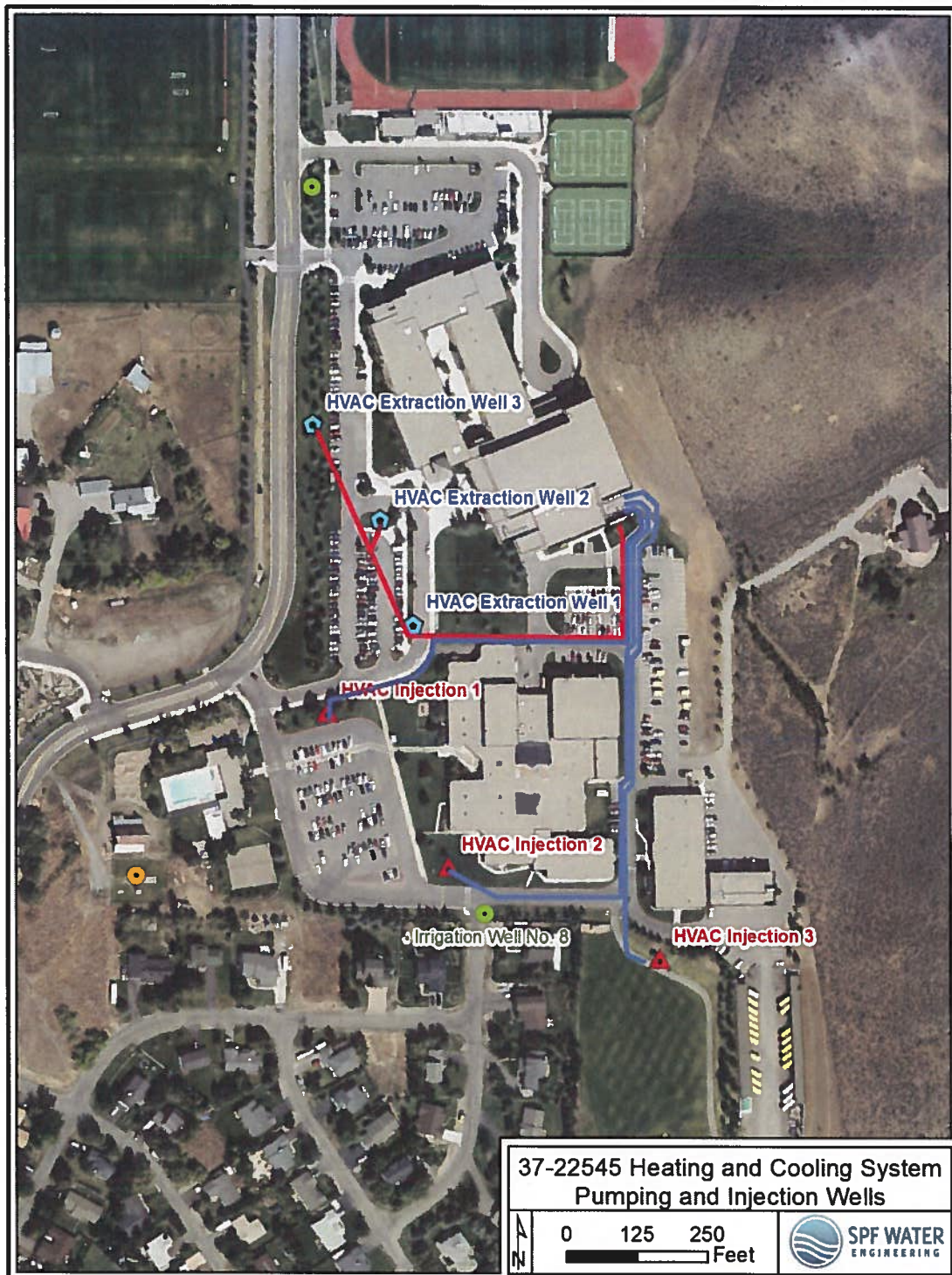


Figure 2. Fox Acres Campus Heating and Cooling Wells.

Blaine County School District Fox Acres Campus (Hailey High School) Injection Well Depths to Water (ft)					
Date	Injection Well #1	Injection Well #2	Injection Well #3	Irrigation Well #8	Temperature
	D0058709	D0058710	D0058711	D0016722	
10/2/2015	66.83	67.83	62.50	64.00	54 F
11/3/2015	66.33	67.17	61.75	63.75	31 F
12/1/2015	66.67	67.42	62.25	64.00	32 F
1/4/2016	67.17	67.67	62.58	64.25	34 F
2/2/2016	67.17	67.83	62.58	65.25	10 F
3/1/2016	67.00	67.83	62.17	65.00	37 F
4/1/2016	64.17	65.00	59.50	62.00	38 F
5/2/2016	63.25	64.00	58.92	61.75	46 F
6/6/2016	62.25	63.33	58.00	59.50	80 F
7/1/2016	65.00	65.83	60.33	61.00	85 F
8/31/2016	67.83	68.50	63.50	63.75	66 F
10/3/2016	66.50	67.33	62.17	64.00	43 F
11/1/2016	65.25	66.00	60.67	62.50	37 F
12/7/2016	65.58	66.08	60.33	62.67	11 F
1/5/2017	66.17	67.00	61.75	63.50	12 F
2/3/2017	66.00	67.00	61.08	63.17	32 F
3/1/2017	64.08	64.83	59.50	61.33	32 F
Average	65.72	66.51	61.15	63.02	
Max	67.83	68.50	63.50	65.25	
Min	62.25	63.33	58.00	59.50	

Table 2. Depths to water in injection wells and Irrigation Well #8, October 2015 through March 2017.

Injection Well Water Level Measurements, 12/12-13/2013					
	Date	Time	Number of Wells in Operation	Aggregate pumping Rate (gpm) ⁽¹⁾	Depth to Water (feet)
Injection Well No. 1 (North Well)	12/12/2013	1:59 PM	0	0	67.5
	12/12/2013	2:22 PM	1	818	60.0
	12/12/2013	2:51 PM	2	1740	52.0
	12/13/2013	2:53 PM	3	2026	9.3 ⁽²⁾
Injection Well No. 2 (Middle Well)	12/13/2013	1:32 PM	0	0	68.5
	12/13/2013	2:07 PM	1	819	59.0
	12/13/2013	2:32 PM	2	1480	28.5 ⁽²⁾
	12/13/2013	2:53 PM	3	2026	27.6
Injection Well No. 3 (South Well)	12/13/2013	11:50 AM	0	0	63.0
	12/13/2013	12:20 PM	1	823	25 ⁽²⁾
	12/13/2013	12:45 PM	2	1473	49.0
	12/13/2013	1:09 PM	3	2020	24.5
Notes: 1. Pumping began immediately after static measurements. 2. These measurements likely reflect borehole storage and/or well inefficiency (near-well groundwater levels are likely lower than these measurements indicate).					

Table 3. Injection well water level measurements.

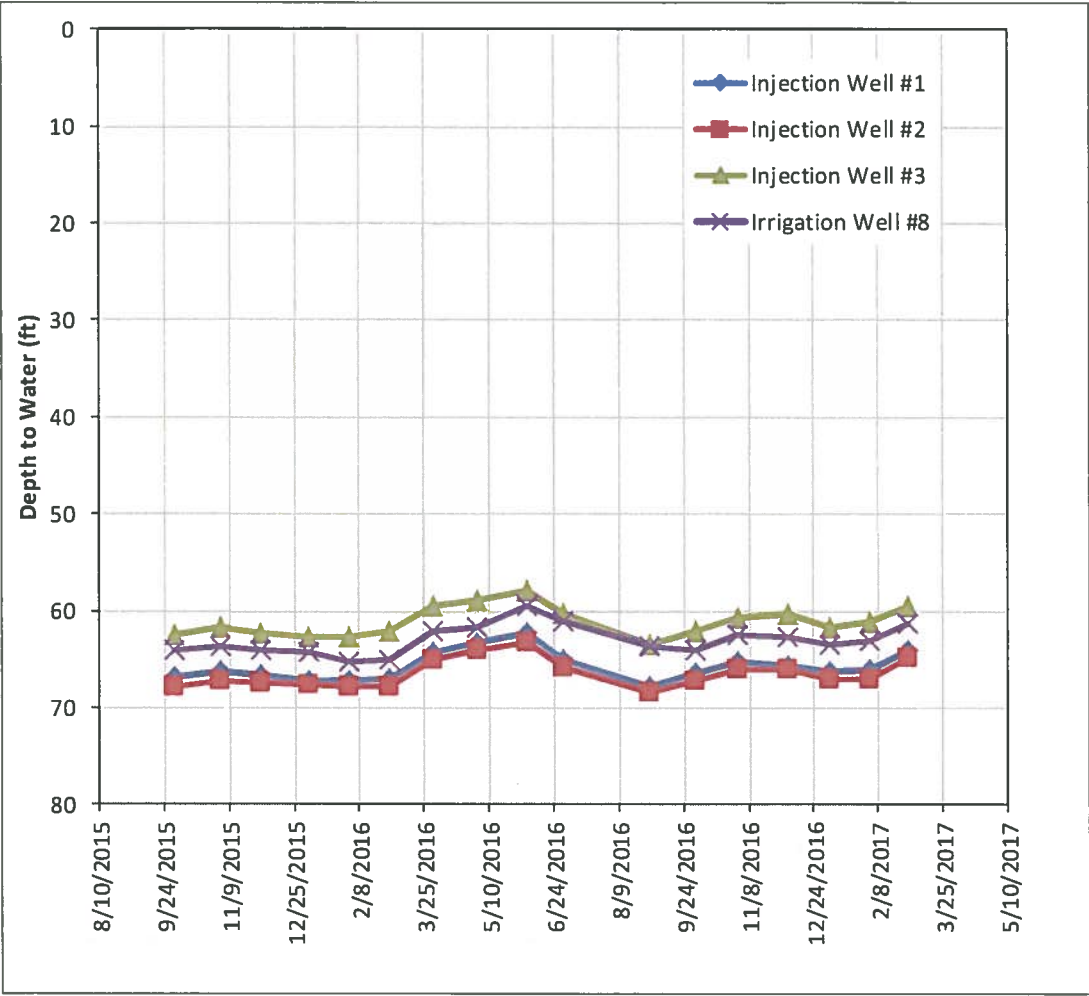


Figure 3. Injection-well water-level measurements (full scale).

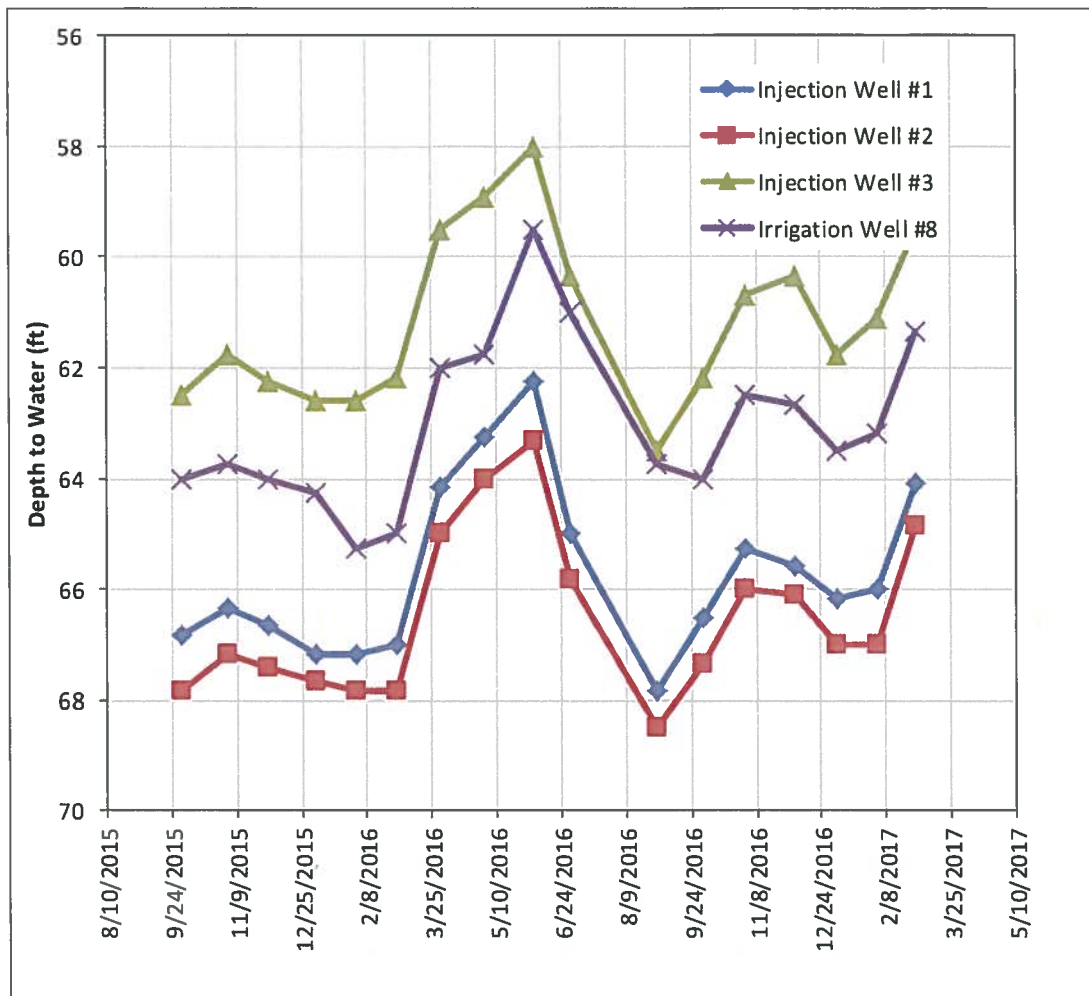


Figure 4. Injection-well water-level measurements (partial scale).



State of Idaho

DEPARTMENT OF WATER RESOURCES

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C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

January 11, 2016

BLAINE CO SCHOOL DISTRICT
C/O SPF WATER ENGINEERING
CHRISTIAN R PETRICH
300 E MALLARD DRIVE STE 350
BOISE ID 83706

COPY

RE: Monitoring Requirements for Permit 37-22545

Dear Mr. Petrich:

I am writing in response to your December 22, 2015 letter and proposed alternative monitoring plan associated with Permit 37-22545. The Department is generally agreeable to the proposed alternative plan outlined in your letter, but must recommend a few points of specification to the timeline of execution.

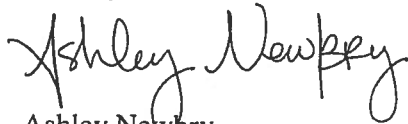
1. *Monitor and record aggregate production volumes (i.e., totalizer readings) and flow rates during the days in which the school is open for operation (may include summer, but excludes measurements on weekends and school holidays) through July 2020.*
2. *Note the number of production wells in operation at the time of each production reading noted in Item 1.*
3. *Measure and record injection-well water levels.*
 - a. *Measure injection-well groundwater levels on an approximate monthly basis in December, January, February, July, and August (months of peak production).*
 - b. *Attempt to have measurements coincide with days of peak system production and injection rates.*
 - c. *Measure and record groundwater levels in the Wood River High School Well No. 8 on the same days that groundwater levels are measured in the injection wells.*
 - d. *Continue injection-well and Well No. 8 measurements as described above through March 2017.*
4. *Compile and interpret data and information collected as part of the above-listed monitoring activities during the spring of 2017 to address the question of potential injury to existing water users as a result of injection under Permit 37-22545.*
 - a. *Include annual diversion volumes through heat exchangers.*
 - b. *Include maximum flow rates through heat exchangers.*
 - c. *If the system has a bypass (extraction directly to injection), include annual volumes of bypassed water.*
 - d. *Provide an analysis of the potential to raise groundwater levels in the vicinity of the injection wells (i.e., in the vicinity of the school campus and surrounding area). Discuss whether the system operation could create a perched water table. Discuss the likelihood that Well No. 8 effectively represents any fluctuations in local groundwater levels.*

- e. Confirm that the capacity of the heat exchangers is congruent with the pumping rate (i.e., indicate whether or not pumped water is beneficially used).*
- 5. *Submit a revised proof of beneficial use after July 31, 2020 but prior to October 1, 2020.*
 - a. Include a compilation of water diverted under Permit 37-22545 through July 2020.*
 - b. Include a copy of the above-described analysis addressing the question of potential injury to existing water users as a result of injection under Permit 37-22545.*

In conjunction with item no. 4, the permit holder or their designated representative shall submit a check-in report during the month of April 2017. The report should include measurements and discussion points necessary to fully interpret item nos. 1 through 4 above, for early 2016 through March 2017.

The Department will review the report and make a determination of the need to perform further depth-to-water measurements (item no. 3) during the development period. If necessary, the Department will notify the permit holder or their designated representative that further measurements outlined in item no. 3 should be obtained. The Department also reserves the right to require depth-to-water measurements (item no. 3) for the remainder of 2017, 2018, 2019, and/or 2020. Item nos. 1, 2, 4, and 5 should be carried out through the remainder of the development period, through 2020.

Thank you,



Ashley Newbry
Associate Engineer

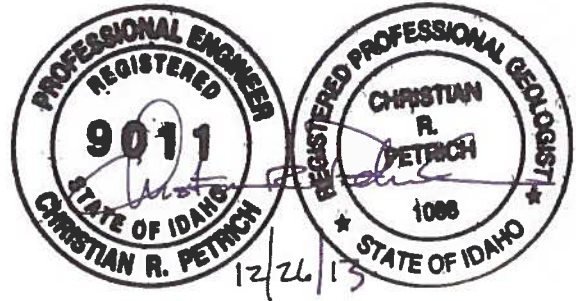
MEMORANDUM

DATE: December 26, 2013

TO: Darla Block IDWR State Office
Alan Merritt, IDWR Southern Region
Cindy Yenter, IDWR Southern Region

FROM: Christian R. Petrich, Ph.D., P.E., P.G.

CC: Mike Chatterton, Blaine County School District
Howie Royal, Blaine County School District
John Gaeddert, CLPE



RE: *Request for Extension and Monitoring Plan, Permit 37-22545*

A. Introduction

Proof of beneficial use for Permit 37-22545 (Attachment A) is due on December 30, 2013. The purpose of this letter is to (1) request a second extension of time for submitting proof of beneficial use (Attachment B) and (2) provide a groundwater-level and water-use monitoring plan in compliance with Condition 7 of the permit.

The extension of time is being requested for two reasons. First, the extension will provide additional time to document pumping and injection volumes. Even though the system has been in operation since 2011, the Blaine County School District (BCSD) has an insufficient production record for licensing the permit. Litigation which included, in part, responsibilities for monitoring instrumentation was resolved in October. As a result, BCSD installed new monitoring instrumentation and is actively collecting production data. The extension of time will allow the District to compile at least one full year of production data prior to submitting proof of beneficial use.

Second, the permit requires the submittal and approval of a groundwater-level monitoring plan. This memorandum describes likely impacts of production/injection based on available information, and outlines monitoring activities that will be undertaken for the remainder of the permitting period.

B. Permit Description

Permit 37-22545, approved on October 5, 2010, authorizes a maximum diversion rate of 9.4 cfs of groundwater from January 1 through December 31 for heating and cooling purposes under an October 11, 2010 priority date. The original permit approved 4 points of diversion in the SWSE quarter-quarter of Section 10, Township 02N, Range 18E. A permit amendment approved March 8, 2011 authorized points of diversion in both the NWSE and SWSE quarter-quarters of Section 10, Township 02N, Range 18E.

C. Pumping and Injection System Description

Groundwater is diverted via one or more of three production wells and is re-injected in three injection wells (Figure 1). The system is capable of operating with 1, 2, or 3 wells at one time. Individually, the production wells are capable of producing approximately 820 gpm. Discharge when either 2 or 3 wells are operating is limited by distribution pipe diameter. Based on measurements taken by District personnel during the week of December 9, 2013 (Table 1), the aggregate discharge with 2 wells operating is approximately 1,740 gpm; the aggregate discharge with 3 wells operating is approximately 2,016 gpm (4.5 cfs).

Normal heating/cooling loads typically require operation of only one well. Even during recent cold weather, a second production well kicked on only for very short periods of time.¹

Water from the three production wells passes through two parallel heat exchangers and then into a manifold that divides the aggregate discharge into three pipes leading to three injection wells. Valves were set following construction to balance discharge, ensuring relatively equal flow to each injection well. Thus, the discharge into each injection well with one, two, and three production wells in operation is 270 gpm, 580 gpm, and 670 gpm, respectively.

Issues associated with the construction of this system were in litigation until October 2013. Following the litigation settlement, BCSD took on the responsibility of monitoring system flows. System flows are measured with a Veris Veribar flowmeter and Foxboro totalizer.

D. Observed System Impacts

Monitoring was to have occurred for a sufficient period of time to demonstrate that the re-injection of groundwater diverted under this right prevents injury to existing water rights. While formal monitoring is just now beginning (see below), there have been no indications so far of adverse impacts. This conclusion is supported by several observations.

¹ Scott Davis, Blaine County School District, Maintenance Support Security and Supply, *personal communication*, 12/16/2013.



Figure 1. Fox Acres Campus Heating and Cooling Wells.

Blaine County School District Heating/Cooling System Water Production						
Date & Time	Totalizer Reading (gals)	Observed Flow (gpm)	Difference (gals)	Elapsed minutes	Est. Daily Volume for Reading Interval (thousands of gals)	Est Avg Daily Flow (gpm)
12/5/13 5:00 PM	8,974,000	733				
12/9/13 11:59 AM	10,649,000		1,675,000	5,459	442	307
12/10/13 11:59 AM	11,196,000		547,000	1,440	547	380
12/11/13 11:00 AM	11,569,000		373,000	1,381	389	270
12/12/13 12:07 PM	11,976,000		407,000	1,507	389	270
12/13/13 10:48 AM	12,277,000		301,000	1,361	318	221
12/16/13 12:30 PM	12,912,000		635,000	4,422	207	144
12/17/13 12:22 PM	13,202,000		290,000	1,432	292	203
12/18/13 1:08 PM	13,398,000		196,000	1,486	190	132
12/19/13 11:04 AM	13,559,000		161,000	1,316	176	122

Table 1. Heating system water production, 12/5/2013-12/18/2013.

First, the City of Hailey operates a municipal well (City of Hailey Well 5, a.k.a. Woodside Well) located approximately 450 feet from the closest injection well (Injection Well 1 – see Figure 1). The City does not monitor water levels in this well, but has no anecdotal evidence suggesting that either pumping or injection of BCSD wells has had an impact on the Woodside Well.²

Second, measurements in an unused well located approximately 350 feet from Injection Well No. 1 (now being used as a monitoring well – see Figure 1) has been dry.³ The well is constructed to a depth of 57.5 feet.

Third, measurements taken by District personnel on December 12-13, 2013 (Table 2) indicate that injection-well water levels with one production well in operation range from 25 to 60 feet below ground surface. Water levels with two production wells in operation (which happens infrequently and with short duration) range from approximately 29 to 60

² Tom Hellen, Public Works Director, City of Hailey, *personal communication*, December 5, 2013 and December 20, 2013.

³ Water level measurement attempted by District personnel November 6, 2013.

feet below ground surface. These groundwater-level measurements compare with static water levels ranging from approximately 63 to 69 feet below ground surface. Given the permeable nature of aquifer materials in this area, I expect that groundwater mounding in the vicinity of the injection wells is localized in nature, and does not extend several hundred feet to the City of Hailey's Woodside Well.

(Some of the above-listed groundwater level measurements collected from injection wells likely reflect borehole storage and/or well inefficiency. For example, the measured water levels in Injection Well No. 3 were 25 feet below ground surface with one well pumping, 24.5 feet with three wells pumping, and 49 feet with two wells pumping. In this case, the measurement with one well pumping likely reflects borehole storage more than groundwater levels in the surrounding aquifer.)

Injection Well Water Level Measurements, 12/12-13/2013					
	Date	Time	Number of Wells in Operation	Aggregate pumping Rate (gpm) ⁽¹⁾	Depth to Water (feet)
Injection Well No. 1 (North Well)	12/12/2013	1:59 PM	0	0	67.5
	12/12/2013	2:22 PM	1	818	60.0
	12/12/2013	2:51 PM	2	1740	52.0
	12/13/2013	2:53 PM	3	2026	9.3 ⁽²⁾
Injection Well No. 2 (Middle Well)	12/13/2013	1:32 PM	0	0	68.5
	12/13/2013	2:07 PM	1	819	59.0
	12/13/2013	2:32 PM	2	1480	28.5 ⁽²⁾
	12/13/2013	2:53 PM	3	2026	27.6
Injection Well No. 3 (South Well)	12/13/2013	11:50 AM	0	0	63.0
	12/13/2013	12:20 PM	1	823	25 ⁽²⁾
	12/13/2013	12:45 PM	2	1473	49.0
	12/13/2013	1:09 PM	3	2020	24.5
Notes:					
1. Pumping began immediately after static measurements.					
2. These measurements likely reflect borehole storage and/or well inefficiency (near-well groundwater levels are likely lower than these measurements indicate).					

Table 2. Injection well water level measurements.

E. Monitoring Plan

The permit requires that the permit holder submit a monitoring plan to the Department prior to diverting and re-injecting water under this permit. The plan was to include the following:

1. A plan for gathering baseline water level measurements near the diversion and injection sites;
2. A plan and schedule for recording reporting water use and water levels once diversion and use has commenced;

The Blaine County School District proposes the following monitoring activities for Permit 37-22545:

1. Monitor and record aggregate production volumes (i.e., totalizer readings) days in which schools are in operation.
2. Monitor and describe the number of production wells in operation.
3. Monitor and record peak production flow rates.
4. Measure and record injection-well water levels at times of peak system operation (e.g., twice during cold-weather periods and twice during hot-weather periods) during 2014.
5. Measure and record groundwater levels on a monthly basis in the Monitoring Well (see Figure 1).
6. Measure and record groundwater levels in the Wood River High School Well No. 8 (Figure 1) on a monthly basis during non-irrigation months. Measurements also will be taken in this well when injection well water levels are measured (see Item 4 above).
7. Compile and interpret information collected as part of the above-listed monitoring activities for submittal with the proof of beneficial use.

F. Summary

The Blaine County School District is seeking an extension of time for submitting proof of beneficial use for Permit 37-22545. The reason for the extension is to compile a more complete record of production and injection and to monitor groundwater levels in the vicinity of the injection wells. Available information and data indicate that (1) peak production rates (approximately 4.5 cfs) are substantially less than originally contemplated in the permit (9.4 cfs) and (2) production and injection since the system was constructed in 2011 has not injured existing water rights. The District proposes monitoring and recording daily (when school is in session) production volumes, groundwater-level measurements during peak 2014 heating/cooling events, and periodic measurements in two non-heating/cooling wells.

Attachment A: Permit 37-22545

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State of Idaho
Department of Water Resources
Amendment of Permit

NO. 37-22545

Priority: August 11, 2010

Maximum Diversion Rate: 9.40 CFS

This is to certify that BLAINE COUNTY SCHOOL DISTRICT #81
118 W BULLION ST
HAILEY ID 83333

US BANK NATIONAL ASSOCIATION
118 W BULLION ST
HAILEY ID 83333

has applied for an amendment of a permit and the amendment is APPROVED for development of water as follows:

Source: GROUND WATER

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
HEATING	01/01 to 12/31	9.40 CFS
COOLING	01/01 to 12/31	9.40 CFS

LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER	NW1/4SE1/4	Sec. 10, Twp 02N, Rge 18E, B.M.
BLAINE County		
GROUND WATER	NW1/4SE1/4	Sec. 10, Twp 02N, Rge 18E, B.M.
BLAINE County		
GROUND WATER	NW1/4SE1/4	Sec. 10, Twp 02N, Rge 18E, B.M.
BLAINE County		
GROUND WATER	SW1/4SE1/4	Sec. 10, Twp 02N, Rge 18E, B.M.
BLAINE County		

PLACE OF USE: HEATING

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N 18E 10															X	X	X

PLACE OF USE: COOLING

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N 18E 10															X	X	X

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State of Idaho
Department of Water Resources
Amendment of Permit

NO. 37-22545

CONDITIONS OF APPROVAL

1. Proof of application of water to beneficial use shall be submitted on or before October 01, 2013.
2. Subject to all prior water rights.
3. Return flow discharged to a subsurface system must be authorized by a separate injection well permit.
4. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
5. Use of water under this right shall be non-consumptive.
6. The right holder shall install or construct a straight length of conduit or ditch suitable for installation of a device for measuring the entire flow of water being diverted in connection with this right. If the right holder uses conduit, the straight length of conduit shall be at least fifteen times the diameter of the conduit and shall be above ground or otherwise easily accessible.
7. After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department.
8. Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.
9. Prior to diversion under this right the right holder shall submit to the Department for review and approval a ground water level and water use monitoring plan which includes the following:
 - a plan for gathering baseline water level measurements near the diversion and injection sites
 - a plan and schedule for recording and reporting water use and water levels once diversion and use has commenced.Monitoring and recording shall occur for a sufficient period of time to demonstrate that the reinjection of ground water diverted under this right prevents injury to existing water rights. On approval of the monitoring plan by the Department, the right holder shall install all necessary measuring and monitoring equipment specified by the approved plan. The Department retains jurisdiction to adjust the monitoring plan (including but not limited to increasing or decreasing the period of monitoring). The Department also retains jurisdiction to require the right holder to reduce using water, ceasing using water, or provide mitigation to avoid injury to existing water rights. The right holder assumes all risk of injury to existing water rights or property as a result of this use including injection of water back into the aquifer.

This amendment of permit is issued pursuant to the provisions of Section 42-211, Idaho Code. Witness the signature of the Director, affixed at Boise, this 8th day of March 2011.

For


GARY SPACKMAN, Interim Director

**Attachment B: Request for Extension of Time for Submitting Proof
of Beneficial Use, Permit 37-22545**

Form No. 204 Rev. 12/12

**STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES**

\$50 fee
 Received by _____
 Recpt No. _____
 Date _____

REQUEST FOR EXTENSION OF TIME

To provide additional time in which to submit proof of beneficial use for a water right permit

The Idaho Department of Water Resources will consider this form a request that the permit holder(s) be granted an additional period of time under the provisions of Section 42-204, Idaho Code, in which to complete development of a water right and file proof of beneficial use of water. There is a **FILING FEE of \$50.00** to be included with this form when filed with IDWR.

Permit no. 37-22545 Date proof is due December 30, 2013

Name(s) of permit holder(s) Blaine County School District #61

Mailing address 118 W. Bullion St. City Hailey State ID Zip 83333

Telephone no. 208-578-5000 Email _____

Describe what work has been completed toward the development of this water right:

If no work has been completed, show "none".

Permit development is complete.

Costing \$ _____

The permit holder(s) has been unable to complete the remainder of the work for the following reasons:

See attached memo.

Permit holder(s) request an extension for October 5, 2015 year(s). (5 years from date of permit approval)

Jeff Peppersack 12/23/2013
 Signature (If other than permit holder, Power of Attorney must be supplied) Date

ACTION OF THE DEPARTMENT OF WATER RESOURCES

The Department has reviewed the explanation for delay and concludes the reason(s) for delay meets the requirements for approval of the Request for Extension of Time as provided by Section(s) 42-204 and/or 42-218, Idaho Code.

☐ **IT IS HEREBY ORDERED** that the permit is **REINSTATED** with the priority date advanced to _____, 20____.

☐ **IT IS HEREBY ORDERED** that the above request for extension of time is **APPROVED**, and the time within which to submit proof of beneficial use is extended to _____, 20____.

Signed this _____ day of _____, 20____

Jeff Peppersack, Chief
 Water Allocation Bureau