

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT
To appropriate the public waters of the State of Idaho

Ident. No. 25-14462
RECEIVED
JUL 03 2018
Department of Water Resources
Eastern Region

AMENDED

1. Name of applicant(s) HK Contractors, Inc. Phone 208-523-6600
 Name connector (check one): ☐ and ☐ or ☐ and/or
 Mailing address 6350 S Yellowstone City Idaho Falls
 State ID ZIP 83402 Email rodgermcalevy@hkcontractors.com
2. Name of representative, if any Rocky Mountain Env. Assoc., Inc. Phone 208-524-2353
 Mailing address 482 Constitution Way Ste 303 City Idaho Falls
 State ID ZIP 83402 Email rog.rmea@gmail.com
- a. ☐ Send all correspondence for this application to the representative and not to the applicant OR
☒ Send original correspondence to the applicant and copies to the representative.
- b. ☒ The representative may submit information for the applicant but is not authorized to sign for the applicant OR
☐ The representative is authorized to sign for the applicant. Attach a Power of Attorney or other documentation.
3. Source of water supply Groundwater which is a tributary of _____
4. Location of point(s) of diversion:

Twp	Rge	Sec	Govt Lot	1/4	1/4	1/4	County	Source	Local name or tag #
3N	38E	33			SE	SW	Bonneville	Groundwater	

5. Water will be used for the following purposes:
- Amount 1.12 CFS for Industrial purposes from 3/1 to 11/30 (both dates inclusive)
 (cfs or acre-feet per year)
- Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
 (cfs or acre-feet per year)
- Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
 (cfs or acre-feet per year)
- Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
 (cfs or acre-feet per year)
6. Total quantity to be appropriated is (a) 1.12 cubic feet per second (cfs) and/or (b) _____ acre-feet per year (af).
7. Proposed diverting works:
- a. Describe type and size of devices used to divert water from the source. A well with pump controlled by a float will deliver water to a 1/4 acre pond and to a concrete batch plant. Wash plant will recirculate water from the pond.
- b. Height of storage dam (excavated) feet; active reservoir capacity 6.25 acre-feet; total reservoir capacity 6.8 acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 12. For dams 10 feet or more in height AND having a storage capacity of 50 acre-feet or more, submit a separate Application for Construction or Enlargement of a New or Existing Dam. Application required? ☐ Yes ☐ No
- c. Proposed well diameter is 16 inches; proposed depth of well is 225 feet.
- d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☒ No
- e. If well is already drilled, when? Not drilled; drilling firm _____;
 well was drilled for (well owner) _____; Drilling Permit No. _____

For Department Use

Received by Sc Date 7/31/18 Time _____ Preliminary check by 7/31/18
 Fee \$ 100 Receipted by Sc Receipt No. E044168 Date 7/31/18

AMENDED

8. Description of proposed uses (if irrigation only, go to item 9):
- Hydropower; show total feet of head and proposed capacity in kW. N/A
 - Stockwatering; list number and kind of livestock. N/A
 - Municipal; must complete and attach the Municipal Water Right Application Checklist.
 - Domestic; show number of households N/A
 - Other; describe fully. for gravel washing and concrete batch plant

9. Description of place of use:

- If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
- If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RGE	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
3N	38E	33												I		I			

Total number of acres to be irrigated: N/A

10. Describe any other water rights used for the same purposes as described above. Include water delivered by a municipality, canal company, or irrigation district. If this application is for domestic purposes, do you intend to use this water, water from another source, or both, to irrigate your lawn, garden, and/or landscaping? No other water rights. A companion transfer will provide consumptive component for concrete batch plant. A rental pool lease will provide water for first-time fill of the pond.
11. a. Who owns the property at the point of diversion? Applicant
- b. Who owns the land to be irrigated or place of use? Applicant
- c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing: _____
12. Describe your proposal in narrative form, and provide additional explanation for any of the items above. Attach additional pages if necessary. Please see attached narrative
13. Time required for completion of works and application of water to proposed beneficial use is 5 years (minimum 1 year).
14. **MAP OF PROPOSED PROJECT REQUIRED** - Attach an 8½" x 11" map or maps clearly identifying the proposed point of diversion, place of use, section #, township & range. The map scale shall not be less than two (2) inches equal to one (1) mile.

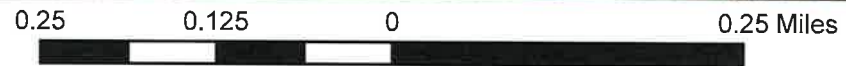
The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in rejection of the application or cancellation of an approval.

Signature of Applicant

Signature of Applicant

Print Name (and title, if applicable)

Print Name (and title, if applicable)



482 Constitution Way, Suite 303
Idaho Falls, ID 83402 208-524-2353

Figure 1: Amended Place of Use & Point of Diversion

HK Contractors, Inc.
Water-right Permit Application

Project 18-0030

-  POD Proposed
-  POU Proposed
-  Township
-  Section
-  QQ

Narrative to Accompany AMENDED Application for Permit 25-14462 and Application for Transfer of Water Right No. 35-2568

HK Contractors, Inc.

On March 2, 2018, HK Contractors Inc. submitted Application for Permit 25-14462 for 1.12 cfs for Industrial purposes. The original application proposed non-consumptive use for a gravel washing facility. A new domestic pond at the facility would be established to allow recirculation of wash water. The original application was protested by the Surface Water Coalition with concerns about the ponds consumption. Hence, the applicant proposes an amendment of the Application for Permit, accompanied by an Application for Transfer to provide the consumptive components necessary for the operation. Each application is detailed below.

Amended Application for Permit

A new groundwater diversion for a gravel wash facility and concrete batch plant is proposed under this application. The gravel wash facility is a non-consumptive industrial use. The concrete batch plant also includes non-consumptive uses that will be covered under this permit. Any consumptive uses associated with the concrete bath plant are mitigated through the associated transfer application and are described in the section entitled "Application for Transfer."

Gravel Wash Facility

The wash facility will draw from and recirculate to an on-site excavated pond, discussed in the section "Application for Transfer," and a float valve will control pumping from the proposed well for replacement water. The specified flow-through rates of the plant will vary, but the Applicant has determined that with recirculation, a 500-gallon per minute diversion rate is adequate for replacement water for wash-plant operation.

The contractors will be required to retrofit the wash plant(s) with shade covers and wind curtains to eliminate evaporative losses within the plant. Washed gravel product will be stored on site upon a gravel substrate. The small quantity of water adhering to washed product will drain from the stockpile and percolate to groundwater, and is considered non-consumptive. The bulk of the water from the wash plant will be returned to the pond in recirculation to be used again later.

The proposed 500 gallon per minute diversion rate is approximately 17 to 25 percent of the 2,000 to 3,000 gallons per minute instantaneous flow rates typical of gravel wash plants. This diversion rate, combined with the buffer provided by storage in the pond, is adequate for typical gravel-wash operations.

Concrete Batch Plant

Within the same place of use, a concrete batch plant will also be installed. The facilities will operate independantly. Non-consumptive uses at the batch plant include daily truck washing to

clean out the concrete drums and temper tanks, which are on each truck and filled for each load. All water used for truck washing and any unused water discharged from the temper tank will be allowed to seep back into the gravel on-site. Application 25-14462 would provide the necessary diversion rate required for the operation, but the consumptive volume will be mitigated through the Application for Transfer.

Application for Transfer

The applicant is purchasing 1.5 acres of water right 35-2568 to be transferred to the proposed location for use in the pond associated with the gravel wash facility and for use in a concrete batch plant.

Unstacking Analysis

Water Right Nos. 35-2568 and 35-7769 are appurtenant to property owned by Todd and Jennifer Cook. Conditions contained in these water rights limit the collective diversion volume of these water rights to 2,476 acre-feet for the irrigation of 619 acres. There is no combined diversion rate limit for these water rights. 35-2568 contains an individual acre limitation of 509 acres. 35-7769 does not contain an express individual acre limitation of the remaining 110 acres ($619 - 509 = 110$), however an inferred individual acreage limit of 110 acres is consistent with the 2.22 cfs diversion rate described in this water right. At one miner's inch (.02 cfs) per acre, a diversion rate of 2.22 cfs would be authorized to irrigate 111 acres. For practical and legal purposes, 35-7769 has an individual acre limitation of 110 acres.

Based on past transfers filed with the Department, we understand that Department staff may categorize Water Right Nos. 35-2568 and 35-7769 as "stacked water rights." There is no statute or administrative rule that defines "stacked water rights." However, page 28 (Section 5d.(3)) of the *Administrator's Memorandum, Transfer Processing No. 24* (December 21, 2009) (the "Transfer Memo"), provides the following IDWR definition of "Stacked Water Rights" under the Enlargement of Use section:

Water rights are "stacked" when two or more water rights, generally of different priorities and often from different sources, are used for the same use and overlie the same place of use. Water rights for irrigating a permissible place of use are not necessarily stacked when the water rights in total provide for irrigating up to the maximum acreage authorized within a permissible place of use.

Based on this definition in the Transfer Memo, Water Right Nos. 35-2568 and 35-7769 are not stacked because the water rights individually and in total provide for irrigating up to the maximum acreage of 619 acres authorized within the permissible place of use contained in both water rights. Accordingly, the water rights can be transferred separately without raising enlargement concerns.

The transfer submitted with this analysis proposes to unstack 1.5 acres of 35-2568 to move the 1.5 acres to a new place of use. Because the individual acreage limit under 35-2568 will be reduced by 1.5 acres and the overall acreage limit of 619 acres will be reduced by 1.5 acres, there is no enlargement of either 35-2568 or 35-7769.

Pond

A 12,000 square feet (0.28 ac) pond is excavated on site (within the described POU) to an average depth of 27 feet, and will be filled to an average depth of 25 feet.

First time fill will be provided by rental of 6.25 acre feet of water from the Water District 01 rental pool, delivered by the Progressive Irrigation District to a point adjacent to the Applicant's property on the east, and piped to the pond. The District has already agreed to this arrangement.

The pond is excavated into the clayey overburden soil that overlies the gravel, and not in the gravel that is the product of the mining operation. It is located within the POU, to the south of the POD. The soil is of low permeability, and expected percolation is low. Using the data available from the NRCS Web Soil Survey, seepage rates are expected to be 0.0030 ft/day. Figure 1 is an excerpt of the Pond Loss Calculation spreadsheet provided by the Idaho Department of Water Resources, which was used to calculate the total seepage losses of 0.3 afa.

Evaporation is calculated using the precipitation deficit of Open Water-Shallow Systems of Idaho Falls FAA Airport (NWS – 104457), obtained from ET_{Idaho} (Allen and Robison, 2012). This was entered into the Pond Loss Calculation spreadsheet provided by Idaho Department of Water Resources. An excerpt of the evaporation calculation is shown in Figure 2. Total evaporation is calculated to be 0.5 afa.

Total pond requirements are 0.8 afa for seepage and evaporation losses.

INPUTS		
Pond Surface Area (AC.)	0.275	AC.
Pond Surface Area (SQ. FT.)	12000	SQ. FT.
I used the following method to obtain my Soil Classification information:	NRCS Web Soil Survey	
My Soil Classification is	CL	
Suggested Seepage Rate (FT./DAY)	0.0030	FT./DAY
Formula: (Surface Area X Seepage Rate) X 7.48 = Gallons Per Day Loss		
Convert to GPD	269	GPD
Total Seepage Loss (AFA)	0.3	AFA

Figure 1. Excerpt of seepage loss calculations from IDWR's Pond Loss Calculation Spreadsheet

Found at: <http://data.kimberly.uidaho.edu/ETIdaho/>

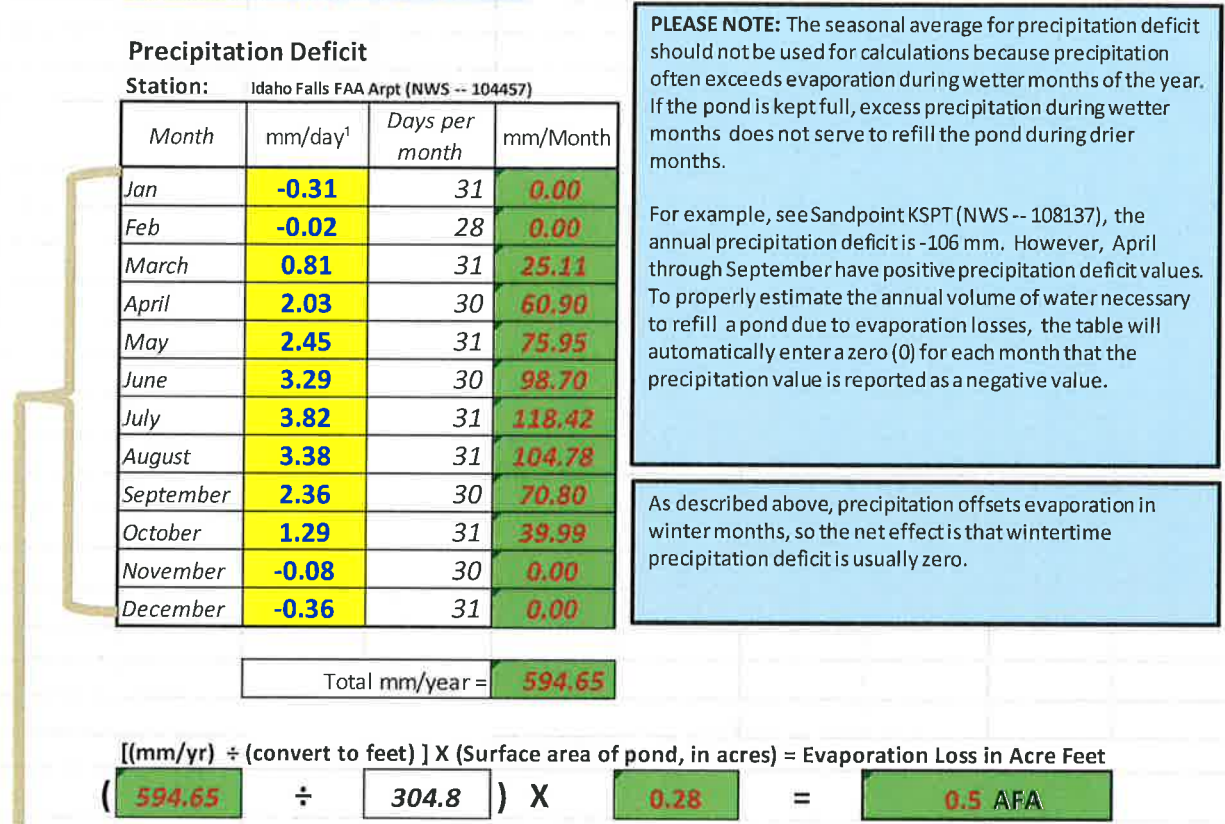


Figure 2. Excerpt of evaporation calculations from IDWR's Pond Loss Calculation Spreadsheet

Concrete Batch Plant

The remainder of the water right purchased will be for industrial use at the batch plant. This water will be used for all consumptive components at the plant, including mixing concrete, temper tanks (which can be used at delivery locations to add more water to the concrete), and any other uses.

The transfer proposes 2.5 afa available for consumptive uses at the concrete batch plant.

Total Transferred Amount

A conversion of the purchased portion of water right 35-2568 yields a total of 3.3 afa of consumed water (see Attachment #8a for explanation on changes in nature of use). All uses proposed under this transfer total 3.3 afa, which does not exceed the purchased amount.

Summary

Table 1 below identifies the contribution each of these two applications will make to the Applicant's operation upon approval.

Table 1. Summary of Applications

Facility	Application No. 25-14462 (all non-consumptive uses)	Transfer Right No. 35-2568 (all consumptive uses)
Gravel Wash	1.12 cfs	-
• Pond	-	0.02 cfs / 0.8 afa
Concrete Batch Plant	1.12 cfs	0.02 cfs / 2.5 afa
Total	1.12 cfs	0.02 cfs / 3.3 afa

Reference

Allen, Richard G. and Clarence W. Robison, 2012. *Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho: Supplement updating the Time Series through December 2008*, Research Technical Completion Report, Kimberly Research and Extension Center, University of Idaho, Moscow, ID.