

AMENDED APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

1. Name of applicant(s) South Interchange Properties, LLC Phone 208-523-0620
 Name connector (check one): ☐ and ☐ or ☐ and/or
 Mailing address: c/o Holden, Kidwell, Hahn & Crapo, PLLC, PO Box 50130 City Idaho Falls
 State ID Zip 83405 Email: _____
2. Source of water supply Ground Water which is a tributary of _____
3. Location of point(s) of diversion:

Twp	Rge	Sec	Govt Lot	¼	¼	¼	County	Source	Local name or tag #
1N	37E	8		SW	NW	NE	Bonneville	Ground Water	

4. Water will be used for the following purposes:

Amount 0.2 cfs / 22 AFA for Commercial purposes from 1/1 to 12/31 (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)

5. Total quantity to be appropriated is (a) 0.2 cubic feet per second (cfs) and/or (b) 22 acre-feet per year (af).

6. Proposed diverting works:

a. Describe type and size of devices used to divert water from the source. An existing well will be used to divert the water.

b. Height of storage dam _____ feet; active reservoir capacity _____ acre-feet; total reservoir capacity _____ acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 11.

For dams 10 feet or more in height OR reservoirs with a total 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 12 inches; proposed depth of well is 455 feet.

d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☒ No

e. If well is already drilled, when? 10/28/2005; drilling firm Andrew Well Drilling;

Well was drilled for (well owner) Melaleuca, Inc.; Drilling Permit No. D0036361.

7. Description of proposed uses (if irrigation only, go to item 8):

a. Hydropower; show total feet of head and proposed capacity in kW. _____

b. Stockwatering; list number and kind of livestock. _____

c. Municipal; show name of municipality or the applicant's qualifications as a municipal provider. _____

d. Domestic; show number of households _____

e. Other; describe fully. Commercial, non-consumptive culinary inside use for three buildings.

8. Description of place of use:

- a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
- b. 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	
1N	38E	8		C	C		C												

Total number of acres to be irrigated: 0

9. 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? _____

10. 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: _____

11. Describe your proposal in narrative form, and provide additional explanation for any of the items above. Attach additional pages if necessary. Water use is for non-consumptive culinary inside use for the existing powder facility, a new headquarters building, and a new day care building. The headquarters and day care buildings are in the beginning stages of construction. Outside irrigation will be done with a separate water right that will be transferred to the place of use. The existing distribution facility is served by Permit No. 35-13537.

12. Time required for completion of works and application of water to proposed beneficial use is 5 years (minimum 1 year).
13. **MAP OF PROPOSED PROJECT REQUIRED** - Attach an 8½" x 11" map clearly identifying the proposed point of diversion, place of use, section #, township & range. A photocopy of a USGS 7.5 minute topographic quadrangle map is preferred.

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.

Robert L. Jarris
Signature of Applicant

ROBERT L. JARRIS, ATTORNEY
Print Name (and title, if applicable)

Signature of Applicant

Print Name (and title, if applicable)

For Department Use:

Received by _____ Date _____ Time _____ Preliminary check by _____

Fee \$ _____ Received by _____ Receipt No. E031356 Date _____

Attachment 1 – Volume Calculations

Headquarters Building

- 2,000 employees
- 11 gallons/person/day
- 5 day work week
- 52 weeks/year
- $2,000 * 11 * 5 * 52 = 5,720,000$ gallons/year
- $5,720,000$ gallons/year = **17.6 ac-ft/year**

Powder Facility

- 221 employees
- 13 gallons/person/day
- 5 day work week
- 52 weeks/year
- $221 * 13 * 5 * 52 = 746,980$ gallons/year
- $746,980$ gallons/year = **2.3 ac-ft/year**

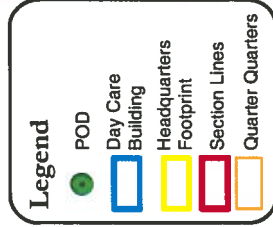
Day Care Building

- 200 kids, 35 employees
- 11 gallons/person/day
- 5 day work week
- 52 weeks/year
- $235 * 11 * 5 * 52 = 672,100$ gallons/year = **2.1 ac-ft/year**

$$17.6 \text{ ac-ft} + 2.3 \text{ ac-ft} + 2.1 \text{ ac-ft} = 22 \text{ ac-ft}$$

The number of gallons required per person was derived from meter readings at the powder facility over a four week period.

The powder facility has a higher requirement of gallons/person than the headquarters building because a small amount of water is required at the powder facility to wash equipment.



Prepared by:
Luke H. Marchant
8/7/2012

APPLICATION FOR AMENDMENT TO PERMIT NO. 35-13542

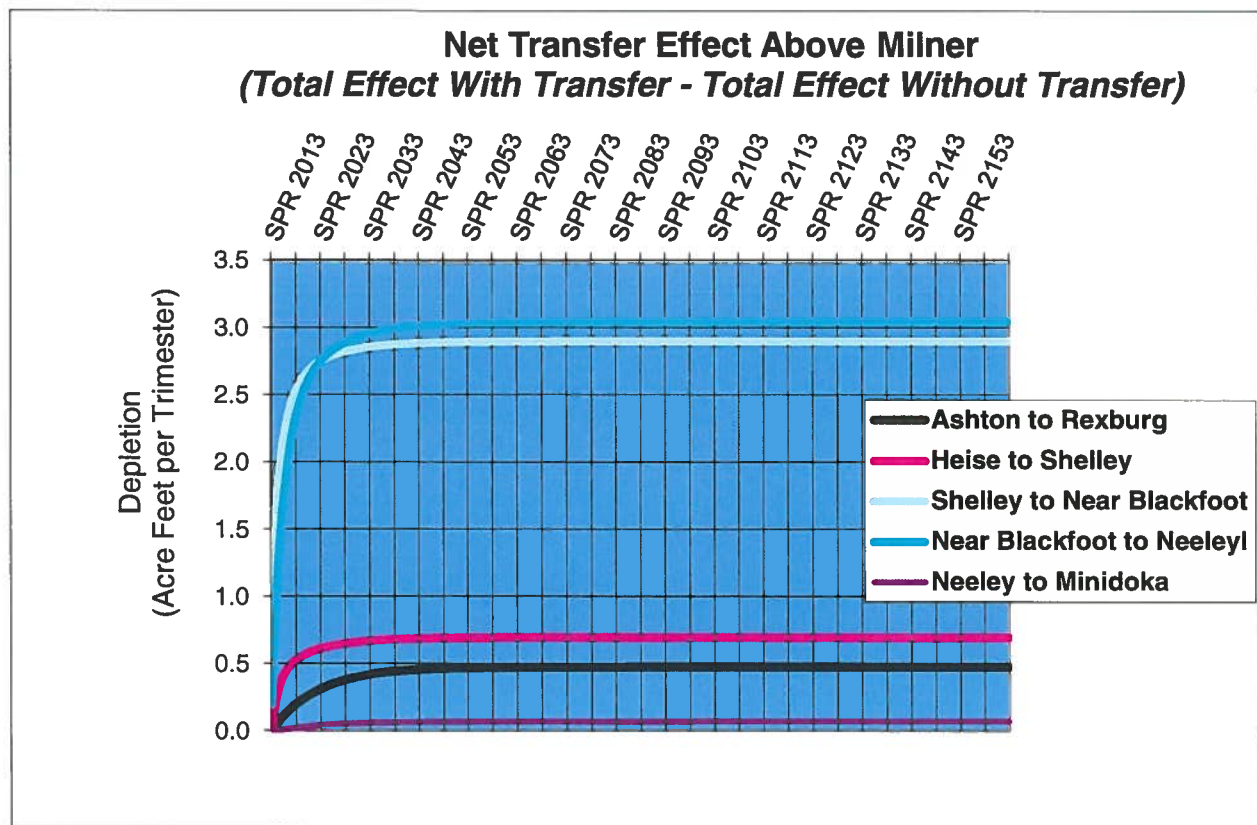
MODEL ANALYSIS (ESPA TRANSFER TOOL v. 3.1)

Cell Used: Row 74, Column 154

Amounts: 7.34 AF/Trimester

Results: Steady State impacts of 2.9 AF/Trimester for Shelley to Near Blackfoot Reach; Steady State impacts of 3.0 AF/Trimester for Near Blackfoot to Neeley Reach; .7 AF/Trimester for Heise to Shelley Reach; .5 AF/Trimester for Ashton to Rexburg Reach.

Analysis: No mitigation is required for Ashton to Rexburg and Heise to Shelley reaches because steady state amounts are less than 2 AF/Trimester. No mitigation is required for Shelley to Near Blackfoot and Near Blackfoot to Neeley reaches because treated wastewater will be discharged into the Snake River. No mitigation is required for the Neeley to Minidoka reach because the steady state amounts are less than 2 AF/Trimester and because this reach is downstream from where wastewater is discharged.



ENHANCED GROUND-W

UNIVERSITY OF IDAHO - IDAHO WATER RESOURCES RESEA

Cells this color are
set up for user entries

ENTER STARTING DATE FOR
SIMULATION. THEN PUSH "UPDATE DATES" BUTTON

TRANSFER NO: 2

YEAR 2013

SEASON SPRING

TRANSFER NAME Melaleuca App. #

ENTER CELL LOCATIONS:

	'TO' CELL	'FROM1' CELL	'FROM2' CELL	'FROM3' CELL
ROW	74	74		
COLUMN	154	154		

TRIMESTER OF ACTIVITY	TO WELL	FROM1 WELL		FROM2 W
	Projected Use AF/TRIMESTER	With Transfer AF/TRIMESTER	Without Transfer AF/TRIMESTER	With Transfer AF/TRIMESTER
SPR 2013	7	0	0	0
SUM 2013	7	0	0	0
WIN 2013	7	0	0	0
SPR 2014	7	0	0	0
SUM 2014	7	0	0	0
WIN 2014	7	0	0	0
SPR 2015	7	0	0	0
SUM 2015	7	0	0	0
WIN 2015	7	0	0	0
SPR 2016	7	0	0	0
SUM 2016	7	0	0	0
WIN 2016	7	0	0	0
SPR 2017	7	0	0	0
SUM 2017	7	0	0	0
WIN 2017	7	0	0	0
SPR 2018	7	0	0	0
SUM 2018	7	0	0	0
WIN 2018	7	0	0	0
SPR 2019	7	0	0	0

1	2	3	4	5	6	7	8	9
	TOTAL EFFECT WITH TRANSFER (AF/four months)							
	Ashton to Rexburg	Heise to Shelley	Shelley to Nr Bickft	Nr Bickft Neeley	T. Neeley to Minidoka	Dev. Wbl. Buhl	Buhl to Kspr	Kspr
SPR 2013	0.0	0.0	0.8	0.2	0.0	0.0	0.0	0.0
SUM 2013	0.0	0.1	1.2	0.5	0.0	0.0	0.0	0.0
WIN 2013	0.0	0.2	1.5	0.7	0.0	0.0	0.0	0.0
SPR 2014	0.0	0.2	1.7	1.0	0.0	0.0	0.0	0.0
SUM 2014	0.1	0.3	1.8	1.2	0.0	0.0	0.0	0.0
WIN 2014	0.1	0.3	2.0	1.4	0.0	0.0	0.0	0.0
SPR 2015	0.1	0.4	2.1	1.5	0.0	0.0	0.0	0.0
SUM 2015	0.1	0.4	2.2	1.7	0.0	0.0	0.0	0.0
WIN 2015	0.1	0.4	2.2	1.8	0.0	0.0	0.0	0.0
SPR 2016	0.1	0.5	2.3	1.9	0.0	0.0	0.0	0.0
SUM 2016	0.1	0.5	2.3	2.0	0.0	0.0	0.0	0.0
WIN 2016	0.2	0.5	2.4	2.1	0.0	0.0	0.0	0.0
SPR 2017	0.2	0.5	2.4	2.2	0.0	0.0	0.0	0.0
SUM 2017	0.2	0.5	2.5	2.2	0.0	0.0	0.0	0.0
WIN 2017	0.2	0.5	2.5	2.3	0.0	0.0	0.0	0.0
SPR 2018	0.2	0.5	2.5	2.3	0.0	0.0	0.0	0.0
SUM 2018	0.2	0.5	2.6	2.4	0.0	0.0	0.0	0.0
WIN 2018	0.2	0.5	2.6	2.4	0.0	0.0	0.0	0.0
SPR 2019	0.2	0.6	2.6	2.5	0.0	0.0	0.0	0.0
SUM 2019	0.2	0.6	2.6	2.5	0.0	0.0	0.0	0.0
WIN 2019	0.2	0.6	2.6	2.5	0.0	0.0	0.0	0.0
SPR 2020	0.3	0.6	2.7	2.6	0.0	0.0	0.0	0.0
SUM 2020	0.3	0.6	2.7	2.6	0.0	0.0	0.0	0.0
WIN 2020	0.3	0.6	2.7	2.6	0.0	0.0	0.0	0.0
SPR 2021	0.3	0.6	2.7	2.6	0.0	0.0	0.0	0.0
SUM 2021	0.3	0.6	2.7	2.7	0.0	0.0	0.0	0.0
WIN 2021	0.3	0.6	2.7	2.7	0.0	0.0	0.0	0.0
SPR 2022	0.3	0.6	2.7	2.7	0.0	0.0	0.0	0.0
SUM 2022	0.3	0.6	2.7	2.7	0.0	0.0	0.0	0.0
WIN 2022	0.3	0.6	2.7	2.7	0.0	0.0	0.0	0.0
SPR 2023	0.3	0.6	2.8	2.8	0.0	0.0	0.0	0.0
SUM 2023	0.3	0.6	2.8	2.8	0.0	0.0	0.0	0.0
WIN 2023	0.3	0.6	2.8	2.8	0.0	0.0	0.0	0.0
SPR 2024	0.3	0.6	2.8	2.8	0.0	0.0	0.0	0.0
SUM 2024	0.3	0.6	2.8	2.8	0.0	0.0	0.0	0.0
WIN 2024	0.3	0.6	2.8	2.8	0.0	0.0	0.0	0.0
SPR 2025	0.3	0.6	2.8	2.8	0.0	0.0	0.0	0.0
SUM 2025	0.3	0.6	2.8	2.8	0.1	0.0	0.0	0.0
WIN 2025	0.4	0.6	2.8	2.8	0.1	0.0	0.0	0.0
SPR 2026	0.4	0.6	2.8	2.8	0.1	0.0	0.0	0.0
SUM 2026	0.4	0.6	2.8	2.9	0.1	0.0	0.0	0.0
WIN 2026	0.4	0.6	2.8	2.9	0.1	0.0	0.0	0.0
SPR 2027	0.4	0.6	2.8	2.9	0.1	0.0	0.0	0.0
SUM 2027	0.4	0.6	2.8	2.9	0.1	0.0	0.0	0.0
WIN 2027	0.4	0.6	2.8	2.9	0.1	0.0	0.0	0.0
SPR 2028	0.4	0.7	2.8	2.9	0.1	0.0	0.0	0.0

SUM 2028	0.4	0.7	2.8	2.9	0.1	0.0	0.0	0.0
WIN 2028	0.4	0.7	2.8	2.9	0.1	0.0	0.0	0.0
SPR 2029	0.4	0.7	2.8	2.9	0.1	0.0	0.0	0.0
SUM 2029	0.4	0.7	2.8	2.9	0.1	0.0	0.0	0.0
WIN 2029	0.4	0.7	2.8	2.9	0.1	0.0	0.0	0.0
SPR 2030	0.4	0.7	2.8	2.9	0.1	0.0	0.0	0.0
SUM 2030	0.4	0.7	2.8	2.9	0.1	0.0	0.0	0.0
WIN 2030	0.4	0.7	2.8	2.9	0.1	0.1	0.0	0.0
SPR 2031	0.4	0.7	2.8	2.9	0.1	0.1	0.0	0.0
SUM 2031	0.4	0.7	2.9	2.9	0.1	0.1	0.0	0.0
WIN 2031	0.4	0.7	2.9	2.9	0.1	0.1	0.0	0.0
SPR 2032	0.4	0.7	2.9	2.9	0.1	0.1	0.0	0.0
SUM 2032	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2032	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2033	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2033	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2033	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2034	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2034	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2034	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2035	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2035	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2035	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2036	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2036	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2036	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2037	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2037	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2037	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2038	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2038	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2038	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2039	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2039	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2039	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2040	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2040	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2040	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2041	0.4	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2041	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2041	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2042	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2042	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2042	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2043	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2043	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2043	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2044	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2044	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
WIN 2044	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SPR 2045	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0
SUM 2045	0.5	0.7	2.9	3.0	0.1	0.1	0.0	0.0

→ STEADY STATE



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Web Site: www.idwr.idaho.gov

October 12, 2007

C. L. "BUTCH" OTTER
Governor

DAVID R. TUTHILL, JR.
Director

KENT FOSTER
HOLDEN KIDWELL HAHN & CRAPO PLLC
PO BOX 50130
IDAHO FALLS, ID 83405

RECEIVED

OCT 17 2007

Re: Application for Permit 35-13542 – South Interchange Properties, LLC

Dear Mr. Foster:

The Department has received your letter dated August 21, 2007 regarding the Department's review of the application for South Interchange Properties, LLC. I have been asked to respond to your letter on behalf of the Director.

As I understand it, the application proposes to divert 0.2 cfs and 140 af from a ground water source a few miles north of Shelley for commercial/industrial purposes. The majority of the diversion volume is proposed to be returned to the Snake River after treatment through the Shelley Sewage Treatment Plant and only about 7.4 af will be consumed in the manufacturing process.

I understand that you and Rob Harris have been working primarily with Shelley Keen of this office to finalize a mitigation plan to compensate for effects to reaches of the Snake River. Although only 7.4 af will be consumed through the process, ESPA modeling has indicated that there will be effects to reaches of the Snake River that are upstream of Shelley to near Blackfoot reach, where treated water will be returned to the river. In a letter dated September 26, 2006, you proposed to mitigate those effects by discontinuing use of some acres under rights 21-2012, 21-2034 and 21-7148 and also by committing storage water from Palisades Water Users, Inc. Through continued discussion, the details of the proposed mitigation plan were being finalized and the Department was preparing a draft permit with conditions.

During final review, some items have been identified that will need to be addressed. The rights in Basin 21, from Blue Creek were reviewed for their adequacy for use as mitigation. Staff from our Eastern Region office have indicated that the rights are generally cut in April each year. The Department will need additional information to support the use of those rights, or alternate rights, as adequate mitigation for the effects in the Ashton to Rexburg reach of the river.

Mr. Foster
October 12, 2007
Page 2 of 2

The second item that will be necessary is documentation of ownership or authorization to use the mitigation rights and acknowledgement by the owner that the official record will be changed by the Department to reflect the mitigation use. Documentation of ownership or authorization and a plan for releases from storage and accounting will also be necessary to ensure that mitigation through storage releases is accomplished each year.

In prior letters, you have referred to drying up 80 acres of farmland under the New Sweden Irrigation District system as a means of mitigation for the application. The concept may be an alternative to mitigate for effects in the Heise to Shelley reach; however, ownership or authorization to reduce diversion and commit the right(s) to mitigation and acknowledgement by the owner that the official record will be changed to reflect the mitigation use would be necessary to ensure that mitigation can be properly accounted for.

I hope this letter provides answers to your questions regarding status of the application. If you have additional questions regarding this matter, please feel free to contact me at 208-287-4948.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeff Peppersack', is written over the typed name.

Jeff Peppersack, Chief
Water Allocation Bureau



State of Idaho

DEPARTMENT OF WATER RESOURCES

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

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Web Site: www.idwr.idaho.gov

November 5, 2008

C. L. "BUTCH" OTTER
Governor

DAVID R. TUTHILL, JR.
Director

ROBERT L HARRIS
HOLDEN KIDWELL HAHN & CRAPO PLLC
PO BOX 50130
IDAHO FALLS, ID 83405

Re: Application for Permit 35-13542 – South Interchange Properties, LLC

Dear Rob,

I received your letter dated September 1, 2008 regarding the application referenced above. Your letter was a response to a draft memorandum dated June 17, 2008 to Jeff Peppersack from Mat Weaver discussing multiple mitigation proposals for the application. You stated you had not yet received a final version of the memorandum with the listed attachments. I have enclosed a final version with attachments for your reference.

Your letter also responded to many items in the draft memorandum and recounts the history of trying to finalize the application and mitigation plan. You expressed frustration with the level of scrutiny by the Department for 7.4 acre-feet of consumptively used water under the application. Although the application proposes consumptive use of only 7.4 acre-feet per year, the Department must consider the quantity, timing, and location of effects to other rights if there is potential for injury due to pumping 140 acre-feet annually. A mitigation plan should address potential injury to other rights in quantity, location, and timing in a way that can be reasonably administered by a watermaster or the Department.

Your letter asks for a formal response to each of your mitigation proposals. The enclosed memorandum discussed above should provide that response. The Department has not promulgated rules or finalized policy memoranda regarding evaluation of mitigation plans for applications as of this date, but is currently working to develop policy for guidance to staff. I invite you to participate in the Department's Transfer/Mitigation workshop scheduled for November 13, 2008 to discuss policy regarding mitigation plans.

Under Mitigation Proposal No. 2 in your letter you propose that South Interchange Properties, LLC would join a ground water district for mitigation purposes in the event administration of the ESPA is ordered by the Director. This new proposal was not addressed in Mat Weaver's memo. A similar proposal for the City of Shelley application to appropriate water no. 27-12155 was rejected in an order denying a motion for summary judgment, of which you have a copy. Consequently, I won't further discuss the reasoning in this letter.

NOV 10 2008

You proposed that the Department should submit to you a reasonable and acceptable mitigation plan. Department staff has made a significant effort to respond to your proposals and provide you with information. As you know, it is the applicant's burden to show that the proposal will not reduce the quantity of water available under existing water rights, or to provide mitigation to compensate for the reduction. The Department is not comfortable assuming the applicant's responsibility to propose a mitigation plan. I am sensitive to your frustration with the expiration of three years since the application was filed. Nonetheless, to date, a formal mitigation plan has not been offered with the application. If you would like the Department to make a decision on your application, please select and submit a specific proposal along with any other supporting documentation you may wish to provide in support of your plan. The Department will consider the plan and issue a decision based on criteria in Idaho Code § 42-203A and the Water Appropriation Rules of the Department.

Finally, you suggested a meeting might be beneficial to discuss the mitigation proposals and address concerns. I and/or Department staff are happy to meet with you to discuss the application.

Sincerely,



Gary Spackman

Enclosure

cc: Jeff Peppersack
Mat Weaver

MEMO

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

322 E. FRONT STREET, P.O. BOX 83720, BOISE, IDAHO 83720-0098

PHONE: (208) 287-4800 FAX: (208) 287-6700

DATE: OCTOBER 30, 2008

TO: Jeff Peppersack

FROM: Mat Weaver 

CC: Ernie Carlsen

SUBJECT: **35-13542 SOUTH INTERCHANGE WATER PERMIT
MITIGATION PLAN SUMMARY AND REVIEW**

INTRODUCTION

Per your request, this memo summarizes my hydrological assessment of the subject water right permit application and subsequent mitigation plan. I have reviewed the mitigation plan for conformance with the Idaho Department of Water Resource (IDWR) documentation intended to provide guidance to the mitigation process, including the "ESPA Transfer Spreadsheet Memorandum" dated August 13, 2007 and the "Evaluation of Mitigation Plans for Water Right Permits" Draft Memorandum dated April 20, 2006.

WATER PERMIT SUMMARY

The Idaho Department of Water Resources (IDWR) received an application for a new water permit on October 20th 2005 from the South Interchange Properties, LLC. The application requested a **groundwater diversion of 0.20 CFS and up to 140 AFA** for commercial and industrial use from 01/01 to 12/31. The point of diversion (POD) was described as the SW ¼ of the NW ¼ of the NE ¼ of Section 8, Township 1N, Range 37E (ESPA Model Grid Cell - 74:154), Bonneville County, Idaho near the town of Shelley.

In a letter received on December 29th, 2005 a Mitigation Statement regarding the proposed beneficial use was presented to IDWR, in the statement justification was given for an **annual use of 140.7 AF of which 5% or 7.4 AF was recognized as being consumed by the use**. The remaining 95% of the water will be discharged to the Snake River as treated wastewater from the City of Shelley Waste Water Treatment Plant, the average residence time of water in the treatment plant is 120 days.

APPLICANT'S PROPOSED MITIGATION PLAN(S)

In the initial Mitigation Statement (12/29/05), the applicant recognized two mitigation options.

1. The development of the industrial complex will convert approximately 80 acres of irrigation farm land to non-irrigated industrial development. The decrease in irrigation associated with the "drying up" of 80 acres could mitigate for the 7.4 AFA of consumptive use. Water for irrigation was provided by the New Sweden Irrigation District.
2. Mr. Frank Vandersloot, the owner, is the holder of irrigation ground water right 35-7206D (POD: NE¼ of the SE¼ of Section 9, T2N, R36E). The applicant proposed "drying up" 4-5 acres of land under this water right and transferring the use as an alternative means of mitigating for the 7.4 AFA of consumptive use.

A second, or "different alternative" mitigation proposal was received by IDWR on September 26th, 2006. In this proposal the applicant addressed each reach where injury was predicted separately.

1. Rexburg to Henry's Fork: Applicant controls an ownership interest in land near Ashton, Idaho, on a small tributary (Blue Creek) to the Henry's Fork River. Water Rights 21-2012, 21-2034, and 21-7148 (POD: NE¼ of the SW ¼ of the NW ¼ of Section 15, T9N, R43E) are appurtenant to this land. Proof reports for the Blue Creek surface water rights are included in the appendix. The applicant proposes the "drying up" of 5.8 acres, which equates to 17.4 AFA with a Field Headgate Requirement of 3.0. The "drying up" of ground would initiate at 0.4 acres and progress to 5.8 acres by 2061.
2. Heise to Shelley: The applicant would use up to 13.8 AFA of a total of 130 AFA of water owned by the applicant, in the form of 130 shares of stock of Palisades Water Users, Inc. A proof report of Palisades Water Users water right 1-10214 is included in the appendix. Each share is worth 1 acre-foot of storage in Palisades Reservoir. The committed volume of water would initiate at 2.5 AFA and progress to 13.8 AFA in 2041.

In a letter to IDWR dated August 9th, 2007 the applicant attempted to summarize the proposed mitigation, and although not expressly stated, the summary appears to represent a combination of the previous two mitigation proposals.

1. At Point of Diversion: The decrease in irrigation associated with the "drying up" of 80 acres (industrial complex). Water for irrigation is provided by the New Sweden Irrigation District.
2. Rexburg to Henry's Fork: Applicant controls an ownership interest in land near Ashton, Idaho, on a small tributary (Blue Creek) to the Henry's Fork River. Water Rights 21-2012, 21-2034, and 21-7148 (POD: NE¼ of the SW ¼ of the NW ¼ of Section 15, T9N, R43E) are appurtenant to this land. Proof reports for the Blue Creek surface water rights are included in the appendix. The applicant proposes the "drying up" of 5.8 acres, which equates to 17.4 AFA with a Field Headgate Requirement of 3.0. The "drying up" of ground would initiate at 0.4 acres and progress to 5.8 acres by 2061.

3. Heise to Shelley: The applicant would use up to 13.8 AFA of a total of 130 AFA of water owned by the applicant, in the form of 130 shares of stock of Palisades Water Users, Inc. A proof report of Palisades Water Users water right 1-10214 is included in the appendix. Each share is worth 1 acre-foot of storage in Palisades Reservoir. The committed volume of water would initiate at 2.5 AFA and progress to 13.8 AFA in 2041.

MITIGATION PLAN EVALUATION

Water right application 35-13542 is located within the Snake River Moratorium Area. Therefore, an approved mitigation plan protecting the combined surface and ground water system in this region, from the groundwater diversion requested in the permit application, is required before the permit may be approved and issued by IDWR.

DEPLETION ANALYSIS - ESPA MODEL

The development of a successful mitigation plan requires the analysis of the quantity of water that will be depleted from the source due to the appropriation. When considering the need for mitigation it is important to remember that a water right can be injured in **time, location, and quantity**.

The applicant's mitigation plan identifies the consumption of 7.4 ac-ft of a total 140.7 ac-ft per year proposed for diversion in the application. When considering injury to water right holders an evaluation of the depletionary volume of water is not enough, consideration must also be given to the total amount of water diverted including consumptive and non-consumptive water. Even though the non-consumptive water is being returned to the Snake River, the act of diverting the ground water has the capacity to influence specific reaches of the river upstream and downstream of the diversion point. These influences are due to the direct hydrological link between the Snake River and the ESPA which is recognized by Rule 50 of *Idaho's Rules for Conjunctive Management of Surface and Ground Water* (IDAPA 37.03.11). This rule also categorizes the Snake River Moratorium Area as an "area determined to have a common ground water supply", which is specifically defined by IDAPA 37.03.11:

0.10.01 Area Having a Common Ground Water Supply. A ground water source within which the diversion and use of ground water or changes in ground water recharge affect the flow of water in a surface water source or within which the diversion and use of water by a holder of a ground water right affects the ground water supply available to the holders of other ground water rights. (Section 42-237a.g., Idaho Code)

The "Enhanced Eastern Snake Plain Aquifer Ground-Water Rights Transfer Spreadsheet" v3.1 was used to evaluate the impacts of the proposed ground water diversion on all reaches of the Snake River within the model boundaries. A diversion of 46.9 ac-ft/trimesters (140.7 ac-ft/year) at cell 75:154 was used for modeling. The results of this modeling exercise are graphically presented in *Figures 1 and 2*.

Fig. 1: Permit 35-13542 Proposed Ground Water Diversion Effect Above Milner Dam

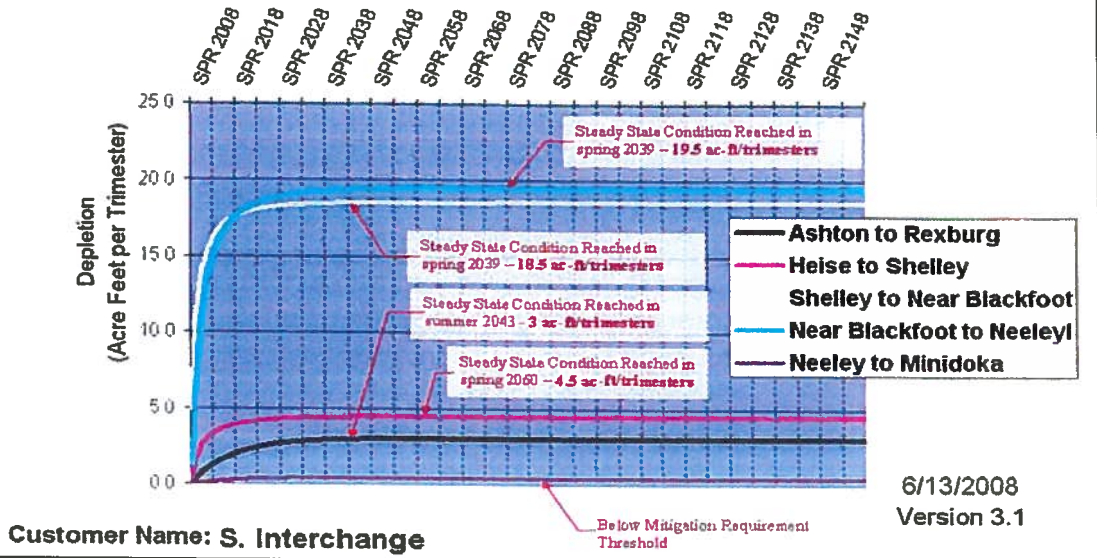
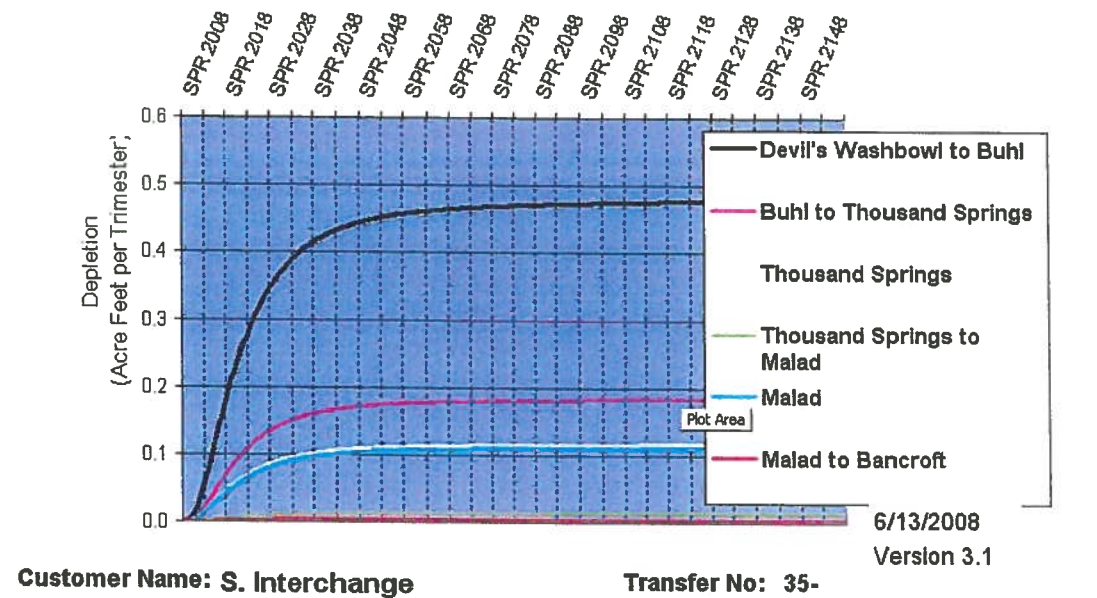


Fig. 2: Permit 35-13542 Proposed Ground Water Diversion Effect Below Milner Dam



At steady state conditions the proposed ground water diversion will deplete the Ashton to Rexburg (AtR) reach by 3.0 ac-ft/trimester, the Heise to Shelley (HtS) reach by 4.5 ac-ft/trimester, the Shelley to Near Blackfoot (StNB) reach by 18.5 ac-ft/trimester, and the Near Blackfoot to Neeley (NBtN) reach by 19.5 ac-ft/trimester. A mitigation plan compensating for the depletion of these four reaches of the Snake River in time, location, and quantity is required for the successful approval of this permit. The depletionary affects of the proposed diversion on the Snake River

reaches below Milner Dam were not above the threshold value of 2 ac-ft/trimester required to warrant mitigation under current IDWR policy.

REVIEW OF PROPOSED MITIGATION

1. Source of Mitigation Water

The applicant has proposed multiple sources of mitigation water to offset impacts from the proposed ground water diversion; refer to *Table 1* for a summary. As an arbitrary naming convention, Mitigation Waters A refers to water mitigation to the AtR reach, Mitigation Waters B refers to the StH reach, and Mitigation Waters C refers to all affected reaches downstream of the StH reach.

Table 1. Water Right Permit 35-13542 - South Interchange							
Modeled Depletion Due To Proposed Ground Water Diversion							
Description	Season of Use	Location (TRS)	Reach	Volume (ac-ft/trimester)			
Modeled Depletion	1/1 - 12/31	N/A	Ashton to Rexburg	3.0			
Modeled Depletion	1/1 - 12/31	N/A	Heise to Shelley	4.5			
Modeled Depletion	1/1 - 12/31	N/A	Shelley to Near Blackfoot	18.5			
Modeled Depletion	1/1 - 12/31	N/A	Near Blackfoot to Neeley	19.5			
Proposed Mitigation Water							
Description	Season of Use	Location (TRS)	Reach	Volume (ac-ft/year)	Sufficiency Check		
					Time	Location	Quantity
Mitigation Waters A: WR 21-2012* & WR 21-2034*	4/1 - 10/31	T9N, R43E, 15-16	Ashton to Rexburg	5.54	No	Yes	No
	4/1 - 10/31	T9N, R43E, 15-16	Ashton to Rexburg	5.54	No	Yes	No
Mitigation Waters B: WR 1-10214 (Palisades Water Users Shares)	3/15 - 11/15	N/A	Heise to Shelley	14	No	Yes	No
Mitigation Waters C: Return Water via Shelley WWTF	1/1 - 12/31	T1N, R37E, 8	Heise to Shelley	44.4	Yes	Yes	Yes
*WRs 21-2012 and 21-2034 are limited to the irrigation of a combined total of 141.2 acres in a single irrigation season, with the combined use limits of 3.4 CFS and 5.54 ac-ft/year.							

2. Time

The applicant has proposed multiple water rights with varying seasons of use; refer to *Table 2* for a summary.

Table 2. Water Right Permit 35-13542 - South Interchange				
Season of Use Comparison				
	Modeled Depletion	Mitigation Waters A	Mitigation Waters B	Mitigation Water C
Start of Water Use	1-Jan	1-Apr	15-Mar	1-Jan
End of Water Use	31-Dec	31-Oct	15-Nov	31-Dec
Total Days of Water Use	365.00	213.00	245.00	365.00
Percent of Full Year	100%	58%	67%	100%

3. Location

The applicant has proposed multiple water rights for mitigation with varying locations throughout eastern Idaho; refer to *Figure 3* for an overall map depicting eastern Idaho and the Applicant's proposed diversion point and mitigation water locations. The applicant has provided mitigation waters which are located in, or tributary to, each reach that will be impacted by the ground water diversion.

4. Quantity

The applicant has proposed at full mitigation a volume of water, which they believe to be equal to or greater than the modeled depletion volumes for all reaches of concern; refer to *Table 3* for a summary. For the Ashton to Rexburg reach and the Heise to Shelley reach the applicant is proposing a graduated increase in mitigation water to match the graduated increase in the effective depletion of the reach, with the full allotment of mitigation water provided when the depletionary affects of the respective river reach achieve steady state, as predicted by the model.

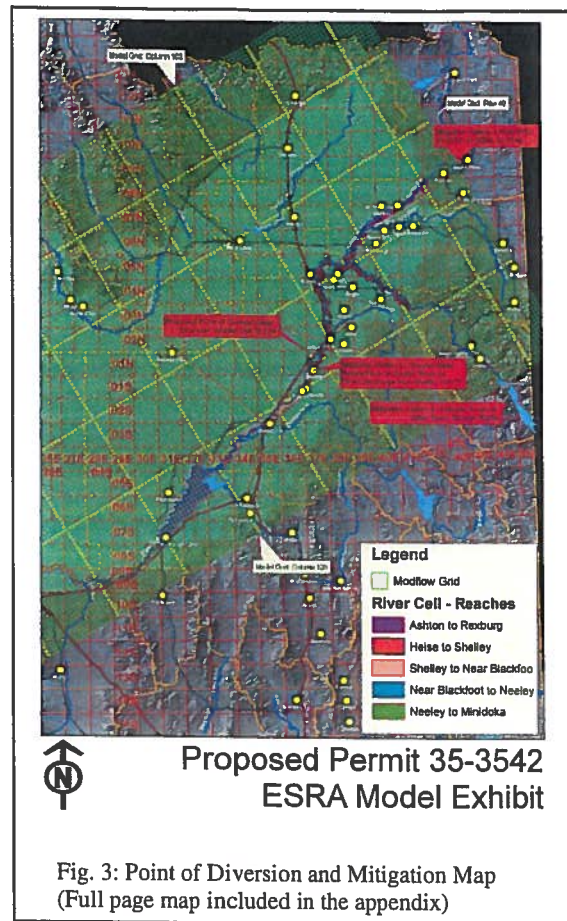


Table 3. Mitigation Volumes

Description	Reach	Depletion Vol. (ac-ft/year)	Mitigation Vol. (ac- ft/year)
Mitigation Waters A	Ashton to Rexburg	9	9
Mitigation Waters B	Shelley to Heise	13.5	13.8
Mitigation Waters C	Shelley to Near Blackfoot	55.5	—
	Near Blackfoot to Neeley	58.5	—
	Combined Vol.	114	133.3

5. How is Water Delivered (Type I – Replacement Water)

Mitigation Waters B and C represent Type I mitigation. Mitigation Waters B is Palisade Reservoir storage water that is currently undesignated. The applicant has proposed the delivery of the storage water into the HtS reach of

the Snake River via release from the Palisade Reservoir. Mitigation Waters C will be released to the StNB reach of the Snake River via direct discharge from the City of Shelley Waste Water Treatment Plant. To reach the NBtN reach of the Snake River, Mitigation Waters C will have to travel down river through the StNB reach of the Snake River.

6. Identification of Land or Use Terminated (Type II – Non-Use Water)

Mitigation Waters A represent Type II mitigation water. The applicant has proposed the non-use of existing irrigation surface water rights diverted from Blue Creek (tributary to the Henry's Fork River) as the source for Mitigation Waters A. In support of the proposed Type II mitigation water, the applicant has identified ground historically irrigated with the water rights that will be "dried up" and no longer irrigated. By not diverting the surface water rights, the water will stay in Blue Creek. From there the water will flow into the Henry's Fork of the Snake River and downstream into the AtR reach of the Snake River where the mitigation is actually needed.

7. Validity Review of Mitigation Water

In order to determine if the volume of water associated with a proposed mitigation plan is sufficient to the task at hand, a review of the validity of the water rights is required.

a. Mitigation Waters A:

- i. Historic Use & Availability of Water** – Mitigation Waters A is comprised of three surface water rights. The applicant submitted historical delivery records of the water to the property for the last 11 years. In that time the records indicate that a full allotment of water, as described by the water rights, has never been delivered. During that time water has been delivered on average 98 days out of a possible 214 days for WR 21-2034 and 44 days out of a possible 214 days for WR 21-2012, calculations provided in the appendix. Confusingly, WR 21-7148 was presented to IDWR for mitigation and then not considered by the applicant because it is an irrigation storage right.
- ii. Forfeiture Protection** – Review of aerial imagery from 1987, 1992, 2004, and 2006 suggests that this ground was irrigated in some capacity during these years. In addition, the applicant submitted historical records of irrigation delivery water to the property in question for the last 11 years. Due to the evidence of beneficial use of the irrigation waters comprising Mitigation Waters A, forfeiture does not seem to be an issue.
- iii. Overlapping Rights** – The Freemont-Madison Irrigation District has irrigation water rights (21-24A, 21-26A, 21-27A, 21-120A, 21-121A, 21-122A, 21-123A, 21-124A, 21-125A, 21-126A) with the same place of use as described by the water rights comprising Mitigation Waters A. The applicant indicated in their letter dated

January 30th, 2008, that the owners of the land in question “historically rented Fremont-Madison storage water to supplement the supply during such times of any irrigation season when the supply under [their water rights] is short”. The Fremont-Madison irrigation rights seem to represent a supplemental irrigation water right to the grounds in question and therefore an overlap in use does not exist.

- iv. **Water Quality** – Issues regarding water quality concerns in association with the proposed mitigation waters are not applicable in this instance.
- v. **Water Master Consent** – Specific written or verbal consent for the application from the Water Master of Water District 120 is not evident in the file. However, past correspondence seems to suggest the Water Master is aware of the proposed application and mitigation and has not spoken out against the proposal.

b. Mitigation Waters B:

- i. **Historic Use & Availability of Water** – Joe Kaufmann with Water District 01 assists in the management of Palisades Water Users (PWU), Incorporated’s storage water in Palisades Reservoir. Joe provided historical storage records for Palisades Reservoir for the last 18 years; refer to the appendix for historical data. The historical storage records indicated that PWU has not received their full allotment of water six out of the last 18 years, of which five of those years were consecutive.
- ii. **Forfeiture Protection** – Issues regarding forfeiture concerns in association with the proposed mitigation waters are not applicable in this instance.
- iii. **Overlapping Rights** – Issues regarding overlapping use concerns in association with the proposed mitigation waters are not applicable in this instance.
- iv. **Water Quality** - Issues regarding water quality concerns in association with the proposed mitigation waters are not applicable in this instance.
- v. **Water Master Consent:** Specific written or verbal consent for the application from the Water Master of Water District 01 is not evident in the file. However, past correspondence seems to suggest the Water Master is aware of the proposed application and mitigation and has not spoken out directly against the proposal.

c. Mitigation Waters C:

Mitigation Waters C are comprised of water that will be generated by the proposed diversion of ground water associated with the permit. As such, questions of validity pertaining to an existing right’s nature of use being changed to a mitigation use does not apply.

8. Authority Review of Mitigation Water

a. Mitigation Waters A:

IDWR ownership records indicate that Mr. David Kuhn is the current owner of the existing surface water rights on Blue Creek (Mitigation Waters A) that are proposed as a source of mitigation to the AtR reach. No justification or proof has been provided by the applicant illustrating their authority to commit these surface water rights from their existing irrigational use to one of mitigation.

b. Mitigation Waters B:

Wendy Murphy with Water District 01 assists in the management of Palisades Water Users, Incorporated's storage water in Palisades Reservoir. Wendy indicated in a phone conversation on June 18, 2008, that the applicant, through the entity of Natural Guardian, was currently in ownership of 960 total shares of water. Of the 960 shares, 130 shares have no use currently designated.

c. Mitigation Waters C:

Approval of water right permit 35-13542 would give authority over the mitigation waters to the applicant.

CONCLUSIONS

The mitigation plan as proposed by the applicant is currently insufficient to adequately account for depletions to the ESPA system as a result of the proposed ground water diversion. There are components of the plan for which specific details are still outstanding or that are not acceptable in their current form. Outstanding issues associated with the proposed plan include the following, and should be addressed to the satisfaction of IDWR prior to issuance of the permit.

- **Comprehensive Written Mitigation Plan** – To date a comprehensive written description of the proposed mitigation plan, clearly defining all proposed mitigation water, has not been provided by the applicant. Such a document should be submitted to IDWR for review and approval. At a minimum the plan should have a summary of the proposed mitigation, identification of all mitigation waters, ESPA transfer model results, proof of authority over proposed mitigation waters, and correspondences from affected third parties (owner of proposed mitigation rights, Palisades Water Users, Inc., irrigation companies, etc.) giving written consent to the commitment of water for mitigation purposes proposed by the plan. IDWR has prepared a "Mitigation Plan Evaluation" worksheet that outlines all pertinent information that should be addressed in the mitigation plan; a copy of this worksheet is included in the appendix.
- **Graduated Increase in Mitigation Water Through Time** - The mitigation plan proposes a graduated increase in mitigation water through time to match modeled depletionary affects. In one instance the applicant has suggested incremental increases in mitigation waters from year to year over the course of 83 years before

arriving at the full mitigation volume. I would recommend that the total amount of mitigated water required for the steady state condition be provided from the start, and coincide with the beginning of ground water diversion. This will lead to a simpler implementation of mitigation waters on the part of the applicant, and a lesser effort required by the watermaster in ensuring that waters in proper volume are being used for their intended purpose. It also seems that by requiring the full mitigation volume from the on-set of diversion, that there will be less likelihood for error (specifically under delivery) in the volume of mitigation waters provided by the applicant, thereby decreasing the likelihood of injury to others.

An alternative to providing the full steady state condition of mitigation water from the on set could be the requirement of annual reporting. As an alternative, IDWR could require that records verifying the diversion of mitigation water as described by the conditions of the water right permit, be maintained and compiled into an annual report, that is confirmed as accurate by the watermasters of Water District 01 and 120, and the Chief Operator of the City of Shelley Waste Water Treatment Plant, in written statements to be included in the report. Annual reports should be prepared by a professional consultant, such as an Engineer, Hydrologist, or Geologist, maintained for a minimum of five years, and made available to IDWR upon request.

- **Extreme Conveyance Distances of Mitigation Water** – There appears to be reason for concern regarding the location of proposed mitigation waters and their lack of proximity to the reaches of the Snake River that they are augmenting.

Mitigation Waters A are meant to alleviate the depletion of water in the AtR reach of the Snake River, yet the waters initiate in Blue Creek which drains to the Henry's Fork River at a point approximately 20 river miles up stream from the ESPA model boundary and the beginning of the AtR reach. Mitigation Waters B are meant to alleviate the depletion of water in the HtS reach of the Snake River, yet the water when released from Palisade Reservoir must travel some 35-40 river miles to reach the intended destination. Mitigation waters C are meant to alleviate the depletion of waters in the StNB and NBtN reaches of the Snake River, the water is released at the upper end of the StNB reach and must travel 35-40 river miles downstream before arriving at the start of the NBtN reach.

The concern is that there is no way to verify that the waters intended for mitigation in downstream reaches in fact reach their destination. It is conceivable that the waters may be diverted, percolate into the aquifer, or in some other way be intercepted prior to arriving at the point where mitigation has been determined to be needed.

- **Mitigation Water Seasons of Use** – Mitigation Waters A and B have a season of use that is less than the proposed year round use associated with the permit, refer to *Table 2*. Although it appears that the mitigation waters will be able to make up the anticipated depleted volumes of water in the Snake River over the course of an entire calendar year, they will not match volume for volume at a monthly scale.

Mitigation Waters A augments waters in the AtR reach of the Snake River and under a best case scenario will only be delivered from April to October (typical irrigation season for the region). Any injury that occurs to senior water right holders from November to March will not be mitigated until the following irrigation season. It should be noted that the AtR reach of the Snake River does not have storage facilities associated with it. The primary consumptive use of the water in this reach is irrigation, which takes place in the same year the precipitation occurs and runs off. Although depletion due to the proposed diversion will occur in this reach year round, injury to water right holders is most likely to occur during the irrigation season, when the irrigators are using their water. Therefore, if limiting injury to senior water right holders is the primary concern, IDWR may be able to look past the temporal discrepancy between the annual period of depletion and the sub-annual period of mitigation. Assuming that although depletion occurs year round, injury will likely only occur during the irrigation season, and mitigation waters are provided for that time period.

Mitigation Waters B augments waters in the HtS reach of the Snake River and is only delivered from March 15th to November 15th. Any injury that occurs to senior water right holders from November 16th to March 14th will not be mitigated until the following season of use. Unlike the AtR reach of the Snake River, the HtS reach consists of multiple dams that provide power, impound water, and divert water year round, for year round and future uses. Deprivation of water to this reach during periods of time other than the irrigation season may result in real injury to senior water right holders. Therefore, approval of Mitigation Waters B, with their current sub-annual season of use may result in injury.

- **Termination of the Use of Water Associated with the Permit** - Cessation of the use of water under this permit does not lead to the immediate removal of depletionary affects on the ESPA due to this water use. If and when the ground water is no longer being diverted for this use, it will take some transitional time for the ESPA to reach a new steady state condition. Mitigation will be required to continue past the cessation of the use of water until that time that the system achieves steady state. In that time the proposed mitigation waters should not be allowed to be used for any other purpose.
- **Mitigation Waters A – Specific Shortcomings**
 - **Ownership Proof Blue Creek Surface Water Rights** - No documentation of ownership or authorization to use the water rights associated with mitigation waters A (Blue Creek Surface Water Rights) has been submitted to IDWR. In addition, acknowledgement or consent by the owner recognizing that the official records will be updated by IDWR to reflect the change in use to mitigation will also be required prior to approval of the proposed mitigation plan.
 - **Area of Desiccated Land on the Blue Creek Property** – The applicant submitted a letter to IDWR on January 30th, 2008, addressing on-going mitigation plan issues. In this letter the applicant provided spreadsheets and a written

justification for the desiccation (“drying up”) of 10 acres over 83 years to mitigate depletions in the AtR reach. The amount of ground proposed for desiccation was based upon historical averages of precipitation deficits (water consumption by crop uptake), over an 11 year time period, which was reported by the applicant to be one of the driest on record. I do not concur with all of the arguments and data put forth in their justification, but understood the basic spirit of the proposal. Based upon their approach, with slight modifications, I prepared calculations that indicated an average precipitation deficit of 122.5 ac-ft/season over the past eleven years. This equates to a precipitation deficit of 0.87 ac-ft per acre. ESPA model results indicate depletion to the AtR reach of 3 ac-ft/trimester, or 9 ac-ft/year. The desiccation of 10.4 acres of ground is required to mitigate the anticipated depletions to the AtR reach. Although this number is in close agreement with the applicant’s number, my methodology for arriving at the number was different, all calculations are included in the appendix.

The logic of the “historical average” approach to mitigation outlined above is somewhat misleading and may be cause for concern. There is a tendency to assume that because a historical average has been used, which inflates the number of acres of land that must be desiccated, the potential for injury to senior water right holders has been adequately addressed. At the core of this approach lies the logic that there will be lean years in which depletions may be under-mitigated, which will be compensated by surplus years in which depletions are over-mitigated. However, for any given year, if a senior water right holder is injured, it is immaterial for them to be over compensated for water in some future year. By the time over compensation occurs the detrimental implications associated with the injury will have already transpired and may be beyond recourse.

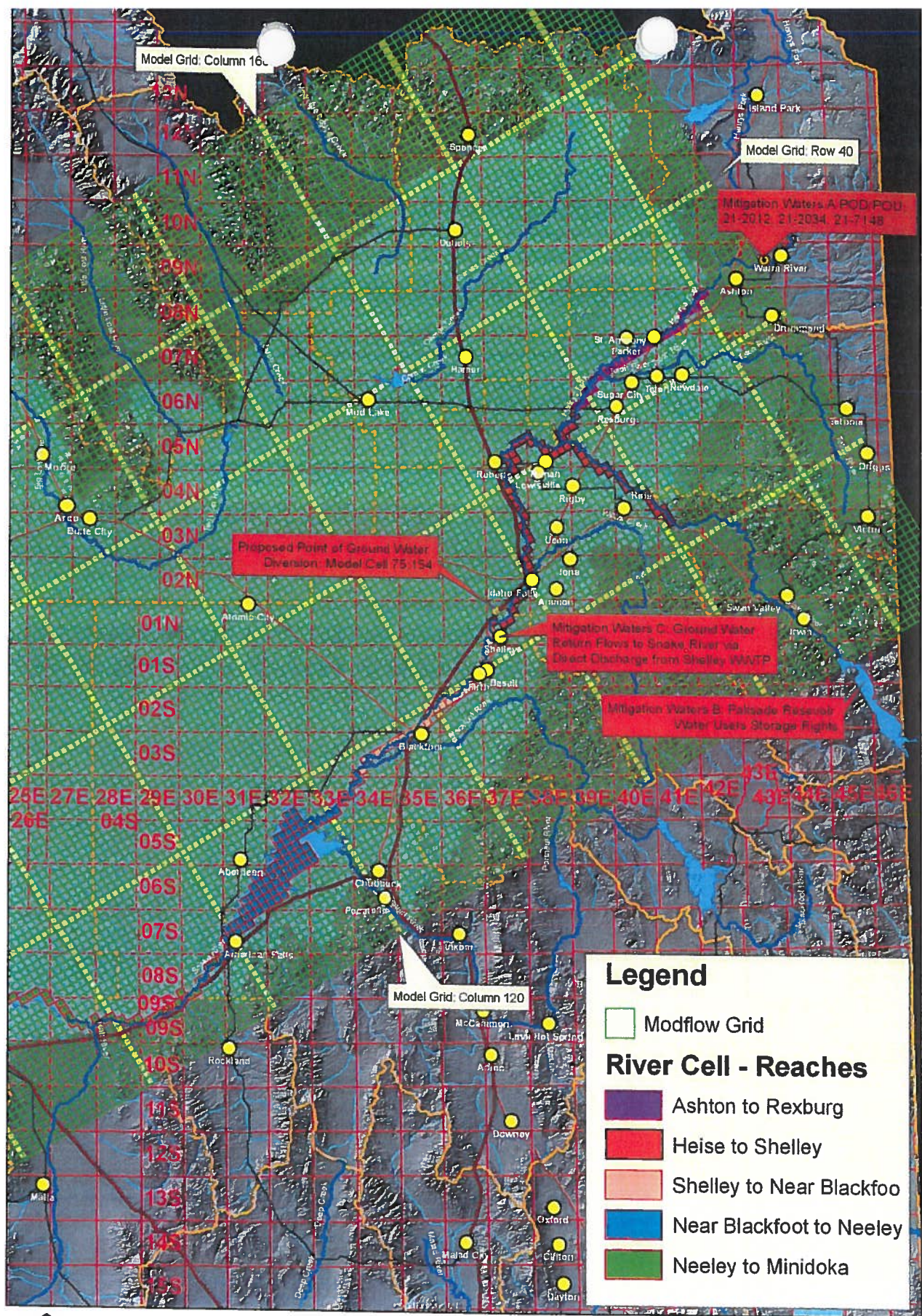
Historical records of water delivery associated with the water rights comprising Mitigation Waters A indicate years where no water was delivered or an extremely limited amount of water was delivered. The applicant has indicated in these lean years that supplemental Freemont-Madison water has been used for irrigation. If in fact the Department cannot accept the “historical average” approach to mitigation, we could require that Mitigation Waters A also be supplemented with Freemont-Madison Water to assure that the required volume of mitigation water is provided each and every year.

- **Mitigation Waters B – Specific Shortcomings**
 - **Ownership Proof Palisades Water User Shares** - No agreement or consent document signed by an authorized officer of the delivery entity pertaining to the Palisade Water Users’ Palisade Reservoir storage water has been provided to IDWR. Such documentation should at a minimum state that the delivery entity agrees (a) to the use of its water right for mitigation and (b) that the water right records(s) of IDWR can be changed to reflect the nonuse of the water as a mitigation use.

- **Detailed Description of Release of Mitigation Waters B** – No comprehensive management plan or description has been offered by the applicant providing details for the proposed use of Palisade Water User's storage water for mitigation. Including how and when the water will be released and how and when the water will be measured. As discussed above, injury to water users in the HtS reach of the Snake River can occur year round. However, the season of use associated with the PWU shares is only from March 15th to November 15th. Therefore, in their mitigation plan the applicant should address the discrepancy in time that injury can occur versus when water will be available for mitigation, and how they will overcome this problem.
- **Volume of PWU's Storage Water Required for Mitigation** – The applicant has suggested using 13.8 shares (1 share = 1 ac-foot of storage) of PWU storage water for mitigation. It is not clear that PWU will recognize anything less than a whole share to be designated for a specific use. Furthermore, historical records provided by Water District 01 indicate that there were five consecutive years, from 2001 to 2005, in which the applicant would not have received his full allotment of water, and for three of those years no water was delivered. Water balance calculations included in the appendix, indicate that the applicant would be required to dedicate 64 full shares of water, to assure that enough water was available for mitigation to accommodate the drought event that occurred from 2001 to 2005. This time period from 2001 to 2005 represents the most severe drought scenario in recent history, however, it does not necessarily represent a "worst case" scenario or even a scenario with any statistical relevance such as the 100 year drought or 500 year drought event. Therefore, IDWR may want to require storage water in addition to the 64 shares, although at this time it is unclear how best to determine additional storage volume requirements.
- **Detailed Description of Release of Mitigation Waters C** – No comprehensive management plan or description has been offered by the applicant providing details for the return of diverted ground water to the Snake River via the City of Shelley Waste Water Treatment Plant (WWTP). Including how and when the water will be released, how and when the water will be measured, or acknowledgement from the WWTP that the waste water represent mitigation waters that must be returned to the Snake River for the plan to be valid.

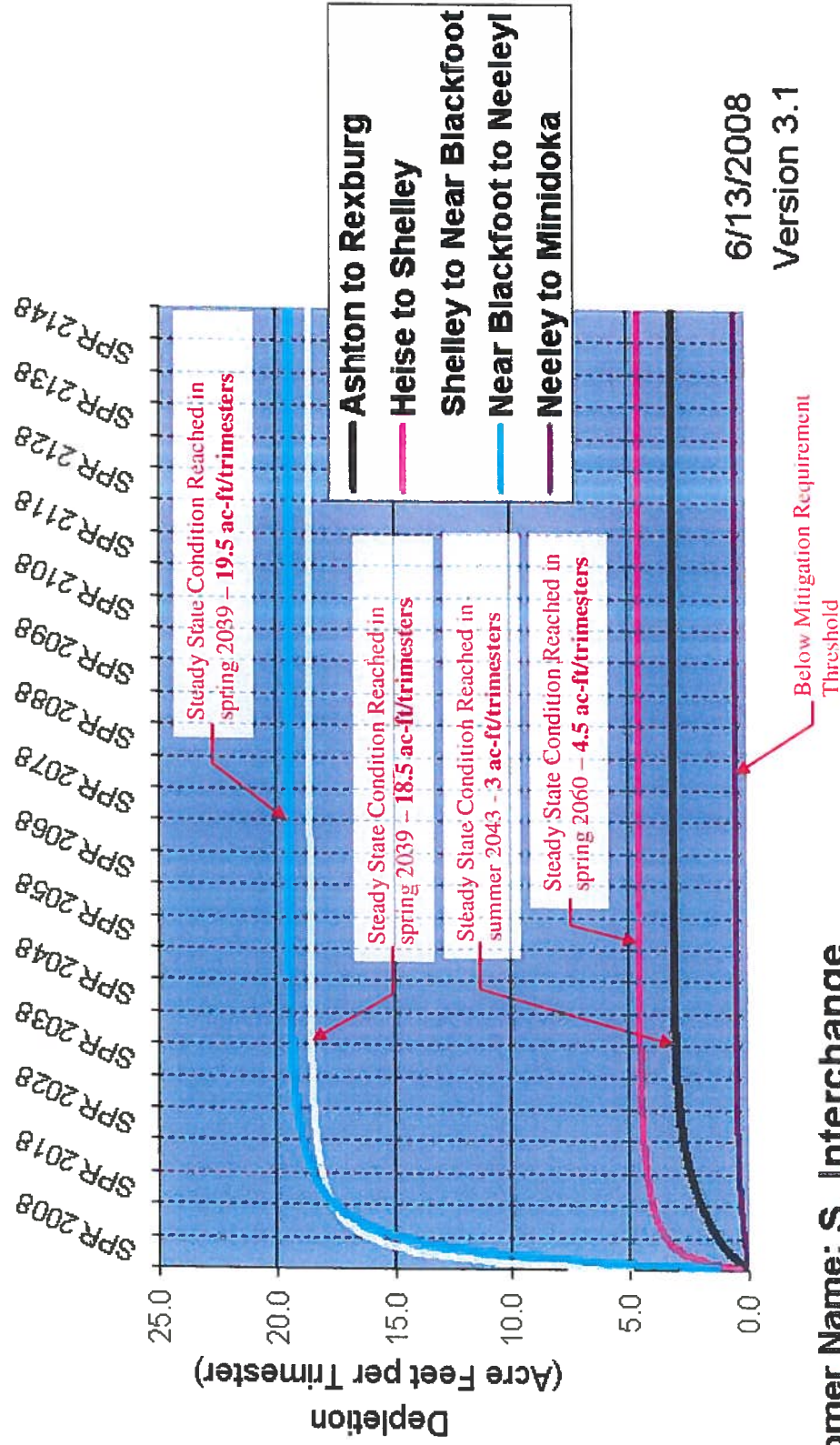
APPENDIX

1. Full Sheet Print Out of Figure 1
2. Full Sheet Print Out of Figure 3
3. WR 21-2012 Proof Report
4. WR 21-2034 Proof Report
5. WR 01-10214 Proof Report
6. Mitigation Waters A – Consumptive Use Calculations
7. Mitigation Waters A – Previous 11 Year Historical Records of Total Days of the Irrigation Season of Actual Water Delivery
8. Mitigation Waters B – Mitigation Water Balance Calculations
9. Mitigation Waters B – Previous 18 Year Historical Records of Palisade Reservoir Storage Volumes
10. IDWR “Mitigation Plan Evaluation” Worksheet



Proposed Permit 35-3542 ESRA Model Exhibit

Net Transfer Effect Above Milner **(Total Effect With Transfer - Total Effect Without Transfer)**



Customer Name: S. Interchange

6/13/2008
 Version 3.1

IDAHO DEPARTMENT OF WATER RESOURCES

Water Right Report 21-2012

WATER RIGHT NUMBER: 21-2012

<u>Owner Type</u>	<u>Name and Address</u>
Original Owner	LOUISE HOWELL-FORREST PO BOX 602 ASHTON, ID 83420 (208)652-3320
Original Owner	HOWELL FORREST PO BOX 602 ASHTON, ID 83420 (208)652-3320
Current Owner	DAVID KUHN 3991 N 5TH E IDAHO FALLS, ID 83401 (208)552-1162

Priority Date: 06/01/1973

Basis: Decreed

Status: Active

<u>Source</u>	<u>Tributary</u>
BLUE CREEK	HENRYS FORK

<u>Beneficial Use</u>	<u>From</u> <u>To</u>	<u>Diversion Rate</u>	<u>Annual Volume</u>
IRRIGATION	04/01 to 10/31	1.900 CFS	
	<u>Total Diversion:</u>	1.900 CFS	

Location of Point(s) of Diversion

BLUE CREEK NE1/4SW1/4NW1/4 Sec. 15, Twp 09N, Rge 43E, B.M.

FREMONT County

Place of 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	
09N	43E	15							22.0				19.0	14.0					55.0
09N	43E	16				.1									40.0	.1	30.0	16.0	86.2

Total Acres: 141.2

Conditions of Approval:

1. E56 The rights listed below are limited to the irrigation of a combined total of 141.2 acres in a single irrigation season. Combined Right Nos.:21-2012, 21-2034, 21-7148

IDAHO DEPARTMENT OF WATER RESOURCES

Water Right Report 21-2012

2. TRANSFER 1842. ALSO SEE MEMORANDUM DECISION AND ORDER ISSUED 1/29/1977 SETTING PRIORITY DATE TO 1973.
3. C18 This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
4. K06 This right is limited to the irrigation of 141 acres within the place of use described above in a single irrigation season.

Remarks:Comments:

1. psdaggs 9/14/2007 Water Right
Comment: This water right record was updated by decree record from old RightID 13519 to new RightID 590359.
2. psdaggs 9/14/2007 POD
Comment: Updated shape
3. psdaggs 9/14/2007 POU
Comment: Updated Shape
4. psdaggs 9/14/2007 1:49:22 PM Explanatory Comment
Comment: Part A not claimed in SRBA & Part B superceded by partial decree 21-2012.

Dates and Other Information:

Licensed Date:
 Decreed Date: 2/2/2007
 Enlargement Use Priority Date:
 Enlargement Statute Priority Date:
 State or Federal: S
 Owner Name Connector:
 Water District Number:
 Generic Max Rate Per Acre:
 Generic Max Volume Per Acre:
 Decree Defendant:
 Decree Plaintiff:
 Civil Case Number: 39576
 Judicial District: FIFTH
 Swan Falls Trust or Nontrust:
 Swan Falls Dismissed:
 DLE Act Number:
 Carey Act Number:
 Mitigation Plan: False

Combined Use Limits:

<u>Rate</u>	<u>Volume</u>	<u>Acres</u>
3.4	5.54	141.2

Combined Water Rights: 21-7148 , 21-2012 , 21-2034

Water Supply Bank:

IDAHO DEPARTMENT OF WATER RESOURCES

Water Right Report 21-2034

WATER RIGHT NUMBER: 21-2034

<u>Owner Type</u>	<u>Name and Address</u>
Original Owner	FORREST HOWELL PO BOX 602 ASHTON, ID 83420 (208)652-3320
Original Owner	JOSEPH H EGBERT MARYSVILLE, ID
Current Owner	DAVID KUHN 3991 N 5TH E IDAHO FALLS, ID 83401 (208)552-1162
Original Owner	LOUISE HOWELL-FORREST PO BOX 602 ASHTON, ID 83420 (208)652-3320

Priority Date: 01/18/1909

Basis: Decreed

Status: Active

<u>Source</u>	<u>Tributary</u>
BLUE CREEK	HENRYS FORK

<u>Beneficial Use</u>	<u>From</u> <u>To</u>	<u>Diversion Rate</u>	<u>Annual Volume</u>
IRRIGATION	04/01 to 10/31	1.600 CFS	
	<u>Total Diversion:</u>	1.600 CFS	

Location of Point(s) of Diversion

BLUE CREEK NE1/4SW1/4NW1/4 Sec. 15, Twp 09N, Rge 43E, B.M.

FREMONT County

Place of 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	
09N	43E	15							22.0			19.0	14.0						55.0
09N	43E	16				.1								40.0	.1	30.0	16.0		86.2

Total Acres: 141.2

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report 21-2034

Conditions of Approval:

1. C18 This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
2. K06 This right is limited to the irrigation of 80 acres within the place of use described above in a single irrigation season.
3. E56 The rights listed below are limited to the irrigation of a combined total of 141.2 acres in a single irrigation season. Combined Right Nos.: 21-2012, 21-2034, 21-7148

Remarks:Comments:

1. psdaggs 9/14/2007 POD
Comment: Updated shape

2. psdaggs 9/14/2007 POU
Comment: Updated Shape

Dates and Other Information:

Licensed Date:
Decreed Date: 2/2/2007
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
State or Federal: S
Owner Name Connector:
Water District Number: 01
Generic Max Rate Per Acre:
Generic Max Volume Per Acre:
Decree Defendant:
Decree Plaintiff:
Civil Case Number: 39576
Judicial District: FIFTH
Swan Falls Trust or Nontrust:
Swan Falls Dismissed:
DLE Act Number:
Carey Act Number:
Mitigation Plan: False

Combined Use Limits:

<u>Rate</u>	<u>Volume</u>	<u>Acres</u>
3.4	5.54	141.2

Combined Water Rights: 21-7148 , 21-2012 , 21-2034

Water Supply Bank:

IDAHO DEPARTMENT OF WATER RESOURCES

Adjudication Claim Report 1-10214

WATER RIGHT NUMBER: 1-10214

Owner Type

Current Owner

Name and Address

PALISADES WATER USERS INC
 900 N SKYLINE DR - STE A
 IDAHO FALLS, ID 83402
 (208)525-7172

Priority Date: 07/28/1939

Basis: License

Status: Active

Source

SNAKE RIVER

Tributary

COLUMBIA RIVER

Beneficial Use

IRRIGATION FROM STORAGE

From To

3/15 to 11/15

Diversion RateAnnual Volume

54,130.00 AF

IRRIGATION STORAGE

1/01 to 12/31

54,130.00 AF

Total Diversion:

54,310.00 AF

Location of Point(s) of Diversion

SNAKE RIVER

SE1/4NE1/4

Sec. 17, Twp 01S, Rge 45E, B.M.

BONNEVILLE County

SNAKE RIVER

NE1/4NE1/4

Sec. 17, Twp 01S, Rge 45E, B.M.

BONNEVILLE County

SNAKE RIVER

NW1/4NE1/4

Sec. 17, Twp 01S, Rge 45E, B.M.

BONNEVILLE County

SNAKE RIVER

SW1/4NE1/4

Sec. 17, Twp 01S, Rge 45E, B.M.

BONNEVILLE County

Place of Use

IRRIGATION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01N	36E	5					28.0	26.0			33.0	7.0							94.0
01N	36E	9	11.0			6.0											25.0		42.0
01N	36E	10			33.0		6.0	40.0	40.0	36.0	40.0	39.0	35.0	40.0	35.0	40.0	40.0		424.0
01N	36E	11					40.0	40.0	40.0	40.0	40.0	22.0		12.0					234.0

IDAHO DEPARTMENT OF WATER RESOURCES

Adjudication Claim Report 1-10214

01N 36E 15	40.0	37.0		40.0	30.0	9.0	5.0			40.0	60.0	5.0	10.0	276.0
01N 36E 16	15.0													15.0
01N 38E 4	35.0		25.0	39.0						40.0	40.0	40.0	40.0	259.0
01N 43E 1										40.0	37.0	37.0	40.0	154.0
01N 44E 5								30.0	35.0					65.0
01N 44E 6								32.0	40.0				30.0	102.0
01N 44E 7	8.0	12.0	40.0	40.0				32.0	7.0		9.0		22.0	170.0
01N 44E 8					32.0	35.0	30.0	15.0	40.0	40.0	35.0	39.0	40.0	415.0
01N 44E 9						40.0	40.0	40.0	40.0	40.0	40.0	39.0	40.0	435.0
01N 44E 15									40.0				40.0	80.0
01N 44E 16	40.0	40.0		40.0		39.0	38.0		40.0		40.0		40.0	357.0
01N 44E 17	39.0	36.0	39.0	39.0	35.0	28.0	40.0	30.0		40.0	36.0	20.0		382.0
01N 44E 18								8.0		40.0			16.0	103.0
01N 44E 19	13.0				4.0									17.0
01N 44E 20	5.0		40.0	37.0	30.0			5.0	5.0		25.0			147.0
01N 44E 21	40.0	40.0	40.0	40.0	40.0			40.0	37.0	40.0	24.0	31.0	40.0	445.0
01N 44E 22		40.0				40.0	40.0		40.0	40.0			3.0	221.0
01N 44E 24						40.0			40.0		3.0		25.0	108.0
01N 44E 25		20.0			40.0	12.0	25.0	20.0		5.0				122.0
01N 44E 26				8.0					15.0	25.0		15.0		63.0

IDAHO DEPARTMENT OF WATER RESOURCES

Adjudication Claim Report 1-10214

01N 44E 27		19.0	38.0					40.0		38.0	135.0		
01N 44E 34		12.0	40.0	37.0	9.0	9.0	5.0	26.0			138.0		
01N 44E 35				3.0	40.0	11.0					54.0		
01N 44E 36							14.0				14.0		
01S 45E 5							20.0	30.0			50.0		
01S 45E 6								40.0	24.0	31.0	95.0		
01S 45E 7	5.0										5.0		
01S 45E 8				30.0							30.0		
02N 36E 1		40.0	40.0	40.0	40.0	40.0	40.0		40.0		280.0		
02N 37E 2	40.0										40.0		
02N 37E 4				22.0	22.0		22.0	22.0			88.0		
02N 37E 5	31.0	40.0	40.0	20.0							131.0		
02N 37E 6		40.0				40.0	40.0		40.0		160.0		
02N 37E 8								27.0	40.0	40.0	28.0	135.0	
02N 37E 9	35.0	40.0	40.0	40.0							155.0		
02N 37E 10				25.0	25.0	20.0	20.0				90.0		
02N 37E 18								40.0			40.0		
02N 43E 33		33.0	31.0	30.0		2.0					96.0		
02S 46E 7										14.0	14.0		
02S 46E 8							2.0	1.0	16.0	1.0	30.0	24.0	74.0

Adjudication Claim Report 1-10214

03N 37E	1											15.0 L 8							15.0
03N 37E	2		15.0	20.0										30.0 L 1	20.0 L 2	5.0	35.0		125.0
03N 37E	11	30.0	40.0	40.0	16.0					16.0	3.0	30.0	29.0	5.0	40.0	9.0			258.0
03N 37E	12				10.0		15.0 L 8	32.0 L 7			35.0 L 6								92.0
03N 37E	14		30.0	25.0	19.0	7.0	40.0	38.0	13.0	20.0	37.0	32.0	34.0	15.0	40.0	38.0	17.0		405.0
03N 37E	23											12.0	19.0						31.0
03N 37E	26		15.0			38.0	39.0	34.0	38.0	39.0	38.0	39.0	40.0	22.0	28.0	26.0	15.0		411.0
03N 38E	16		35.0					6.5											41.5
03N 38E	27											31.0	5.0						36.0
03N 39E	3									10.0	10.0	40.0	40.0				3.0		103.0
03N 39E	10													22.0	22.0	23.0	6.0		73.0
03N 39E	12					15.0	16.0	18.0	19.0										68.0
03N 40E	16													10.0	2.0	40.0	40.0		92.0
03N 40E	21	28.0	28.0	40.0	40.0	40.0	33.0	33.0	40.0	40.0	33.0	33.0	40.0	40.0	40.0	40.0	40.0		588.0
03N 40E	22							8.0			28.0	38.0							74.0
03N 40E	27						31.0	22.0			40.0	33.0							126.0
03N 40E	28	40.0	40.0	40.0	40.0									40.0	40.0	33.0	40.0		313.0
03N 40E	33	12.0	3.0																15.0
03N 40E	34						3.0												3.0
03N 41E	5			25.0		35.0			35.0	25.0			25.0		25.0	30.0			200.0

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[illegible]

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04N 37E	36					4.3		40.0		4.0						48.3
04N 38E	8						5.0									5.0
04N 38E	33	25.0	24.0	24.0	22.0	7.0	40.0	40.0	8.0							190.0
04N 38E	36											36.0	36.0			72.0
04N 39E	4									25.0						25.0
04N 39E	5										25.0	25.0	25.0	30.0		105.0
04N 39E	6			10.0												10.0
04N 39E	8	40.0	25.5							8.0						73.5
04N 39E	9								9.0	13.0						22.0
04N 39E	15											30.0	38.0			68.0
04N 39E	22										40.0			32.0		72.0
04N 39E	23									40.0						40.0
04N 39E	26								1.0	1.0	38.0			20.0		60.0
04N 39E	27			15.0	15.0				40.0	30.0	30.0	40.0	40.0	10.0	40.0	260.0
04N 39E	28			20.0			40.0	40.0	10.0	10.0	1.0		10.0	35.0	8.0	174.0
04N 39E	29			40.0	40.0							24.0		5.0	40.0	149.0
04N 39E	32											40.0	40.0	37.0	35.0	152.0
04N 39E	33		40.0	40.0					40.0	40.0	38.0	38.0				236.0
04N 39E	34				40.0		40.0		40.0		40.0		40.0	40.0		240.0
04N 40E	3		3.0				11.0	28.0	8.0	20.0	5.0	40.0	6.0			121.0

IDAHO DEPARTMENT OF WATER RESOURCES

Adjudication Claim Report 1-10214

04N 40E 4															7.5	32.0	32.0		71.5		
04N 40E 7														8.0					8.0		
04N 40E 8											6.0	30.0	10.0	15.0					61.0		
04N 40E 10		10.0	10.0	10.0	10.0	10.0	5.0	19.0	40.0		40.0	36.0	36.0	40.0		10.0	35.0	25.0	10.0		346.0
04N 40E 13								40.0	40.0		40.0	40.0	40.0	40.0			40.0	40.0			320.0
04N 40E 14		40.0	40.0		40.0											40.0	35.0		40.0		235.0
04N 40E 15						14.0	7.0							25.0							46.0
04N 40E 18				40.0	40.0			40.0					33.0 L 5	5.0					40.0		198.0
04N 40E 19		21.0	25.0		12.0	35.0	22.0									40.0	40.0				195.0
04N 40E 20							8.0	26.0	35.0									30.0	28.0		127.0
04N 40E 22			21.0	10.0		20.0															51.0
04N 40E 23			35.0	8.0	40.0	40.0										37.0					160.0
04N 40E 24						40.0	40.0	40.0	40.0		25.0	35.0									220.0
04N 40E 26							38.0 L 4	35.0	35.0				35.0								143.0
04N 40E 27		38.0 L 1			33.0														25.0		96.0
04N 40E 28							8.0	34.0				32.0									74.0
04N 40E 29				36.0	28.0	21.0	32.0	7.0	21.0			40.0	40.0			30.0	14.0				269.0
04N 40E 30													10.6					9.0			19.6
04N 40E 31													22.0	28.0							50.0
04N 40E 32						25.0							36.0								61.0

Adjudication Claim Report 1-10214

04N 40E 35					18.0	2.0											20.0
04N 40E 36						12.0	29.0	10.0		20.0		22.5					93.5
04N 41E 6	8.0				16.0												24.0
04N 41E 31			40.0	8.0	36.0	36.0	35.0	30.0	21.0		26.0	40.0	22.0	8.0			302.0
05N 37E 22									20.0								20.0
05N 37E 24								35.0				35.0	35.0	5.0	33.0		143.0
05N 37E 25	36.0	36.0	16.0	16.0	32.0	36.0	18.0	18.0									208.0
05N 37E 27						2.0											2.0
05N 38E 12													31.0	34.0			65.0
05N 38E 15									3.0	4.0							7.0
05N 38E 18						3.5											3.5
05N 38E 22						2.0											2.0
05N 39E 13	35.0	40.0															75.0
05N 39E 18						15.0											15.0
05N 39E 23												40.0					40.0
05N 39E 27		30.0	32.0						30.0	35.0	3.0	23.0	38.0	35.0			226.0
05N 39E 34	40.0	22.4	5.0 L 4	16.0	40.0	12.0	12.0					3.0 L 5					150.4
05N 39E 35									6.0 L 1								6.0
09S 28E 25		11.0			12.0	6.0	26.0	9.0	20.0	28.0	29.0	20.0	16.0	6.0			183.0
09S 28E 26	14.0	25.0			26.0	2.0	2.0	22.0	40.0	24.0	40.0	40.0	6.0	23.0	9.0		273.0

IDAHO DEPARTMENT OF WATER RESOURCES

Adjudication Claim Report 1-10214

09S 28E 27	23.0	40.0	40.0	37.0	23.0	32.0	16.0	37.0	25.0	32.0	12.0	13.0	29.0	26.0	17.0	34.0	436.0
09S 28E 34	23.0	12.0			9.0												44.0
09S 28E 35	26.0	4.0			19.0	39.0											88.0
09S 28E 36						9.0											9.0
10S 22E 19											4.0	13.0					17.0
											L 4	L 3					
10S 22E 20	9.0			40.0													49.0
10S 22E 21	24.0	30.0			36.0	38.0	40.0	20.0									188.0
10S 22E 30					7.0	17.0											24.0

Total Acres: 21030

IRRIGATION FROM STORAGE same as IRRIGATION STORAGEConditions of Approval:

1. THE WATER IS USED ON THE LAND OF THE SHAREHOLDERS IN PALISADES WATER USERS, INC. RENTED TO AND FROM THE WATER BANK; AND ON THE LANDS OF THE FOLLOWING CANAL COMPANIES AND WATER DISTRICTS, A & B IRRIGATION DISTRICT, ABERDEEN-SPRINGFIELD CANAL COMPANY, BURGESS CANAL & IRRIGATING COMPANY, BUTTE & MARKET LAKE CANAL COMPANY, CLARK & EDWARDS CANAL COMPANY, CORBETT SLOUGH DITCH COMPANY, CRAIG-MATTSON CANAL COMPANY, DANSKIN DITCH COMPANY, DILTS IRRIGATION COMPANY, ENTERPRISE CANAL COMPANY, FALLS IRRIGATION DISTRICT, FARMERS FRIEND IRRIGATION COMPANY, LTD., HARRISON CANAL & IRRIGATION COMPANY, IDAHO IRRIGATION DISTRICT, ISLAND IRRIGATION COMPANY, J.R. SIMPLOT COMPANY, LENROOT CANAL COMPANY, LOWDER SLOUGH CANAL COMPANY, LTD., MILNER IRRIGATION DISTRICT, MINIDOKA IRRIGATION DISTRICT, NEW LAVA SIDE DITCH COMPANY, NEW SWEDEN AND WEST SIDE MUTUAL DITCH COMPANY (MARTIN), NORTH RIGBY IRRIGATION & CANAL COMPANY, PARKS & LEWISVILLE IRRIGATION COMPANY, PARSONS DITCH COMPANY, LTD., PEOPLES CANAL & IRRIGATION COMPANY, POPLAR IRRIGATION DISTRICT (RILEY CANAL), PROGRESSIVE IRRIGATION DISTRICT, RIGBY CANAL & IRRIGATION COMPANY, INC., RIVERSIDE DITCH COMPANY, RUDY IRRIGATION CANAL COMPANY, SNAKE RIVER VALLEY IRRIGATION DISTRICT, SUNNYDELL IRRIGATION DISTRICT, TEXAS SLOUGH AND LIBERTY PARK, REID CANAL COMPANY, TREGO DITCH COMPANY, WATSON SLOUGH & IRRIGATION COMPANY, WEARYRICK DITCH COMPANY, WEST LABELLE IRRIGATING COMPANY, LONG ISLAND IRRIGATING COMPANY, WOODVILLE CANAL COMPANY. THE LICENSE FOR PALISADES RESERVOIR (01-02068) IS FOR 1,200,000 ACRE FEET. THIS CLAIM IS FOR A PART OF THAT WATER THAT IS HELD BY THE PALISADES WATER USERS, INC. UNDER CONTRACT WITH THE U.S. BUREAU OF RECLAMTION.
PALISADES WATER IS AVAILABLE FOR USE ON ALL IRRIGATED LANDS WITHIN WATER DISTRICT 1 FROM ALL POINTS OF DIVERSION IDENTIFIED BY DECREE, LICENSE, OR PERMIT. THE LAND LIST IN THIS CLAIM IS NOT MEANT TO BE LIMITING BUT RATHER PRESENTS THE CURRENT LANDS OWNED AND IRRIGATED BY THE CURRENT STOCK HOLDERS OF PALISADES WATER USERS INC. MANY OF THE LANDS LISTED CAN ONLY RECEIVE WATER BY EXCHANGING NATURAL STREAM FLOW (OR OTHER STORAGE) AT THE LOCATIO N OF OF THE POINT OF DIVERSION FOR STORED WATER RELEASED FROM PALI SADES RESERVOIR

IDAHO DEPARTMENT OF WATER RESOURCES
Adjudication Claim Report 1-10214

Remarks:

Comments:

1. ecarlsen 11/4/2006 POD
Comment: Correlated PODID 202755 from SpatialDataID 377754 to SpatialDataID 272981
2. ecarlsen 11/4/2006 POD
Comment: Correlated PODID 202755 from SpatialDataID 377754 to SpatialDataID 272981

Dates and Other Information:

Claim Received Date: 4/14/1993
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
State or Federal: S
Owner Name Connector:
Water District Number:
Generic Max Rate Per Acre:
Generic Max Volume Per Acre:
Swan Falls Trust or Nontrust:
Swan Falls Dismissed:
DLE Act Number:
Carey Act Number:
Mitigation Plan: False

Combined Use Limits:

Water Supply Bank:

WR 21-2012 & 21-2034 Consumptive Use Analysis - 11 Year Historical Average Calculations
WR Irrigation Season: 4/1-10/31

Full Water Allotment

	April	May	June	July	August	September	October	Season Total
Mean Monthly Precip Deficit (mm/day)	0.52	2.03	3.48	4.34	4.40	2.80	0.31	N/A
Mean Monthly Precip Deficit (ft/day)	0.002	0.007	0.011	0.014	0.014	0.009	0.001	N/A
Number of Days in Month	30	31	30	31	31	30	31	214
Mean Monthly Precip Deficit (ft/month)	0.05	0.21	0.34	0.44	0.45	0.28	0.03	1.80
Number of Acres Irrigated	141.2	141.2	141.2	141.2	141.2	141.2	141.2	N/A
Crop Consumption (ac-ft/month)	7.23	29.15	48.36	62.33	63.19	38.91	4.45	253.62

21-2034 Water Allotment Based on Previous 11-Year Historical Average

	April	May	June	July	August	September	October	Season Total
Mean Monthly Precip Deficit (mm/day)	0.52	2.03	3.48	4.34	4.40	2.80	0.31	N/A
Mean Monthly Precip Deficit (ft/day)	0.002	0.007	0.011	0.014	0.014	0.009	0.001	N/A
11 Yr. History: Avg. No. of Days Per Month								
Water Was Received	28.8	20.0	18.0	6.5	1.9	1.6	21.3	98.1
Mean Monthly Precip Deficit (ft/month)	0.05	0.13	0.21	0.09	0.03	0.02	0.02	0.54
Number of Acres Irrigated	141.2	141.2	141.2	141.2	141.2	141.2	141.2	N/A
Crop Consumption (ac-ft/month)	6.94	18.81	29.02	12.98	3.89	2.12	3.05	76.81

21-2012 Water Allotment Based on Previous 11-Year Historical Average

	April	May	June	July	August	September	October	Season Total
Mean Monthly Precip Deficit (mm/day)	0.52	2.03	3.48	4.34	4.40	2.80	0.31	N/A
Mean Monthly Precip Deficit (ft/day)	0.002	0.007	0.011	0.014	0.014	0.009	0.001	N/A
11 Yr. History: Avg. No. of Days Per Month								
Water Was Received	13.6	12.5	11.5	4.3	1.7	0.0	0.0	43.6
Mean Monthly Precip Deficit (ft/month)	0.02	0.08	0.13	0.06	0.02	0.00	0.00	0.32
Number of Acres Irrigated	141.2	141.2	141.2	141.2	141.2	141.2	141.2	N/A
Crop Consumption (ac-ft/month)	3.28	11.80	18.47	8.59	3.52	0.00	0.00	45.66

Combined (21-2024, 21-2012) Water Allotment Based on Previous 11-Year Historical Avg.

Combined Crop Consumption* (ac-ft/month)	7.23	29.15	47.48	21.57	7.41	2.12	3.05	122.47
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*Crop Consumption value can not exceed the full water allotment value for 141.2 acres.

Required Mitigation Acreage Calculation

Seasonal Avg. Crop Consumption =	122.47	ac-ft/season
Number of Acres Irrigated =	141.2	acres
Seasonal Consumption Vol. per Acre =	0.87	ac-ft/acre (avg. crop consumption/total number of acres)
AtR Reach Required Mitigation Volume =	9.00	ac-ft/year (from ESPA Transfer Spreadsheet)
Required Acreage for Mitigation =	10.4	acres (mitigation vol./season consumption vol. per acre)

Required Mitigation Flowrate Calculation

Required Acreage for Mitigation =	10.38	acres
WR 21-2034 Flowrate, Q =	1.90	CFS
WR 21-2034 Area of POU =	141.20	acres
WR 21-3034 Proportional Mitigation Q =	0.14	CFS
Required Acreage for Mitigation =	10.38	acres
WR 21-2012 Flowrate, Q =	1.60	CFS
WR 21-2012 Area of POU =	141.20	acres
WR 21-2012 Proportional Mitigation Q =	0.12	CFS

**WR 21-2012 & 21-2034 - Historical Number of Days That Irrigation Water Was Delivered
to the Applicant for Each Month of the Irrigation Season
WR Irrigation Season: 4/1-10/31**

Days in the Month	April	May	June	July	August	September	October	Season Total	% Total Season
1997	30	31	30	31	31	30	31	214	84%
1998	30	31	30	18	0	5	30	144	67%
1999	30	31	30	22	0	0	17	130	61%
2000	30	26	19	0	0	0	15	90	42%
2001	25	0	0	0	0	0	17	42	20%
2002	30	15	13	0	0	0	23	81	38%
2003	30	9	13	0	0	0	16	68	32%
2004	22	0	6	0	0	0	14	42	20%
2005	30	31	30	1	0	0	22	114	53%
2006	30	31	27	0	0	5	27	120	56%
2007	30	15	0	0	0	0	23	68	32%
11-Yr Average	28.8	20.0	18.0	6.5	1.9	1.6	21.3	98.1	

Days in the Month	April	May	June	July	August	September	October	Season Total	% Total Season
1997	30	31	30	31	31	30	31	214	62%
1998	30	31	30	22	19	0	0	132	49%
1999	30	31	30	13	0	0	0	104	48%
2000	30	31	30	12	0	0	0	103	31%
2001	30	24	13	0	0	0	0	67	7%
2002	16	0	0	0	0	0	0	16	0%
2003	0	0	0	0	0	0	0	0	0%
2004	0	0	0	0	0	0	0	0	0%
2005	0	4	0	0	0	0	0	4	2%
2006	11	17	23	0	0	0	0	51	24%
2007	3	0	0	0	0	0	0	3	1%
11-Yr Average	13.6	12.5	11.5	4.3	1.7	0.0	0.0	43.6	

WR 21-2012 & 21-2034 Consumptive Use Analysis - 11 Year Worst Case Scenario (WCS) Calculations
WR Irrigation Season: 4/1-10/31

Full Water Allotment

	April	May	June	July	August	September	October	Season Total
Mean Monthly Precip Deficit (mm/day)	0.52	2.03	3.48	4.34	4.40	2.80	0.31	N/A
Mean Monthly Precip Deficit (ft/day)	0.002	0.007	0.011	0.014	0.014	0.009	0.001	N/A
Number of Days in Month	30	31	30	31	31	30	31	214
Mean Monthly Precip Deficit (ft/month)	0.05	0.21	0.34	0.44	0.45	0.28	0.03	1.80
Number of Acres Irrigated	141.2	141.2	141.2	141.2	141.2	141.2	141.2	N/A
Crop Consumption (ac-ft/month)	7.23	29.15	48.36	62.33	63.19	38.91	4.45	253.62

21-2034 Water Allotment Based on Worst Case Year from Previous 11 Years

	April	May	June	July	August	September	October	Season Total
Mean Monthly Precip Deficit (mm/day)	0.52	2.03	3.48	4.34	4.40	2.80	0.31	N/A
Mean Monthly Precip Deficit (ft/day)	0.002	0.007	0.011	0.014	0.014	0.009	0.001	N/A
11 Yr. History: WCS No. of Days Per Month								
Water Was Recived	25.0	0.0	0.0	0.0	0.0	0.0	17.0	42.0
Mean Monthly Precip Deficit (ft/month)	0.04	0.00	0.00	0.00	0.00	0.00	0.02	0.06
Number of Acres Irrigated	141.2	141.2	141.2	141.2	141.2	141.2	141.2	N/A
Crop Consumption (ac-ft/month)	6.02	0.00	0.00	0.00	0.00	0.00	2.44	8.46

21-2012 Water Allotment Based on Worst Case Year from Previous 11 Years

	April	May	June	July	August	September	October	Season Total
Mean Monthly Precip Deficit (mm/day)	0.52	2.03	3.48	4.34	4.40	2.80	0.31	N/A
Mean Monthly Precip Deficit (ft/day)	0.002	0.007	0.011	0.014	0.014	0.009	0.001	N/A
11 Yr. History: WCS No. of Days Per Month								
Water Was Recived	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Monthly Precip Deficit (ft/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Number of Acres Irrigated	141.2	141.2	141.2	141.2	141.2	141.2	141.2	N/A
Crop Consumption (ac-ft/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Combined (21-2024, 21-2012) Water Allotment Based on Worst Case Year from Previous 11 Years

Combined Crop Consumption* (ac-ft/month)	6.02	0.00	0.00	0.00	0.00	0.00	2.44	8.46
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*Crop Consumption value can not exceed the full water allotment value for 141.2 acres.

Required Mitigation Acreage Calculation

Seasonal Avg. Crop Consumption =	8.46	ac-ft/season
Number of Acres Irrigated =	141.2	acres
Seasonal Consumption Vol. per Acre =	0.06	ac-ft/acre (avg. crop consumption/total number of acres)
AtR Reach Required Mitigation Volume =	9.00	ac-ft/year (from ESPA Transfer Spreadsheet)
Required Acreage for Mitigation =	150.1	acres (mitigation vol./season consumption vol. per acre)

Required Mitigation Flowrate Calculation

Required Acreage for Mitigation =	150.15	acres
WR 21-2034 Flowrate, Q =	1.90	CFS
WR 21-2034 Area of POU =	141.20	acres
WR 21-2034 Proportional Mitigation Q =	1.90	CFS
Required Acreage for Mitigation =	150.15	acres
WR 21-2012 Flowrate, Q =	1.60	CFS
WR 21-2012 Area of POU =	141.20	acres
WR 21-2012 Proportional Mitigation Q =	1.60	CFS

Water District 01: 18 Year Historical Record of Palisade Reservoir Storage

Year	% of AVG YEAR RUNOFF (April 1st)	Space (ac- ft)	CARRYOVER AT END OF YEAR	Full Water Right Received	TOTAL STORAGE =		CARRYOVER (ac-ft)	NEW FILL LOSS FROM TOTAL STORAGE (ac-ft)	% OF EVAP LOSS	NEW FILL MINUS EVAP (ac-ft)	% NEW FILL ALLOCABLE
					NEW FILL AND CARRYOVER (ac-ft)						
2007	65	940,400		Y	787,732	787,732	0	19,060	2.42%	768,671.9	81.7%
2006	102%	940,400	618,991	Y	898,234	898,234	0	19,060	2.12%	879,174.0	93.5%
2005	78%	940,400	259,259	N	427,001	427,001	56,802	11,066	2.59%	360,604.7	38.3%
2004	72%	845,430	56,802	N	69,412	69,412	69,412	2,205	3.18%	0.2	0.0%
2003	73%	845,430	69,412	N	90,616	90,616	89,608	2,777	3.06%	977.6	0.1%
2002	68%	845,430	89,608	N	158,944	158,944	158,944	3,183	2.00%	0.1	0.0%
2001	55%	845,430	158,944	N	566,031	566,031	0	9,274	1.64%	101,762.1	12.0%
2000	81%	940,400	462,574	Y	912,755	912,755	0	20,010	2.19%	892,745.0	94.9%
1999	117%	877,421	756,637	Y	870,107	870,107	0	13,104	1.51%	857,003.0	97.7%
1998	111%	882,802	852,480	Y	882,802	882,802	0	12,553	1.42%	870,249.0	98.6%
1997	159%	837,098	NA	Y	837,089	837,089	0	13,158	1.57%	823,931.0	98.4%
1996	129%	861,766	817,475	Y	850,102	850,102	0	14,297	1.68%	835,805.0	97.0%
1995	103%	879,040	NA	Y	879,040	879,040	0	16,003	1.82%	863,037.0	98.2%
1994	64%	872,715	M	Y	872,715	872,715	0	12,238	1.40%	860,477.0	98.6%
1993	93%	899,498	820,107	Y	899,498	899,498	0	8,801	0.98%	890,697.0	99.0%
1992	56%	899,502	228,281	N	549,994	549,994	541,641	14,472	2.63%	8,133.0	0.9%
1991	81%	897,303	541,641	Y	897,303	897,303	0	21,193	2.36%	876,110.0	97.6%
1990	72%	972,800			957,351	957,351		26,132	2.73%	931,219.0	95.7%

Spreadsheet Description

- Column 1: Direct Input
- Column 2: Direct Input
- Column 3: Direct Input
- Column 4: Direct Input
- Column 5: Direct Input
- Column 6: Direct Input
- Column 7: Carryover = Total Storage - New Fill
- Column 8: New Fill = if(Fill? = Y, Total Storage, Total Storage - Carryover From Previous Year))
- Column 9: Direct Input
- Column 10: % Evaporative Loss - Evaporative Loss - Total Storage
- Column 11: New Fill Minu Evap = New Fill - % Evaporative Loss(New Fill)
- Column 12: % Allocable New Fill - New Fill Minus Evap - Space
- Column 13: 130 Shares Allocated Volume = %Allocable New Fill(130)

*Spreadsheet provided by Joe Kaufman on June 24, 2008 via email from Wendy Murphy.

Palisade Water User Shares - Mitigation Storage Water Balance
Calculation of Required No. of Shares to Accommodate Historical Conditions for Past 18 Years

of Mitigation Shares: 64 input for calculations in table below

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Year	Full Water Right Received?	% OF EVAP LOSS	% ALLOCABLE NEW FILL	ALLOCATED VOLUME (ac-ft)	Start of Year Volume (ac-ft)	Mitigation Water (ac-ft)	End of Year Volume (ac-ft)
1990		2.73%	95.7%	61.3	61.3	14	47.3
1991	Y	2.36%	97.6%	62.5	62.5	14	48.5
1992	N	2.63%	0.9%	0.6	49.1	14	35.1
1993	Y	0.98%	99.0%	63.4	63.4	14	49.4
1994	Y	1.40%	98.6%	63.1	63.1	14	49.1
1995	Y	1.82%	98.2%	62.8	62.8	14	48.8
1996	Y	1.68%	97.0%	62.1	62.9	14	48.9
1997	Y	1.57%	98.4%	63.0	63.0	14	49.0
1998	Y	1.42%	98.6%	63.1	63.1	14	49.1
1999	Y	1.51%	97.7%	62.5	63.0	14	49.0
2000	Y	2.19%	94.9%	60.8	62.6	14	48.6
2001	N	1.64%	12.0%	7.7	56.3	14	42.3
2002	N	2.00%	0.0%	0.0	42.3	14	28.3
2003	N	3.06%	0.1%	0.1	28.4	14	14.4
2004	N	3.18%	0.0%	0.0	14.4	14	0.4
2005	N	2.59%	38.3%	24.5	24.9	14	10.9
2006	Y	2.12%	93.5%	59.8	62.6	14	48.6
2007	Y	2.42%	81.7%	52.3	62.5	14	48.5

Spreadsheet Description

- Column One: Storage Year
- Column Two: Indication of weather the applicant received a full allotment of storage water for that given year.
- Column Three: Percent of allocated storage water lost to the applicant due to the evaporative loss difference.
- Column Four: The percent of the total water volume associated with PWU shares allocable to the applicant for that given year. This number will always be less than 100% b/c at a minimum evaporative losses are deducted from the allocated volume. In years where the full allotment of storage water was not received due to drought conditions, this percentage can be significantly less.
- Column Five: The percent of allocable water times the number of water shares dedicated to mitigation (one share = one ac-foot).
- Column Six: Volume of water associated with the mitigation shares stored in the reservoir at the beginning of the year. If a full allotment of water is delivered it will be that volume (total water shares less evaporative loss difference), else it will be the carry over volume (end of year volume from previous year) plus any water received that year, not to exceed the theoretical full allotment of water for that year (i.e. total water shares less evaporative loss difference).
- Column Seven: Volume of water required for mitigation in that year.
- Column Eight: Volume of water associated with the mitigation shares stored in the reservoir at the end of the year (start of year volume less mitigation volume).

Mitigation Plan Evaluation

When the Department of Water Resources determines that the source of water is not sufficient to supply a proposed appropriation of water (Rule 45.01.b) or water right transfer, and approval would result in injury to other water rights, the applicant may mitigate to avoid denial of the proposed appropriation or transfer. A mitigation plan must offset the depletion of water associated with a new appropriation or transfer in quantity, time, location¹, and/or quality to protect senior water right holders. Use the following checklist to evaluate the mitigation plan. Attach additional pages if necessary.

- 1 _____ Why is mitigation required? Moratorium area? GWMA? CGWA? Fully appropriated source?
Administrative hold? Other? (See the controlling order, policy memo, or management plan for guidance.)
- 2 _____ What water source is being protected by the mitigation requirement? _____
- 3 _____ What water source is proposed to be depleted by the applicant? _____
- 4 _____ How are the two water sources connected? _____
- 5 _____ Did the applicant provide an analysis estimating timing, quantity, and location, of the proposed depletion of the protected source? _____
- 6 _____ Is the source of mitigation water, including WR #s, identified? _____
- 7 _____ Does the applicant have authority or proper permission to use the mitigation rights? _____
- 8 _____ Are the mitigation rights valid, and are they sufficient for the required mitigation?
_____ historic use and availability of water: _____
_____ forfeiture protection: _____
_____ overlapping rights: _____
_____ water quality: _____
_____ watermaster input: _____
- 9 _____ Does the mitigation plan call for replacement water or for non-use of water? Replacement water normally requires a separate filing, such as a transfer or Water Supply Bank rental, whereas non-use of water is normally addressed in the conditions of the new application or transfer approval. _____
- 10 _____ How will the new water diversion and the mitigation water both be measured and monitored for compliance to ensure that the enough mitigation water is provided at the correct location? _____
- 11 _____ Is the mitigation plan adequate? (May need technical analysis or modeling from the Hydrology Section or reference to a prior similar plan.) _____

¹ The word "location" for ground water means both the ground-surface site and the aquifer from which the water is being withdrawn. The word "location" for surface water means within a reasonable distance of the point of diversion, taking into account other water right diversions and possible environmental concerns.

RECEIVED

AUG 02 2012

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR AMENDMENT OF A PERMIT

SUPERCEDED

Fee is \$100 per § 42-221C, Idaho Code

Department of Water Resources

Applicant(s) South Interchange Properties, LLCPhone 208-523-0620Name connector (check one): ☐ and ☐ or ☐ and/orMailing address c/o Holden, Kidwell, Hahn & Crapo, PLLC, PO Box 50130City Idaho Falls

State ID _____

Zip 83405

Email: _____

I am the owner of Water Appropriation Permit No. 35-13542 and request that the permit be amended as follows:☐ Change point of diversion☐ Add point of diversion☐ Change period of use☒ Change nature of use☒ Change place of use☐ Other _____1. Point of diversion: ☒ No changes to point(s) of diversion. Skip item #1 and proceed to #2.☐ Attach Eastern Snake Plain Aquifer analysis if this proposes to change a point of diversion affecting the ESPA.

Twp	Rge	Sec	Govt Lot	¼	¼	¼	County	Source	Local name or tag #

2. Period and nature of use:

☐ No changes to period and/or nature of use. Skip item #2 and proceed to #3.Amount 0.2 cfs / 22 AFA for Commercial purposes from 1/1 to 12/31 (both dates inclusive)
(cfs or acre-feet per year) (water use) (month/day) (month/day)Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year) (water use) (month/day) (month/day)Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year) (water use) (month/day) (month/day)Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year) (water use) (month/day) (month/day)3. Place of use or land to be irrigated: ☐ No changes to place of use. Skip item #3 and proceed to #4.

Twp	Rge	Sec	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
1N	37E	8		C	C		C												

Total number of acres to be irrigated 0

4. **Property ownership:** ☐ No changes to point of diversion and/or place of use. Skip item #4 and proceed to #5.

- 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:
- _____
- _____
- _____

5. **Describe the proposed change in narrative form:**

This Application proposes to remove the industrial use of the original Application for Permit because the manufacturing facility will not be constructed at the present time, and to make changes to the commercial place of use now that the location for a new headquarters building has been finalized.

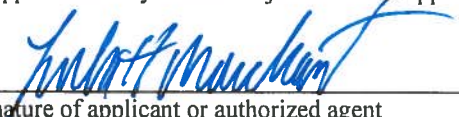
This application also reduces the volume of water requested in the original Application from 140 acre feet per year to 20 acre feet per year (see Attachment 1 for volume calculations) but will keep the diversion rate for peak demand. Water use will now be entirely non-consumptive culinary inside use for the existing powder facility, the new Melaleuca headquarters building, and a new day care building, both of which are in the beginning stages of construction. Outside irrigation for the new headquarters and day care buildings will be done with a separate water right that will be transferred to the place of use. The existing distribution facility is served by Permit No. 35-13537.

6. **Map:** ☐ The point(s) of diversion and/or the place of use are not amended, therefore a map is not attached.

Attach a map showing the proposed point(s) of diversion and/or place(s) of use. Clearly label the map with township, range, section, and ¼ ¼ of section information. A photocopy of a USGS 7.5 minute topographic quadrangle is commonly used, or the *Map Tool* available on the Department website provides a satisfactory template for creating the required map (<http://maps.idwr.idaho.gov/TransferApplicationLayouts/Map>).

7. **Signature:**

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

 Luke H. Marchant, Attorney 8/2/2012
Signature of applicant or authorized agent Print name (and title, if applicable) Date

Signature of applicant or authorized agent Print name (and title, if applicable) Date

FOR DEPARTMENT USE ONLY

Received by _____ Date _____
Received by _____ Date _____
Reviewed by _____ Date _____

Receipt No. E031356

Attachment 1 – Volume Calculations

Headquarters Building

- 2,000 employees
- 11 gallons/person/day
- 5 day work week
- 52 weeks/year
- $2,000 * 11 * 5 * 52 = 5,720,000$ gallons/year
- $5,720,000$ gallons/year = **17.6 ac-ft/year**

Powder Facility

- 221 employees
- 13 gallons/person/day
- 5 day work week
- 52 weeks/year
- $221 * 13 * 5 * 52 = 746,980$ gallons/year
- $746,980$ gallons/year = **2.3 ac-ft/year**

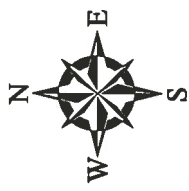
Day Care Building

- 200 kids, 35 employees
- 11 gallons/person/day
- 5 day work week
- 52 weeks/year
- $235 * 11 * 5 * 52 = 672,100$ gallons/year = **2.1 ac-ft/year**

$$17.6 \text{ ac-ft} + 2.3 \text{ ac-ft} + 2.1 \text{ ac-ft} = 22 \text{ ac-ft}$$

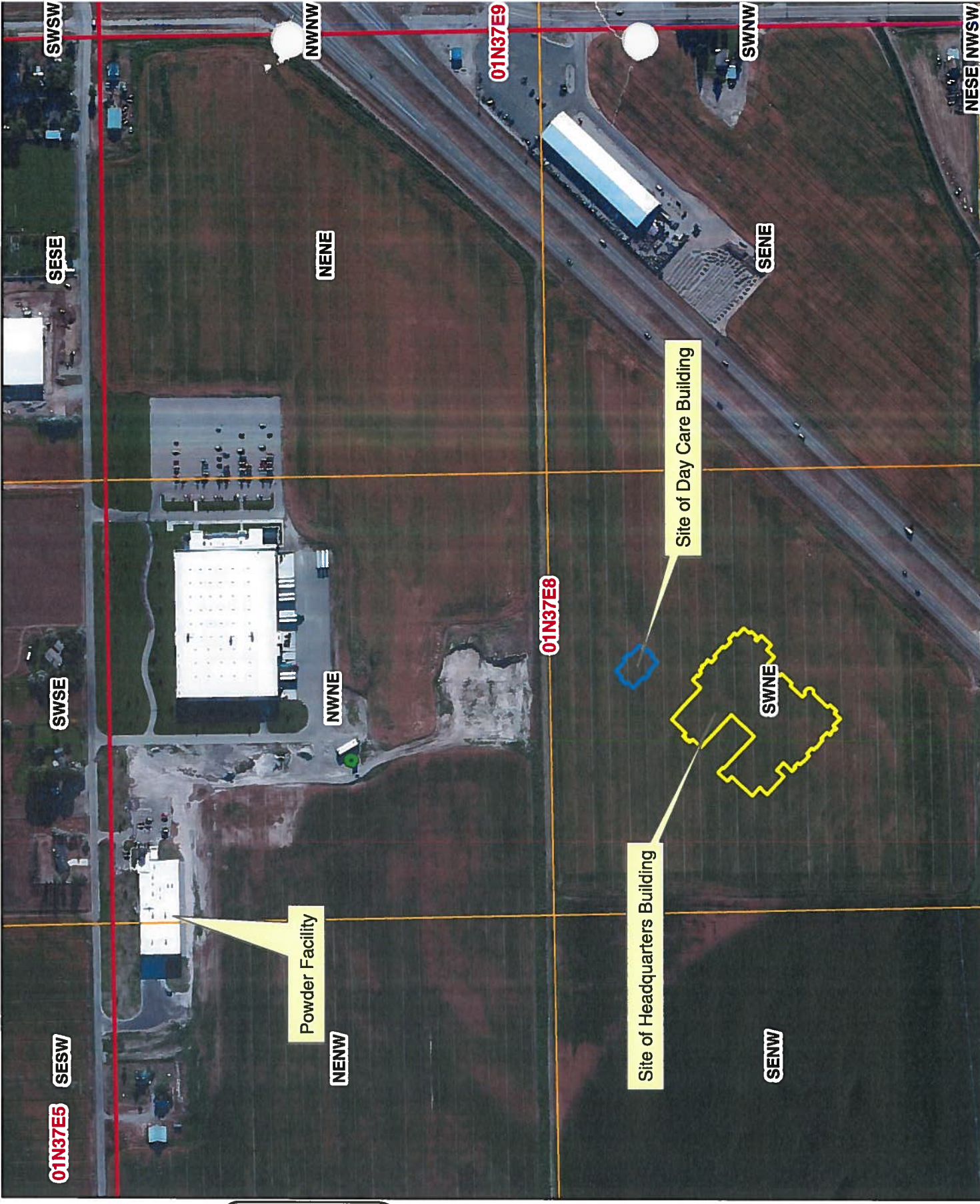
The number of gallons required per person was derived from meter readings at the powder facility over a four week period.

The powder facility has a higher requirement of gallons/person than the headquarters building because a small amount of water is required at the powder facility to wash equipment.



Legend

- POD
- Day Care Building
- Headquarters Footprint
- Section Lines
- Quarter Quarters



Bing Aerial Photo



Prepared by:
Luke H. Marchant
8/1/2012