Exhibit List

Contested Case: Applications for Transfer 84488, 84490
Applicant: LCSC Enterprises LLC
Date/Time: December 18-19, 2025 9:00 AM
Location: IDWR Conference Room – Idaho Falls, Idaho
Hearing Officer: James Cefalo

No.	Description	Offered?	Objection?	Admitted?
1	Transfer Application 84488	Y	–	Y
2	Transfer Application 84488 Map	Y	–	Y
3	Transfer Application 84490 Original	Y	–	Y
4	Transfer Application 84490 Amended	Y	–	Y
5	Transfer Application 84490 Map	Y	–	Y
6	LCSC Transfer Overview Map	Y	–	Y
7	Model Cell Map	Y	–	Y
8	Revised POD Map	Y	–	Y
9	IDWR Quick Guide to ESPA Modeling Tools	Y	–	Y
10	JCH Engineering 2021 Expert Report	Y	–	Y
11	JCH Engineering 2025 Expert Report	Y	–	Y
12	Clearwater Geosciences 2024 Field Expert Report	Y	–	Y
13	Clearwater Geosciences 2025 Expert Report	Y	–	Y
14	Excel Spreadsheet Comparing ESPAM 3.2 and 3.4	Y	–	Y
15	Modeling Chart ESPAM 3.2	Y	–	Y
16	Modeling Chart ESPAM 3.4	Y	–	Y

No.	Description	Offered?	Objection?	Admitted?
17	WMIS Data for Well Associated with WR 35-14040	Y	—	Y
18	WMIS Data for Wells Association with WRs 35-2824 and 35-7740	Y	—	Y
19	Well Level Data from IDWR Website Interface	Y	—	Y
20	CREP Contract for WR 35-14040	Y	—	Y
21	2009 IDWR Transfer Processing Memo 24	Y	—	Y
22	2024 IDWR Transfer Processing Memo 24	Y	—	Y
23	IDWR ETRAN Explanation from Website	Y	—	Y
24	IDWR 2024 ESPA Cumulative Transfer Memo	Y	—	Y
25	Transfer Processing Memo No. 31	Y	—	Y

No.	Description	Offered?	Objection?	Admitted?
201	SWC Rebuttal Report (May 30, 2025)	Y	—	Y
202	SWC Expert Report (July 16, 2021)	Y	—	Y
203	SWC Water Rights List	Y	—	Y
204	2025 SWC Rebuttal Report	Y	—	Y

Witness List

Contested Case: Applications for Transfer 84488, 84490
Applicant: LCSC Enterprises LLC
Date/Time: December 18-19, 2025
Location: IDWR Conference Room – Idaho Falls, Idaho
Hearing Officer: James Cefalo

WITNESS	CALLED BY	DATE / TIME
Jason Helms	Applicant	12/18/25
Thomas Wood	Applicant	12/18/25
Hai Huang	Applicant	12/18/25
Blair Dance	Applicant	12/18/25
Jennifer Sukow	Applicant	12/18/25
Dave Colvin	Protestant	12/18/25

RECEIVED
Sep 12, 2025
DEPARTMENT OF
WATER RESOURCES

Robert L. Harris (ISB No. 7018)
rharris@holdenlegal.com
HOLDEN, KIDWELL, HAHN & CRAPO, P.L.L.C.
1000 Riverwalk Drive, Suite 200
P.O. Box 50130
Idaho Falls, ID 83405
Telephone: (208) 523-0620
Facsimile: (208) 523-9518

Attorneys for LCSC Enterprises LLC

BEFORE THE IDAHO DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR TRANSFER NOS. 84488 AND 84490 IN THE NAME OF LCSC ENTERPRISES LLC	**APPLICANT'S WITNESS AND EXHIBIT LIST**

LCSC Enterprises LLC (collectively "LCSC" or "Applicant"), by and through their attorneys of record, Holden, Kidwell, Hahn & Crapo, P.L.L.C., pursuant to Hearing Officer Cefalo's *Notice of Hearing, Notice of Status Conference, and Scheduling Order* dated January 13, 2025, hereby submit *Applicant's Witness and Exhibit List* (the "*Scheduling Order*") summarizing the witnesses that may testify at the hearing and the exhibits that may be offered as evidence by Nelson at the hearing scheduled for the above-entitled matter on September 23-24, 2025. The *Scheduling Order* assigned numbers 1-100 to LCSC.

WITNESSES

The following witnesses may be called by Nelson to testify at the hearing:

1. Blair Dance
2. Jason Helms, P.E.
3. Thomas R. Wood, Ph.D., PG

4. Hai Huang, Ph.D.
5. Jennifer Sukow
6. Any of the protestants' witnesses

EXHIBITS

The following exhibits may be introduced at the hearing:

1. Transfer Application 84488
2. Transfer Application 84488 Map
3. Transfer Application 84490 Original
4. Transfer Application 84490 Amended
5. Transfer Application 84490 Map
6. LCSC Transfer Overview Map
7. Model Cell Map
8. Revised POD Map
9. IDWR Quick Guide to ESPA Modeling Tools
10. JCH Engineering 2021 Expert Report
11. JCH Engineering 2025 Expert Report
12. Clearwater Geosciences 2024 Field Expert Report
13. Clearwater Geosciences 2025 Expert Report
14. Excel Spreadsheet Comparing ESPAM 3.2 and 3.4
15. Modeling Chart ESPAM 3.2
16. Modeling Chart ESPAM 3.4
17. WMIS Data for Well Associated with WR 35-14040
18. WMIS Data for Wells Association with WRs 35-2824 and 35-7740
19. Well Level Data from IDWR Website Interface
20. CREP Contract for WR 35-14040
21. 2009 IDWR Transfer Processing Memo 24
22. 2024 IDWR Transfer Processing Memo 24
23. IDWR ETRAN Explanation from Website
24. IDWR 2024 ESPA Cumulative Transfer Memo

LCSC also hereby provides notice that their counsel may use ArcMap, a GIS mapping program, and/or Google Earth for illustrative purposes to aid LCSC's description of various features that are relevant to the issues to be addressed at the hearing.

LCSC reserves the right to submit additional exhibits, such as those necessary for rebuttal of any witnesses or exhibits, and to use any official documents that are included within IDWR's files for the water rights identified at the hearing on this matter.

DATED this 12th day of September, 2025.

Robert L. Harris
HOLDEN, KIDWELL, HAHN & CRAPO, P.L.L.C.

CERTIFICATE OF SERVICE

I hereby certify that on this 12th day of September, 2025, I served a true and correct copy of the following described pleading or document on the attorneys and/or individuals listed below by the method(s) indicated.

DOCUMENT SERVED: **APPLICANT'S PROPOSED LEGAL QUESTIONS**

ORIGINAL TO: **James Cefalo**
Hearing Officer, Idaho Department of Water Resources
900 North Skyline Dr., Ste. A
Idaho Falls, ID 83402-1718
James.Cefalo@idwr.idaho.gov

ATTORNEYS AND/OR INDIVIDUALS SERVED:

Norm Semanko
Travis Thompson
Abby Bitzenburg
Parsons Behle & Latimer
800 West Main Street, Suite 1300
Boise, Idaho 83702
NSemanko@parsonsbehle.com
TThompson@parsonsbehle.com
ABitzenburg@parsonsbehle.com

☐ Mail
☐ Hand Delivery
☐ Facsimile
☒ Email

Robert L. Harris
HOLDEN, KIDWELL, HAHN & CRAPO, P.L.L.C.

Rev. 07/18

RECEIVED
OCT 13 2020
Department of Water Resources
Eastern Region

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. 84488

RECEIVED
Sep 12, 2025
DEPARTMENT OF
WATER RESOURCES

MINIMUM REQUIREMENTS CHECKLIST
TO BE SUBMITTED WITH APPLICATION FOR TRANSFER

An application for transfer must be prepared in accordance with the minimum requirements listed below to be acceptable for processing by the Department. Incomplete applications will be returned. The instructions, fee schedule, Part 2A reports and additional Part 2B forms are available from any Department office or on the Department's website at idwr.idaho.gov.

Name of Applicant(s) LCSC ENTERPRISES LLC

Check whether each item below is *attached* (Yes) or *not applicable* (N/A) for the proposed transfer.

Yes	N/A	
		* Means the item is always required and must be included with the application.
☑	*	Completed Application for Transfer of Water Right form, Part 1.
☑	*	Signature of applicant(s) or applicant's authorized representative on Application for Transfer Part 1. Include evidence of authority labeled Attachment #3 (see below) if signed by representative.
☑	*	Application for Transfer Part 2A. Attach a Part 2A report describing each water right in the transfer as currently recorded.
☑	☐	Complete and attach an Application for Transfer Part 2B for each water right for which only a portion is proposed to be changed through this transfer application.
☑	*	Application for Transfer Part 3A is always required (see Attachment #7a below); Parts 3B and 3C must be completed for transfer applications proposing to change the nature of use of the water right(s) or proposing changes to supplemental right(s).
☑	*	Correct fee submitted with transfer application form. (Fee schedule is on website and instructions for application for transfer.)

Attachments to Application - Label each attachment with the corresponding number shown below as Attachment #1-10.

☐	☑	#1 If the applicant is a business, partnership, organization, or association, and not currently registered in the State of Idaho as a business entity, attach documentation identifying officers authorized to sign or act on behalf of right holder. (See Part 1.)
☑	☐	#2a Water Right ownership documentation if Dept. records do not show the applicant as the current water right owner. **
☑	☐	#2b If the ownership of the water right will change as a result of the proposed transfer to a new place of use, attach documentation showing land and water right ownership at the new place of use. Include documentation for all affected land and owner(s).** ** Additional fee(s) required for water right ownership changes; see fee schedule.
☑	☐	#3 Documentation of authority to make the change if the applicant is not the water right owner.
☐	☑	#4 Power of Attorney or documentation providing authority to sign or act on the applicant's behalf. (See Part 1.)
☑	☐	#5 If the transfer application proposes to change the point of diversion for a water right affecting the Eastern Snake Plain Aquifer (ESPA), attach the results of an ESPA analysis and a detailed mitigation plan to offset any depletions to hydraulically connected reaches of the Snake River. ESPA transfer spreadsheet and model grid labeled cells are available on the Department's website at idwr.idaho.gov/water-rights/transfers/resources.html.
☑	☐	#6 Notarized statement of agreement or a statement on official letterhead signed by an authorized representative from each lien holder or other entity with financial interest in the water right(s) or land affected by the proposed transfer. (See Part 1.5.c.)
☑	*	#7a Attach a map identifying the proposed point(s) of diversion, place(s) of use, and water diversion and distribution system details as described on the application. Include legal description labels. If only a portion of the right is proposed to be changed, identify the current location of the part of the existing right(s) proposed to be changed. (See Part 3A.)
☑	☐	#7b If the transfer application proposes to change the place or purpose of use of an irrigation right attach a Geographic Information System (GIS) shape file, or an aerial photo or other image clearly delineating the location and extent of existing acres and changes to the place of use. If some or all of any right is leased to the Water Supply Bank, you must also show the the specific location and/or acres to be idled at the new, proposed place of use to satisfy lease requirements.
☐	☑	#8a If the transfer application proposes to change the nature of use or period of use for one or more rights, provide documentation describing the extent of historic beneficial use for the water rights proposed to be transferred and document how enlargement will be avoided. (See Part 3B.) Additional fee required for proposed changes to nature of use; see fee schedule.
☐	☑	#8b If the transfer application proposes to change the place of use of a supplemental irrigation right, provide documentation regarding the historic use of the supplemental right(s) and availability or reliability of the primary right(s) being supplemented, both before and after the proposed change. (See Part 3C.)
☐	☑	#9 Water Supply Bank information for all rights proposed for transfer and currently leased to the Bank. (Attachment WSB)
☑	☐	#10 Other. Please describe: Attached water right split worksheet. This is transfer #1 of 2 (can be processed separately)

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STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1

Name of Applicant(s) LCSC ENTERPRISES LLC Phone (972) 989-7330

Mailing address 433 LAS COLINAS BLVD E STE 1290 IRVING, TX 75039-5058 Email

☐ If applicant is not an individual and not registered to do business in the State of Idaho, attach documentation identifying officers authorized to sign or act on behalf of the applicant. Label it **Attachment #1**.

☐ Attach water right ownership documentation if Department records do not show the transfer applicant as the current water right owner. Label it **Attachment #2a**.

☐ If the ownership of the water right will change as a result of the proposed transfer to a new place of use, attach documentation showing land and water right ownership at the new place of use. Include documentation for all affected land and owner(s). Label it **Attachment #2b**.

☑ Attach documentation of authority to make the proposed change if the applicant is not the water right owner. Label it **Attachment #3**.

Provide contact information below if a consultant, attorney, or any other person is representing the applicant in this transfer process.

☐ No Representative

Name of Representative JCH Engineering & Consulting, PLLC Phone (208) 308-2109

Mailing address 6755 N. Albert Lane Idaho Falls, ID 83401 Email jasoncivil@alumni.nd.edu

☐ 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.

☑ 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 providing authority to sign for the applicant and label it **Attachment #4**.

I hereby assert that no one will be injured by the proposed changes and that the proposed changes do not constitute an enlargement in use of the original right(s). 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 or Authorized Representative	Print Name and Title if applicable	Date
Robert L. Harris	Robert L. Harris, ATTORNEY	Oct. 13, 2020

A. PURPOSE OF TRANSFER

1. ☑ Change point of diversion ☑ Add diversion point(s) ☑ Change place of use
   ☐ Change nature of use ☐ Change period of use ☑ Other Update combined wrpou

2. Is this a transfer for changes pursuant to Idaho Code § 42-221.O.8?
   If yes, ☐ attach an explanation and any supporting documentation labeled as **Part1A.2**.

3. Describe your proposal in narrative form, including a detailed description of non-irrigation uses to justify amounts transferred (i.e. number of stock, etc.), and provide additional explanation of any other items on the application. Attach additional pages if necessary and label it **Part 1A.3**.
   Transfer a portion of primary ground water right 35-14041 for use from an existing well system authorized by water rights 35-7740 & 35-2824 and update shared place of us. Combination of Near Blackfoot-Neeley and Neeley-Minidoka reaches of the ESPA appear off-setting similar to recently approved transfers 83288, 83315.

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STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1 Continued

B. DESCRIPTION OF RIGHTS AFTER THE REQUESTED CHANGES. IF THE RIGHTS ARE BEING SPLIT, DESCRIBE PORTIONS TO BE CHANGED AS THEY WOULD APPEAR AFTER THE REQUESTED CHANGES.

1. All	Part	Right Number	Amount (cfs/ac-ft)	Nature of Use	Period of Use	Source & Tributary
☐	☑	35-14041	0.46 / 186.4	Irrigation	04/01 to 11/01	Ground Water (ESPA)
☑	☐	35-7740	3.66 / 1,160.0	Irrigation	04/01 to 11/01	Ground Water (ESPA)
☑	☐	35-2824	0.16 / 32.7	Irrigation	04/01 to 11/01	Ground Water (ESPA)
☐	☐				to	
☐	☐				to	
☐	☐				to	
☐	☐				to	
☐	☐				to	
☐	☐				to	

Total authorized under rights 4.28 cfs and/or 1379.1 acre-feet.

2. Total amount of water proposed to be transferred or changed 0.46 / 1.41 cubic feet per second and/or 186.4 acre-feet per year.

3. Point(s) of Diversion:

☐ No changes to point(s) of diversion are proposed - the following chart is therefore not completed. (Proceed to #4.)
☑ Attach Eastern Snake Plain Aquifer analysis if this transfer proposes to change a point of diversion affecting the ESPA. Label it **Attachment #5**.

New ?	Lot	¼	¼	¼	Sec	Twp	Rge	County	Source	Local name or tag #
extg		NE	NW	NE	24	09S	28E	Power	Ground Water	600779
extg		SW	SE	SW	18	09S	29E	Power	Ground Water	600735

4. Place of use: (If irrigation, identify with number of acres irrigated per ¼ ¼ tract.)

☐ No changes to place of use are proposed - the following chart is therefore not completed. (Proceed to #5.)

Twp	Rge	Sec	NE ¼				NW ¼				SW ¼				SE ¼				Acre Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09S	28E	13															37.2	39.6	76.8
		24	37.8	37.4			15.7												90.9
		18											35	39			7		81
		19		18.3	6.1		39.2	33.3											96.9
					lot9														

Total Acres (for irrigation use) 345.6

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STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1 Continued

5. General Information:

a. Describe the complete diversion system, including how you will accommodate a measuring device and lockable controlling works should they be required now or in the future:
Existing wells, pumps and measuring devices with lockable controls reported under WMIS ID 600779 & 600735 associated with existing water rights 35-7740 and 35-2824. This transfer seeks to add the rate, volume and acres under the portion of 35-14041 as described in Part 2b to irrigate land shown on Attachment 7a.

b. Who owns the property at the point(s) of diversion? Applicant
If other than the applicant, describe the arrangement enabling the applicant to access the property for the diversion system:

c. Are the lands from which you propose to transfer the water right subject to any liens, deeds of trust, mortgages, or contracts?
If yes, ☑ attach a notarized statement from the holder of the lien, deed of trust, mortgage or contract agreeing to the proposed changes on official letterhead signed by an authorized representative. Label it **Attachment #6**. List the name of the entity and type of lien: See attached contract allowing transfer of 35-14041.

It is the applicant's responsibility to provide notice to lien holder, trustee, mortgagor, or contract holder of the proposed changes that may impact or change the value of the water rights or affected real property. Any misrepresentation of legal encumbrance on this application may result in rejection of the application or cancellation of an approval.

d. Are any of the water rights proposed for transfer currently leased to the Water Supply Bank?
If yes, ☐ complete Attachment WSB.

e. Describe the effect on the land now irrigated if the place or purpose of use is changed pursuant to this transfer:
Land will not be irrigated at the existing place of use to offset use of the water right at the new place of use.

f. Describe the use of any other water right(s) for the same purpose or land, or the same diversion system as right(s) proposed to be transferred at both the existing and proposed point(s) of diversion and place(s) use:
Water right 35-14040 also associated with the existing point of diversion is unchanged. Existing rights 35-7470 and 35-2482 at the new place of use will be used in combination with the transferred portion of 35-14041 to irrigate the place of use shown on Attachment 7a.

g. To your knowledge, has/is any portion of the water right(s) proposed to be changed:

Yes	No	
☑	☐	undergone a period of five or more consecutive years of non-use,
☐	☑	currently leased to the Water Supply Bank,
☐	☑	currently used in a mitigation plan limiting the use of water under the right, or
☑	☐	currently enrolled in a Federal set-aside program limiting the use of water under the rights?

If yes, describe:
35-14041 CRP contract began in 2007 and ends in 2021.

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IDAHO DEPARTMENT OF WATER RESOURCES 10/20/2020
Proof Report

Water Right 35-2824

Owner Type	**Name**
Current Owner	LCSC ENTERPRISES LLC

Priority Date: 8/28/1961
Basis: Decreed
Status: Active
Water Supply Bank Status: Active

Source	**Tributary**
GROUND WATER	

Beneficial Use	**From**	**To**	**Diversion Rate**	**Volume**
IRRIGATION	4/01	11/01	0.160 CFS	32.7 AF
	Total Diversion		0.160 CFS	32.7 AF

Source and Point(s) of Diversion

GROUND WATER	NENWNE	Sec. 24, Twp 09S, Rge 28E, POWER County
GROUND WATER	SWSESW	Sec. 18, Twp 09S, Rge 29E, POWER County

Place Of Use

IRRIGATION within POWER County

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
09S	28E	13															3.4	5.6	9.0

POU Total Acres: 9.0

Conditions of Approval:

1. R05 Use of water under this right may be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 120.
2. 214 Prior to the diversion and use of water under Transfer approval 83340, the right holder shall install and maintain acceptable measuring device(s) at the authorized point(s) of diversion in accordance with Department specifications, or shall obtain an approved variance from the Department to determine the amount of water diverted from power records or to maintain an existing measuring device.
3. 213 Upon specific notification of the Department, the right holder shall install and maintain data loggers to record water usage information at the authorized point(s) of diversion in accordance with Department specifications.
4. R64 This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.0 afa per acre at the field headgate for irrigation of the place of use.
5. T07 The right holder shall accomplish the change authorized by this transfer within one year of the date of this approval.
6. T08 Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.
7. T19 Pursuant to Idaho Code § 42-1412(6), this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as determined by the Snake River Basin Adjudication court in the final

84488

unified decree entered 08/26/2014.

Combined Use Limits
N/A

SubCase:
SubCaseNumber: 35-2824
Class: 1
SF5 Filed Date:
Special Master Recom Signed Date:
Attorney Assigned:
Adjudication Agent:
Basis of Claim: License
Date Filed: 6/2/1999
Objection Status: Active

Water Supply Bank:
Lessor Name: BRANDI HUNTER
Lease Status: Active
Lease Amount: 2.14cfs
Rental Availability: 2.14cfs
Date Received: 2/14/2017
Lease Begin Date: 1/1/2017
Expiration Date: 12/31/2017

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IDAHO DEPARTMENT OF WATER RESOURCES 10/20/2020

Proof Report

Water Right 35-7740

Owner Type	**Name**
Current Owner	LCSC ENTERPRISES LLC

Priority Date: 8/15/1977
Basis: Decreed
Status: Active

Source	**Tributary**
GROUND WATER	

Beneficial Use	**From**	**To**	**Diversion Rate**	**Volume**
IRRIGATION	4/01	11/01	3.660 CFS	1,160.0 AF
	Total Diversion		3.660 CFS	1,160.0 AF

Source and Point(s) of Diversion

GROUND WATER	NENWNE	Sec. 24, Twp 09S, Rge 28E, POWER County
GROUND WATER	SWSESW	Sec. 18, Twp 09S, Rge 29E, POWER County

Place Of Use

IRRIGATION within POWER County

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
09S	28E	13															33.0	34.0	67.0
09S	28E	24	33.0	32.0															65.0
09S	29E	18											31.0 L4	40.0			4.2		75.2
09S	29E	19		6.6			40.0	31.0 L6	1.0 L7	4.2 L8									82.8

POU Total Acres: 290.0

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. C05 RIGHT INCLUDES ACCOMPLISHED CHANGE IN PLACE OF USE PURSUANT TO SECTION 42-1425, IDAHO CODE.

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Page _____ of _____

IDAHO DEPARTMENT OF WATER RESOURCES
APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2A

Current Water Right No.: 35-14041

Current Owner: BONANZA BAR RANCH LLC

Priority Date: 10/16/1974

Origin: Water Right

Status: Active

Basis: Decreed

Source **Tributary**

GROUND WATER

Beneficial Use	From To	Diversion Rate	Annual Volume
IRRIGATION	04/01 to 11/01	3.18 CFS	1290 AF
	Total Diversion	3.18 CFS	1290 AF

Location of Point(s) of Diversion

GROUND WATER NW1/4SE1/4 Sec. 12, Twp 01S, Rge 32E B.M.
BINGHAM County

Place of Use

IRRIGATION Within BINGHAM County

T01S R32E S12	NWNE	29.00	T01S R32E S12	SWNE	31.10
T01S R32E S12	SENE	25.00	T01S R32E S12	NENW	39.00
T01S R32E S12	NWNW	35.00	T01S R32E S12	SWNW	35.10
T01S R32E S12	SENW	39.90	T01S R32E S12	SWSW	39.00
T01S R32E S12	SESW	26.40	T01S R32E S12	NESE	23.00

Total Acres: 322.5

Conditions of Approval:

1. T19 Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

Decreed Date: 1/31/2002

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Rev. 07/18

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2

A. DESCRIPTION OF RIGHT(S) AS RECORDED

For each water right listed in Part 1B.1 of the application, attach a **Part 2A** report obtained from any Department office or from the Department's website @ idwr.idaho.gov, Water Right Transfers, Step 1.
Insert Part 2A reports into the application following Part 1.

B. IF ONLY A PORTION OF THE RIGHT IS PROPOSED TO BE CHANGED, DESCRIBE THE PORTION BEING CHANGED AS IT APPEARS BEFORE THE REQUESTED CHANGES

☑ Complete and attach one copy of Part 2B for each right for which only a portion is proposed to be changed. If the entire right is proposed to be changed, Part 2B is not applicable. Additional copies of the **Part 2B** form can be obtained from any Department office or from the Department's website @ idwr.idaho.gov, Water Right Transfers, Step 3, or Water Right Forms, Changes in Use. Insert completed Part 2B forms into the application following Part 2A of the same water right.

Right Number: 35-14041

1. amount 0.46 / 186.4 (cfs/ac-ft) for Irrigation purposes from 04/01 to 11/01
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______

2. Lands irrigated or place of use: (If irrigation, identify with number of acres irrigated per ¼ ¼ tract.)

Twp	Rge	Sec	NE ¼				NW ¼				SW ¼				SE ¼				Acre Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01S	32E	12											20.2	26.4					46.6

Total Acres (for irrigation use) 46.6

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Rev. 07/18

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 3

A. PLAT MAP (See Part 3A of Instructions for application for transfer for complete requirements.)

☑ Attach a map of the diversion, measurement, control, and distribution system. Label it **Attachment #7a**.
☑ If the transfer application proposes to change the place or purpose of use of an irrigation right attach a Geographic Information System (GIS) shape file, or an aerial photo or other image clearly delineating the location and extent of existing acres and changes to the place of use. Label it **Attachment #7b.**

If the place of use currently consists of a permissible place of use, then the attachment is not required if the application contains a clear statement that the boundaries for the place of use are not proposed to be changed by the transfer and the total number of irrigated acres within the place of use before and after the transfer is clearly stated.

If any part of the irrigation water right is leased to the Water Supply Bank, you must also specify the location and number of acres that will remain idled for the duration of the lease contract at the new, proposed place of use.

B. CHANGES IN NATURE OF USE (Water Balance)

☐ If you propose to change the nature of use or period of use of all or part of the rights(s) listed in this application, attach documentation describing the extent of historic beneficial use of the portion of the right(s) proposed to be changed. Also attach documentation showing that the portion of the right(s) to be changed will not be enlarged in rate, volume, or consumptive use through the proposed change. Label it **Attachment #8a**.

C. PLACE OF USE CHANGES TO SUPPLEMENTAL IRRIGATION RIGHTS

☐ If you propose to change the place of use of a supplemental irrigation right, answer below and attach supporting documentation. Label it **Attachment #8b**.

Describe how the supplemental water rights have been used historically in conjunction with other water rights at the existing place of use. Describe the time during the irrigation season that the supplemental rights have been used. Include information about the availability or reliability of the primary right(s) being supplemented, both before and after the change. If the applicant is proposing to change a supplemental irrigation right to a primary right, provide the information required on Part 3B above:

FOR DEPARTMENT USE ONLY

Transfer contains _____ pages and _____ attachments.

Received by _____ Date _____ Preliminary check by _____ Date _____

Fee paid $650 Date 10/13/2020 Receipted by JB Receipt # E046356

Add'l fee paid _____ Date _____ Receipted by _____ Receipt # _____

Check all that apply: Attachment WSB ☐ (copy sent to state office) Lessor Designation form ☐ &/or W-9 ☐ (originals to state office)

TRANSFER COST IS $580.
$70 REFUND REQUESTED ON 10/20/20.

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Attachment No. 3
Documentation of Authority - Applicant NOT Water Right Owner

Attachment No. 6
Lien Holder Authorization

RE-24 VACANT LAND
REAL ESTATE PURCHASE AND SALE AGREEMENT

THIS IS A LEGALLY BINDING CONTRACT, READ THE ENTIRE DOCUMENT, INCLUDING ANY ATTACHMENTS.
IF YOU HAVE ANY QUESTIONS, **CONSULT YOUR ATTORNEY AND/OR ACCOUNTANT** BEFORE SIGNING.
NO WARRANTIES, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF HABITABILITY, AGREEMENTS OR REPRESENTATIONS NOT EXPRESSLY SET FORTH HEREIN SHALL BE BINDING UPON EITHER PARTY.

ID# **20820** DATE **August 12, 2020**

LISTING AGENCY **Idaho Rocky Mountain Real Estate** Office Phone # _____ Fax # _____
Listing Agent **Wes Leisy** E-Mail **wes@wesleisy.com** Phone # **208-221-2800**
SELLING AGENCY **Idaho Real Estate Group** Office Phone # _____ Fax # _____
Selling Agent **Jeff Hunt** E-Mail **jeff@realestatehunt.net** Phone # **(208) 221-8464**

1. BUYER: **LCSC Enterprises, LLC ; Blair Dance**
(Hereinafter called "**BUYER**") agrees to purchase, and the undersigned SELLER agrees to sell the following described real estate hereinafter referred to as "PROPERTY" **COMMONLY KNOWN AS** **Bonanza Bar Ranch**
Blackfoot City **Idaho** County, ID, Zip **83221** legally described as:

OR Legal Description Attached as exhibit **A** **(Exhibit must accompany original offer and be signed or initialed by BUYER and SELLER.)**

2. $_____ **PURCHASE PRICE:** _____,
payable upon the following TERMS AND CONDITIONS (not including closing costs):
This offer is contingent upon the sale, refinance, and/or closing of any other property ☐ **Yes** ☐ **No** (N/A if left blank)

3. FINANCIAL TERMS: Note: A+D+E+F must add up to total purchase price.
(A). $ **50000** **EARNEST MONEY:** **Fifty Thousand Dollars And Zero Cents**
BUYER hereby offers the above stated amount as Earnest Money which shall be credited to BUYER upon closing. Earnest Money is/will be:

Evidenced by:	**Held By:**	**Delivered:**	**Deposited:**
☐ Cash	☒ Responsible Broker	☐ With Offer	☒ Upon Receipt and Acceptance
☒ Personal Check	☐ Closing Company	☐ Within _____ business days (three [3] if left blank) of acceptance.	☐ Upon Receipt Regardless of Acceptance
☐ Cashier's Check	☐ See Section 4	☒ See Section 4	☐ See Section 4
☐ Wire Transfer			
☐ Note			
☐ See Section 4			

THE RESPONSIBLE BROKER SHALL BE: **Mike Atkinson**

(B). ALL CASH OFFER: ☐ NO ☒ YES **If this is an all cash offer do not complete Sections 3D and 3E, fill blanks with N/A** (Not Applicable). **IF CASH OFFER BUYER'S OBLIGATION TO CLOSE SHALL NOT BE SUBJECT TO ANY FINANCIAL CONTINGENCY.** BUYER agrees to provide SELLER within _____ business days (five [5] if left blank) from the date of acceptance of this agreement by all parties written confirmation of sufficient funds and/or proceeds necessary to close transaction. Acceptable documentation includes, but is not limited to a copy of a recent bank or financial statement.

(C) Cash proceeds from another sale: ☐ **Yes** ☒ **No** (N/A if left blank)

(D). $_____ **NEW LOAN PROCEEDS:** If a number greater than zero appears on the preceding blank then this agreement is contingent upon BUYER obtaining the following financing:
FIRST LOAN of $_____ not including mortgage insurance, through ☐ FHA, ☐ VA, ☐ CONVENTIONAL, ☐ IHFA, ☐ RURAL DEVELOPMENT, ☐ OTHER _____ with interest not to exceed _____% for a period of _____ year(s) at: ☐ Fixed Rate ☐ Other _____. In the event BUYER is unable, after exercising good faith efforts, to obtain the indicated financing, BUYER's Earnest Money shall be returned to BUYER.
SECOND LOAN of $_____ through ☐ FHA, ☐ VA, ☐ CONVENTIONAL, ☐ IHFA, ☐ RURAL DEVELOPMENT, ☐ OTHER _____ with interest not to exceed _____% for a period of _____ year(s) at: ☐ Fixed Rate ☐ Other _____
LOAN APPLICATION: BUYER ☐ has applied OR ☐ shall apply for such loan(s). Within _____ business days (ten [10] if left blank) of final acceptance of all parties, BUYER agrees to furnish SELLER with **a written confirmation showing lender approval of credit report, income verification, debt ratios, and evidence of sufficient funds and/or proceeds necessary to close transaction in a manner acceptable to the SELLER(S) and subject only to satisfactory appraisal and final lender underwriting. If an appraisal is required by lender, the PROPERTY must appraise at not less than purchase price** or BUYER'S Earnest Money shall be returned at BUYER'S request unless SELLER, at SELLER'S sole discretion, agrees to reduce the purchase price to meet the appraised value, in which case SELLER shall be entitled to a copy of the appraisal and shall have 24 hours from receipt thereof to notify BUYER of any price reduction. *BUYER may also apply for a loan with different conditions and costs and close transaction provided all other terms and conditions of this Agreement are fulfilled, and the new loan does not increase the costs or requirements to the SELLER.* **FHA / VA:** If applicable, it is expressly agreed that notwithstanding any other provisions of this contract, BUYER shall not be obligated to complete the purchase of the PROPERTY described herein or to incur any penalty or forfeiture of Earnest Money deposits or otherwise unless BUYER has been given in accordance with HUD/FHA or VA requirements a written statement by the Federal Housing Commissioner, Veterans Administration or a Direct Endorsement lender setting forth the appraised value of the PROPERTY of not less than the sales price as stated in the contract.

If such written confirmation required in 3(B) or 3(D) is not received by SELLER(S) within the strict time allotted, SELLER(S) may at their option cancel this agreement by notifying BUYER(S) in writing of such cancellation within _____ business days (three [3] if left blank) after written confirmation was required. If SELLER does not cancel within the strict time period specified as set forth herein, SELLER shall be deemed to have accepted such written

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confirmation of lender approval or waived the right to receive written confirmation and shall be deemed to have elected to proceed with the transaction. SELLER'S approval shall not be unreasonably withheld.

(E). $_____ ADDITIONAL FINANCIAL TERMS:
☐ Additional financial terms are specified under the heading "OTHER TERMS AND/OR CONDITIONS" (Section 4).
☐ Additional financial terms are contained in a **FINANCING ADDENDUM** of same date, attached hereto, signed by both parties.

(F). $_____ APPROXIMATE FUNDS DUE AT CLOSING: Cash at closing, not including closing costs, to be paid by BUYER at closing, In GOOD FUNDS, which includes: **cash, electronic transfer funds, certified check or cashier's check.**

4. OTHER TERMS AND/OR CONDITIONS: This Agreement is made subject to the following special terms, considerations and/or contingencies which must be satisfied prior to closing **Earnest Money to be mailed upon acceptance.**

Contingent: Latter of successful water transfer or 60 calendar days

CREP Information given to buyers for review

5. ITEMS INCLUDED & EXCLUDED IN THIS SALE: All existing fixtures and fittings that are attached to the PROPERTY are **INCLUDED IN THE PURCHASE PRICE** (unless excluded below) and shall be transferred free of liens and in as-is condition. Unless specifically excluded below, the fixtures and fittings and irrigation fixtures and equipment, that are now on or used in connection with the PROPERTY are included in the purchase price and shall include (1) all personal property owned by the SELLER and used primarily in connection with the PROPERTY, and (2) all rights and easements appurtenant to the PROPERTY. BUYER should satisfy himself/herself that the condition of the included items is acceptable. The terms stated in this section shall control over any oral statements, prior written communications and/or prior publications including but not limited to MLS listings and advertisements. Personal property described in a property disclosure report shall not be inferred as to be included unless specifically set forth herein.
ITEMS SPECIFICALLY INCLUDED IN THIS SALE: **Real Property: 880 acres +or- located in Bingham County. All owned and appurtenant oil, gas, and mineral rights. All appurtenant water rights including 35-14041 and 35-13992 to be included and transferred from seller to buyer at closing. All CREP Contracts to be included and 2021 Payment assigned to buyer. All remaining well and irrigation equipment.**

ITEMS SPECIFICALLY EXCLUDED IN THIS SALE: _____

6. "NOT APPLICABLE" DEFINED: The letters "n/a," "N/A," "n.a.," and "N.A." as used herein are abbreviations of the term "not applicable." Where this agreement uses the term "not applicable" or an abbreviation thereof, it shall be evidence that the parties have contemplated certain facts or conditions and have determined that such facts or conditions do not apply to the agreement or transaction herein.

7 . INSPECTION:
(A). ***BUYER IS STRONGLY ADVISED TO INVESTIGATE THE CONDITION AND SUITABILITY OF ALL ASPECTS OF THE PROPERTY AND ALL MATTERS AFFECTING THE VALUE OR DESIRABILITY OF THE PROPERTY INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:***
SIZE: Square footage and lot size. (Any numerical statements regarding these items are APPROXIMATION ONLY, and have not been and will not be verified and should not be relied upon by BUYER.)
1. LINES AND BOUNDARIES: Property lines and boundaries, septic, and leach lines (Fences, walls, hedges, and other natural or constructed barriers or markers do not necessarily identify true property boundaries. Property lines may be verified by surveys.)
2. ZONING AND LAND USE: Inquiries, investigations, studies or any other means concerning past, present or proposed laws, ordinances, referendums, initiatives, votes, applications and permits affecting the current use of the PROPERTY, BUYER's intended use of the PROPERTY, future development, zoning, building, size, governmental permits and inspections. Both parties are advised that Broker does not guarantee the status of permits, zoning or code compliance. The parties are to satisfy themselves concerning these issues.
3. UTILITIES AND SERVICE: Availability, costs, and restrictions of utilities and services, including but not limited to, sewage, sanitation, water, electricity, gas, telephone, cable TV, internet and drainage.
4. UTILITIES, IMPROVEMENTS & OTHER RIGHTS: SELLER represents that the PROPERTY does have the following utilities, improvements, services and other rights available (describe availability): **Wells, Power**
5. HAZARDOUS MATERIALS: The real estate broker(s) or their agents in this transaction have no expertise with respect to toxic waste, hazardous materials or undesirable substances. BUYERS who are concerned about the presence of such materials should have the PROPERTY inspected by qualified experts. BUYER acknowledges that he/she has not relied upon any representations by either the Broker or the SELLER with respect to the condition of the PROPERTY that are not contained in this Agreement or in any disclosure statements.
6. TAX LIABILITY: The BUYER and SELLER acknowledge that they have not received or relied upon any statements or representations by the Broker with respect to the effect of this transaction upon BUYER's or SELLER's tax liability.

(B). BUYER chooses ☒ to conduct inspections; ☐ not to conduct inspections. If BUYER chooses not to conduct inspections skip the remainder of Section 7. If indicated, BUYER shall have the right to conduct inspections, investigations, tests, surveys and other studies at **BUYER'S expense, hereafter referred to as the "Primary Inspection."** BUYER'S inspection of the PROPERTY includes all aspects of the PROPERTY, including but not limited to neighborhood, conditions, zoning and use allowances, environmental conditions, applicable school districts and/or any other aspect pertaining to the PROPERTY or related to the living environment at the PROPERTY. Unless otherwise addressed BUYER shall, within 30 calendar days (thirty [30]

BUYER'S Initials (LEL;BD)(_____) Date 08/13/2020 **SELLER'S** Initials (_____)(_____) Date _____

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if left blank) from acceptance, complete these inspections and give to SELLER written notice of disapproved items/conditions or written notice of termination of this Agreement based on an unsatisfactory inspection. Once BUYER delivers written notice to SELLER it shall end BUYER's timeframe and is irrevocable regardless of if it was provided prior to the deadline stated above. BUYER is strongly advised to exercise these rights and to make BUYER'S own selection of professionals with appropriate qualifications to conduct inspections of the entire PROPERTY. SELLER shall make the PROPERTY available for all Inspections. BUYER shall keep the PROPERTY free and clear of liens; indemnify and hold SELLER harmless from all liability, claims, demands, damages and costs; and repair any damages arising from the inspections. No inspections may be made by any governmental building or zoning inspector or government employee without the prior consent of SELLER unless required by local law. **No inspections may be made by any governmental building or zoning inspector or government employee without the prior consent of SELLER, unless required by local law.**

BUYER'S acceptance of the condition of the PROPERTY is a contingency of this Agreement.

(C) SATISFACTION/REMOVAL OF INSPECTION CONTINGENCIES:

1. If BUYER does not within the strict time period specified give to SELLER written notice of disapproved items/conditions or written notice of termination of this Agreement, BUYER shall conclusively be deemed to have: (a) completed all inspections, investigations, review of applicable documents and disclosures; (b) elected to proceed with the transaction and (c) assumed all liability, responsibility and expense for repairs or corrections.

2. If BUYER does within the strict time period specified give to SELLER written notice of termination of this Agreement based on an unsatisfactory inspection, the parties will have no obligation to continue with the transaction and the Earnest Money shall be returned to BUYER.

3. If BUYER does within the strict time period specified give to SELLER written notice of disapproved items, **it shall end BUYER's timeframe for inspections and is irrevocable.** BUYER shall provide to SELLER pertinent section(s) of written inspection reports upon request, if applicable. Upon receipt of written notice SELLER shall have 7 business days (three [3] if left blank) in which to respond in writing. SELLER, at SELLER's option, may agree to correct the items as requested by BUYER in the notice or may elect not to do so. If SELLER agrees in writing to correct items/conditions requested by BUYER, then both parties agree that they will continue with the transaction and proceed to closing. Otherwise, immediately upon a written response from SELLER that rejects BUYER's requests, in whole or in part, said response is irrevocable without consent of BUYER and BUYER may proceed under 7(C)(4) below.

4. If SELLER does not agree to correct BUYER'S disapproved items/conditions within the strict time period specified, or SELLER does not respond in writing within the strict time period specified above, then within 7 business days (three [3] if left blank) the BUYER has the option of 1) negotiating with SELLER to obtain a modification of SELLER'S response 2) proceeding with the transaction without the SELLER being responsible for correcting the disapproved items/conditions stated in that particular BUYER'S notice, or 3) giving the SELLER written notice of termination of this agreement in which case Earnest Money shall be returned to BUYER. If within the strict time period specified in this paragraph BUYER does not obtain a modification of SELLER'S response or give written notice of cancellation, BUYER shall conclusively be deemed to have elected to proceed with the transaction without the repairs or corrections to the disapproved items/conditions stated in that particular BUYER'S notice.

8. SELLER DISCLOSURES. Within 4 business days (two [2] if left blank) from acceptance SELLER shall disclose, and provide copies if available, to BUYER the following:

(a) any studies and/or reports that have previously been performed in connection with or for the PROPERTY, including without limitation, environmental reports, soil studies, seismic studies, site plans and surveys;

(b) any notices relating to a violation of applicable law including, without limitation, environmental law and laws relating to land use, zoning or compliance with building codes;

(c) SELLER shall make available for inspection all documents in SELLER's possession relating to ownership, operation, renovation or development of the PROPERTY including: statements for real estate tax assessments and utilities for the last year; property management agreements; leases or other occupancy agreements; maintenance records, accounting records and audit records for the past year; and installment purchase contracts or leases of personal property used in connection with the PROPERTY; and

(d) all other documents described in any Addenda or Counteroffer to this Agreement.

9. TITLE CONVEYANCE: Title of SELLER is to be conveyed by warranty deed, unless otherwise provided, and is to be marketable and insurable except for rights reserved in federal patents, state or railroad deeds, building or use restrictions, building and zoning regulations and ordinances of any governmental unit, and rights of way and easements established or of record. Liens, encumbrances or defects to be discharged by SELLER may be paid out of purchase money at date of closing. No liens, encumbrances or defects, which are to be discharged or assumed by BUYER or to which title is taken subject to, exist unless otherwise specified in this Agreement.

10. TITLE INSURANCE: There may be types of title insurance coverages available other than those listed below and parties to this agreement are advised to talk to a title company about any other coverages available that will give the buyer additional coverage.

(A). PRELIMINARY TITLE COMMITMENT AND CC&Rs: Within 6 business days (six [6] if left blank) of final acceptance of all parties, ☒ SELLER or ☐ BUYER shall furnish to BUYER a preliminary commitment of a title insurance policy showing the condition of the title to said PROPERTY **and** a copy of any covenants, conditions and restrictions (CC&Rs) applicable to the PROPERTY. BUYER shall have 4 business days (two [2] if left blank) after receipt of the preliminary commitment and CC&Rs, within which to object in writing to the condition of the title or CC&Rs as set forth in the documentation provided. If BUYER does not so object, BUYER shall be deemed to have accepted the conditions of the title and CC&Rs. If the title of said PROPERTY is not marketable, and cannot be made so within 4 business days (two [2] if left blank) after SELLER'S receipt of a written objection and statement of defect from BUYER, or if BUYER objects to the CC&Rs, then BUYER'S Earnest Money deposit shall be returned to BUYER and SELLER shall pay for the cost of title insurance cancellation fee, escrow and legal fees, if any. Nothing contained herein shall constitute a waiver of BUYER to challenge CC&R terms directly with a homeowner's association after closing.

(B). TITLE COMPANY: The parties agree that Alliance Title Company located at 246 W Pacific St. Ste A Blackfoot, ID 83221 shall provide the title policy and preliminary report of commitment.

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(C). STANDARD COVERAGE OWNER'S POLICY: SELLER shall within a reasonable time after closing furnish to BUYER a title insurance policy in the amount of the purchase price of the PROPERTY showing marketable and insurable title subject to the liens, encumbrances and defects elsewhere set out in this Agreement to be discharged or assumed by BUYER unless otherwise provided herein. **The risk assumed by the title company in the standard coverage policy is limited to matters of public record.** BUYER shall receive a ILTA/ALTA Owner's Policy of Title Insurance. A title company, at BUYER's request, can provide information about the availability, desirability, coverage and cost of various title insurance coverages and endorsements. If BUYER desires title coverage other than that required by this paragraph, BUYER shall instruct Closing company in writing and pay any increase in cost unless otherwise provided herein.

(D). EXTENDED COVERAGE LENDER'S POLICY (Mortgagee policy): The lender may require that BUYER (Borrower) furnish an Extended Coverage Lender's Policy. This extended coverage lender's policy considers matters of public record and additionally insures against certain matters not shown in the public record. This extended coverage lender's policy is solely for the benefit of the lender and only protects the lender.

11. SUBDIVISION HOMEOWNER'S ASSOCIATION: BUYER is aware that membership in a Home Owner's Association may be required and BUYER agrees to abide by the Articles of Incorporation, Bylaws and rules and regulations of the Association. BUYER is further aware that the PROPERTY may be subject to assessments levied by the Association described in full in the Declaration of Covenants, Conditions and Restrictions. BUYER has reviewed Homeowner's Association Documents: ☐Yes ☐No ☒N/A. Association fees/dues are $_____ per _____.
☐ BUYER ☐ SELLER ☐Shared Equally ☐ N/A to pay Association SET UP FEE of $_____ at closing.
☐ BUYER ☐ SELLER ☐Shared Equally ☐ N/A to pay Association PROPERTY TRANSFER FEES of $_____ at closing.
☐ BUYER ☐ SELLER ☐ Shared Equally ☐ N/A to pay Association STATEMENT OF ACCOUNT FEE of $_____ at closing. Association Fees are governed by Idaho Code 55-116 and 55-1507.

12. INTERSTATE LAND SALES FULL DISCLOSURE ACT: This Vacant Land Real Estate Purchase and Sale Agreement is NOT intended to be used for situations in which Seller owns and is selling one hundred (100) or more lots. Properties containing one hundred (100) or more lots for sale may be subject to the reporting and disclosure requirements of the Interstate Land Sales Full Disclosure Act ("Act"), 15 USC § 1701 et seq. If you have questions regarding this Act, contact your attorney before signing. Any contract or agreement for the sale or lease of a lot subject to the Act may be revoked at the option of the purchaser or lessee until midnight of the seventh day following the signing of such contract or agreement or until such later time as may be required pursuant to applicable law. Any contract or agreement for the sale or lease of a lot for which a property report is required by the Act and the property report has not been given to the purchaser or lessee in advance of his or her signing such contract or agreement, such contract or agreement may be revoked at the option of the purchaser or lessee within two (2) years from the date of such signing.

13. FARM/CROPS/TIMBER RIGHTS: SELLER, or any tenant of SELLER, shall be allowed to harvest, sell or assign any annual crops which have been planted on the PROPERTY prior to the date of this Contract, even though said harvest time may occur subsequent to the date of the settlement of this contract, unless otherwise agreed by attached addendum. If the crop consists of timber, then neither SELLER nor any tenant of SELLERS shall have any right to harvest the timber unless the right to remove same shall be established by an attached addendum. Notwithstanding the provisions hereof, any tenant who shall be leasing the PROPERTY shall be allowed to complete the harvest of any annual crops that have been planted prior to the date of Contract Acceptance as previously agreed between SELLER and Tenant. **ANY AND ALL SUCH TENANT AGREEMENTS ARE TO BE ATTACHED.**

14. NOXIOUS WEEDS: BUYER of the PROPERTY in the State of Idaho should be aware that some properties contain noxious weeds. The laws of the State of Idaho require owners of property within this state to control, and to the extent possible, eradicate noxious weeds. For more information concerning noxious weeds and your obligations as an owner of property, contact your local county extension office.

15. MINERAL RIGHTS: Any and all mineral rights appurtenant to the PROPERTY, and owned by SELLER, are included in and are part of the sale of this PROPERTY, and are not leased or encumbered, unless otherwise agreed to by the parties in writing.

16. WATER RIGHTS: Any and all water rights including but not limited to water systems, wells, springs, lakes, streams, ponds, rivers, ditches, ditch rights, and the like, if any, appurtenant to the PROPERTY, and owned by SELLER, are included in and are a part of the sale of this PROPERTY, and are not leased or encumbered, unless otherwise agreed to by the parties in writing.

17. RISK OF LOSS OR NEGLECT: Prior to closing of this sale, all risk of loss shall remain with SELLER. In addition, should the PROPERTY be materially damaged by fire, neglect, or other destructive cause prior to closing, this agreement shall be voidable at the option of the BUYER.

18. BUSINESS DAYS: A business day is herein defined as Monday through Friday, 8:00 A.M. to 5:00 P.M. in the local time zone where the subject real PROPERTY is physically located. A business day shall not include any Saturday or Sunday, nor shall a business day include any legal holiday recognized by the state of Idaho as found in Idaho Code §73-108. If the time in which any act required under this agreement is to be performed is based upon a business day calculation, then it shall be computed by excluding the calendar day of execution and including the last business day. The first business day shall be the first business day after the date of execution. If the last day is a legal holiday, then the time for performance shall be the next subsequent business day.

19. CALENDAR DAYS: A calendar day is herein defined as Monday through Sunday, midnight to midnight, in the local time zone where the subject real PROPERTY is physically located. A calendar day shall include any legal holiday. The time in which any act required under this agreement is to be performed shall be computed by excluding the date of execution and including the last day, thus the first day shall be the day after the date of execution. Any reference to "day" or "days" in this agreement means the same as calendar day, unless specifically enumerated as a "business day."

20. SEVERABILITY: In the case that any one or more of the provisions contained in this Agreement or any application thereof, shall be invalid, illegal or unenforceable in any respect, the validity, legality or unenforceability of the remaining provisions shall not in any way be affected or impaired thereby.

21. TRANSMISSION OF DOCUMENTS: Facsimile or electronic transmission of any signed original document, and retransmission of any signed facsimile or electronic transmission shall be the same as delivery of an original. At the request of either the BUYER or SELLER, or the LENDER, or the Closing company, the BUYER and SELLER will confirm facsimile or electronic transmitted signatures by signing an original document.

BUYER'S Initials (LEL;BD)(_____) Date 08/13/2020 **SELLER'S** Initials (_____)(_____) Date _____

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22. WIRE TRANSFER WARNING: Electronic means of transferring money (i.e. ETF, wire transfer, electronic check, direct deposit, etc...) are subject to sophisticated cyber fraud attacks. These attacks are even more prevalent in real estate transactions due to the large sums of money being exchanged. BUYER is advised that Brokerage will not provide electronic transfer instructions by e-mail. Following money transfer instructions contained in an email from any party is inherently dangerous and should be avoided. BUYER agree that if BUYER use, or authorize the use of, electronic transfer of funds in a transaction they hereby hold the Brokerages, their agents, and the designated title and escrow company harmless from any and all claims arising out of inaccurate transfer instructions, fraudulent interception of said funds and/or any other damage relating to the conduct of third parties influencing the transfer process or stealing funds.

23. COUNTERPARTS: This Agreement may be executed in counterparts. Executing an agreement in counterparts shall mean the signature of two identical copies of the same agreement. Each identical copy of an agreement signed in counterparts is deemed to be an original, and all identical copies shall together constitute one and the same instrument.

24. ENTIRE AGREEMENT: This Agreement including any addendums or exhibits, constitutes the entire Agreement between the parties respecting the matters set forth and supersedes all prior Agreements between the parties respecting such matters. This Agreement may be modified only by a written agreement signed by each of the parties.

25. SALES PRICE INFORMATION: Pursuant to Idaho Code §54-2083(6)(d), a "sold" price of real property is not confidential client information.

26. AUTHORITY OF SIGNATORY: If BUYER or SELLER is a corporation, partnership, trust, estate, or other entity, the person executing this agreement on its behalf warrants his or her authority to do so and to bind BUYER or SELLER.

27. ADDITIONAL CONTINGENCIES AND COSTS: The closing of this transaction is contingent upon written satisfaction or waiver of the contingencies listed in the "contingencies" column below. In addition, the parties shall satisfy all contingencies set forth in this section by close of business (Date): _____ unless otherwise agreed to by the parties in writing. The parties agree to pay the following costs **immediately when due and regardless of transaction closing, unless otherwise indicated.** These costs shall be paid by the indicated party regardless of whether or not the transaction closes; if the transaction fails to close due to breach of a party, any costs paid by the non-breaching party may be recovered as damages. None of the costs to be paid by the parties in this section creates an inspection or performance obligation other than strictly for the payment of costs unless otherwise stated below. There may be other costs incurred in addition to those set forth below. Such costs may be required by the lender, by law, or by other such circumstances. Requested tests/inspection reports as indicated below shall be provided to the other party within _____ business days (ten [10] if left blank) prior to closing.

COSTS	BUYER	SELLER	Shared Equally	N /A	CONTINGENCIES	BUYER	SELLER	Shared Equally	N/A
Appraisal Fee	☐	☐	☐	☒	Environmental Inspection (Phase 1)	☐	☐	☐	☒
Long Term Escrow Fees	☐	☐	☐	☒	Environmental Inspection (Phase 2)	☐	☐	☐	☒
Closing Escrow Fee	☐	☐	☒	☐	Environmental Inspection (Phase 3)	☐	☐	☐	☒
Survey Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒	PERC Test	☐	☐	☐	☒
Flood Certification/Tracking Fee	☐	☐	☐	☒	Zoning Variance	☐	☐	☐	☒
Title Ins. Standard Coverage Owner's Policy	☐	☒	☐	☐	Soil(s) Test(s)	☐	☐	☐	☒
Title Ins. Extended Coverage Lender's Policy – Mortgagee Policy	☐	☐	☐	☒	Hazardous Waste Report(s)	☐	☐	☐	☒
Additional Title Coverage	☐	☐	☐	☒	Domestic Well Water Potability Test Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒
Water Rights Transfer Fee	☒	☐	☐	☐	Domestic Well Water Productivity Test Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒
Attorney Contract Preparation or Review Fee	☒	☐	☐	☐	Septic Inspections Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒
	☐	☐	☐	☐	Septic Pumping Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒
	☐	☐	☐	☐		☐	☐	☐	☐

Upon closing SELLER agrees to pay ☐ _____% of the purchase price OR ☐ $_____ (dollar amount) (N/A if left blank) as a SELLER concession. This can be used toward lender-approved BUYER'S closing costs, lender fees, and prepaid costs which include but are not limited to those items in BUYER columns marked above. This concession can also be used for any other expense not related to financing at the BUYER's discretion.

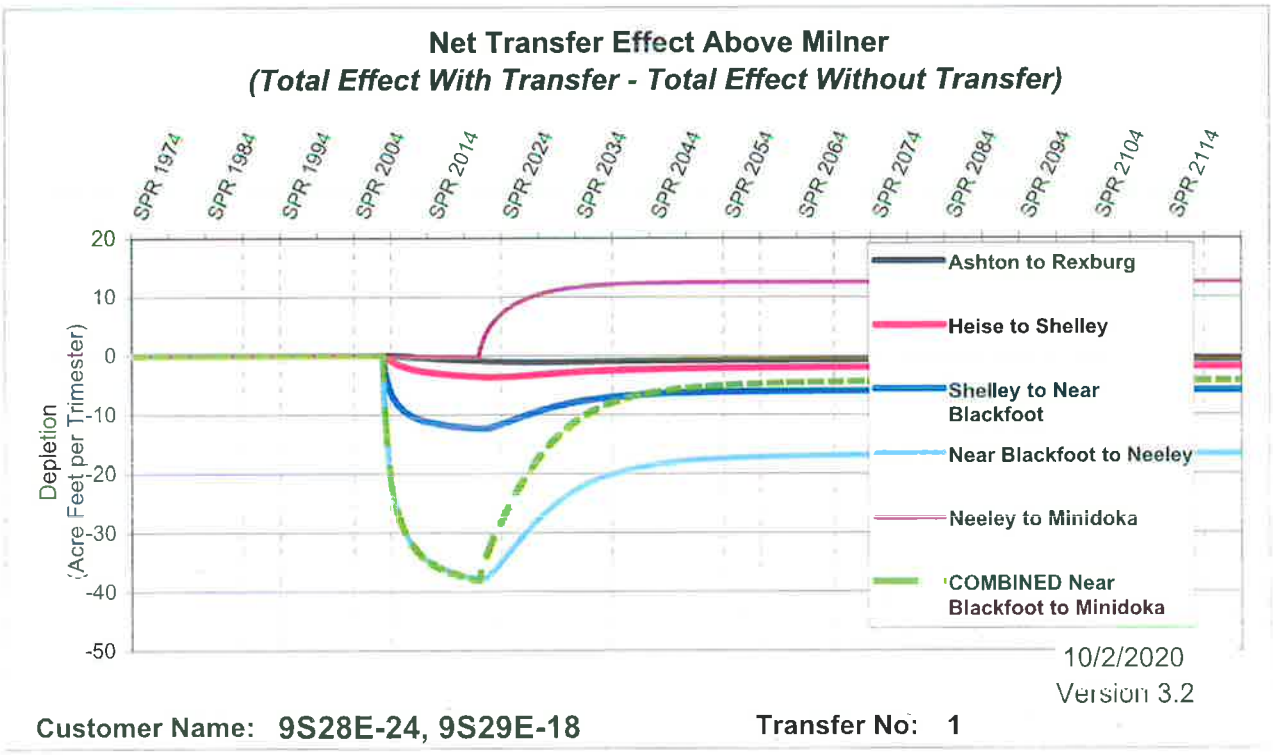
28. DEFAULT: If BUYER defaults in the performance of this Agreement, SELLER has the option of: (1) accepting the Earnest Money as liquidated damages or (2) pursuing any other lawful right or remedy to which SELLER may be entitled. If SELLER elects to proceed under (1), SELLER shall make demand upon the holder of the Earnest Money, upon which demand said holder shall pay from the Earnest Money the costs incurred by SELLER's Broker on behalf of SELLER and BUYER related to the transaction, including, without limitation, the costs of title insurance, escrow fees, credit report fees, inspection fees and attorney's fees; and said holder shall pay any balance of the Earnest Money, one-half to SELLER and one-half to SELLER's Broker, provided that the amount to be paid to SELLER's Broker shall not exceed the Broker's agreed-to commission. SELLER and BUYER specifically

BUYER'S Initials (LEL;BD)(_____) Date 08/13/2020 **SELLER'S** Initials (_____)(_____) Date _____

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Prepared by: Jeff Hunt | Idaho Real Estate Group | jeff@realestatehunt.net | 2087665000
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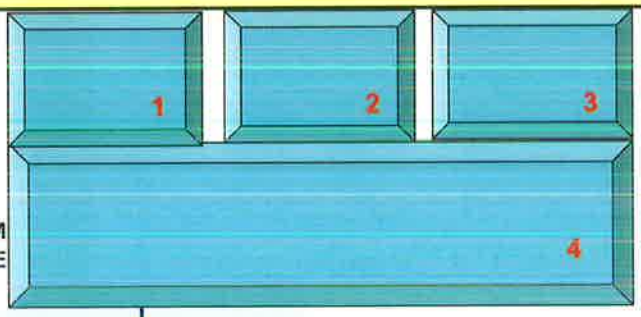
84488


Net Transfer Effect Above Milner
(Total Effect With Transfer - Total Effect Without Transfer)
SPR 1974
SPR 1984
SPR 1994
SPR 2004
SPR 2014
SPR 2024
SPR 2034
SPR 2044
SPR 2054
SPR 2064
SPR 2074
SPR 2084
SPR 2094
SPR 2104
SPR 2114
20
10
0
-10
-20
-30
-40
-50
Depletion
(Acre Feet per Trimester)
Ashton to Rexburg
Heise to Shelley
Shelley to Near Blackfoot
Near Blackfoot to Neeley
Neeley to Minidoka
COMBINED Near Blackfoot to Minidoka
10/2/2020
Version 3.2
Customer Name: 9S28E-24, 9S29E-18
Transfer No: 1

ENHANCED GROUND-WATER RIGHTS T

UNIVERSITY OF IDAHO - IDAHO WATER RESOURCES RESEARCH INSTITU IDAHO DEI

Cells this color are set up for user entries



ENTER STARTING DATE FOR SIMULATION. THEN PUS "UPDATE DATES" BUTT

TRANSFER NO: 1

YEAR 1974

TRANSFER NAM 9S28E-24, 9S29E

SEASON SPRING

[acre-ft]

ENTER CELL LOCATIONS:

	'TO' CELL	'FROM1' CEL	'FROM2' CEL	'FROM3' CEL
ROW	96	66		
COLUMN	83	128		

35-14041 10/16/1974 186.4

Extg. Wells 35-14041

Total Transfer: 186.40

TRIMESTE OF ACTIVITY	TO WELL Projected Use AF/TRIMESTER	FROM1 WELL With Transfer AF/TRIMESTER	FROM1 WELL Without Transf AF/TRIMESTER	FROM2 WELL With Transfer AF/TRIMESTER	FROM2 WELL Without Transf AF/TRIMESTER	FROM3 WELL With Transfer AF/TRIMESTER	FROM3 WELL Without Transfe AF/TRIMESTER
SPR 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 1975	0.0	62.1	62.1	0.0	0.0	0.0	0.0
SUM 1975	0.0	62.1	62.1	0.0	0.0	0.0	0.0
WIN 1975	0.0	62.1	62.1	0.0	0.0	0.0	0.0
SPR 1976	0.0	62.1	62.1	0.0	0.0	0.0	0.0
SPR 2007	0.0	62.1	62.1	0.0	0.0	0.0	0.0
SUM 2007	0.0	62.1	62.1	0.0	0.0	0.0	0.0
WIN 2007	0.0	62.1	62.1	0.0	0.0	0.0	0.0
SPR 2008	0.0	0.0	62.1	0.0	0.0	0.0	0.0
SUM 2008	0.0	0.0	62.1	0.0	0.0	0.0	0.0
WIN 2008	0.0	0.0	62.1	0.0	0.0	0.0	0.0
SPR 2009	0.0	0.0	62.1	0.0	0.0	0.0	0.0
SPR 2020	0.0	0.0	62.1	0.0	0.0	0.0	0.0
SUM 2020	0.0	0.0	62.1	0.0	0.0	0.0	0.0
WIN 2020	0.0	0.0	62.1	0.0	0.0	0.0	0.0
SPR 2021	62.1	0.0	62.1	0.0	0.0	0.0	0.0
SUM 2021	62.1	0.0	62.1	0.0	0.0	0.0	0.0
WIN 2021	62.1	0.0	62.1	0.0	0.0	0.0	0.0
SPR 2022	62.1	0.0	62.1	0.0	0.0	0.0	0.0
SPR 2122	62.1	0.0	62.1	0.0	0.0	0.0	0.0
SUM 2122	62.1	0.0	62.1	0.0	0.0	0.0	0.0
WIN 2122	62.1	0.0	62.1	0.0	0.0	0.0	0.0
SPR 2123	62.1	0.0	62.1	0.0	0.0	0.0	0.0
SUM 2123	62.1	0.0	62.1	0.0	0.0	0.0	0.0
WIN 2123	62.1	0.0	62.1	0.0	0.0	0.0	0.0

Attachment No. 5
ESPA Analysis and Mitigation Plan

SCHEDULE A

Real property in the County of Bingham, State of Idaho, described as follows:

Parcel 1:

Township 1 South, Range 32 E.B.M., Bingham County, Idaho
Section 12: NW1/4, NE1/4SW1/4, S1/2NE1/4, SE1/4, S1/2SW1/4, NW1/4NE1/4

Parcel 2:

An easement for a road for ingress and egress across the North 50 feet of the NE1/4NE1/4 of said Section 12 and the North 50 feet of Government Lot 1, NE1/4NW1/4, NW1/4NE1/4 and that part of the NE1/4NE1/4 to a point on the West boundary of U.S. Hwy 26 of Section 7 Township 1 South, Range 33 E.B.M., Bingham County, Idaho.

Parcel 3:

Township 3 South, Range 31 E.B.M., Bingham County, Idaho
Section 33: SE1/4
Section 34: SW1/4
Excepting and Reserving to the United States all oil and gas.

Together with all water and water rights appurtenant thereto, with "exception" of and reserving unto Grantors, its heirs and assigns, 141.5 acres (566 allowable acre feet of diversion) of water referenced in CREP Contract No. 68, from Water Right No. 35-7448 which Water Right is appurtenant to Parcel 1, and 15.6 acres (62.4 allowable acre feet of diversion) of water referenced in CREP Contract No. 66, from Water Right No. 35-2426 which Water Right is appurtenant to Parcel 3 and the right to continue to maintain said reserved water rights as appurtenant to the land conveyed. By acceptance of this Warranty Deed, Grantee agrees to preserve and continue to appropriate and apply the water reserved by Grantor to beneficial use until transferred by Grantor.

LCSC Enterprises, LLC; Blair Dance

Laurie Beebe 8-7-19
Seller / Date

08/13/2020 10:31 AM CDT
Buyer / Date

605452

Electronically Signed using eSignOnline™ [Session ID f9a8aa76-b2af-4588-a592-7a1cd0ca8fd3]

PROPERTY ADDRESS: Bonanza Bar Ranch Blackfoot, Idaho 83221 ID#: 20820

39. BUYER'S SIGNATURES:

☐ **SEE ATTACHED BUYER'S ADDENDUM(S):** _____ (Specify number of BUYER addendum(s) attached.)

☐ **SEE ATTACHED BUYER'S EXHIBIT(S):** _____ (Specify number of BUYER exhibit(s) attached.)

☐ **BUYER does currently hold an active Idaho real estate license.** ☐ **BUYER is related to agent.**

BUYER Signature LCSC Enterprises, LLC; Blair Dance **BUYER (Print Name)** LCSC Enterprises, LLC ; Blair Dance

Date 08/13/2020 Time 10:31 AM CDT ☒ A.M. ☐ P.M. Phone # _____ Cell # _____

Address _____ E-Mail blair@dbscpa.net

City _____ State _____ Zip _____ Fax # _____

☐ **BUYER does currently hold an active Idaho real estate license.** ☐ **BUYER is related to agent.**

BUYER Signature _____ **BUYER (Print Name)** _____

Date _____ Time _____ ☐ A.M. ☐ P.M. Phone # _____ Cell # _____

Address _____ E-Mail _____

City _____ State _____ Zip _____ Fax # _____

40. SELLER'S SIGNATURES: On this date, I/We hereby approve and accept the transaction set forth in the above Agreement and agree to carry out all the terms thereof on the part of the SELLER.

☐ **SIGNATURE(S) SUBJECT TO ATTACHED COUNTER OFFER**

☐ **SIGNATURE(S) SUBJECT TO ATTACHED ADDENDUM(S) #** _____

☐ **SIGNATURE(S) SUBJECT TO ATTACHED EXHIBIT(S) #** _____

☐ **SELLER does currently hold an active Idaho real estate license.** ☐ **SELLER is related to agent.**

SELLER Signature _____ **SELLER (Print Name)** _____

Date _____ Time _____ ☐ A.M. ☐ P.M. Phone # _____ Cell # _____

Address _____ E-Mail _____

City _____ State _____ Zip _____ Fax # _____

☐ **SELLER does currently hold an active Idaho real estate license.** ☐ **SELLER is related to agent.**

SELLER Signature _____ **SELLER (Print Name)** _____

Date _____ Time _____ ☐ A.M. ☐ P.M. Phone # _____ Cell # _____

Address _____ E-Mail _____

City _____ State _____ Zip _____ Fax # _____

LATE ACCEPTANCE

If acceptance of this offer is received after the time specified, it shall not be binding on the BUYER unless BUYER approves of said acceptance within _____ calendar days (three [3] if left blank) by BUYER initialing HERE (_____)(_____) Date _____. If BUYER timely approves of SELLER's late acceptance, an initialed copy of this page shall be immediately delivered to SELLER.

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acknowledge and agree that if SELLER elects to accept the Earnest Money as liquidated damages, such shall be SELLER's sole and exclusive remedy, and such shall not be considered a penalty or forfeiture. However, in the event the parties mutually agree in writing that the Earnest Money shall become non-refundable, said agreement shall not be considered an election of remedies by SELLER and the non-refundable Earnest Money shall not constitute liquidated damages; nor shall it act as a waiver of other remedies, all of which shall be available to SELLER; it may however be used to offset SELLER'S damages. If SELLER elects to proceed under (2), the holder of the Earnest Money shall be entitled to pay the costs incurred by SELLER's Broker on behalf of SELLER and BUYER related to the transaction, including, without limitation, the costs of brokerage fee, title insurance, escrow fees, credit report fees, inspection fees and attorney's fees, with any balance of the Earnest Money to be held pending resolution of the matter. If SELLER defaults, having approved said sale and fails to consummate the same as herein agreed, BUYER's Earnest Money deposit shall be returned to him/her and SELLER shall pay for the costs of title insurance, escrow fees, credit report fees, inspection fees, brokerage fees and attorney's fees, if any. This shall not be considered as a waiver by BUYER of any other lawful right or remedy to which BUYER may be entitled.

29. EARNEST MONEY DISPUTE / INTERPLEADER: Notwithstanding any termination or breach of this Agreement, BUYER and SELLER agree that in the event of any controversy regarding the Earnest Money and things of value held by Broker or closing company, Broker may reasonably rely on the terms of this Agreement or other written documents signed by both parties to determine how to disburse the disputed money. However, Broker or closing company shall not be required to take any action but may await any proceeding, or at Broker's or closing company's option and sole discretion, may interplead all parties and deposit any moneys or things of value into a court of competent jurisdiction and shall recover all costs which were incurred as a result of the dispute including, but not limited to, reasonable attorney's fees. If either parties' Broker incurs attorney's fees as a result of any Earnest Money dispute, whether or not formal legal action is taken, said Broker is entitled to recover actual fees incurred from either BUYER or SELLER.

30. ATTORNEY'S FEES: If either party initiates or defends any arbitration or legal action or proceedings which are in any way connected with this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party reasonable costs and attorney's fees, including such costs and fees on appeal.

31. TIME IS OF THE ESSENCE IN THIS AGREEMENT.

32. CLOSING: On or before the closing date, BUYER and SELLER shall deposit with the closing company all funds and instruments necessary to complete this transaction. **Closing means the date on which all documents are either recorded or accepted by an escrow agent and the sale proceeds are available to SELLER.** The closing shall be no later than (Date) **October 16, 2020**.

The parties agree that the **CLOSING COMPANY** for this transaction shall be **Alliance Title** located at **246 W Pacific St. Ste A**. If a long-term escrow /collection is involved, then the long-term escrow holder shall be **Blackfoot, ID 83221**.

33. POSSESSION: BUYER shall be entitled to possession [x] upon closing or [ ] date _____ at _____ [ ] am [ ] pm

34. PRORATIONS: Property taxes and water assessments (using the last available assessment as a basis), rents collected, interest and reserves, liens, encumbrances or obligations assumed, and utilities shall be prorated [x] upon closing or as of [ ] date _____.
BUYER to reimburse SELLER for fuel in tank [ ] Yes [ ] No [x] N/A. Dollar amount may be determined by SELLER's supplier.

35. SECTION 1031 TAX DEFERRED EXCHANGE: If applicable, each party shall cooperate with the other Party in effectuating an exchange under IRS Section 1031; provided however, that the other Party's cooperation shall be conditioned on the following: (a) the exchange shall be at no additional liability and/or cost to the other Party; (b) the exchange shall not delay Settlement or Closing; and (c) the other Party shall not be required to acquire title to any proposed exchange properties to accommodate an exchange. The exchanging party shall indemnify, defend and hold the other Party harmless from and against all claims, demands, costs and expenses which that Party may sustain as a result of the actual or attempted 1031 exchange.

36. REPRESENTATION CONFIRMATION: Check one (1) box in Section 1 and one (1) box in Section 2 below to confirm that in this transaction, the brokerage(s) involved had the following relationship(s) with the BUYER(S) and SELLER(S).

Section 1:
- [x] A. **The brokerage working with the BUYER(S) is acting as an AGENT for the BUYER(S).**
- [ ] B. **The brokerage working with the BUYER(S) is acting as a LIMITED DUAL AGENT for the BUYER(S), without an ASSIGNED AGENT.**
- [ ] C. **The brokerage working with the BUYER(S) is acting as a LIMITED DUAL AGENT for the BUYER(S) and has an ASSIGNED AGENT acting solely on behalf of the BUYER(S).**
- [ ] D. **The brokerage working with the BUYER(S) is acting as a NONAGENT for the BUYER(S).**

Section 2:
- [x] A. **The brokerage working with the SELLER(S) is acting as an AGENT for the SELLER(S).**
- [ ] B. **The brokerage working with the SELLER(S) is acting as a LIMITED DUAL AGENT for the SELLER(S), without an ASSIGNED AGENT.**
- [ ] C. **The brokerage working with the SELLER(S) is acting as a LIMITED DUAL AGENT for the SELLER(S) and has an ASSIGNED AGENT acting solely on behalf of the SELLER(S).**
- [ ] D. **The brokerage working with the SELLER(S) is acting as a NONAGENT for the SELLER(S).**

Each party signing this document confirms that he has received, read and understood the Agency Disclosure Brochure adopted or approved by the Idaho real estate commission and has consented to the relationship confirmed above. In addition, each party confirms that the brokerage's agency office policy was made available for inspection and review. EACH PARTY UNDERSTANDS THAT HE IS A "CUSTOMER" AND IS NOT REPRESENTED BY A BROKERAGE UNLESS THERE IS A SIGNED WRITTEN AGREEMENT FOR AGENCY REPRESENTATION.

37. ASSIGNMENT: This Agreement and any rights or interests created herein [x] may [ ] may not be sold, transferred, or otherwise assigned.

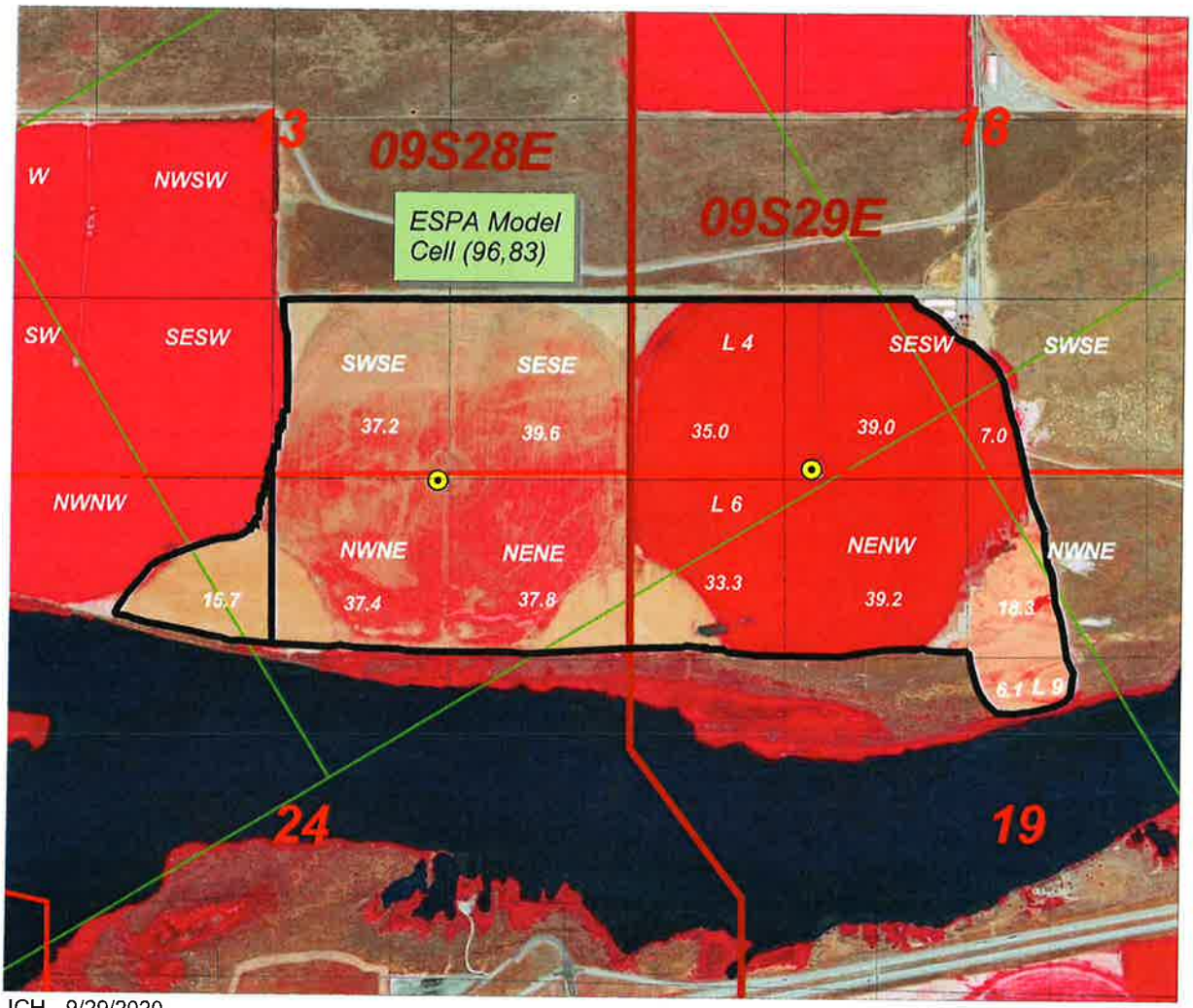
38. ACCEPTANCE: This offer may be revoked at any time prior to acceptance and is made subject to acceptance on or before (Date) **Aug 14, 2020** at (Local Time in which PROPERTY is located) **5:00** [ ] A.M. [x] P.M.

BUYER'S Initials (LEL;BD)(_____) Date 08/13/2020 **SELLER'S** Initials (_____)(_____) Date _____

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Attachment No. 7a
Map



JCH - 9/29/2020

NAIP 2019 IR Aerial Photo

0.25 0 0.25 0.5 Miles

N
W E
S

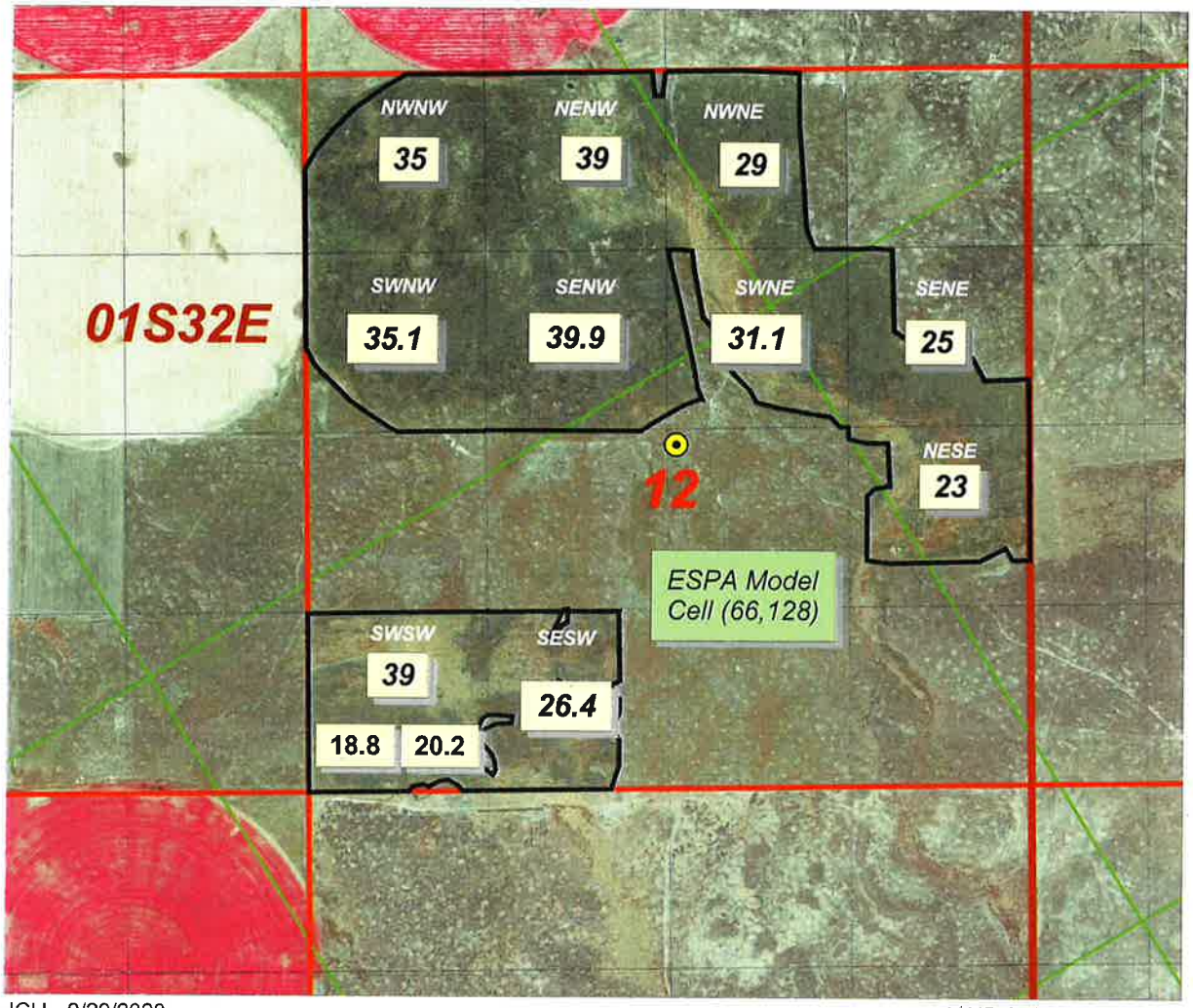
- Existing Authorized Wells
  - 35-7740 (8/15/1977) 3.66 cfs, 1,.160.0 afa, 290.0 ac.
  - 35-2824 (8/28/1961) 0.16 cfs, 32.7 afa, 9.0 ac.
  - add
  - 35-14041 (10/16/1974) 0.46 cfs, 186.4 afa, 46.6 ac.
- Total Irrigation 345.6 Acres
- Township & Range
- Sections
- Power County 40's
- ESPA Model Grid

Attachment #7a

84488

Attachment No. 7b
Map (GIS shapefile)

GIS shapefile will be emailed to IDWR agent.



JCH - 9/29/2020

NAIP 2019 Aerial Photo

0.25 0 0.25 0.5 Miles

Existing Well 35-14041

Authorized Irrigation 322.5 ac. (Dry-up)

Township & Range

Sections

Bingham County 40's

ESPA Model Grid

N

W E

S

Attachment #7b

84488

Attachment No. 10
Other

Existing Water Rights

	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Listed Owner
Split	35-14041	10/16/1974	3.18	1290.0	322.5	Bonanza Bar Ranch, LLC
	ESPA Cell (96,83)					
	35-7740	8/15/1977	3.66	1160.0	290.0	LCSC Enterprises, LLC
	35-2824	8/28/1961	0.16	32.7	9.0	LCSC Enterprises, LLC
	TOTAL EXISTING:		7.00	2482.7	621.5	

Transfer #1 (9S,28E ; 9S,29E)

FROM:	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Action
	35-14041	10/16/1974	0.46	186.4	46.6	Split, transfer to extg POD, new POU
TO:	ESPA Cell (96,83)					
	35-7740	8/15/1977	3.66	1160.0	290.0	Existing, update POU
	35-2824	8/28/1961	0.16	32.7	9.0	Existing, update POU
	TOTAL SYSTEM 1:		4.28	1379.1	345.6	

Transfer #2 (9S,29E)

FROM:	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Action
TO:	ESPA Cell (97,84)					
	35-14041	10/16/1974	2.72	1103.6	275.9	Split, transfer to new POD,POU
	TOTAL SYSTEM 2:		2.72	1103.6	275.9	
	TOTAL SYSTEM 1 & 2		7.00	2482.7	621.5	OK

Water Right Split Worksheet

Attachment #10

JCH - 10/12/2020

84488

State of Idaho
DEPARTMENT OF WATER RESOURCES
EASTERN Region • 900 N SKYLINE DR STE A • IDAHO FALLS, ID 83402-1718
Phone: (208)525-7161 • Fax: (208)525-7177 • Website: www.idwr.idaho.gov

Brad Little
Governor

Gary Spackman
Director

November 5, 2020

LCSC ENTERPRISES LLC
433 LAS COLINAS BLVD E STE 1290
IRVING, TX 75039-5058

RE: Transfer Nos. 84488, 84490

Dear Applicant(s):

The Department of Water Resources has received your water right transfer applications. Please refer to the transfer number referenced above in all future correspondence regarding these transfers.

A legal notice of the application has been prepared and is scheduled for publication in the POWER COUNTY PRESS on 11/11/2020 and 11/18/2020. Protests to these applications may be submitted for a period ending ten (10) days after the second publication.

If the applications are protested, you will be sent a copy of each protest. All protests must be resolved before the applications can be considered for approval. If the protest(s) cannot be resolved voluntarily, the Department will conduct a conference and/or hearing on the matter.

If the applications are not protested, the Department will process your applications and notify you of any action taken on the applications. If your applications are approved, the Department will send you a copy of the approval documents.

Please contact this office if you have any questions regarding the applications.

Sincerely,

CA Hk

Christina Henman
Administrative Assistant

Henman, Christina

From:	Henman, Christina
Sent:	Thursday, November 05, 2020 3:20 PM
To:	POWER CO PRESS (press1@press-times.com)
Subject:	Legal Notice for Power County Press
Attachments:	84488, 84490 Power County Press.docx

LEGAL NOTICE DEPARTMENT
POWER COUNTY PRESS
PO BOX 547
AMERICAN FALLS, ID 83211

RE: Transfer No. 84488, 84490
Water Right No(s). 35-14041, 35-2824, 35-7740, 35-14041

Dear Legal Notice Department:

Please publish the enclosed legal notice on the dates indicated (once a week for two consecutive weekly issues). If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Please send the affidavit and bill to this office before 11/30/2020. Your cooperation is appreciated.

Thank You,

Christina Henman
Administrative Assistant
Idaho Dept. of Water Resources, Eastern Region
900 N Skyline Ste. A
Idaho Falls, ID 83402
Phone: (208) 497-3793

NOTICE OF PROPOSED CHANGE OF WATER RIGHT
TRANSFER NO. 84488
LCSC ENTERPRISES LLC, 433 LAS COLINAS BLVD E STE 1290, IRVING, TX 75039-5058 has filed Application No. 84488 for changes to the following water rights within BINGHAM, POWER County(s): Right No(s). 35-14041, 35-2824, 35-7740; to see a full description of these rights and the proposed transfer, please see https://research.idwr.idaho.gov/apps/waterrights/querynewtransfers. The purpose of the transfer is to change a portion of the above rights as follows:
change point of diversion, add point of diversion, and change place of use. The proposed points of diversion are in NENWNE Sec 24 T09S R28E and SWSESW Sec 18 T09S R29E for 4.28 cfs from Ground water. The proposed place of use is in Sec 13 and 24, T09S R28E and Sec 18 and 19, T09S R29E for 345.6 acres.
TRANSFER NO. 84490
LCSC ENTERPRISES LLC, 433 LAS COLINAS BLVD E STE 1290, IRVING, TX 75039-5058 has filed Application No. 84490 for changes to the following water rights within POWER County(s): Right No(s). 35-14041; to see a full description of these rights and the proposed transfer, please see https://research.idwr.idaho.gov/apps/waterrights/querynewtransfers. The purpose of the transfer is to change a portion of the above rights as follows:
change point of diversion, add point of diversion, and change place of use. The proposed points of diversion are in Lot 9 (SWNE) Sec 19 and Lot 7 (NWNW) Sec 20, T09S R29E for 2.72 cfs from Ground water. The proposed place of use is in Sec 17, 18, 19, and 20, T09S R29E for 275.9 acres.
For additional information concerning the property location, contact Eastern Region office at (208)525-7161. Protests may be submitted based on the criteria of Idaho Code Sec. 42-222. Any protest against the proposed change must be filed with the Department of Water Resources, Eastern Region, 900 N SKYLINE DR STE A, IDAHO FALLS ID 83402-1718 together with a protest fee of $25.00 for each application on or before 11/30/2020. The protestant must also send a copy of the protest to the applicant.
GARY SPACKMAN, Director Published on 11/11/2020 and 11/18/2020

Henman, Christina

From: Henman, Christina
Sent: Thursday, November 05, 2020 2:40 PM
To: Jordan, Blake
Subject: Application for Transfer No. 84488
Attachments: RecommendationForm Transfer3.docx

Watermaster:

The Idaho Department of Water Resources (IDWR) is seeking written comment and/or recommendations from you regarding the above referenced water right application. You can find a copy of the application at: https://idwr.idaho.gov/apps/ExtSearch/WRAJSearch/WRADJSearch.aspx. Please review the application, then complete the enclosed recommendation form and return it to this office within 21 DAYS of the date of this letter.

If the application is approved, IDWR will include appropriate standard conditions of approval for a water right located within a water district, such as regulation by the watermaster, lockable controlling works, and/or measuring devices. Any special conditions or other concerns you have related to this application should be specifically addressed in your recommendation.

IDWR can finish reviewing an unprotested application as soon as the protest period has past. Your prompt response to this request will ensure that your recommendation can be considered. If IDWR has not received your written recommendation within 21 DAYS from the date of this letter, IDWR will presume that you do not oppose approval of the application and that you have no comments for IDWR to consider.

Please contact this office if you have any questions regarding the application.

October 12, 2020

JCH Engineering & Consulting, PLLC
6755 N. Albert Lane
Idaho Falls, ID 83401
(208) 308-2109
jasoncivil@alumni.nd.edu

RECEIVED
OCT 13 2020
Department of Water Resources
Eastern Region

Idaho Department of Water Resources
Eastern Regional Office
900 North Skyline Drive, Suite A
Idaho Falls, ID 83402-1718

Re: **(2) Applications for Transfer in the name of LCSC Enterprises, LLC**

Dear Reviewing Agent:

Please find attached two applications for transfer of water right prepared on behalf of LCSC Enterprises, LLC. These transfers seek to change the place of use for portions of existing water rights 35-14041 to lands owned by the applicant in accordance with the attached purchase agreements between Bonanza Bar and LCSC.

The entirety of water right 35-14041 is proposed for split and transfer. A portion will permanently authorize additional acreage within the existing well system associated with 35-7740 and 35-2824 while the remaining portion is proposed for use on lands also owned by the applicant from a new well to be constructed following transfer approval.

ESPA impact evaluations using the IDWR Transfer Spreadsheet are attached showing that the increased depletions in the Neeley to Minidoka reach of the river are mitigated by the increased reach gains of the Near Blackfoot to Neeley reach accumulating in the American Falls Reservoir. Recently approved transfers 83315 and 83288 were similar.

If you need anything or I can assist in any way to expedite processing please don't hesitate to contact me at your earliest convenience.

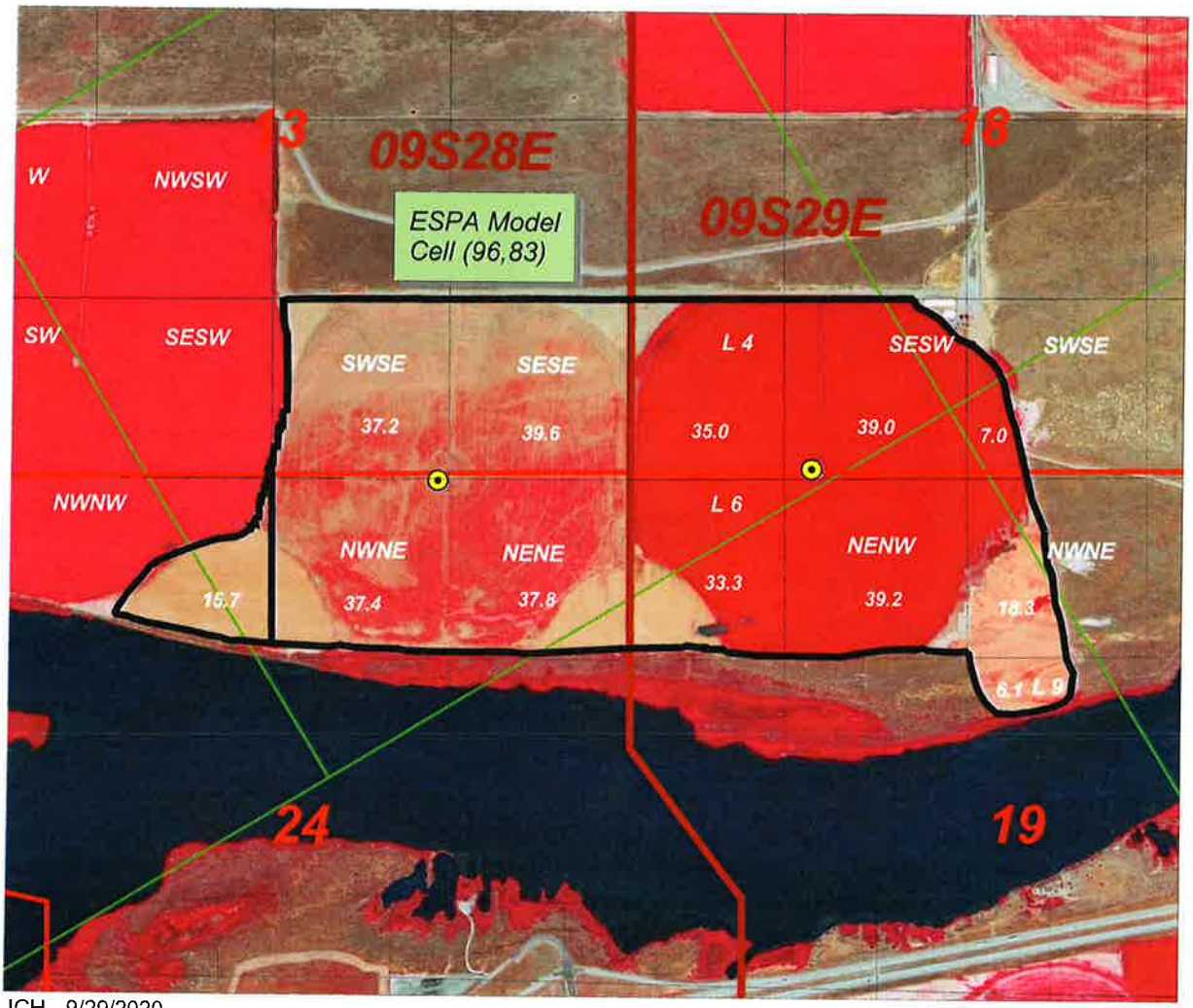
Sincerely,

Jason C. Helms, P.E.

Attachments: (2) Applications for Water Right Transfer (35-14041) w/attachments
Check #_____($550+$660+$100=$1,310)

cc: Blair Dance (LCSC Enterprises, LLC)

RECEIVED
Sep 12, 2025
DEPARTMENT OF
WATER RESOURCES



JCH - 9/29/2020

NAIP 2019 IR Aerial Photo

0.25 0 0.25 0.5 Miles

N
W E
S

- Existing Authorized Wells
  - 35-7740 (8/15/1977) 3.66 cfs, 1,.160.0 afa, 290.0 ac.
  - 35-2824 (8/28/1961) 0.16 cfs, 32.7 afa, 9.0 ac.
  - add
  - 35-14041 (10/16/1974) 0.46 cfs, 186.4 afa, 46.6 ac.
- Total Irrigation 345.6 Acres
- Township & Range
- Sections
- Power County 40's
- ESPA Model Grid

Attachment #7a

84488

RECEIVED
Sep 12, 2025
DEPARTMENT OF
WATER RESOURCES

Rev. 07/18

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. _____

MINIMUM REQUIREMENTS CHECKLIST
TO BE SUBMITTED WITH APPLICATION FOR TRANSFER

An application for transfer must be prepared in accordance with the minimum requirements listed below to be acceptable for processing by the Department. Incomplete applications will be returned. The instructions, fee schedule, Part 2A reports and additional Part 2B forms are available from any Department office or on the Department's website at idwr.idaho.gov.

Name of Applicant(s) LCSC ENTERPRISES LLC

Check whether each item below is *attached* (Yes) or *not applicable* (N/A) for the proposed transfer.

Yes	N/A	
		* Means the item is always required and must be included with the application.
☑	*	Completed Application for Transfer of Water Right form, Part 1.
☑	*	Signature of applicant(s) or applicant's authorized representative on Application for Transfer Part 1. Include evidence of authority labeled Attachment #3 (see below) if signed by representative.
☑	*	Application for Transfer Part 2A. Attach a Part 2A report describing each water right in the transfer as currently recorded.
☑	☐	Complete and attach an Application for Transfer Part 2B for each water right for which only a portion is proposed to be changed through this transfer application.
☑	*	Application for Transfer Part 3A is always required (see Attachment #7a below); Parts 3B and 3C must be completed for transfer applications proposing to change the nature of use of the water right(s) or proposing changes to supplemental right(s).
☑	*	Correct fee submitted with transfer application form. (Fee schedule is on website and instructions for application for transfer.)

Attachments to Application - Label each attachment with the corresponding number shown below as Attachment #1-10.

☐	☑	#1 If the applicant is a business, partnership, organization, or association, and not currently registered in the State of Idaho as a business entity, attach documentation identifying officers authorized to sign or act on behalf of right holder. (See Part 1.)
☑	☐	#2a Water Right ownership documentation if Dept. records do not show the applicant as the current water right owner. **
☑	☐	#2b If the ownership of the water right will change as a result of the proposed transfer to a new place of use, attach documentation showing land and water right ownership at the new place of use. Include documentation for all affected land and owner(s).** ** Additional fee(s) required for water right ownership changes; see fee schedule.
☑	☐	#3 Documentation of authority to make the change if the applicant is not the water right owner.
☐	☑	#4 Power of Attorney or documentation providing authority to sign or act on the applicant's behalf. (See Part 1.)
☑	☐	#5 If the transfer application proposes to change the point of diversion for a water right affecting the Eastern Snake Plain Aquifer (ESPA), attach the results of an ESPA analysis and a detailed mitigation plan to offset any depletions to hydraulically connected reaches of the Snake River. ESPA transfer spreadsheet and model grid labeled cells are available on the Department's website at idwr.idaho.gov/water-rights/transfers/resources.html.
☑	☐	#6 Notarized statement of agreement or a statement on official letterhead signed by an authorized representative from each lien holder or other entity with financial interest in the water right(s) or land affected by the proposed transfer. (See Part 1.5.c.)
☑	*	#7a Attach a map identifying the proposed point(s) of diversion, place(s) of use, and water diversion and distribution system details as described on the application. Include legal description labels. If only a portion of the right is proposed to be changed, identify the current location of the part of the existing right(s) proposed to be changed. (See Part 3A.)
☑	☐	#7b If the transfer application proposes to change the place or purpose of use of an irrigation right attach a Geographic Information System (GIS) shape file, or an aerial photo or other image clearly delineating the location and extent of existing acres and changes to the place of use. If some or all of any right is leased to the Water Supply Bank, you must also show the the specific location and/or acres to be idled at the new, proposed place of use to satisfy lease requirements.
☐	☑	#8a If the transfer application proposes to change the nature of use or period of use for one or more rights, provide documentation describing the extent of historic beneficial use for the water rights proposed to be transferred and document how enlargement will be avoided. (See Part 3B.) Additional fee required for proposed changes to nature of use; see fee schedule.
☐	☑	#8b If the transfer application proposes to change the place of use of a supplemental irrigation right, provide documentation regarding the historic use of the supplemental right(s) and availability or reliability of the primary right(s) being supplemented, both before and after the proposed change. (See Part 3C.)
☐	☑	#9 Water Supply Bank information for all rights proposed for transfer and currently leased to the Bank. (Attachment WSB)
☑	☐	#10 Other. Please describe: Attached water right split worksheet. This is transfer #2 of 2 (can be processed separately)

Rev. 07/18

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1

Name of Applicant(s) LCSC ENTERPRISES LLC Phone (972) 989-7330

Mailing address 433 LAS COLINAS BLVD E STE 1290 IRVING, TX 75039-5058 Email

☐ If applicant is not an individual and not registered to do business in the State of Idaho, attach documentation identifying officers authorized to sign or act on behalf of the applicant. Label it **Attachment #1**.

☐ Attach water right ownership documentation if Department records do not show the transfer applicant as the current water right owner. Label it **Attachment #2a**.

☐ If the ownership of the water right will change as a result of the proposed transfer to a new place of use, attach documentation showing land and water right ownership at the new place of use. Include documentation for all affected land and owner(s). Label it **Attachment #2b**.

☑ Attach documentation of authority to make the proposed change if the applicant is not the water right owner. Label it **Attachment #3**.

Provide contact information below if a consultant, attorney, or any other person is representing the applicant in this transfer process.

☐ No Representative

Name of Representative JCH Engineering & Consulting, PLLC Phone (208) 308-2109

Mailing address 6755 N. Albert Lane Idaho Falls, ID 83401 Email jasoncivil@alumni.nd.edu

☐ 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.

☑ 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 providing authority to sign for the applicant and label it **Attachment #4**.

I hereby assert that no one will be injured by the proposed changes and that the proposed changes do not constitute an enlargement in use of the original right(s). 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 or Authorized Representative	Print Name and Title if applicable	Date
Signature of Applicant or Authorized Representative	Print Name and Title if applicable	Date

A. PURPOSE OF TRANSFER

1. ☑ Change point of diversion ☐ Add diversion point(s) ☑ Change place of use
   ☐ Change nature of use ☐ Change period of use ☐ Other

2. Is this a transfer for changes pursuant to Idaho Code § 42-221.O.8?
   If yes, ☐ attach an explanation and any supporting documentation labeled as **Part1A.2**.

3. Describe your proposal in narrative form, including a detailed description of non-irrigation uses to justify amounts transferred (i.e. number of stock, etc.), and provide additional explanation of any other items on the application. Attach additional pages if necessary and label it **Part 1A.3**.
   Transfer the remainder of primary ground water right 35-14041 for use from a new well. Combination of Near Blackfoot-Neeley and Neeley-Minidoka reaches of the ESPA appear off-setting similar to recently approved transfers 83288, 83315.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1 Continued

B. DESCRIPTION OF RIGHTS AFTER THE REQUESTED CHANGES. IF THE RIGHTS ARE BEING SPLIT, DESCRIBE PORTIONS TO BE CHANGED AS THEY WOULD APPEAR AFTER THE REQUESTED CHANGES.

1. All or Part	Right Number	Amount (cfs/ac-ft)	Nature of Use	Period of Use	Source & Tributary
☐ ☑	35-14041	2.72 / 1,103.6	Irrigation	04/01 to 11/01	Ground Water (ESPA)
☐ ☐				to	
☐ ☐				to	
☐ ☐				to	
☐ ☐				to	
☐ ☐				to	
☐ ☐				to	
☐ ☐				to	
☐ ☐				to	

Total authorized under rights 2.72 cfs and/or 1,103.6 acre-feet.

2. Total amount of water proposed to be transferred or changed 2.72 cubic feet per second and/or 1,103.6 acre-feet per year.

3. Point(s) of Diversion:

☐ No changes to point(s) of diversion are proposed - the following chart is therefore not completed. (Proceed to #4.)
☑ Attach Eastern Snake Plain Aquifer analysis if this transfer proposes to change a point of diversion affecting the ESPA. Label it **Attachment #5**.

New ?	Lot	¼	¼	¼	Sec	Twp	Rge	County	Source	Local name or tag #
new			NW	NW	20	09S	29E	Power	Ground Water	new well
	9			NE	19	09S	29E	Power	Ground Water	new well

4. Place of use: (If irrigation, identify with number of acres irrigated per ¼ ¼ tract.)

☐ No changes to place of use are proposed - the following chart is therefore not completed. (Proceed to #5.)

Twp	Rge	Sec	NE ¼				NW ¼				SW ¼				SE ¼				Acre Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09S	29E	17											39.8	39.8			33		112.6
		18															31	40	71
		19	28.2	21.9	3.6														53.7
			lot10		lot9														
		20		6.9			15.4	16.3											38.6
																		Total Acres (for irrigation use)	275.9

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1 Continued

5. General Information:

a. Describe the complete diversion system, including how you will accommodate a measuring device and lockable controlling works should they be required now or in the future:
Each new well and pump with approved measuring device and lockable control will be installed with annual diversions reported.

b. Who owns the property at the point(s) of diversion? Applicant
If other than the applicant, describe the arrangement enabling the applicant to access the property for the diversion system:

c. Are the lands from which you propose to transfer the water right subject to any liens, deeds of trust, mortgages, or contracts?
If yes, ☑ attach a notarized statement from the holder of the lien, deed of trust, mortgage or contract agreeing to the proposed changes on official letterhead signed by an authorized representative. Label it **Attachment #6**. List the name of the entity and type of lien: See attached contract allowing transfer of 35-14041.

It is the applicant's responsibility to provide notice to lien holder, trustee, mortgagor, or contract holder of the proposed changes that may impact or change the value of the water rights or affected real property. Any misrepresentation of legal encumbrance on this application may result in rejection of the application or cancellation of an approval.

d. Are any of the water rights proposed for transfer currently leased to the Water Supply Bank?
If yes, ☐ complete Attachment WSB.

e. Describe the effect on the land now irrigated if the place or purpose of use is changed pursuant to this transfer:
Land will not be irrigated at the existing place of use to offset use of the water right at the new place of use.

f. Describe the use of any other water right(s) for the same purpose or land, or the same diversion system as right(s) proposed to be transferred at both the existing and proposed point(s) of diversion and place(s) use:
Water right 35-14040 also associated with the existing point of diversion is unchanged.

g. To your knowledge, has/is any portion of the water right(s) proposed to be changed:

Yes	No	
☑	☐	undergone a period of five or more consecutive years of non-use,
☐	☑	currently leased to the Water Supply Bank,
☐	☑	currently used in a mitigation plan limiting the use of water under the right, or
☑	☐	currently enrolled in a Federal set-aside program limiting the use of water under the rights?

If yes, describe:
35-14041 CRP contract began in 2007 and ends in 2021.

Page _____ of _____

IDAHO DEPARTMENT OF WATER RESOURCES
APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2A

Current Water Right No.: 35-14041

Current Owner: BONANZA BAR RANCH LLC

Priority Date: 10/16/1974

Origin: Water Right

Status: Active

Basis: Decreed

Source	Tributary
GROUND WATER	

Beneficial Use	From To	Diversion Rate	Annual Volume
IRRIGATION	04/01 to 11/01	3.18 CFS	1290 AF
	Total Diversion	3.18 CFS	1290 AF

Location of Point(s) of Diversion

GROUND WATER NW1/4SE1 4 Sec. 12. Twp 01S. Rge 32E B.M.

BINGHAM County

Place of Use

IRRIGATION Within BINGHAM County

T01S R32E S12	NWNE	29.00	T01S R32E S12	SWNE	31.10
T01S R32E S12	SENE	25.00	T01S R32E S12	NENW	39.00
T01S R32E S12	NWNW	35.00	T01S R32E S12	SWNW	35.10
T01S R32E S12	SENW	39.90	T01S R32E S12	SWSW	39.00
T01S R32E S12	SESW	26.40	T01S R32E S12	NESE	23.00

Total Acres: 322.5

Conditions of Approval:

1. T19 Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

Decreed Date: 1/31/2002

Rev. 07/18

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2

A. DESCRIPTION OF RIGHT(S) AS RECORDED

For each water right listed in Part 1B.1 of the application, attach a **Part 2A** report obtained from any Department office or from the Department's website @ idwr.idaho.gov, Water Right Transfers, Step 1.
Insert Part 2A reports into the application following Part 1.

B. IF ONLY A PORTION OF THE RIGHT IS PROPOSED TO BE CHANGED, DESCRIBE THE PORTION BEING CHANGED AS IT APPEARS BEFORE THE REQUESTED CHANGES

☑ Complete and attach one copy of Part 2B for each right for which only a portion is proposed to be changed. If the entire right is proposed to be changed, Part 2B is not applicable. Additional copies of the **Part 2B** form can be obtained from any Department office or from the Department's website @ idwr.idaho.gov, Water Right Transfers, Step 3, or Water Right Forms, Changes in Use. Insert completed Part 2B forms into the application following Part 2A of the same water right.

Right Number: 35-14041

1. amount 2.72 / 1,103.6 (cfs/ac-ft) for Irrigation purposes from 04/01 to 11/01
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______

2. Lands irrigated or place of use: (If irrigation, identify with number of acres irrigated per ¼ ¼ tract.)

Twp	Rge	Sec	NE ¼				NW ¼				SW ¼				SE ¼				Acre Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01S	32E	12		29	31.1	25	39	35	35.1	39.9			18.8		23				275.9

Total Acres (for irrigation use) 275.9

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 3

A. PLAT MAP (See Part 3A of Instructions for application for transfer for complete requirements.)

☑ Attach a map of the diversion, measurement, control, and distribution system. Label it **Attachment #7a**.
☑ If the transfer application proposes to change the place or purpose of use of an irrigation right attach a Geographic Information System (GIS) shape file, or an aerial photo or other image clearly delineating the location and extent of existing acres and changes to the place of use. Label it **Attachment #7b.**

If the place of use currently consists of a permissible place of use, then the attachment is not required if the application contains a clear statement that the boundaries for the place of use are not proposed to be changed by the transfer and the total number of irrigated acres within the place of use before and after the transfer is clearly stated.

If any part of the irrigation water right is leased to the Water Supply Bank, you must also specify the location and number of acres that will remain idled for the duration of the lease contract at the new, proposed place of use.

B. CHANGES IN NATURE OF USE (Water Balance)

☐ If you propose to change the nature of use or period of use of all or part of the rights(s) listed in this application, attach documentation describing the extent of historic beneficial use of the portion of the right(s) proposed to be changed. Also attach documentation showing that the portion of the right(s) to be changed will not be enlarged in rate, volume, or consumptive use through the proposed change. Label it **Attachment #8a**.

C. PLACE OF USE CHANGES TO SUPPLEMENTAL IRRIGATION RIGHTS

☐ If you propose to change the place of use of a supplemental irrigation right, answer below and attach supporting documentation. Label it **Attachment #8b**.

Describe how the supplemental water rights have been used historically in conjunction with other water rights at the existing place of use. Describe the time during the irrigation season that the supplemental rights have been used. Include information about the availability or reliability of the primary right(s) being supplemented, both before and after the change. If the applicant is proposing to change a supplemental irrigation right to a primary right, provide the information required on Part 3B above:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

FOR DEPARTMENT USE ONLY

Transfer contains _____ pages and _____ attachments.

Received by _____ Date _____ Preliminary check by _____ Date _____

Fee paid _____ Date _____ Receipted by _____ Receipt # _____

Add'l fee paid _____ Date _____ Receipted by _____ Receipt # _____

Check all that apply: Attachment WSB ☐ (copy sent to state office) Lessor Designation form ☐ &/or W-9 ☐ (originals to state office)

Attachment No. 3
Documentation of Authority - Applicant NOT Water Right Owner

Attachment No. 6
Lien Holder Authorization

RE-24 VACANT LAND
REAL ESTATE PURCHASE AND SALE AGREEMENT

THIS IS A LEGALLY BINDING CONTRACT, READ THE ENTIRE DOCUMENT, INCLUDING ANY ATTACHMENTS.
IF YOU HAVE ANY QUESTIONS, **CONSULT YOUR ATTORNEY AND/OR ACCOUNTANT** BEFORE SIGNING.
NO WARRANTIES, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF HABITABILITY, AGREEMENTS OR REPRESENTATIONS NOT EXPRESSLY SET FORTH HEREIN SHALL BE BINDING UPON EITHER PARTY.

IDAHO REALTORS®

EQUAL HOUSING OPPORTUNITY

ID# **20820** DATE **August 12, 2020**

LISTING AGENCY **Idaho Rocky Mountain Real Estate** Office Phone # _____ Fax # _____
Listing Agent **Wes Leisy** E-Mail **wes@wesleisy.com** Phone # **208-221-2800**
SELLING AGENCY **Idaho Real Estate Group** Office Phone # _____ Fax # _____
Selling Agent **Jeff Hunt** E-Mail **jeff@realestatehunt.net** Phone # **(208) 221-8464**

1. BUYER: **LCSC Enterprises, LLC ; Blair Dance**
(Hereinafter called "**BUYER**") agrees to purchase, and the undersigned SELLER agrees to sell the following described real estate hereinafter referred to as "PROPERTY" **COMMONLY KNOWN AS** **Bonanza Bar Ranch**
Blackfoot City **Idaho** County, ID, Zip **83221** legally described as:

OR Legal Description Attached as exhibit **A** **(Exhibit must accompany original offer and be signed or initialed by BUYER and SELLER.)**

2. $_____ **PURCHASE PRICE:** _____,
payable upon the following TERMS AND CONDITIONS (not including closing costs):
This offer is contingent upon the sale, refinance, and/or closing of any other property ☐ **Yes** ☐ **No** (N/A if left blank)

3. FINANCIAL TERMS: Note: A+D+E+F must add up to total purchase price.
(A). $ **50000** **EARNEST MONEY:** **Fifty Thousand Dollars And Zero Cents**
BUYER hereby offers the above stated amount as Earnest Money which shall be credited to BUYER upon closing. Earnest Money is/will be:

Evidenced by:	**Held By:**	**Delivered:**	**Deposited:**
☐ Cash	☒ Responsible Broker	☐ With Offer	☒ Upon Receipt and Acceptance
☒ Personal Check	☐ Closing Company	☐ Within _____ business days (three [3] if left blank) of acceptance.	☐ Upon Receipt Regardless of Acceptance
☐ Cashier's Check	☐ See Section 4	☒ See Section 4	☐ See Section 4
☐ Wire Transfer			
☐ Note			
☐ See Section 4			

THE RESPONSIBLE BROKER SHALL BE: **Mike Atkinson**

(B). ALL CASH OFFER: ☐ NO ☒ YES **If this is an all cash offer do not complete Sections 3D and 3E, fill blanks with N/A** (Not Applicable). **IF CASH OFFER BUYER'S OBLIGATION TO CLOSE SHALL NOT BE SUBJECT TO ANY FINANCIAL CONTINGENCY.** BUYER agrees to provide SELLER within _____ business days (five [5] if left blank) from the date of acceptance of this agreement by all parties written confirmation of sufficient funds and/or proceeds necessary to close transaction. Acceptable documentation includes, but is not limited to a copy of a recent bank or financial statement.

(C) Cash proceeds from another sale: ☐ **Yes** ☒ **No** (N/A if left blank)

(D). $_____ **NEW LOAN PROCEEDS:** If a number greater than zero appears on the preceding blank then this agreement is contingent upon BUYER obtaining the following financing:
FIRST LOAN of $_____ not including mortgage insurance, through ☐ FHA, ☐ VA, ☐ CONVENTIONAL, ☐ IHFA, ☐ RURAL DEVELOPMENT, ☐ OTHER _____ with interest not to exceed _____% for a period of _____ year(s) at: ☐ Fixed Rate ☐ Other _____. In the event BUYER is unable, after exercising good faith efforts, to obtain the indicated financing, BUYER's Earnest Money shall be returned to BUYER.
SECOND LOAN of $_____ through ☐ FHA, ☐ VA, ☐ CONVENTIONAL, ☐ IHFA, ☐ RURAL DEVELOPMENT, ☐ OTHER _____ with interest not to exceed _____% for a period of _____ year(s) at: ☐ Fixed Rate ☐ Other _____
LOAN APPLICATION: BUYER ☐ has applied OR ☐ shall apply for such loan(s). Within _____ business days (ten [10] if left blank) of final acceptance of all parties, BUYER agrees to furnish SELLER with **a written confirmation showing lender approval of credit report, income verification, debt ratios, and evidence of sufficient funds and/or proceeds necessary to close transaction in a manner acceptable to the SELLER(S) and subject only to satisfactory appraisal and final lender underwriting. If an appraisal is required by lender, the PROPERTY must appraise at not less than purchase price** or BUYER'S Earnest Money shall be returned at BUYER'S request unless SELLER, at SELLER'S sole discretion, agrees to reduce the purchase price to meet the appraised value, in which case SELLER shall be entitled to a copy of the appraisal and shall have 24 hours from receipt thereof to notify BUYER of any price reduction. *BUYER may also apply for a loan with different conditions and costs and close transaction provided all other terms and conditions of this Agreement are fulfilled, and the new loan does not increase the costs or requirements to the SELLER.* **FHA / VA:** If applicable, it is expressly agreed that notwithstanding any other provisions of this contract, BUYER shall not be obligated to complete the purchase of the PROPERTY described herein or to incur any penalty or forfeiture of Earnest Money deposits or otherwise unless BUYER has been given in accordance with HUD/FHA or VA requirements a written statement by the Federal Housing Commissioner, Veterans Administration or a Direct Endorsement lender setting forth the appraised value of the PROPERTY of not less than the sales price as stated in the contract.

If such written confirmation required in 3(B) or 3(D) is not received by SELLER(S) within the strict time allotted, SELLER(S) may at their option cancel this agreement by notifying BUYER(S) in writing of such cancellation within _____ business days (three [3] if left blank) after written confirmation was required. If SELLER does not cancel within the strict time period specified as set forth herein, SELLER shall be deemed to have accepted such written

BUYER'S Initials (LEL;BD)(_____) Date 08/13/2020 **SELLER'S** Initials (_____)(_____) Date _____

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Serial#: **056260-100159-7279848**
Prepared by: Jeff Hunt | Idaho Real Estate Group | jeff@realestatehunt.net | 2087665000
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PROPERTY ADDRESS: Bonanza Bar Ranch Blackfoot, Idaho 83221 ID#: 20820

confirmation of lender approval or waived the right to receive written confirmation and shall be deemed to have elected to proceed with the transaction. SELLER'S approval shall not be unreasonably withheld.

(E). $_____ ADDITIONAL FINANCIAL TERMS:
☐ Additional financial terms are specified under the heading "OTHER TERMS AND/OR CONDITIONS" (Section 4).
☐ Additional financial terms are contained in a **FINANCING ADDENDUM** of same date, attached hereto, signed by both parties.

(F). $_____ APPROXIMATE FUNDS DUE AT CLOSING: Cash at closing, not including closing costs, to be paid by BUYER at closing, In GOOD FUNDS, which includes: **cash, electronic transfer funds, certified check or cashier's check.**

4. OTHER TERMS AND/OR CONDITIONS: This Agreement is made subject to the following special terms, considerations and/or contingencies which must be satisfied prior to closing **Earnest Money to be mailed upon acceptance.**

Contingent: Latter of successful water transfer or 60 calendar days

CREP Information given to buyers for review

5. ITEMS INCLUDED & EXCLUDED IN THIS SALE: All existing fixtures and fittings that are attached to the PROPERTY are **INCLUDED IN THE PURCHASE PRICE** (unless excluded below) and shall be transferred free of liens and in as-is condition. Unless specifically excluded below, the fixtures and fittings and irrigation fixtures and equipment, that are now on or used in connection with the PROPERTY are included in the purchase price and shall include (1) all personal property owned by the SELLER and used primarily in connection with the PROPERTY, and (2) all rights and easements appurtenant to the PROPERTY. BUYER should satisfy himself/herself that the condition of the included items is acceptable. The terms stated in this section shall control over any oral statements, prior written communications and/or prior publications including but not limited to MLS listings and advertisements. Personal property described in a property disclosure report shall not be inferred as to be included unless specifically set forth herein.
ITEMS SPECIFICALLY INCLUDED IN THIS SALE: Real Property: 880 acres +or- located in Bingham County. All owned and appurtenant oil, gas, and mineral rights. All appurtenant water rights including 35-14041 and 35-13992 to be included and transferred from seller to buyer at closing. All CREP Contracts to be included and 2021 Payment assigned to buyer. All remaining well and irrigation equipment.

ITEMS SPECIFICALLY EXCLUDED IN THIS SALE:

6. "NOT APPLICABLE" DEFINED: The letters "n/a," "N/A," "n.a.," and "N.A." as used herein are abbreviations of the term "not applicable." Where this agreement uses the term "not applicable" or an abbreviation thereof, it shall be evidence that the parties have contemplated certain facts or conditions and have determined that such facts or conditions do not apply to the agreement or transaction herein.

7 . INSPECTION:
(A). ***BUYER IS STRONGLY ADVISED TO INVESTIGATE THE CONDITION AND SUITABILITY OF ALL ASPECTS OF THE PROPERTY AND ALL MATTERS AFFECTING THE VALUE OR DESIRABILITY OF THE PROPERTY INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:***
SIZE: Square footage and lot size. (Any numerical statements regarding these items are APPROXIMATION ONLY, and have not been and will not be verified and should not be relied upon by BUYER.)
1. LINES AND BOUNDARIES: Property lines and boundaries, septic, and leach lines (Fences, walls, hedges, and other natural or constructed barriers or markers do not necessarily identify true property boundaries. Property lines may be verified by surveys.)
2. ZONING AND LAND USE: Inquiries, investigations, studies or any other means concerning past, present or proposed laws, ordinances, referendums, initiatives, votes, applications and permits affecting the current use of the PROPERTY, BUYER's intended use of the PROPERTY, future development, zoning, building, size, governmental permits and inspections. Both parties are advised that Broker does not guarantee the status of permits, zoning or code compliance. The parties are to satisfy themselves concerning these issues.
3. UTILITIES AND SERVICE: Availability, costs, and restrictions of utilities and services, including but not limited to, sewage, sanitation, water, electricity, gas, telephone, cable TV, internet and drainage.
4. UTILITIES, IMPROVEMENTS & OTHER RIGHTS: SELLER represents that the PROPERTY does have the following utilities, improvements, services and other rights available (describe availability): **Wells, Power**
5. HAZARDOUS MATERIALS: The real estate broker(s) or their agents in this transaction have no expertise with respect to toxic waste, hazardous materials or undesirable substances. BUYERS who are concerned about the presence of such materials should have the PROPERTY inspected by qualified experts. BUYER acknowledges that he/she has not relied upon any representations by either the Broker or the SELLER with respect to the condition of the PROPERTY that are not contained in this Agreement or in any disclosure statements.
6. TAX LIABILITY: The BUYER and SELLER acknowledge that they have not received or relied upon any statements or representations by the Broker with respect to the effect of this transaction upon BUYER's or SELLER's tax liability.

(B). BUYER chooses ☒ to conduct inspections; ☐ not to conduct inspections. If BUYER chooses not to conduct inspections skip the remainder of Section 7. If indicated, BUYER shall have the right to conduct inspections, investigations, tests, surveys and other studies at **BUYER'S expense, hereafter referred to as the "Primary Inspection."** BUYER'S inspection of the PROPERTY includes all aspects of the PROPERTY, including but not limited to neighborhood, conditions, zoning and use allowances, environmental conditions, applicable school districts and/or any other aspect pertaining to the PROPERTY or related to the living environment at the PROPERTY. Unless otherwise addressed BUYER shall, within **30** calendar days (thirty [30]

BUYER'S Initials (LEL;BD)(_____) Date 08/13/2020 **SELLER'S** Initials (_____)(_____) Date _____

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if left blank) from acceptance, complete these inspections and give to SELLER written notice of disapproved items/conditions or written notice of termination of this Agreement based on an unsatisfactory inspection. Once BUYER delivers written notice to SELLER it shall end BUYER's timeframe and is irrevocable regardless of if it was provided prior to the deadline stated above. BUYER is strongly advised to exercise these rights and to make BUYER'S own selection of professionals with appropriate qualifications to conduct inspections of the entire PROPERTY. SELLER shall make the PROPERTY available for all Inspections. BUYER shall keep the PROPERTY free and clear of liens; indemnify and hold SELLER harmless from all liability, claims, demands, damages and costs; and repair any damages arising from the inspections. No inspections may be made by any governmental building or zoning inspector or government employee without the prior consent of SELLER unless required by local law. **No inspections may be made by any governmental building or zoning inspector or government employee without the prior consent of SELLER, unless required by local law.**

BUYER'S acceptance of the condition of the PROPERTY is a contingency of this Agreement.

(C) SATISFACTION/REMOVAL OF INSPECTION CONTINGENCIES:

1. If BUYER does not within the strict time period specified give to SELLER written notice of disapproved items/conditions or written notice of termination of this Agreement, BUYER shall conclusively be deemed to have: (a) completed all inspections, investigations, review of applicable documents and disclosures; (b) elected to proceed with the transaction and (c) assumed all liability, responsibility and expense for repairs or corrections.

2. If BUYER does within the strict time period specified give to SELLER written notice of termination of this Agreement based on an unsatisfactory inspection, the parties will have no obligation to continue with the transaction and the Earnest Money shall be returned to BUYER.

3. If BUYER does within the strict time period specified give to SELLER written notice of disapproved items, **it shall end BUYER's timeframe for inspections and is irrevocable.** BUYER shall provide to SELLER pertinent section(s) of written inspection reports upon request, if applicable. Upon receipt of written notice SELLER shall have 7 business days (three [3] if left blank) in which to respond in writing. SELLER, at SELLER's option, may agree to correct the items as requested by BUYER in the notice or may elect not to do so. If SELLER agrees in writing to correct items/conditions requested by BUYER, then both parties agree that they will continue with the transaction and proceed to closing. Otherwise, immediately upon a written response from SELLER that rejects BUYER's requests, in whole or in part, said response is irrevocable without consent of BUYER and BUYER may proceed under 7(C)(4) below.

4. If SELLER does not agree to correct BUYER'S disapproved items/conditions within the strict time period specified, or SELLER does not respond in writing within the strict time period specified above, then within 7 business days (three [3] if left blank) the BUYER has the option of 1) negotiating with SELLER to obtain a modification of SELLER'S response 2) proceeding with the transaction without the SELLER being responsible for correcting the disapproved items/conditions stated in that particular BUYER'S notice, or 3) giving the SELLER written notice of termination of this agreement in which case Earnest Money shall be returned to BUYER. If within the strict time period specified in this paragraph BUYER does not obtain a modification of SELLER'S response or give written notice of cancellation, BUYER shall conclusively be deemed to have elected to proceed with the transaction without the repairs or corrections to the disapproved items/conditions stated in that particular BUYER'S notice.

8. SELLER DISCLOSURES. Within 4 business days (two [2] if left blank) from acceptance SELLER shall disclose, and provide copies if available, to BUYER the following:

(a) any studies and/or reports that have previously been performed in connection with or for the PROPERTY, including without limitation, environmental reports, soil studies, seismic studies, site plans and surveys;

(b) any notices relating to a violation of applicable law including, without limitation, environmental law and laws relating to land use, zoning or compliance with building codes;

(c) SELLER shall make available for inspection all documents in SELLER's possession relating to ownership, operation, renovation or development of the PROPERTY including: statements for real estate tax assessments and utilities for the last year; property management agreements; leases or other occupancy agreements; maintenance records, accounting records and audit records for the past year; and installment purchase contracts or leases of personal property used in connection with the PROPERTY; and

(d) all other documents described in any Addenda or Counteroffer to this Agreement.

9. TITLE CONVEYANCE: Title of SELLER is to be conveyed by warranty deed, unless otherwise provided, and is to be marketable and insurable except for rights reserved in federal patents, state or railroad deeds, building or use restrictions, building and zoning regulations and ordinances of any governmental unit, and rights of way and easements established or of record. Liens, encumbrances or defects to be discharged by SELLER may be paid out of purchase money at date of closing. No liens, encumbrances or defects, which are to be discharged or assumed by BUYER or to which title is taken subject to, exist unless otherwise specified in this Agreement.

10. TITLE INSURANCE: There may be types of title insurance coverages available other than those listed below and parties to this agreement are advised to talk to a title company about any other coverages available that will give the buyer additional coverage.

(A). PRELIMINARY TITLE COMMITMENT AND CC&Rs: Within 6 business days (six [6] if left blank) of final acceptance of all parties, ☒ SELLER or ☐ BUYER shall furnish to BUYER a preliminary commitment of a title insurance policy showing the condition of the title to said PROPERTY **and** a copy of any covenants, conditions and restrictions (CC&Rs) applicable to the PROPERTY. BUYER shall have 4 business days (two [2] if left blank) after receipt of the preliminary commitment and CC&Rs, within which to object in writing to the condition of the title or CC&Rs as set forth in the documentation provided. If BUYER does not so object, BUYER shall be deemed to have accepted the conditions of the title and CC&Rs. If the title of said PROPERTY is not marketable, and cannot be made so within 4 business days (two [2] if left blank) after SELLER'S receipt of a written objection and statement of defect from BUYER, or if BUYER objects to the CC&Rs, then BUYER'S Earnest Money deposit shall be returned to BUYER and SELLER shall pay for the cost of title insurance cancellation fee, escrow and legal fees, if any. Nothing contained herein shall constitute a waiver of BUYER to challenge CC&R terms directly with a homeowner's association after closing.

(B). TITLE COMPANY: The parties agree that Alliance Title Company located at 246 W Pacific St. Ste A Blackfoot, ID 83221 shall provide the title policy and preliminary report of commitment.

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(C). STANDARD COVERAGE OWNER'S POLICY: SELLER shall within a reasonable time after closing furnish to BUYER a title insurance policy in the amount of the purchase price of the PROPERTY showing marketable and insurable title subject to the liens, encumbrances and defects elsewhere set out in this Agreement to be discharged or assumed by BUYER unless otherwise provided herein. **The risk assumed by the title company in the standard coverage policy is limited to matters of public record.** BUYER shall receive a ILTA/ALTA Owner's Policy of Title Insurance. A title company, at BUYER's request, can provide information about the availability, desirability, coverage and cost of various title insurance coverages and endorsements. If BUYER desires title coverage other than that required by this paragraph, BUYER shall instruct Closing company in writing and pay any increase in cost unless otherwise provided herein.

(D). EXTENDED COVERAGE LENDER'S POLICY (Mortgagee policy): The lender may require that BUYER (Borrower) furnish an Extended Coverage Lender's Policy. This extended coverage lender's policy considers matters of public record and additionally insures against certain matters not shown in the public record. This extended coverage lender's policy is solely for the benefit of the lender and only protects the lender.

11. SUBDIVISION HOMEOWNER'S ASSOCIATION: BUYER is aware that membership in a Home Owner's Association may be required and BUYER agrees to abide by the Articles of Incorporation, Bylaws and rules and regulations of the Association. BUYER is further aware that the PROPERTY may be subject to assessments levied by the Association described in full in the Declaration of Covenants, Conditions and Restrictions. BUYER has reviewed Homeowner's Association Documents: ☐Yes ☐No ☒N/A. Association fees/dues are $_____ per _____.
☐ BUYER ☐ SELLER ☐Shared Equally ☐ N/A to pay Association SET UP FEE of $_____ at closing.
☐ BUYER ☐ SELLER ☐Shared Equally ☐ N/A to pay Association PROPERTY TRANSFER FEES of $_____ at closing.
☐ BUYER ☐ SELLER ☐ Shared Equally ☐ N/A to pay Association STATEMENT OF ACCOUNT FEE of $_____ at closing. Association Fees are governed by Idaho Code 55-116 and 55-1507.

12. INTERSTATE LAND SALES FULL DISCLOSURE ACT: This Vacant Land Real Estate Purchase and Sale Agreement is NOT intended to be used for situations in which Seller owns and is selling one hundred (100) or more lots. Properties containing one hundred (100) or more lots for sale may be subject to the reporting and disclosure requirements of the Interstate Land Sales Full Disclosure Act ("Act"), 15 USC § 1701 et seq. If you have questions regarding this Act, contact your attorney before signing. Any contract or agreement for the sale or lease of a lot subject to the Act may be revoked at the option of the purchaser or lessee until midnight of the seventh day following the signing of such contract or agreement or until such later time as may be required pursuant to applicable law. Any contract or agreement for the sale or lease of a lot for which a property report is required by the Act and the property report has not been given to the purchaser or lessee in advance of his or her signing such contract or agreement, such contract or agreement may be revoked at the option of the purchaser or lessee within two (2) years from the date of such signing.

13. FARM/CROPS/TIMBER RIGHTS: SELLER, or any tenant of SELLER, shall be allowed to harvest, sell or assign any annual crops which have been planted on the PROPERTY prior to the date of this Contract, even though said harvest time may occur subsequent to the date of the settlement of this contract, unless otherwise agreed by attached addendum. If the crop consists of timber, then neither SELLER nor any tenant of SELLERS shall have any right to harvest the timber unless the right to remove same shall be established by an attached addendum. Notwithstanding the provisions hereof, any tenant who shall be leasing the PROPERTY shall be allowed to complete the harvest of any annual crops that have been planted prior to the date of Contract Acceptance as previously agreed between SELLER and Tenant. **ANY AND ALL SUCH TENANT AGREEMENTS ARE TO BE ATTACHED.**

14. NOXIOUS WEEDS: BUYER of the PROPERTY in the State of Idaho should be aware that some properties contain noxious weeds. The laws of the State of Idaho require owners of property within this state to control, and to the extent possible, eradicate noxious weeds. For more information concerning noxious weeds and your obligations as an owner of property, contact your local county extension office.

15. MINERAL RIGHTS: Any and all mineral rights appurtenant to the PROPERTY, and owned by SELLER, are included in and are part of the sale of this PROPERTY, and are not leased or encumbered, unless otherwise agreed to by the parties in writing.

16. WATER RIGHTS: Any and all water rights including but not limited to water systems, wells, springs, lakes, streams, ponds, rivers, ditches, ditch rights, and the like, if any, appurtenant to the PROPERTY, and owned by SELLER, are included in and are a part of the sale of this PROPERTY, and are not leased or encumbered, unless otherwise agreed to by the parties in writing.

17. RISK OF LOSS OR NEGLECT: Prior to closing of this sale, all risk of loss shall remain with SELLER. In addition, should the PROPERTY be materially damaged by fire, neglect, or other destructive cause prior to closing, this agreement shall be voidable at the option of the BUYER.

18. BUSINESS DAYS: A business day is herein defined as Monday through Friday, 8:00 A.M. to 5:00 P.M. in the local time zone where the subject real PROPERTY is physically located. A business day shall not include any Saturday or Sunday, nor shall a business day include any legal holiday recognized by the state of Idaho as found in Idaho Code §73-108. If the time in which any act required under this agreement is to be performed is based upon a business day calculation, then it shall be computed by excluding the calendar day of execution and including the last business day. The first business day shall be the first business day after the date of execution. If the last day is a legal holiday, then the time for performance shall be the next subsequent business day.

19. CALENDAR DAYS: A calendar day is herein defined as Monday through Sunday, midnight to midnight, in the local time zone where the subject real PROPERTY is physically located. A calendar day shall include any legal holiday. The time in which any act required under this agreement is to be performed shall be computed by excluding the date of execution and including the last day, thus the first day shall be the day after the date of execution. Any reference to "day" or "days" in this agreement means the same as calendar day, unless specifically enumerated as a "business day."

20. SEVERABILITY: In the case that any one or more of the provisions contained in this Agreement or any application thereof, shall be invalid, illegal or unenforceable in any respect, the validity, legality or unenforceability of the remaining provisions shall not in any way be affected or impaired thereby.

21. TRANSMISSION OF DOCUMENTS: Facsimile or electronic transmission of any signed original document, and retransmission of any signed facsimile or electronic transmission shall be the same as delivery of an original. At the request of either the BUYER or SELLER, or the LENDER, or the Closing company, the BUYER and SELLER will confirm facsimile or electronic transmitted signatures by signing an original document.

BUYER'S Initials (LEL;BD)(_____) Date 08/13/2020 **SELLER'S** Initials (_____)(_____) Date _____

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22. WIRE TRANSFER WARNING: Electronic means of transferring money (i.e. ETF, wire transfer, electronic check, direct deposit, etc…) are subject to sophisticated cyber fraud attacks. These attacks are even more prevalent in real estate transactions due to the large sums of money being exchanged. BUYER is advised that Brokerage will not provide electronic transfer instructions by e-mail. Following money transfer instructions contained in an email from any party is inherently dangerous and should be avoided. BUYER agree that if BUYER use, or authorize the use of, electronic transfer of funds in a transaction they hereby hold the Brokerages, their agents, and the designated title and escrow company harmless from any and all claims arising out of inaccurate transfer instructions, fraudulent interception of said funds and/or any other damage relating to the conduct of third parties influencing the transfer process or stealing funds.

23. COUNTERPARTS: This Agreement may be executed in counterparts. Executing an agreement in counterparts shall mean the signature of two identical copies of the same agreement. Each identical copy of an agreement signed in counterparts is deemed to be an original, and all identical copies shall together constitute one and the same instrument.

24. ENTIRE AGREEMENT: This Agreement including any addendums or exhibits, constitutes the entire Agreement between the parties respecting the matters set forth and supersedes all prior Agreements between the parties respecting such matters. This Agreement may be modified only by a written agreement signed by each of the parties.

25. SALES PRICE INFORMATION: Pursuant to Idaho Code §54-2083(6)(d), a "sold" price of real property is not confidential client information.

26. AUTHORITY OF SIGNATORY: If BUYER or SELLER is a corporation, partnership, trust, estate, or other entity, the person executing this agreement on its behalf warrants his or her authority to do so and to bind BUYER or SELLER.

27. ADDITIONAL CONTINGENCIES AND COSTS: The closing of this transaction is contingent upon written satisfaction or waiver of the contingencies listed in the "contingencies" column below. In addition, the parties shall satisfy all contingencies set forth in this section by close of business (Date): _____ unless otherwise agreed to by the parties in writing. The parties agree to pay the following costs **immediately when due and regardless of transaction closing, unless otherwise indicated.** These costs shall be paid by the indicated party regardless of whether or not the transaction closes; if the transaction fails to close due to breach of a party, any costs paid by the non-breaching party may be recovered as damages. None of the costs to be paid by the parties in this section creates an inspection or performance obligation other than strictly for the payment of costs unless otherwise stated below. There may be other costs incurred in addition to those set forth below. Such costs may be required by the lender, by law, or by other such circumstances. Requested tests/inspection reports as indicated below shall be provided to the other party within _____ business days (ten [10] if left blank) prior to closing.

COSTS	BUYER	SELLER	Shared Equally	N /A	CONTINGENCIES	BUYER	SELLER	Shared Equally	N/A
Appraisal Fee	☐	☐	☐	☒	Environmental Inspection (Phase 1)	☐	☐	☐	☒
Long Term Escrow Fees	☐	☐	☐	☒	Environmental Inspection (Phase 2)	☐	☐	☐	☒
Closing Escrow Fee	☐	☐	☒	☐	Environmental Inspection (Phase 3)	☐	☐	☐	☒
Survey Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒	PERC Test	☐	☐	☐	☒
Flood Certification/Tracking Fee	☐	☐	☐	☒	Zoning Variance	☐	☐	☐	☒
Title Ins. Standard Coverage Owner's Policy	☐	☒	☐	☐	Soil(s) Test(s)	☐	☐	☐	☒
Title Ins. Extended Coverage Lender's Policy – Mortgagee Policy	☐	☐	☐	☒	Hazardous Waste Report(s)	☐	☐	☐	☒
Additional Title Coverage	☐	☐	☐	☒	Domestic Well Water Potability Test Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒
Water Rights Transfer Fee	☒	☐	☐	☐	Domestic Well Water Productivity Test Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒
Attorney Contract Preparation or Review Fee	☒	☐	☐	☐	Septic Inspections Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒
	☐	☐	☐	☐	Septic Pumping Shall be ordered by: ☐BUYER ☐SELLER	☐	☐	☐	☒
	☐	☐	☐	☐		☐	☐	☐	☐

Upon closing SELLER agrees to pay ☐ _____% of the purchase price OR ☐ $_____ (dollar amount) (N/A if left blank) as a SELLER concession. This can be used toward lender-approved BUYER'S closing costs, lender fees, and prepaid costs which include but are not limited to those items in BUYER columns marked above. This concession can also be used for any other expense not related to financing at the BUYER's discretion.

28. DEFAULT: If BUYER defaults in the performance of this Agreement, SELLER has the option of: (1) accepting the Earnest Money as liquidated damages or (2) pursuing any other lawful right or remedy to which SELLER may be entitled. If SELLER elects to proceed under (1), SELLER shall make demand upon the holder of the Earnest Money, upon which demand said holder shall pay from the Earnest Money the costs incurred by SELLER's Broker on behalf of SELLER and BUYER related to the transaction, including, without limitation, the costs of title insurance, escrow fees, credit report fees, inspection fees and attorney's fees; and said holder shall pay any balance of the Earnest Money, one-half to SELLER and one-half to SELLER's Broker, provided that the amount to be paid to SELLER's Broker shall not exceed the Broker's agreed-to commission. SELLER and BUYER specifically

BUYER'S Initials (LEL;BD)(_____) Date 08/13/2020 **SELLER'S** Initials (_____)(_____) Date _____

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Serial#: 056260-100159-7279848

Prepared by: Jeff Hunt | Idaho Real Estate Group | jeff@realestatehunt.net | 2087665000

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acknowledge and agree that if SELLER elects to accept the Earnest Money as liquidated damages, such shall be SELLER's sole and exclusive remedy, and such shall not be considered a penalty or forfeiture. However, in the event the parties mutually agree in writing that the Earnest Money shall become non-refundable, said agreement shall not be considered an election of remedies by SELLER and the non-refundable Earnest Money shall not constitute liquidated damages; nor shall it act as a waiver of other remedies, all of which shall be available to SELLER; it may however be used to offset SELLER'S damages. If SELLER elects to proceed under (2), the holder of the Earnest Money shall be entitled to pay the costs incurred by SELLER's Broker on behalf of SELLER and BUYER related to the transaction, including, without limitation, the costs of brokerage fee, title insurance, escrow fees, credit report fees, inspection fees and attorney's fees, with any balance of the Earnest Money to be held pending resolution of the matter. If SELLER defaults, having approved said sale and fails to consummate the same as herein agreed, BUYER's Earnest Money deposit shall be returned to him/her and SELLER shall pay for the costs of title insurance, escrow fees, credit report fees, inspection fees, brokerage fees and attorney's fees, if any. This shall not be considered as a waiver by BUYER of any other lawful right or remedy to which BUYER may be entitled.

29. EARNEST MONEY DISPUTE / INTERPLEADER: Notwithstanding any termination or breach of this Agreement, BUYER and SELLER agree that in the event of any controversy regarding the Earnest Money and things of value held by Broker or closing company, Broker may reasonably rely on the terms of this Agreement or other written documents signed by both parties to determine how to disburse the disputed money. However, Broker or closing company shall not be required to take any action but may await any proceeding, or at Broker's or closing company's option and sole discretion, may interplead all parties and deposit any moneys or things of value into a court of competent jurisdiction and shall recover all costs which were incurred as a result of the dispute including, but not limited to, reasonable attorney's fees. If either parties' Broker incurs attorney's fees as a result of any Earnest Money dispute, whether or not formal legal action is taken, said Broker is entitled to recover actual fees incurred from either BUYER or SELLER.

30. ATTORNEY'S FEES: If either party initiates or defends any arbitration or legal action or proceedings which are in any way connected with this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party reasonable costs and attorney's fees, including such costs and fees on appeal.

31. TIME IS OF THE ESSENCE IN THIS AGREEMENT.

32. CLOSING: On or before the closing date, BUYER and SELLER shall deposit with the closing company all funds and instruments necessary to complete this transaction. **Closing means the date on which all documents are either recorded or accepted by an escrow agent and the sale proceeds are available to SELLER.** The closing shall be no later than (Date) **October 16, 2020**.

The parties agree that the **CLOSING COMPANY** for this transaction shall be **Alliance Title** located at **246 W Pacific St. Ste A**. If a long-term escrow /collection is involved, then the long-term escrow holder shall be **Blackfoot, ID 83221**.

33. POSSESSION: BUYER shall be entitled to possession ☒ upon closing or ☐ date _____ at _____ ☐ am ☐ pm

34. PRORATIONS: Property taxes and water assessments (using the last available assessment as a basis), rents collected, interest and reserves, liens, encumbrances or obligations assumed, and utilities shall be prorated ☒ upon closing or as of ☐ date _____.
BUYER to reimburse SELLER for fuel in tank ☐ Yes ☐ No ☒ N/A. Dollar amount may be determined by SELLER's supplier.

35. SECTION 1031 TAX DEFERRED EXCHANGE: If applicable, each party shall cooperate with the other Party in effectuating an exchange under IRS Section 1031; provided however, that the other Party's cooperation shall be conditioned on the following: (a) the exchange shall be at no additional liability and/or cost to the other Party; (b) the exchange shall not delay Settlement or Closing; and (c) the other Party shall not be required to acquire title to any proposed exchange properties to accommodate an exchange. The exchanging party shall indemnify, defend and hold the other Party harmless from and against all claims, demands, costs and expenses which that Party may sustain as a result of the actual or attempted 1031 exchange.

36. REPRESENTATION CONFIRMATION: Check one (1) box in Section 1 and one (1) box in Section 2 below to confirm that in this transaction, the brokerage(s) involved had the following relationship(s) with the BUYER(S) and SELLER(S).

Section 1:

- ☒ A. **The brokerage working with the BUYER(S) is acting as an AGENT for the BUYER(S).**
- ☐ B. **The brokerage working with the BUYER(S) is acting as a LIMITED DUAL AGENT for the BUYER(S), without an ASSIGNED AGENT.**
- ☐ C. **The brokerage working with the BUYER(S) is acting as a LIMITED DUAL AGENT for the BUYER(S) and has an ASSIGNED AGENT acting solely on behalf of the BUYER(S).**
- ☐ D. **The brokerage working with the BUYER(S) is acting as a NONAGENT for the BUYER(S).**

Section 2:

- ☒ A. **The brokerage working with the SELLER(S) is acting as an AGENT for the SELLER(S).**
- ☐ B. **The brokerage working with the SELLER(S) is acting as a LIMITED DUAL AGENT for the SELLER(S), without an ASSIGNED AGENT.**
- ☐ C. **The brokerage working with the SELLER(S) is acting as a LIMITED DUAL AGENT for the SELLER(S) and has an ASSIGNED AGENT acting solely on behalf of the SELLER(S).**
- ☐ D. **The brokerage working with the SELLER(S) is acting as a NONAGENT for the SELLER(S).**

Each party signing this document confirms that he has received, read and understood the Agency Disclosure Brochure adopted or approved by the Idaho real estate commission and has consented to the relationship confirmed above. In addition, each party confirms that the brokerage's agency office policy was made available for inspection and review. EACH PARTY UNDERSTANDS THAT HE IS A "CUSTOMER" AND IS NOT REPRESENTED BY A BROKERAGE UNLESS THERE IS A SIGNED WRITTEN AGREEMENT FOR AGENCY REPRESENTATION.

37. ASSIGNMENT: This Agreement and any rights or interests created herein ☒ may ☐ may not be sold, transferred, or otherwise assigned.

38. ACCEPTANCE: This offer may be revoked at any time prior to acceptance and is made subject to acceptance on or before (Date) **Aug 14, 2020** at (Local Time in which PROPERTY is located) **5:00** ☐ A.M. ☒ P.M.

BUYER'S Initials (LEL;BD)(_____) Date 08/13/2020 **SELLER'S** Initials (_____)(_____) Date _____

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PROPERTY ADDRESS: Bonanza Bar Ranch Blackfoot, Idaho 83221 ID#: 20820

39. BUYER'S SIGNATURES:

☐ **SEE ATTACHED BUYER'S ADDENDUM(S):** _____ (Specify number of BUYER addendum(s) attached.)

☐ **SEE ATTACHED BUYER'S EXHIBIT(S):** _____ (Specify number of BUYER exhibit(s) attached.)

☐ **BUYER does currently hold an active Idaho real estate license.** ☐ **BUYER is related to agent.**

BUYER Signature LCSC Enterprises, LLC ; Blair Dance **BUYER (Print Name)** LCSC Enterprises, LLC ; Blair Dance

Date 08/13/2020 Time 10:31 AM CDT ☑ A.M. ☐ P.M. Phone # _____ Cell # _____

Address _____ E-Mail blair@dbscpa.net

City _____ State _____ Zip _____ Fax # _____

☐ **BUYER does currently hold an active Idaho real estate license.** ☐ **BUYER is related to agent.**

BUYER Signature _____ **BUYER (Print Name)** _____

Date _____ Time _____ ☐ A.M. ☐ P.M. Phone # _____ Cell # _____

Address _____ E-Mail _____

City _____ State _____ Zip _____ Fax # _____

---

40. SELLER'S SIGNATURES: On this date, I/We hereby approve and accept the transaction set forth in the above Agreement and agree to carry out all the terms thereof on the part of the SELLER.

☐ **SIGNATURE(S) SUBJECT TO ATTACHED COUNTER OFFER**

☐ **SIGNATURE(S) SUBJECT TO ATTACHED ADDENDUM(S) #** _____

☐ **SIGNATURE(S) SUBJECT TO ATTACHED EXHIBIT(S) #** _____

☐ **SELLER does currently hold an active Idaho real estate license.** ☐ **SELLER is related to agent.**

SELLER Signature _____ **SELLER (Print Name)** _____

Date _____ Time _____ ☐ A.M. ☐ P.M. Phone # _____ Cell # _____

Address _____ E-Mail _____

City _____ State _____ Zip _____ Fax # _____

☐ **SELLER does currently hold an active Idaho real estate license.** ☐ **SELLER is related to agent.**

SELLER Signature _____ **SELLER (Print Name)** _____

Date _____ Time _____ ☐ A.M. ☐ P.M. Phone # _____ Cell # _____

Address _____ E-Mail _____

City _____ State _____ Zip _____ Fax # _____

LATE ACCEPTANCE

If acceptance of this offer is received after the time specified, it shall not be binding on the BUYER unless BUYER approves of said acceptance within _____ calendar days (three [3] if left blank) by BUYER initialing HERE (_____)(_____) Date _____. If BUYER timely approves of SELLER's late acceptance, an initialed copy of this page shall be immediately delivered to SELLER.

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SCHEDULE A

Real property in the County of Bingham, State of Idaho, described as follows:

Parcel 1:

Township 1 South, Range 32 E.B.M., Bingham County, Idaho
Section 12: NW1/4, NE1/4SW1/4, S1/2NE1/4, SE1/4, S1/2SW1/4, NW1/4NE1/4

Parcel 2:

An easement for a road for ingress and egress across the North 50 feet of the NE1/4NE1/4 of said Section 12 and the North 50 feet of Government Lot 1, NE1/4NW1/4, NW1/4NE1/4 and that part of the NE1/4NE1/4 to a point on the West boundary of U.S. Hwy 26 of Section 7 Township 1 South, Range 33 E.B.M., Bingham County, Idaho.

Parcel 3:

Township 3 South, Range 31 E.B.M., Bingham County, Idaho
Section 33: SE1/4
Section 34: SW1/4
Excepting and Reserving to the United States all oil and gas.

Together with all water and water rights appurtenant thereto, with "exception" of and reserving unto Grantors, its heirs and assigns, 141.5 acres (566 allowable acre feet of diversion) of water referenced in CREP Contract No. 68, from Water Right No. 35-7448 which Water Right is appurtenant to Parcel 1, and 15.6 acres (62.4 allowable acre feet of diversion) of water referenced in CREP Contract No. 66, from Water Right No. 35-2426 which Water Right is appurtenant to Parcel 3 and the right to continue to maintain said reserved water rights as appurtenant to the land conveyed. By acceptance of this Warranty Deed, Grantee agrees to preserve and continue to appropriate and apply the water reserved by Grantor to beneficial use until transferred by Grantor.

LCSC Enterprises, LLC; Blair Dance

Laurie Babe 8-7-19
Seller / Date

08/13/2020 10:31 AM CDT
Buyer / Date

605452

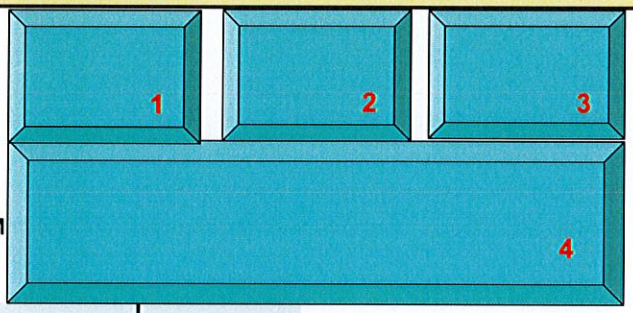
Electronically Signed using eSignOnline™ [Session ID : f9a8aa76-b2af-4588-a592-7a1cd0ca8fd3]

Attachment No. 5
ESPA Analysis and Mitigation Plan

ENHANCED GROUND-WATER RIGHTS T

UNIVERSITY OF IDAHO - IDAHO WATER RESOURCES RESEARCH INSTITU | IDAHO DEP

Cells this color are set up for user entries



ENTER STARTING DATE FOR SIMULATION. THEN PUS
"UPDATE DATES" BUTT

YEAR 1974
SEASON SPRING

TRANSFER NO: 2
TRANSFER NAM
9S,29E-20

[acre-ft]

ENTER CELL LOCATIONS:

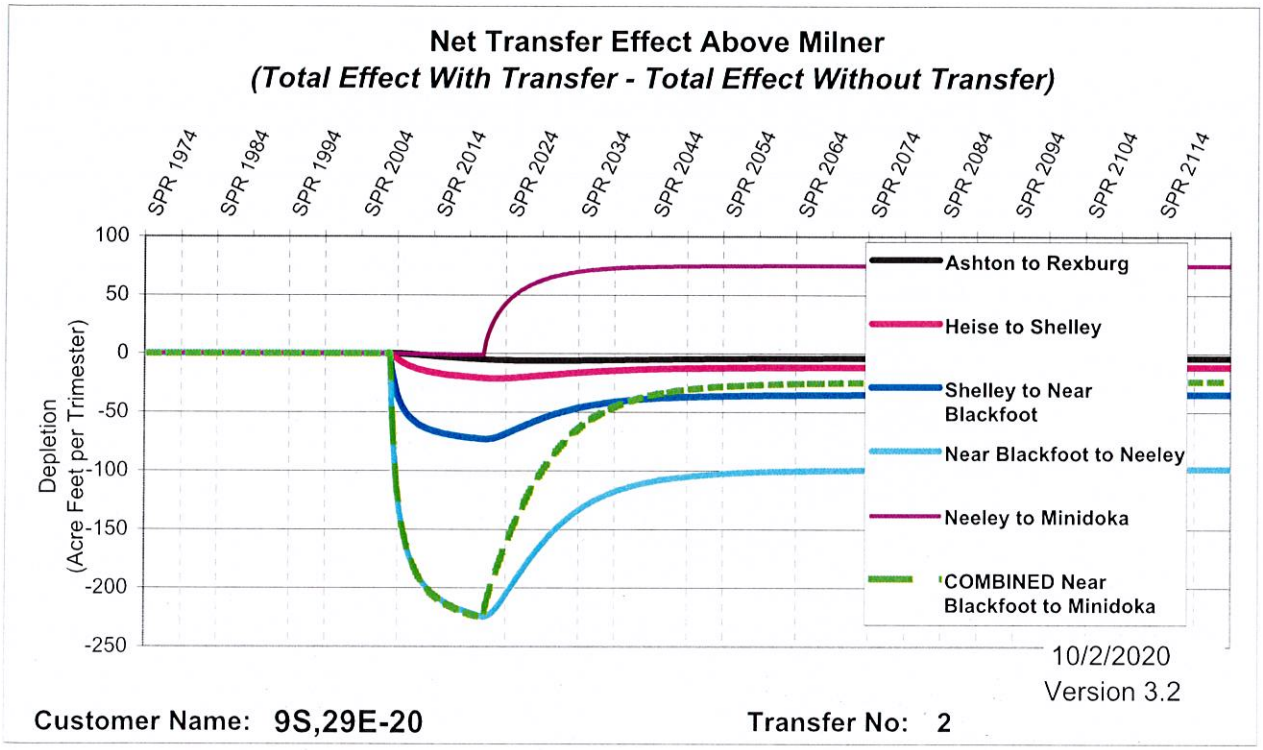
	'TO' CELL	'FROM1' CEL	'FROM2' CEL	'FROM3' CEL
ROW	97	66		
COLUMN	84	128		

35-14041 10/16/1974 1103.6

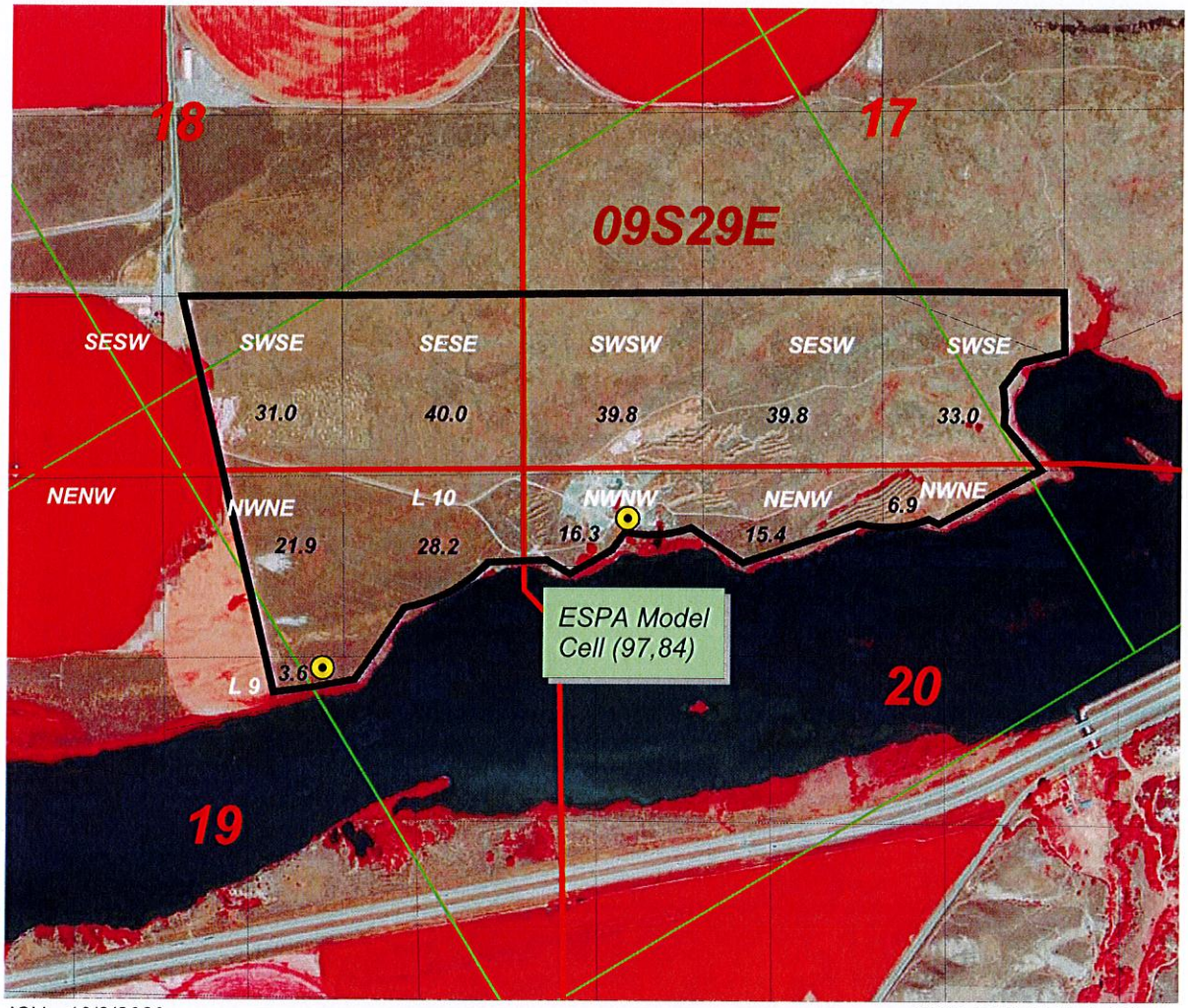
new well 35-14041

Total Transfer: 1103.60

TRIMESTE OF ACTIVITY	TO WELL Projected Use AF/TRIMESTER	FROM1 WELL With Transfer AF/TRIMESTER	FROM1 WELL Without Transf AF/TRIMESTER	FROM2 WELL With Transfer AF/TRIMESTER	FROM2 WELL Without Transf AF/TRIMESTER	FROM3 WELL With Transfer AF/TRIMESTER	FROM3 WELL Without Transfe AF/TRIMESTER
SPR 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 1975	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SUM 1975	0.0	367.9	367.9	0.0	0.0	0.0	0.0
WIN 1975	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SPR 1976	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SPR 2007	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SUM 2007	0.0	367.9	367.9	0.0	0.0	0.0	0.0
WIN 2007	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SPR 2008	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2008	0.0	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2008	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2009	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2020	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2020	0.0	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2020	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2021	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2021	367.9	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2021	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2022	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2122	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2122	367.9	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2122	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2123	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2123	367.9	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2123	367.9	0.0	367.9	0.0	0.0	0.0	0.0


Net Transfer Effect Above Milner
(Total Effect With Transfer - Total Effect Without Transfer)
SPR 1974
SPR 1984
SPR 1994
SPR 2004
SPR 2014
SPR 2024
SPR 2034
SPR 2044
SPR 2054
SPR 2064
SPR 2074
SPR 2084
SPR 2094
SPR 2104
SPR 2114
100
50
0
-50
-100
-150
-200
-250
Depletion
(Acre Feet per Trimester)
Ashton to Rexburg
Heise to Shelley
Shelley to Near Blackfoot
Near Blackfoot to Neeley
Neeley to Minidoka
COMBINED Near Blackfoot to Minidoka
10/2/2020
Version 3.2
Customer Name: 9S,29E-20
Transfer No: 2

Attachment No. 7a
Map



JCH - 10/8/2020

NAIP 2019 IR Aerial Photo

0.25 0 0.25 0.5 Miles

New Well

New Place of Use: 275.9 ac.

N
W E
S

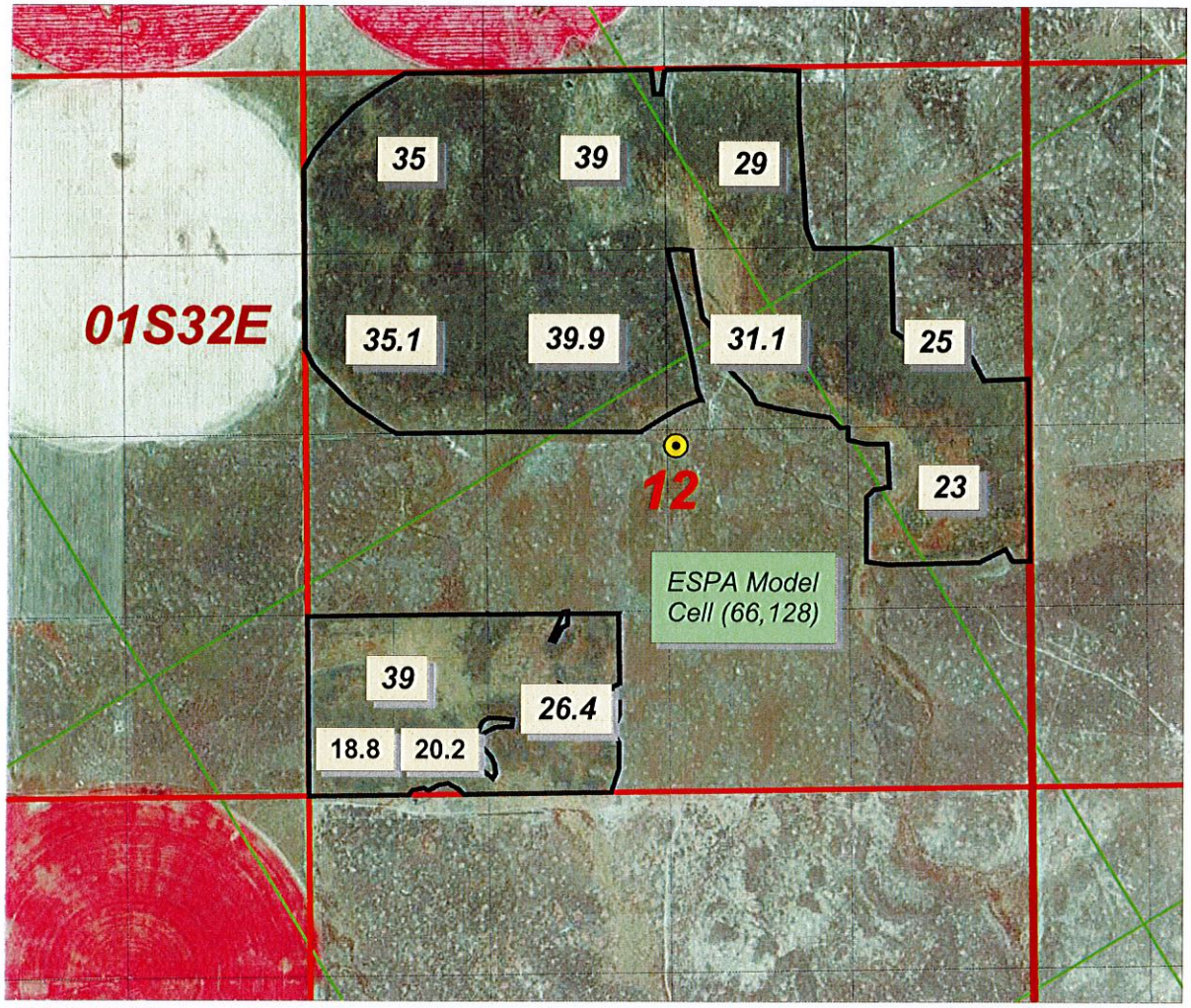
Township & Range
Sections
Power County 40's

ESPA Model Grid

Attachment #7a

Attachment No. 7b
Map (GIS shapefile)

GIS shapefile will be emailed to IDWR agent.



JCH - 9/29/2020

NAIP 2019 Aerial Photo

0.25 0 0.25 0.5 Miles

Existing Well 35-14041

Authorized Irrigation 322.5 ac. (Dry-up)

Township & Range

Sections

Bingham County 40's

ESPA Model Grid

N

W E

S

Attachment #7b

Attachment No. 10
Other

Existing Water Rights

	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Listed Owner
Split	35-14041	10/16/1974	3.18	1290.0	322.5	Bonanza Bar Ranch, LLC
	ESPA Cell (96,83)					
	35-7740	8/15/1977	3.66	1160.0	290.0	LCSC Enterprises, LLC
	35-2824	8/28/1961	0.16	32.7	9.0	LCSC Enterprises, LLC
	TOTAL EXISTING:		7.00	2482.7	621.5	

Transfer #1 (9S,28E ; 9S,29E)

			Rate [cfs]	Vol [afa]	Acres	Action
FROM:	ESPA Cell (66,128)					
	35-14041	10/16/1974	0.46	186.4	46.6	Split, transfer to extg POD, new POU
TO:	ESPA Cell (96,83)					
	35-7740	8/15/1977	3.66	1160.0	290.0	Existing, update POU
	35-2824	8/28/1961	0.16	32.7	9.0	Existing, update POU
	TOTAL SYSTEM 1:		4.28	1379.1	345.6	

Transfer #2 (9S,29E)

			Rate [cfs]	Vol [afa]	Acres	Action
FROM:	ESPA Cell (66,128)					
TO:	ESPA Cell (97,84)					
	35-14041	10/16/1974	2.72	1103.6	275.9	Split, transfer to new POD,POU
	TOTAL SYSTEM 2:		2.72	1103.6	275.9	
	TOTAL SYSTEM 1 & 2		7.00	2482.7	621.5	OK

Water Right Split Worksheet

Attachment #10

JCH - 10/12/2020

Rev. 07/18 RECEIVED

JUL 26 2021

Department of Water Resources
Eastern Region

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. 84490 amended

RECEIVED
Sep 12, 2025
DEPARTMENT OF
WATER RESOURCES

MINIMUM REQUIREMENTS CHECKLIST

TO BE SUBMITTED WITH APPLICATION FOR TRANSFER

An application for transfer must be prepared in accordance with the minimum requirements listed below to be acceptable for processing by the Department. Incomplete applications will be returned. The instructions, fee schedule, Part 2A reports and additional Part 2B forms are available from any Department office or on the Department's website at idwr.idaho.gov.

Name of Applicant(s) LCSC ENTERPRISES LLC

Check whether each item below is *attached* (Yes) or *not applicable* (N/A) for the proposed transfer.

Yes	N/A	
		* Means the item is always required and must be included with the application.
☑	*	Completed Application for Transfer of Water Right form, Part 1.
☑	*	Signature of applicant(s) or applicant's authorized representative on Application for Transfer Part 1. Include evidence of authority labeled Attachment #3 (see below) if signed by representative.
☑	*	Application for Transfer Part 2A. Attach a Part 2A report describing each water right in the transfer as currently recorded.
☑	☐	Complete and attach an Application for Transfer Part 2B for each water right for which only a portion is proposed to be changed through this transfer application.
☑	*	Application for Transfer Part 3A is always required (see Attachment #7a below); Parts 3B and 3C must be completed for transfer applications proposing to change the nature of use of the water right(s) or proposing changes to supplemental right(s).
☑	*	Correct fee submitted with transfer application form. (Fee schedule is on website and instructions for application for transfer.)

Attachments to Application - Label each attachment with the corresponding number shown below as Attachment #1-10.

☐	☑	#1 If the applicant is a business, partnership, organization, or association, and not currently registered in the State of Idaho as a business entity, attach documentation identifying officers authorized to sign or act on behalf of right holder. (See Part 1.)
☑	☐	#2a Water Right ownership documentation if Dept. records do not show the applicant as the current water right owner. **
☑	☐	#2b If the ownership of the water right will change as a result of the proposed transfer to a new place of use, attach documentation showing land and water right ownership at the new place of use. Include documentation for all affected land and owner(s).** ** Additional fee(s) required for water right ownership changes; see fee schedule.
☑	☐	#3 Documentation of authority to make the change if the applicant is not the water right owner.
☑	☐	#4 Power of Attorney or documentation providing authority to sign or act on the applicant's behalf. (See Part 1.)
☑	☐	#5 If the transfer application proposes to change the point of diversion for a water right affecting the Eastern Snake Plain Aquifer (ESPA), attach the results of an ESPA analysis and a detailed mitigation plan to offset any depletions to hydraulically connected reaches of the Snake River. ESPA transfer spreadsheet and model grid labeled cells are available on the Department's website at idwr.idaho.gov/water-rights/transfers/resources.html.
☑	☐	#6 Notarized statement of agreement or a statement on official letterhead signed by an authorized representative from each lien holder or other entity with financial interest in the water right(s) or land affected by the proposed transfer. (See Part 1.5.c.)
☑	*	#7a Attach a map identifying the proposed point(s) of diversion, place(s) of use, and water diversion and distribution system details as described on the application. Include legal description labels. If only a portion of the right is proposed to be changed, identify the current location of the part of the existing right(s) proposed to be changed. (See Part 3A.)
☑	☐	#7b If the transfer application proposes to change the place or purpose of use of an irrigation right attach a Geographic Information System (GIS) shape file, or an aerial photo or other image clearly delineating the location and extent of existing acres and changes to the place of use. If some or all of any right is leased to the Water Supply Bank, you must also show the the specific location and/or acres to be idled at the new, proposed place of use to satisfy lease requirements.
☐	☑	#8a If the transfer application proposes to change the nature of use or period of use for one or more rights, provide documentation describing the extent of historic beneficial use for the water rights proposed to be transferred and document how enlargement will be avoided. (See Part 3B.) Additional fee required for proposed changes to nature of use; see fee schedule.
☐	☑	#8b If the transfer application proposes to change the place of use of a supplemental irrigation right, provide documentation regarding the historic use of the supplemental right(s) and availability or reliability of the primary right(s) being supplemented, both before and after the proposed change. (See Part 3C.)
☐	☑	#9 Water Supply Bank information for all rights proposed for transfer and currently leased to the Bank. (Attachment WSB)
☑	☐	#10 Other. Please describe: Attached water right split worksheet. This is transfer #2 of 2 (can be processed separately)

Rev. 07/18

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1

Name of Applicant(s) LCSC ENTERPRISES LLC Phone (972) 989-7330

Mailing address 433 LAS COLINAS BLVD E STE 1290 IRVING, TX 75039-5058 Email

☐ If applicant is not an individual and not registered to do business in the State of Idaho, attach documentation identifying officers authorized to sign or act on behalf of the applicant. Label it **Attachment #1**.

☐ Attach water right ownership documentation if Department records do not show the transfer applicant as the current water right owner. Label it **Attachment #2a**.

☐ If the ownership of the water right will change as a result of the proposed transfer to a new place of use, attach documentation showing land and water right ownership at the new place of use. Include documentation for all affected land and owner(s). Label it **Attachment #2b**.

☑ Attach documentation of authority to make the proposed change if the applicant is not the water right owner. Label it **Attachment #3**.

Provide contact information below if a consultant, attorney, or any other person is representing the applicant in this transfer process.

☐ No Representative

Name of Representative Robert L. Harris (Holden, Kidwell, Hahn & Crapo, PLLC) Phone (208) 523-0620

Mailing address 1000 Riverwalk Drive, Suite 200 Email rharris@holdenlegal.com

☐ 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.

☐ 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 providing authority to sign for the applicant and label it **Attachment #4**.

I hereby assert that no one will be injured by the proposed changes and that the proposed changes do not constitute an enlargement in use of the original right(s). 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 or Authorized Representative	Print Name and Title if applicable	Date
Robert L. Harris	Robert L. Harris, Attorney	7/26/2021

A. PURPOSE OF TRANSFER

1. ☑ Change point of diversion ☐ Add diversion point(s) ☑ Change place of use
   ☐ Change nature of use ☐ Change period of use ☐ Other

2. Is this a transfer for changes pursuant to Idaho Code § 42-221.O.8?
   If yes, ☐ attach an explanation and any supporting documentation labeled as **Part1A.2**.

3. Describe your proposal in narrative form, including a detailed description of non-irrigation uses to justify amounts transferred (i.e. number of stock, etc.), and provide additional explanation of any other items on the application. Attach additional pages if necessary and label it **Part 1A.3**.
   Transfer the remainder of primary ground water right 35-14041 for use from a new well. Combination of Near Blackfoot-Neeley and Neeley-Minidoka reaches of the ESPA appear off-setting similar to recently approved transfers 83288, 83315.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1 Continued

B. DESCRIPTION OF RIGHTS AFTER THE REQUESTED CHANGES. IF THE RIGHTS ARE BEING SPLIT, DESCRIBE PORTIONS TO BE CHANGED AS THEY WOULD APPEAR AFTER THE REQUESTED CHANGES.

1.	All or Part	Right Number	Amount (cfs/ac-ft)	Nature of Use	Period of Use	Source & Tributary
	☐ ☑	35-14041	2.72 / 1,103.6	Irrigation	04/01 to 11/01	Ground Water (ESPA)
	☐ ☐				to	
	☐ ☐				to	
	☐ ☐				to	
	☐ ☐				to	
	☐ ☐				to	
	☐ ☐				to	
	☐ ☐				to	
	☐ ☐				to	

Total authorized under rights 2.72 cfs and/or 1,103.6 acre-feet.

2. Total amount of water proposed to be transferred or changed 2.72 cubic feet per second and/or 1,103.6 acre-feet per year.

3. Point(s) of Diversion:

☐ No changes to point(s) of diversion are proposed - the following chart is therefore not completed. (Proceed to #4.)
☑ Attach Eastern Snake Plain Aquifer analysis if this transfer proposes to change a point of diversion affecting the ESPA. Label it **Attachment #5**.

New ?	Lot	¼	¼	¼	Sec	Twp	Rge	County	Source	Local name or tag #
new		NW	SE	SW	17	09S	29E	Power	Ground Water	new well
new		SW	SE	SE	18	09S	29E	Power	Ground Water	new well

4. Place of use: (If irrigation, identify with number of acres irrigated per ¼ ¼ tract.)

☐ No changes to place of use are proposed - the following chart is therefore not completed. (Proceed to #5.)

Twp	Rge	Sec	NE ¼				NW ¼				SW ¼				SE ¼				Acre Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
09S	29E	17											39.8	39.8			33		112.6
		18															31	40	71
		19	28.2	21.9	3.6														53.7
			lot10		lot9														
		20		6.9			15.4	16.3											38.6

Total Acres (for irrigation use) 275.9

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1 Continued

5. General Information:

a. Describe the complete diversion system, including how you will accommodate a measuring device and lockable controlling works should they be required now or in the future:
Each new well and pump with approved measuring device and lockable control will be installed with annual diversions reported.

b. Who owns the property at the point(s) of diversion? Applicant
If other than the applicant, describe the arrangement enabling the applicant to access the property for the diversion system:

c. Are the lands from which you propose to transfer the water right subject to any liens, deeds of trust, mortgages, or contracts?
If yes, ☑ attach a notarized statement from the holder of the lien, deed of trust, mortgage or contract agreeing to the proposed changes on official letterhead signed by an authorized representative. Label it **Attachment #6.** List the name of the entity and type of lien: See attached contract allowing transfer of 35-14041.

It is the applicant's responsibility to provide notice to lien holder, trustee, mortgagor, or contract holder of the proposed changes that may impact or change the value of the water rights or affected real property. Any misrepresentation of legal encumbrance on this application may result in rejection of the application or cancellation of an approval.

d. Are any of the water rights proposed for transfer currently leased to the Water Supply Bank?
If yes, ☐ complete Attachment WSB.

e. Describe the effect on the land now irrigated if the place or purpose of use is changed pursuant to this transfer:
Land will not be irrigated at the existing place of use to offset use of the water right at the new place of use.

f. Describe the use of any other water right(s) for the same purpose or land, or the same diversion system as right(s) proposed to be transferred at both the existing and proposed point(s) of diversion and place(s) use:
Water right 35-14040 also associated with the existing point of diversion is unchanged.

g. To your knowledge, has/is any portion of the water right(s) proposed to be changed:

Yes	No	
☑	☐	undergone a period of five or more consecutive years of non-use,
☐	☑	currently leased to the Water Supply Bank,
☐	☑	currently used in a mitigation plan limiting the use of water under the right, or
☑	☐	currently enrolled in a Federal set-aside program limiting the use of water under the rights?

If yes, describe:
35-14041 CRP contract began in 2007 and ends in 2021.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 2

A. DESCRIPTION OF RIGHT(S) AS RECORDED

For each water right listed in Part 1B.1 of the application, attach a **Part 2A** report obtained from any Department office or from the Department's website @ idwr.idaho.gov, Water Right Transfers, Step 1.
Insert Part 2A reports into the application following Part 1.

B. IF ONLY A PORTION OF THE RIGHT IS PROPOSED TO BE CHANGED, DESCRIBE THE PORTION BEING CHANGED AS IT APPEARS BEFORE THE REQUESTED CHANGES

☑ Complete and attach one copy of Part 2B for each right for which only a portion is proposed to be changed. If the entire right is proposed to be changed, Part 2B is not applicable. Additional copies of the **Part 2B** form can be obtained from any Department office or from the Department's website @ idwr.idaho.gov, Water Right Transfers, Step 3, or Water Right Forms, Changes in Use. Insert completed Part 2B forms into the application following Part 2A of the same water right.

Right Number: 35-14041

1. amount 2.72 / 1,103.6 (cfs/ac-ft) for Irrigation purposes from 04/01 to 11/01
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______
   amount ______ (cfs/ac-ft) for ______ purposes from ______ to ______

2. Lands irrigated or place of use: (If irrigation, identify with number of acres irrigated per ¼ ¼ tract.)

Twp	Rge	Sec	NE ¼				NW ¼				SW ¼				SE ¼				Acre Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
01S	32E	12		29	31.1	25	39	35	35.1	39.9			18.8		23				275.9

Total Acres (for irrigation use) 275.9

Rev. 07/18

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 3

A. PLAT MAP (See Part 3A of Instructions for application for transfer for complete requirements.)

☑ Attach a map of the diversion, measurement, control, and distribution system. Label it **Attachment #7a**.
☑ If the transfer application proposes to change the place or purpose of use of an irrigation right attach a Geographic Information System (GIS) shape file, or an aerial photo or other image clearly delineating the location and extent of existing acres and changes to the place of use. Label it **Attachment #7b.**

If the place of use currently consists of a permissible place of use, then the attachment is not required if the application contains a clear statement that the boundaries for the place of use are not proposed to be changed by the transfer and the total number of irrigated acres within the place of use before and after the transfer is clearly stated.

If any part of the irrigation water right is leased to the Water Supply Bank, you must also specify the location and number of acres that will remain idled for the duration of the lease contract at the new, proposed place of use.

B. CHANGES IN NATURE OF USE (Water Balance)

☐ If you propose to change the nature of use or period of use of all or part of the rights(s) listed in this application, attach documentation describing the extent of historic beneficial use of the portion of the right(s) proposed to be changed. Also attach documentation showing that the portion of the right(s) to be changed will not be enlarged in rate, volume, or consumptive use through the proposed change. Label it **Attachment #8a**.

C. PLACE OF USE CHANGES TO SUPPLEMENTAL IRRIGATION RIGHTS

☐ If you propose to change the place of use of a supplemental irrigation right, answer below and attach supporting documentation. Label it **Attachment #8b**.

Describe how the supplemental water rights have been used historically in conjunction with other water rights at the existing place of use. Describe the time during the irrigation season that the supplemental rights have been used. Include information about the availability or reliability of the primary right(s) being supplemented, both before and after the change. If the applicant is proposing to change a supplemental irrigation right to a primary right, provide the information required on Part 3B above:

FOR DEPARTMENT USE ONLY

Transfer contains _____ pages and _____ attachments.

Received by _____ Date _____ Preliminary check by _____ Date _____

Fee paid $50.00 Date 7/26/21 Receipted by CH Receipt # E047213

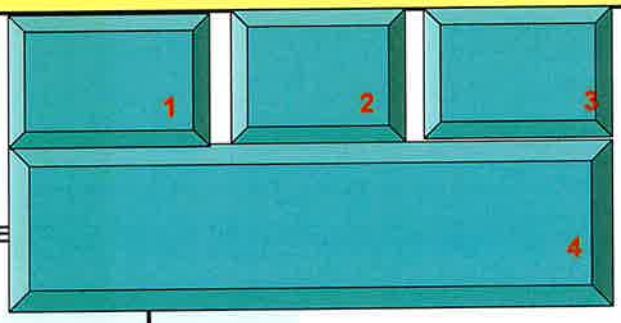
Add'l fee paid _____ Date _____ Receipted by _____ Receipt # _____

Check all that apply: Attachment WSB ☐ (copy sent to state office) Lessor Designation form ☐ &/or W-9 ☐ (originals to state office)

ENHANCED GROUND-WATER RIGHTS TI

UNIVERSITY OF IDAHO - IDAHO WATER RESOURCES RESEARCH INSTI IDAHO DEP

Cells this color are set up for user entries



ENTER STARTING DATE FOR SIMULATION. THEN P "UPDATE DATES" BU

YEAR 1974

SEASON SPRING

TRANSFER NO: 84490

TRANSFER NAME 9S,29E-17,18

ENTER CELL LOCATIONS:

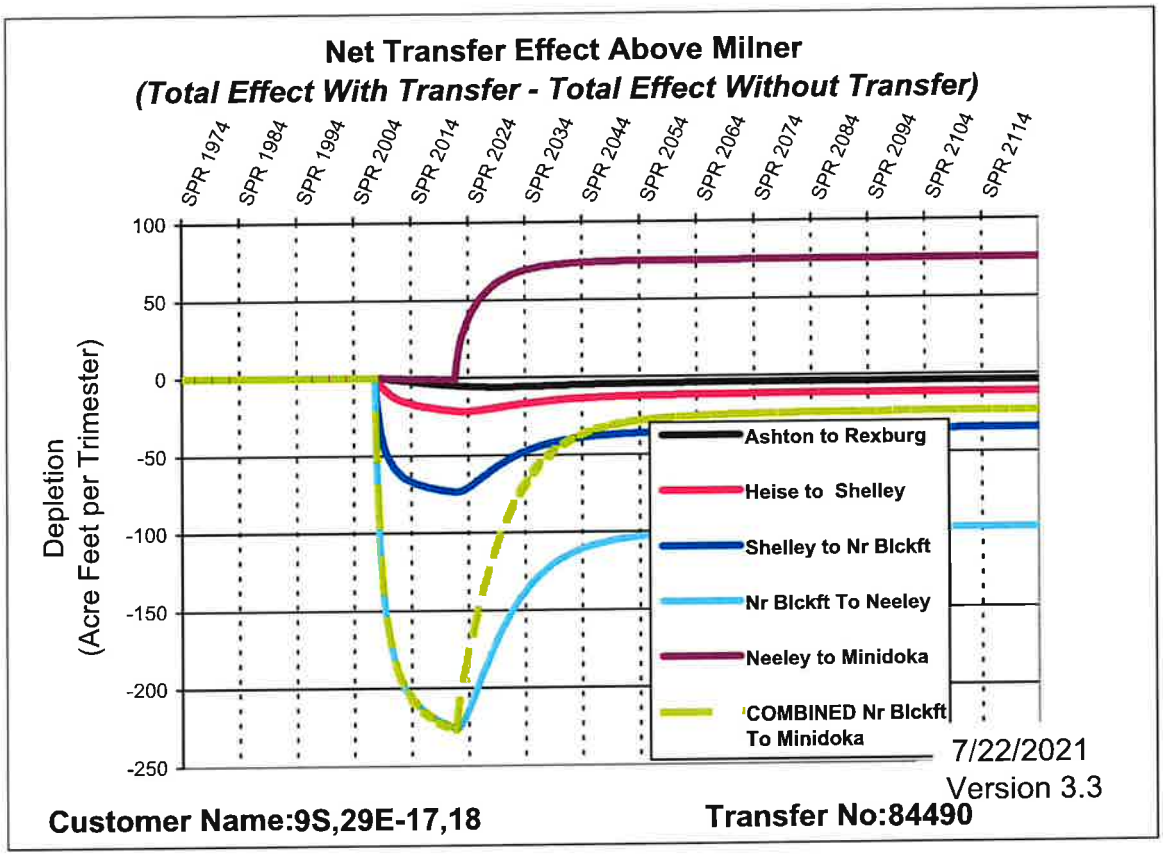
	'TO' CELL	'FROM1' CELL	'FROM2' CELL	'FROM3' CEI
ROW	97	66		
COLUMN	84	128		

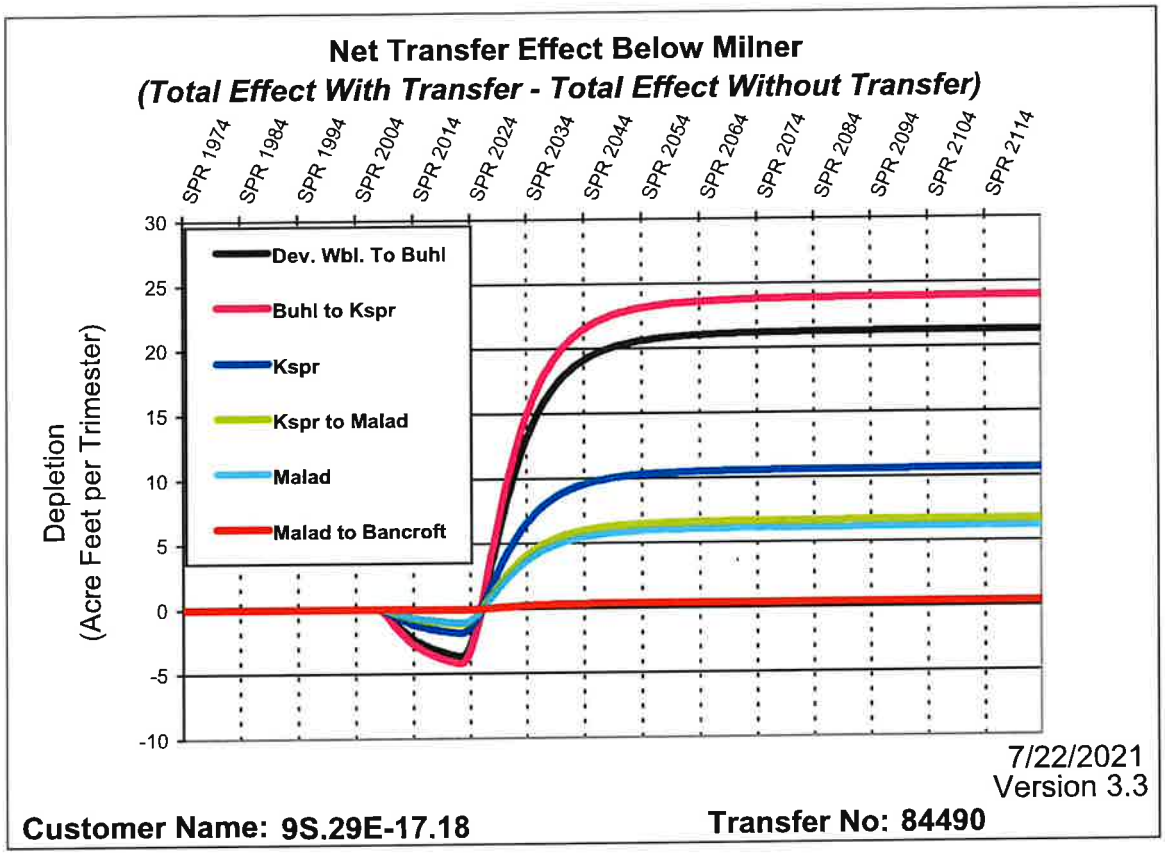
35-14041 10/16/1974 1103.6

new well 35-14041

Total transfer: 1103.6

TRIMESTER OF ACTIVITY	TO WELL Projected Use AF/TRIMESTER	FROM1 WELL With Transfer AF/TRIMESTER	FROM1 WELL Without Transfe AF/TRIMESTER	FROM2 WELL With Transfer AF/TRIMESTER	FROM2 WELL Without Transfe AF/TRIMESTER	FROM3 WELL With Transfe AF/TRIMESTER	FROM3 WELL Without Transfe AF/TRIMESTER
SPR 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 1975	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SUM 1975	0.0	367.9	367.9	0.0	0.0	0.0	0.0
WIN 1975	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SPR 1976	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SPR 2007	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SUM 2007	0.0	367.9	367.9	0.0	0.0	0.0	0.0
WIN 2007	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SPR 2008	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2008	0.0	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2008	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2009	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2021	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2021	0.0	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2021	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2022	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2022	367.9	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2022	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2023	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2122	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2122	367.9	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2122	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2123	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2123	367.9	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2123	367.9	0.0	367.9	0.0	0.0	0.0	0.0


Net Transfer Effect Above Milner
(Total Effect With Transfer - Total Effect Without Transfer)
SPR 1974
SPR 1984
SPR 1994
SPR 2004
SPR 2014
SPR 2024
SPR 2034
SPR 2044
SPR 2054
SPR 2064
SPR 2074
SPR 2084
SPR 2094
SPR 2104
SPR 2114
100
50
0
-50
-100
-150
-200
-250
Depletion
(Acre Feet per Trimester)
Ashton to Rexburg
Heise to Shelley
Shelley to Nr Blckft
Nr Blckft To Neeley
Neeley to Minidoka
COMBINED Nr Blckft To Minidoka
7/22/2021
Version 3.3
Customer Name:9S,29E-17,18
Transfer No:84490


Net Transfer Effect Below Milner
(Total Effect With Transfer - Total Effect Without Transfer)
SPR 1974
SPR 1984
SPR 1994
SPR 2004
SPR 2014
SPR 2024
SPR 2034
SPR 2044
SPR 2054
SPR 2064
SPR 2074
SPR 2084
SPR 2094
SPR 2104
SPR 2114
30
25
20
15
10
5
0
-5
-10
Depletion
(Acre Feet per Trimester)
Dev. Wbl. To Buhl
Buhl to Kspr
Kspr
Kspr to Malad
Malad
Malad to Bancroft
7/22/2021
Version 3.3
Customer Name: 9S.29E-17.18
Transfer No: 84490

One-Way Analysis of Independent Transfers

New Water Right:

WR No.	Div. Rate (CFS)	Con. Vol. (AFA)	No. of Irr. Acres	Priority Date	POD Location	Dedicated Vol. AFA/ AFT	Model Node
Transfer 1: Proposed Steady State Impacts following Transfer							
Refer to Transfer Application							
Transfer 1: Worst Case Transient State Impacts following Transfer							

	Impact by Reach (AF/Trimester)										
	Ashton to Rexburg	Heise to Shelley	Shelley to Nr Blckft	Nr Blckft To Neeley	Neeley to Minidoka	Dev. Wbl. To Buhl	Buhl to Kspr	Kspr	Kspr to Malad	Malad	Malad to Bancroft
Pre-SS	8.52	25.64	78.01	238.47	1.42	4.51	5.13	2.28	1.44	1.31	0.08
Post-SS	4.82	14.29	43.14	139.91	76.38	25.82	29.07	12.91	8.14	7.45	0.46
Pre-TS	8.52	25.64	78.01	238.47	1.42	4.51	5.13	2.28	1.44	1.31	0.08
Post-TS	4.82	14.29	43.14	139.91	76.38	25.82	29.07	12.91	8.14	7.45	0.46
Steady State Analysis											
Mitigation Check 1 - >10% of Historical:	-43.4%	-44.3%	-44.7%	-41.3%	5287.6%	472.5%	467.0%	466.9%	466.9%	466.7%	466.6%
Mitigation Check 2: > 2 AF/T:	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
Mitigation Check 3 - >10% of Total:	1.3%	3.9%	11.9%	38.6%	21.1%	7.1%	8.0%	3.6%	2.2%	2.1%	0.1%
Mitigation Required?:	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
Mitigation Vol. Req'd (ac-ft):	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
Transient State Analysis											
Mitigation Check 1 - >10% of Historical:	-43.4%	-44.3%	-44.7%	-41.3%	5287.6%	472.5%	467.0%	466.9%	466.9%	466.7%	466.6%
Mitigation Check 2: > 2.01 AF/T:	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
Mitigation Required?:	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO
Mitigation Vol. Req'd (ac-ft):	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4

Read Me

Modeling Explanation

Modeling performed with Transfer Tool version 3.3. Mitigation is not required for Snake River reaches above Milner because of combination of Near Blackfoot to Neeley and Neeley to Minidoka reaches consistent with IDWR practice.

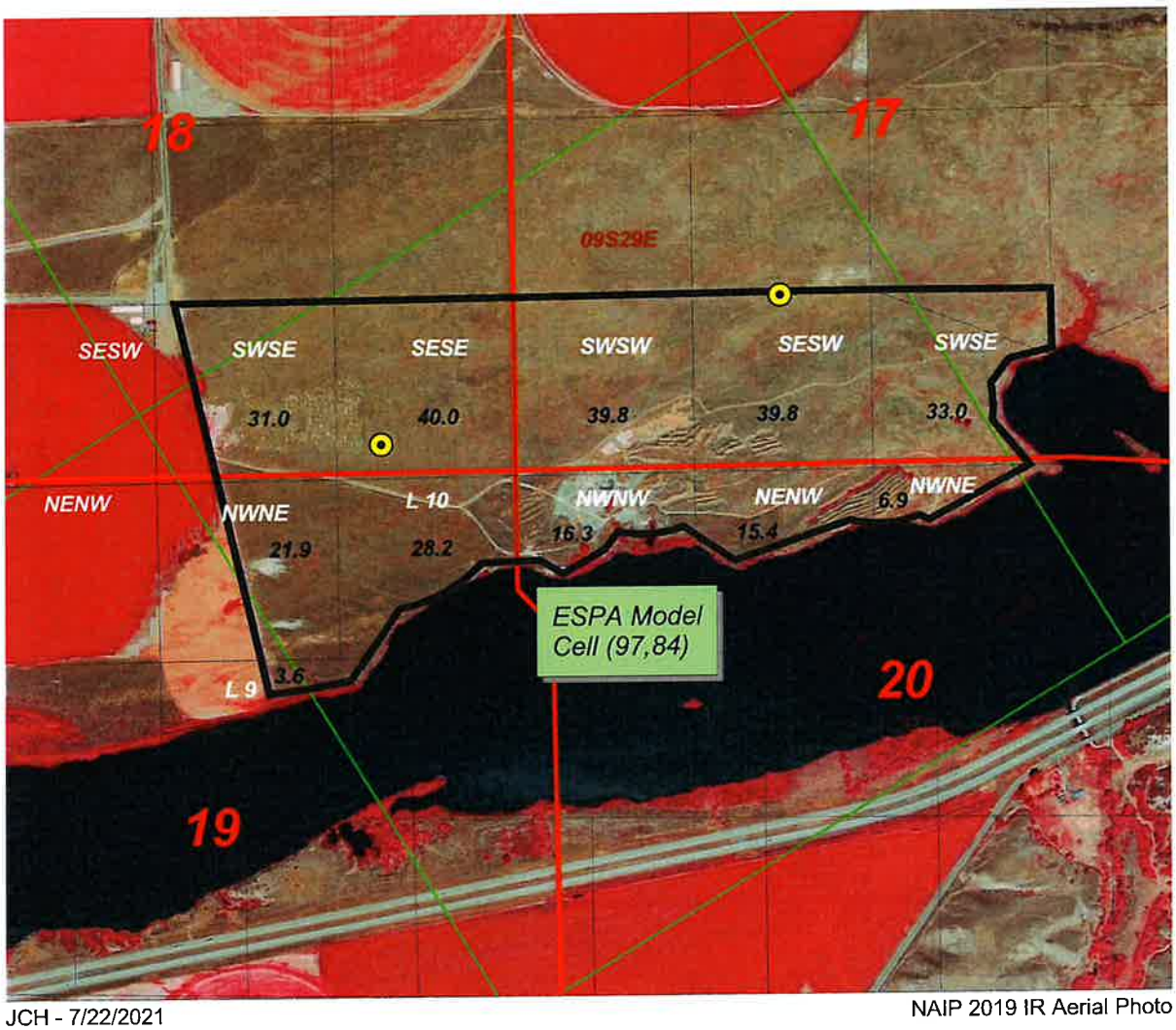
Further, mitigation is not required for Snake River reaches below Milner because under written IDWR policy, mitigation is not required (transient or steady state) when the river reach is impacted less than 10% of the total diversion volume. *Administrator's Memorandum, Transfer Processing No. 24, Transfer Processing Policies and Procedures*, December 21, 2009, at 13, 25:

> Increased depletions greater than 10% in any reach are considered insignificant under either of the following conditions and will not require mitigation for the proposed transfer to be approvable:
>
> a. Increased depletions (transient to steady-state) to the reach are two acre-feet or less per trimester; or
>
> b. The reach, at steady-state conditions, will not be depleted by an amount greater than 10% of the total depletion to all reaches caused by the diversion under the proposed transfer.[6]
>
> [6] This exclusion from the mitigation requirement is consistent with the Department standard in various delivery calls against ground water users diverting water from the ESPA that establishes a minimum percentage of 10% below which ground water users are not required to mitigate or replace simulated depletions to the reach.

Id. at 13.

> For applications that propose to move the point of diversion for a water right to divert and use ground water from one location to another within the ESPA, including any modeled tributary aquifers, mitigation is required for transfer approval when all of the following conditions occur: (a) the transfer would result in increased depletions (transient or steady state) greater than 10%, to any hydraulically-connected reach of the Snake River; (b) the increased depletion (transient or steady state) to the reach is greater than 2 acre-feet per trimester; and (c) the depletion, at steady-state conditions, to the reach is greater than 10% of the total depletion to all reaches resulting from the diversion under the proposed transfer. When greater increases in such depletions would

Id. at 25.



JCH - 7/22/2021

NAIP 2019 IR Aerial Photo

0.25 0 0.25 0.5 Miles

New Well Locations

New Place of Use: 275.9 ac.

N
W E
S

Township & Range
Sections
Power County 40's

ESPA Model Grid

Attachment #7a (Amended)

Existing Water Rights

	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Listed Owner
Split	35-14041	10/16/1974	3.18	1290.0	322.5	Bonanza Bar Ranch, LLC
	ESPA Cell (96,83)					
	35-7740	8/15/1977	3.66	1160.0	290.0	LCSC Enterprises, LLC
	35-2824	8/28/1961	0.16	32.7	9.0	LCSC Enterprises, LLC
	TOTAL EXISTING:		7.00	2482.7	621.5	

Transfer #1 (9S,28E ; 9S,29E)

FROM:	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Action
	35-14041	10/16/1974	0.46	186.4	46.6	Split, transfer to extg POD, new POU
TO:	ESPA Cell (96,83)					
	35-7740	8/15/1977	3.66	1160.0	290.0	Existing, update POU
	35-2824	8/28/1961	0.16	32.7	9.0	Existing, update POU
	TOTAL SYSTEM 1:		4.28	1379.1	345.6	

Transfer #2 (9S,29E)

FROM:	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Action
TO:	ESPA Cell (97,84)					
	35-14041	10/16/1974	2.72	1103.6	275.9	Split, transfer to new POD,POU
	TOTAL SYSTEM 2:		2.72	1103.6	275.9	
	TOTAL SYSTEM 1 & 2		7.00	2482.7	621.5	OK

Water Right Split Worksheet

Attachment #10

JCH - 7/22/2021

State of Idaho
DEPARTMENT OF WATER RESOURCES
EASTERN Region • 900 N SKYLINE DR STE A • IDAHO FALLS, ID 83402-1718
Phone: (208)525-7161 • Fax: (208)525-7177 • Website: www.idwr.idaho.gov

Brad Little
Governor

Gary Spackman
Director

July 28, 2021

LCSC ENTERPRISES LLC
433 LAS COLINAS BLVD E STE 1290
IRVING, TX 75039-5058

RE: Amended Transfer No. 84490
Water Right No. 35-14041

Dear Applicant:

The Department of Water Resources has received your amended water right transfer application.

A legal notice of the amended application has been prepared and is scheduled for publication in the POWER COUNTY PRESS on 8/4/2021 and 8/11/2021. Protests to this application may be submitted for a period ending ten (10) days after the second publication.

If the application is protested, you will be sent a copy of each protest. All protests must be resolved before the application can be considered for approval. If the protest(s) cannot be resolved voluntarily, the Department will conduct a conference and/or hearing on the matter.

If the application is not protested, the Department will process your application and notify you of any action taken on the application. If your application is approved, the Department will send you a copy of the approval document.

Please contact this office if you have any questions regarding the application.

Sincerely,

Christina Henman
Administrative Assistant

CC:
ROBERT L HARRIS
C/O HOLDEN KIDWELL HAHN & CRAPO
PO BOX 50130
IDAHO FALLS, ID 83405-0130

Henman, Christina

From: Henman, Christina
Sent: Wednesday, July 28, 2021 11:35 AM
To: 'press1@press-times.com'
Subject: Legal Notice for Power County Press
Attachments: 84490 Power County Press.docx

LEGAL NOTICE DEPARTMENT
POWER COUNTY PRESS
PO BOX 547
AMERICAN FALLS, ID 83211

RE: Transfer No. 84490
Water Right No(s). 35-14041

Dear Legal Notice Department:

Please publish the enclosed legal notice on the dates indicated (once a week for two consecutive weekly issues). If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Please send the affidavit and bill to this office before 8/23/2021. Your cooperation is appreciated.

Sincerely,

Thank You,

Christina Henman
Administrative Assistant
Idaho Dept. of Water Resources, Eastern Region
900 N Skyline Ste. A
Idaho Falls, ID 83402
Phone: (208) 497-3793

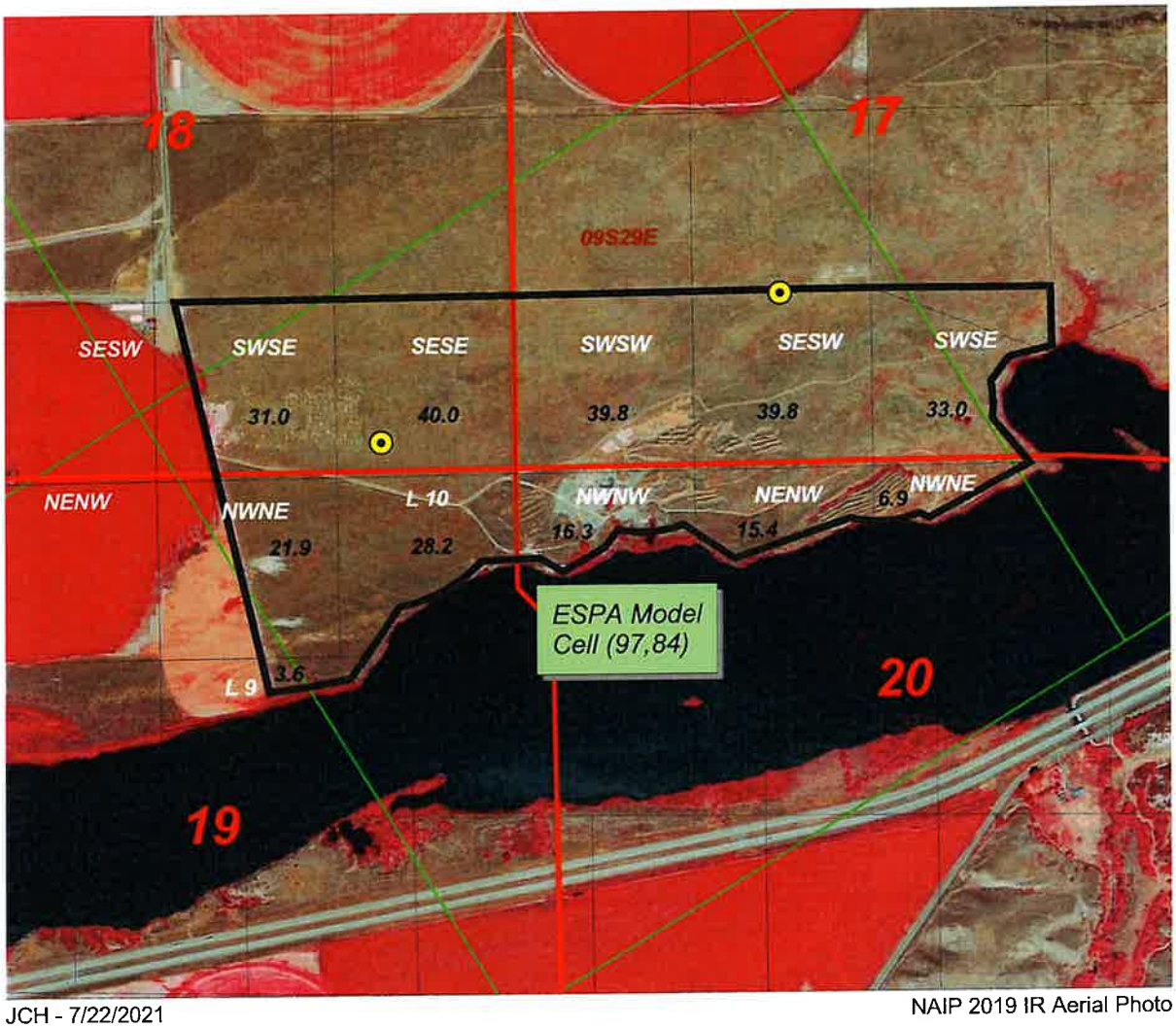
NOTICE OF AMENDMENT OF PROPOSED CHANGE OF WATER RIGHT
TRANSFER NO. 84490

LCSC ENTERPRISES LLC, 433 LAS COLINAS BLVD E STE 1290, IRVING, TX 75039-5058 has filed Amended Application No. 84490 for changes to the following water rights within POWER County(s): Right No(s). 35-14041; to see a full description of these rights and the proposed transfer, please see https://research.idwr.idaho.gov/apps/waterrights/querynewtransfers. The purpose of the transfer is to change a portion of the above rights as follows: change point of diversion, add point of diversion, and change place of use. The proposed points of diversion are in NWSESW Sec 17 and SWSESE Sec 18, T09S R29E for 2.72 cfs from Ground water. The proposed place of use is in Sec 17, 18, 19, and 20, T09S R29E for 275.9 acres.

For additional information concerning the property location, contact Eastern Region office at (208)525-7161. Protests may be submitted based on the criteria of Idaho Code Sec. 42-222. Any protest against the proposed change must be filed with the Department of Water Resources, Eastern Region, 900 N SKYLINE DR STE A, IDAHO FALLS ID 83402-1718 together with a protest fee of $25.00 for each application on or before 8/23/2021. The protestant must also send a copy of the protest to the applicant.

GARY SPACKMAN, Director Published on 8/4/2021 and 8/11/2021

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JCH - 7/22/2021

NAIP 2019 IR Aerial Photo

0.25 0 0.25 0.5 Miles

New Well Locations

New Place of Use: 275.9 ac.

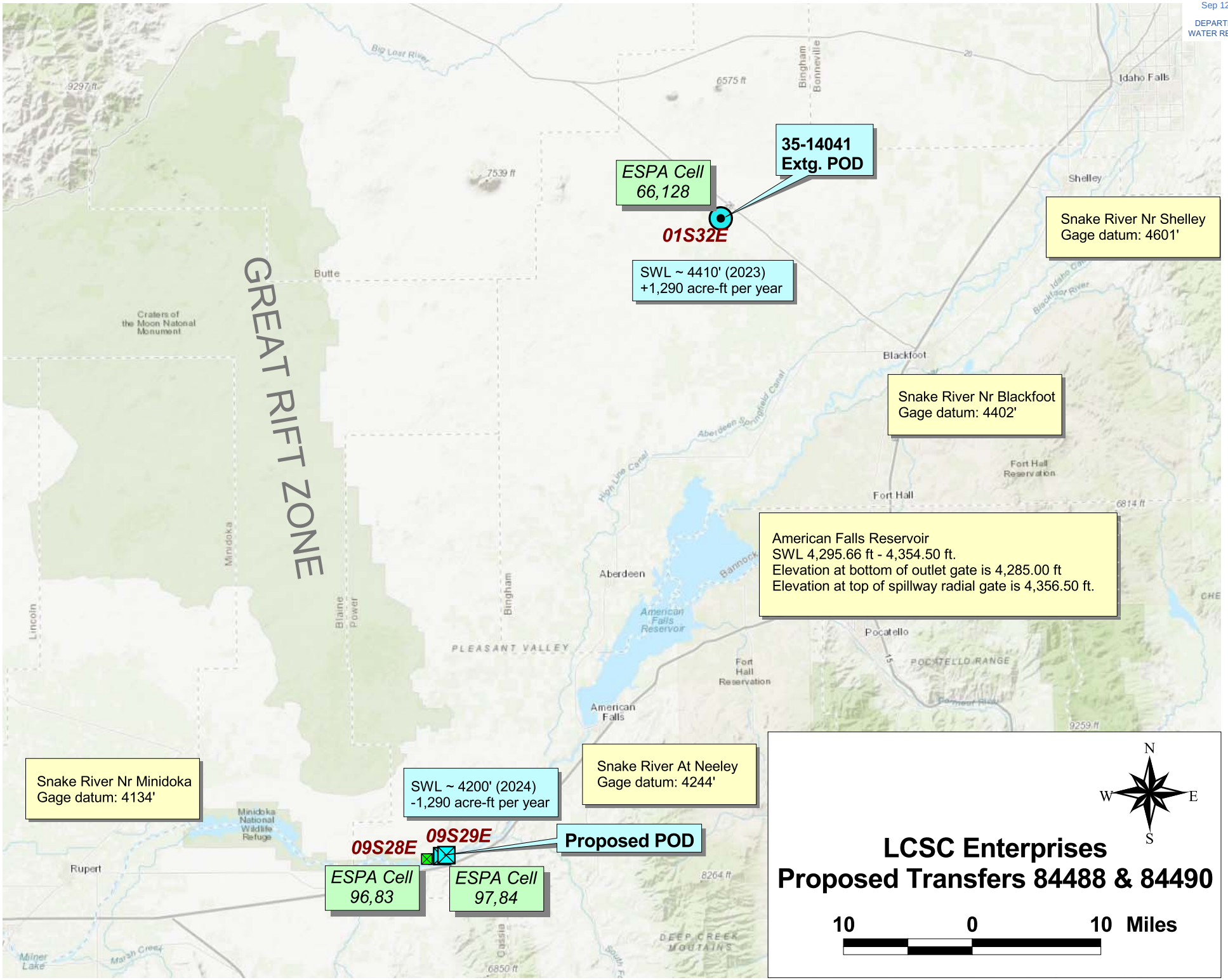
N
W E
S

Township & Range
Sections
Power County 40's

ESPA Model Grid

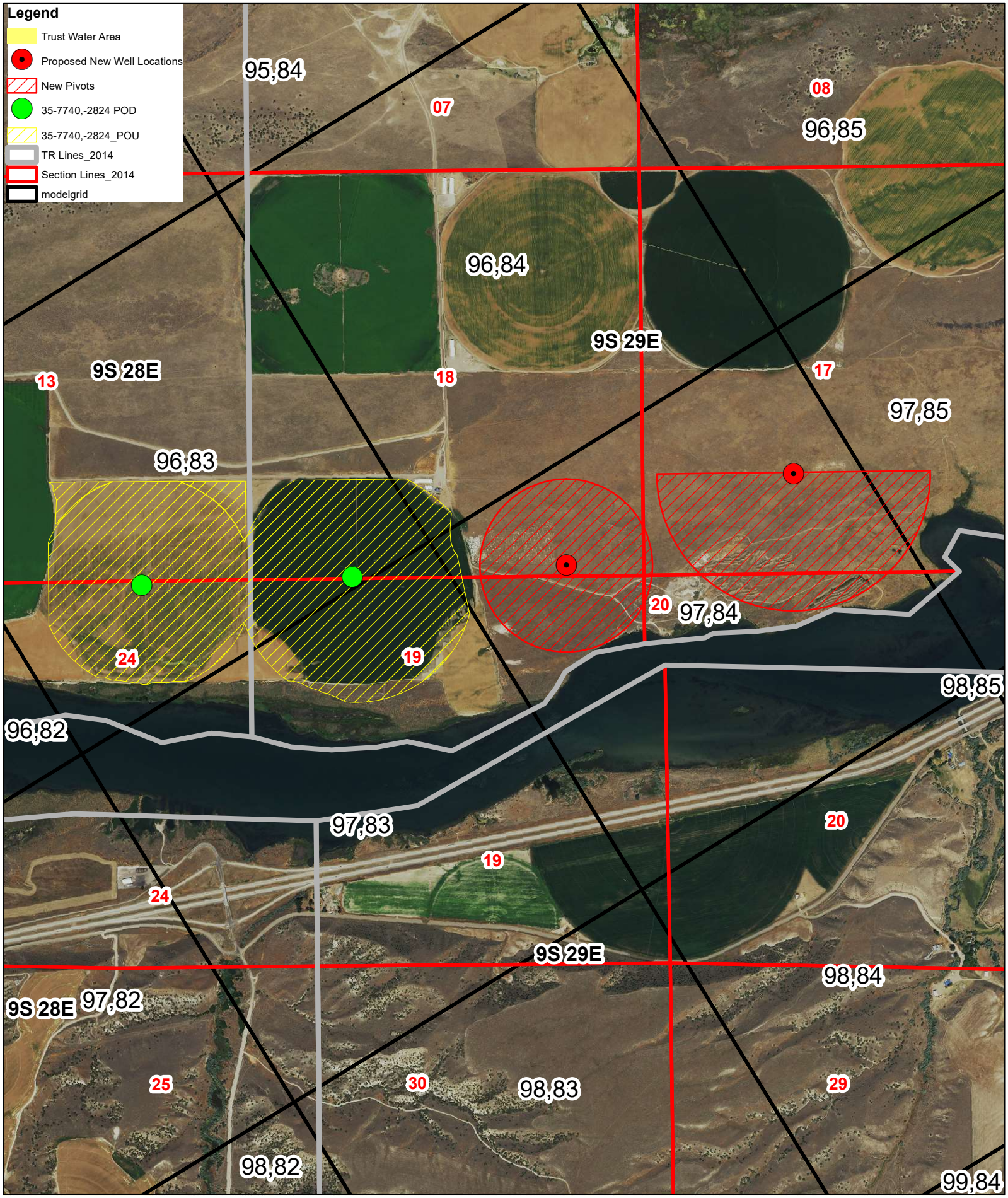
Attachment #7a (Amended)

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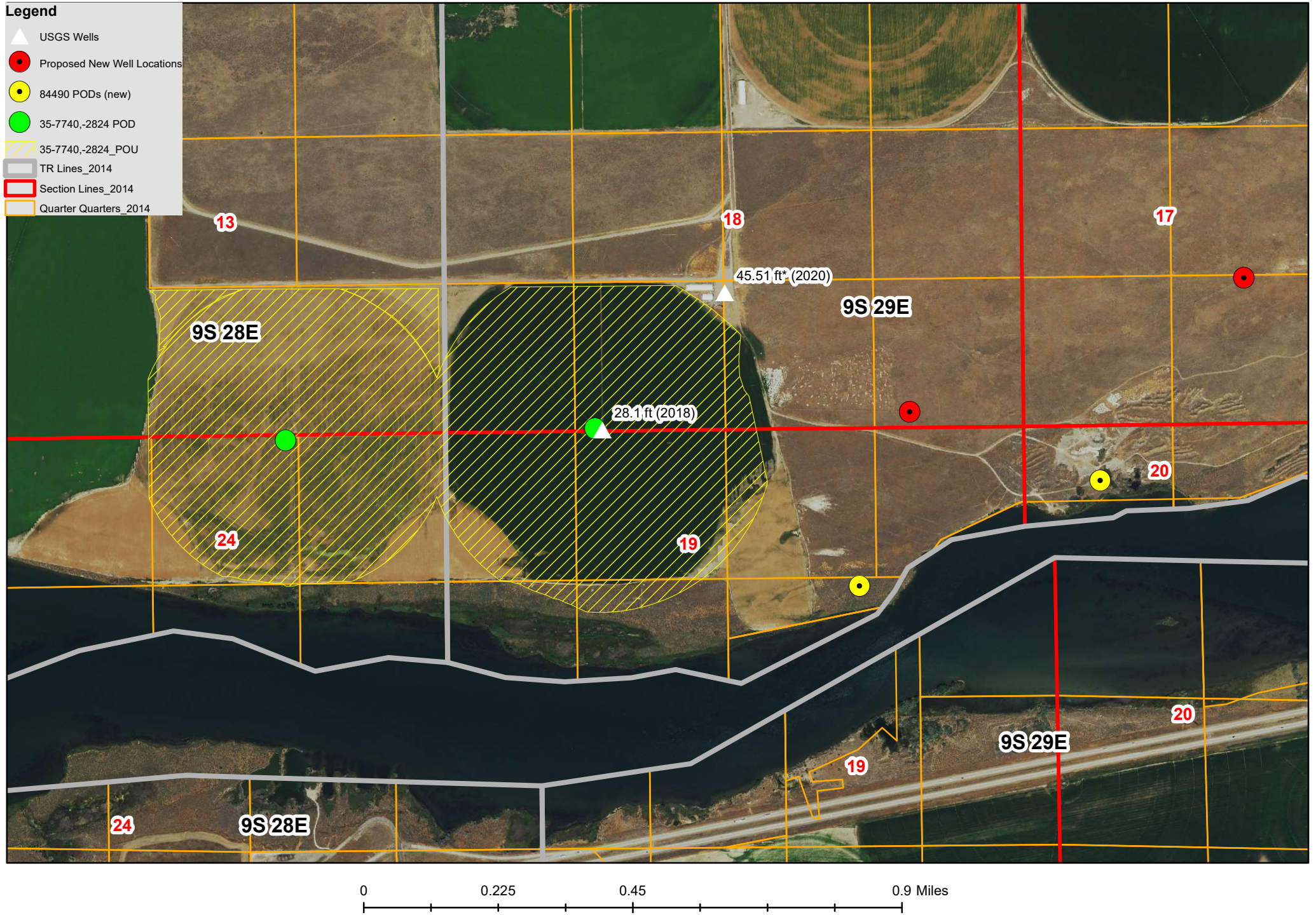
LCSC WATER RIGHTS

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Quick Guide to the ESPA Modeling Tools

This quick guide to the ESPA Modeling Tools can help the applicant answer the following FAQs regarding modeling **transfer** applications in the ESPA.

What is the purpose of the ESPA modeling analysis? Idaho Code 42-222 states that water right transfers must not cause injury to other water users. Surface water in the Snake River and many tributary springs are considered fully appropriated. Changes to groundwater use can deplete the river and spring flows. This analysis is necessary to quantify those depletions, so injury can be identified and avoided or, if possible, mitigated.

Does my proposal lie inside the boundaries of the ESPA, and do I need to complete modeling? The ESPA covers a great portion of southeast Idaho. We recommend using the online Water Right Locator Application to view a map of the ESPA. Simply follow the link to view a map of the state of Idaho:
https://idwr.maps.arcgis.com/apps/webappviewer/index.html?id=bdaa8ddbf5a84d63b722a16e26695ff5
Click the layers button. Turn on the "ESPA Model Outline" layer. Zoom in for a more detailed view. If the transfer proposal location lies within the outlined area, it falls within the ESPA. Modeling is required. To begin this process, identify which grid cells contain the "to" and "from" locations of the water right(s) being considered in the transfer proposal.

What are the grid cells? The grid cells are numbered sections of the ESPA. We recommend using the online Water Right Locator Application to view the grid cells themselves. Simply follow the link to view a map the grid cells within the ESPA:
https://idwr.maps.arcgis.com/apps/webappviewer/index.html?id=bdaa8ddbf5a84d63b722a16e26695ff5
Be sure to turn on the "ESPA Model Grid," and then zoom in to the "to" and "from" locations of the water right(s) being considered in the transfer proposal. Zoom in until the model grid cells are added to the viewing area.
Zoom in to the "to" and/or "from" locations until the row and column values are identifiable for each location. Take note of these numbers; they are inputs into the ESPA Model Transfer Spreadsheet.

What does the ESPA Model Transfer Spreadsheet analyze? The ESPA Model Transfer Spreadsheet was designed for individuals with little experience using ground water modeling software. This spreadsheet acts as a user interface for the actual ESPA model in groundwater modeling software. ESPA Model Transfer Spreadsheet allows the user to view data and graphical outputs in Excel. Essentially, this Excel workbook allows the user to review the calculated effects of the transfer proposal on the ESPA.
How do I run the ESPA Model Transfer Spreadsheet? The ESPA Model Transfer Spreadsheet contains instructions on how to fill the input values, run the model, and calculate effects. Open the Excel workbook to review the instructions before running the model. Once you have run the model and examined the results, copy the data at the bottom of the Calculated Effects tab into the Mitigation Analysis Spreadsheet.

What does the ESPA Mitigation Analysis Spreadsheet analyze? The ESPA Mitigation Analysis Spreadsheet (informally called Mitigation Analysis Tool, or MAT) will assist the user in determining the extent of the transfer proposal's impact on flows in the Snake River and whether the depletions to each reach will require mitigation. This spreadsheet allows for the net evaluation of up to 19 individual one-way transfers.

How do I run the ESPA Mitigation Analysis Spreadsheet? Begin the mitigation analysis by setting the "Mitigation Analysis Period" to "trimester" (upper left corner), to match the ESPA Model Transfer Spreadsheet timeline. Copy and paste the data from the bottom of the Calculated Effects tab (ESPA Model Transfer Spreadsheet) into the Mitigation Analysis Spreadsheet under the box entitled "Impact by Reach (AF/Trimester)." The boxes entitled "Steady State Analysis" and "Transient State Analysis" will instantaneously fill with values to determine the extent of mitigation required.

How do I interpret what I see in the ESPA Mitigation Analysis Spreadsheet?

1. *New Water Right box*: The highlighted box at left (orange, blue, violet, green) is designated for the user's reference. For the purposes of this review, the data input here (water right number, diversion rate, volume, irrigated acres, priority date, diversion location, transferred volume, node) does not affect the modeling analysis.
2. *Impact by Reach box*: The plain box at right (pasted into the sheet) entitled "Impact by Reach (AF/Trimester)" displays the pre- and post- steady state and transient state depletion values for each of 11 reaches of the Snake River: Ashton to Rexburg, Heise to Shelley, Shelley to near Blackfoot, near Blackfoot to Neeley, Neeley to Minidoka, Devil's Washbowl to Buhl, Buhl to Thousand Springs, Thousand Springs, Thousand Springs to Malad, Malad, and Malad to Bancroft.
3. *Steady State/Transient State Analysis boxes*: Beneath the "Impact by Reach" box, the depletion values are broken out by Steady State Analysis and Transient State Analysis. Each state has a multiple "Mitigation Checks," or tests to determine whether mitigation is necessary.

Steady State Analysis	Transient State Analysis
1. Is the total increase in volume greater than 10% of the historical depletion volume? 2. Is the total increase in volume greater than 2 acre-feet/trimester? 3. Does the depletion in this reach make up more than 10% of the total depletion to the river? If the answer to all three questions is YES, then mitigation is required for this reach.	1. Is the total increase in volume greater than 10% of the historical depletion volume? 2. Is the total increase in volume greater than 2 acre-feet/trimester? If the answer to both questions is YES, then mitigation is required for this reach.

What proportion of the depletions do I need to mitigate?

For those reaches where the sum of all changes in depletion is positive, including depletions during the transient state, the combined depletion volume must be *fully* mitigated. (The applicant is not eligible to only mitigate enough to fall below the SS and TS thresholds.)

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HYDROLOGY HYDRAULICS WATER RIGHTS PROJECT MANAGEMENT STRUCTURAL DESIGN
JCH Engineering & Consulting, P.L.L.C.
6755 N. Albert Lane Idaho Falls, ID 83401
E-mail: jasoncivil@alumni.nd.edu
Ph. (208) 308-2109
STREAM CHANNEL ALTERATIONS CIVIL ENGINEERING FLOOD PLAIN MODELING

Transfer Nos. 84488 and 84490 (Water Right 35-14041) Report
Applicant: LCSC Enterprises LLC

By: Jason C. Helms, PE

General Information

Water right transfer applications 84488 and 84490 submitted by LCSC Enterprises LLC on October 13, 2020 meet Eastern Snake Plain Aquifer (ESPA) transient impact limitations for permanent water right transfers within the ESPA; however, approval of the transfers are held pending resolution of protests asserting negative impacts to existing water rights. The transfer applications seek to change the place of use (POU) and point of diversion (POD) for existing decreed water right 35-14041 which authorizes the legal diversion of 3.18 cfs from the ESPA for irrigation of 322.5 acres not to exceed 1,290 acre-ft per year. The transfers seek to change the POD and POU of water right 35-14041 to existing and new wells also located within the shared ESPA water resource with no increase in diversion rate or volume.

This report discusses the hydraulic modeling details of the water rights proposed for transfer in relation to the analysis of impacts calculated utilizing the Idaho Department of Water Resources (IDWR) ESPA Ground-Water Rights Transfer Spreadsheet (Transfer Spreadsheet). The Transfer Spreadsheet analysis is required to determine if filed transfers within the ESPA fall below acceptable depletions to hydraulically connected reaches of the Snake River to be approvable. Primary sources of information used in preparation of this report are the transfer applications and prior reports referenced at the end of this report in addition to available well driller's logs and ground water data available from IDWR and the United States Geological Survey (USGS).

ESPA Interconnectivity & Specific Mitigating Transfer Conditions

Both the existing and proposed PODs lie within the basalts of the ESPA and an analysis was prepared utilizing the Transfer Spreadsheet. The Transfer Spreadsheet utilizes a calibrated ground water model of the regional aquifer and includes a certain level of complexity recognizing not only the connectedness but also the dis-connectedness of the Snake River and the aquifer system. The diversions are moving from a water table location above the American Falls Reservoir to a location near Lake Walcott below. According to the ESPA ground water model, approximately 64% of the un-diverted volume at the historical place of use is currently being expressed as river reach gains directly into the Near Blackfoot to Neeley reach of the Snake River which is captured within the American Falls Reservoir storage system. At the new POD the impacts in that reach are only 39% with an additional 21% depletion to the Neeley to Minidoka reach resulting in a net benefit in water availability for the major reaches associated with the transfer. CREP non-use of the water rights proposed for transfer has allowed the cone of depression to stabilize at only 5% of steady state conditions mitigating transient impacts and making it possible for the transfer to occur immediately allowing full authorized volume at the expiration of the CREP contracts in September, 2021.

Calculated Snake River Impacts at Existing POD

The major Snake River reach impacts (>10% of the authorized volume) associated with irrigation diversion at the existing POD are the Shelley to Near Blackfoot and the Near Blackfoot to Neeley reaches of the Snake River comprising approximately 21% and 65% of the authorized volume, respectively, near steady state with depletions to all other reaches making up the remaining 14%. The local aquifer in this area is very stable with high transmissivity creating relatively short-term communication between aquifer diversions and river reach impacts. Water right 35-14041 also has a large mitigating factor as it has been enrolled in the CREP program since 2007. The recent non-use has allowed the aquifer to rebound and according to the Transfer Spreadsheet, utilizing version 3.3 of the ESPA Model, the residual impacts are currently only 5% of their maximum authorized volume within the major reaches. Of course, modeling resumption of pumping at the existing POD quickly

reverses the current reach gains which have accrued and approaches 95% of authorized major reach annual impacts within 10 years.

Calculated Impacts of Diversion at new POD

The application seeks to divert a maximum of 3.18 cfs from two new wells that will be built according to standard well construction requirements (including a 39-foot surface sealed casing) and two existing wells as described in the transfers. This should place the pumping burden on the aquifer and reasonably limit river impacts throughout the season. The aquifer in this area is relatively stable, sloping from approximately 4,200 feet in elevation at the proposed PODs down to 4,100 feet in elevation just below Minidoka Dam. This slope is primarily a regional trend that extends northwest across the aquifer below the Great Rift area. Aquifer transmissivities are considered somewhat lower in this area which limits the extent of water table impacts. The water table is approximately 200 feet lower in elevation than at the existing POD, but much shallower relative to land surface which will reduce annual power costs and increase efficient water delivery.

River gains and losses related to riverbed seepage are dependent upon the inundation area of Lake Walcott and the elevation of the regional water table which can cause the Snake River in this area to become variably perched during a single season. Measurements of total Neeley to Minidoka reach losses have varied from a net loss of over 100 cfs at the beginning of the irrigation season to a net reach gain of over 100 cfs in the fall.

The major Snake River reaches associated with the location of the new PODs are the Shelley to Near Blackfoot, Near Blackfoot to Neeley, and Neeley to Minidoka reaches. The Neeley to Minidoka reach represents the downstream end of the upper Snake River-ESPA aquifer connection and becomes perched to the west beyond Minidoka Dam, eventually falling below the aquifer level and later reconnecting in the spring reaches. Calculated ESPA Snake River reach impacts near steady state in the Shelley to Near Blackfoot reach resulting from the proposed transfer are reduced from 21% to only 12% of the diversion volume and the Near Blackfoot to Neeley reach is reduced from 65% to only 39%, while the Neeley to Minidoka reach rises to become a major reach at 21% where it was previously less than 1%. Transient impacts increase moderately quickly reaching 95% of their maximum level within 30 years.

Combined Impacts of Transfer

The increase in impacts to the Neeley to Minidoka reach would normally likely prevent IDWR approval of the transfer, however, physical operation of the American Falls Dam and Reservoir delivers mitigation naturally accruing as reach gains in the Near Blackfoot to Neeley reach resulting from the non-use at the original POD. According to the BOR: "During typical water years, Lake Walcott is maintained close to full to optimize power generation at the Minidoka Dam powerplant. During the summer months, the amount of water released from American Falls Reservoir (which enters Lake Walcott) and from Lake Walcott are set to maintain a fairly constant pool level. There are two canals that divert directly from Lake Walcott. Their headworks are included in the Minidoka Dam superstructure. During the winter months, the reservoir is maintained slightly below full and maintained at a constant level." Because of this BOR river and reservoir operation, the aquifer credits generated in the Near Blackfoot to Neeley reach (-26%) fully expressed as a result of the protected non-use of the water right under the CREP program are delivered as natural flow or physically captured within American Falls Reservoir as storage water which is deliberately released as described above to maintain the river stage elevation at Lake Walcott exactly where the modeled increased impacts resulting from the transfers are calculated to occur.

Impacts Below Milner

Modeled impacts of the transfers show an increase in depletions below Milner at steady state. However, the impacts fall below IDWR thresholds that require mitigation. Further, when analyzed cumulatively with other transfers as IDWR has done, there is an overall net gain to reaches below Milner. IDWR's updated transfer review memo provides that all reaches below Milner show an increase in reach gains, and combined, the overall reach gains below Milner is 0.14 cfs and 105 acre-feet per year.

Conclusion

Relative to these transfers, the timing of historical impacts associated with the protected non-use of the water right (under the CREP program) proposed for transfer combined with the regulatory management of the American Falls and Lake Walcott systems allow combination of the Near Blackfoot to Neeley and Neeley to

Minidoka reaches of the Snake River for determination of acceptable impacts. The combined impacts at every transient time-step of the combined reach impacts demonstrates a net reach gain to the major reaches of the Snake River required by IDWR policy for approval of water right transfers. While the transfers are calculated to result in additional depletions from the hydraulically connected river system in the form of increased impacts in the Neeley to Minidoka reach, the modeled reach gains accruing to the Near Blackfoot to Neeley reach calculated from nonuse of ground water at the originally authorized POD location provides an excess to calculated mitigation requirements for natural flow delivery through American Falls Reservoir into Lake Walcott. This is occurring in-place and in-time while also increasing opportunity for non-consumptive power generation at American Falls Reservoir and simultaneously reducing power consumption (because of a lower pump lift at the proposed wells identified in the transfers) to accomplish the diversion and beneficial use of water under water right 35-14041.

The residual credits associated with the protected non-use of the transferred water right effectively eliminate any typical initial requirement for reduced pumping associated with transient impacts. The transfers seek to transfer an existing water right for beneficial irrigation use within their authorized limitations and such use is in the local public interest is acceptable under IDWR's transfer requirements. An appropriate analysis of impacts to other water users resulting from transfers approved between 2012 and 2020 was performed, reviewed, and accepted that the overall impacts from these prior approved transfers were found to be negligible. In fact, there has been a 0.45 cfs increase in reach gains to the Near Blackfoot to Minidoka Snake River reach. Accordingly, there is no injury to existing water rights both under IDWR's policies and transfer review analyses. The transfers should be approved with standard IDWR conditions related to measurement and reporting.

References:

Lindholm, G.F., 1996, *Summary of the Snake River Plain Regional Aquifer-System Analysis in Idaho and Eastern Oregon* U.S. Geological Survey Professional Paper 1408-A, 68 p., 1 pls.

Whitehead, R.L., 1992, *Geohydrologic framework of the Snake River Plain regional aquifer system, Idaho and eastern Oregon*: U.S. Geological Survey Professional Paper 1408-B, 32 p., 6 pls.

Garabedian, S.P., 1992, *Hydrology and digital simulation of the regional aquifer system, eastern Snake River Plain, Idaho*: U.S. Geological Survey Professional Paper 1408-F, 102 p., 10 pls. (Also available at http://pubs.usgs.gov/pp/1408f/.)

Hortness, J.E., Vidmar, Peter, 2005, Surface-Water/Ground-Water Interaction along Reaches of the Snake River and Henrys Fork, Idaho: U.S. Geological Survey Scientific Investigations Report 2004-5115, 18p. 3apps.

U.S. Department of the Interior Bureau of Reclamation Pacific Northwest Region Snake River Area Office PN FONSI #19-4: Environmental Assessment (Maintenance and Rehabilitation of Spillway and Dam Structures at American Falls Dam), Minidoka Project, Power County, Idaho May, 2019. https:/www.usbr.gov/pn/programs/ea/Idaho/americanfalls/finalea.pdf

U.S. Geological Survey, 2013c, *National Water Information System—Web interface*, USGS water data for Idaho: U.S. Geological Survey database, accessed July 2, 2021, at http://waterdata.usgs.gov/id/nwis/nwis.

Sukow, Jennifer, *Cumulative review of ESPA transfers between 2012 and 2020* (updated on April 1, 2020 for transfers approved through September 30, 2020).

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Sep 12, 2025
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WATER RESOURCES

Transfer Nos. 84488 and 84490 (Water Right 35-14041) Report

Applicant: LCSC Enterprises, LLC

By: Jason C. Helms, P.E.



General Information

Water right transfer applications 84488 and 84490 submitted by LCSC Enterprises LLC on October 13, 2020 meet Eastern Snake Plain Aquifer (ESPA) transient impact limitations for permanent water right transfers within the ESPA; however, approval of the transfers is held pending resolution of protests asserting negative impacts to existing water rights. The transfer applications seek to change the place of use (POU) and point of diversion (POD) for existing decreed water right 35-14041 which authorizes the legal diversion of 3.18 cfs from the ESPA for irrigation of 322.5 acres not to exceed 1,290 acre-ft per year. The transfers seek to change the POD and POU of water right 35-14041 to existing and new wells also located within the shared ESPA water resource with no increase in diversion rate or volume.

This report discusses the hydraulic modeling details of the water rights proposed for transfer in relation to the analysis of impacts calculated utilizing the Idaho Department of Water Resources (IDWR) ESPA Ground-Water Rights Transfer Spreadsheet (Transfer Spreadsheet). The Transfer Spreadsheet analysis is required to determine if filed transfers within the ESPA fall below acceptable depletions to hydraulically connected reaches of the Snake River to be approvable. When the transfer was originally filed, ESPAM (Eastern Snake Plain Aquifer Model) version 2.2 was not yet implemented. Subsequent detailed review of ESPAM 2.2 reveals reduced calibration accuracy in the reach of the Snake River (Neeley to Minidoka) closest to the proposed POD so ESPAM version 2.1 remains the basis of this impact analysis. Primary sources of information used in preparation of this report are the transfer applications and prior reports referenced at the end of this report in addition to available well driller's logs and ground water data available from IDWR and the United States Geological Survey (USGS). Additionally, a site-specific monitoring well study was

performed by Clearwater Geosciences on behalf of the applicant in 2024 monitoring the shallow alluvial (river bed) aquifer related to pumping from the proposed irrigation wells associated with Transfer 84488 showing no measurable impact.

ESPA Interconnectivity & Specific Mitigating Transfer Conditions

Both the existing and proposed PODs divert from the fractured basalts of the ESPA and an analysis was prepared utilizing IDWR's official ESPA Model Transfer Spreadsheet. The Transfer Spreadsheet utilizes a calibrated ground water model of the regional aquifer and includes a certain level of complexity recognizing not only the connectedness but also the dis-connectedness of the Snake River and the aquifer system. The diversions are moving from a water table location above the American Falls Reservoir to a connected location near Lake Walcott below.

Recent non-use of the water right proposed for transfer related to enrollment in the Conservation Reserve Enhancement Program (CREP) program from 2007 through 2022 has allowed the cone of depression at the current POD to stabilize at only 5% of maximum depletions. These transient reach credits will tend to mitigate short-term impacts and make it possible for the changes sought in the transfers to commence immediately allowing full use of the authorized volume without initial pumping reductions.

Calculated Snake River Impacts at Existing POD

The major Snake River reach impacts (>10% of the authorized volume) associated with irrigation diversion at the existing POD are the Shelley to Near Blackfoot and the Near Blackfoot to Neeley reaches of the Snake River comprising approximately 21% and 65% of the authorized volume, respectively, near steady state with depletions to all other reaches making up the remaining 14%. The local aquifer in this area is very stable with high transmissivity creating relatively short-term communication between aquifer diversions and river reach impacts. Water right 35-14041 also has a large mitigating factor as it has been enrolled in the CREP program since 2007. The recent non-use has allowed the aquifer at the existing POD to recover and according to the Transfer Spreadsheet, utilizing version 2.1 of the ESPA Model, the residual impacts are currently only 5% of their maximum authorized

volume within the major reaches. Of course, modeling resumption of pumping at the new POD quickly reverses the current reach gains which have accrued and approaches 95% of authorized major reach annual impacts within 10 years of resuming authorized use.

Calculated Impacts of Diversion at new POD

Transfer 84488 seeks to split a portion of water right 35-14041 for diversion from existing wells associated with water right 35-2824 and 35-7740. Transfer 84490 moves the remainder proposed for diversion from two new wells that have not been constructed. The aquifer in this area is relatively stable, sloping from approximately 4,200 feet in elevation at the proposed PODs down to 4,100 feet in elevation just below Minidoka Dam. This slope is primarily a regional trend that extends northwest across the aquifer below the Great Rift area. Aquifer transmissivities and river conductivity are considered somewhat lower in this area with only partial connection between the river and aquifer which limits the extent of water table impacts. The water table at the new POD is approximately 200 feet lower in elevation than at the existing POD, but much shallower relative to land surface which will reduce annual power costs and increase efficient water delivery.

River gains and losses related to riverbed seepage are dependent upon the inundation area of Lake Walcott and the elevation of the regional water table which can cause the Snake River in this area to become variably perched during a single season. Measurements of total Neeley to Minidoka reach losses have varied from an implied net loss of over 100 cfs measured in the Spring of 2001 to a net reach gain over 1,000 cfs measured in the spring of 2002

The major Snake River reaches associated with the location of the new PODs are the Shelley to Near Blackfoot, Near Blackfoot to Neeley, and Neeley to Minidoka reaches. The Neeley to Minidoka reach represents the downstream end of the upper Snake River-ESPA aquifer connection and the river becomes disconnected to the west beyond Minidoka Dam, eventually falling below the aquifer level and later reconnecting by spill in the spring reaches. Calculated ESPAM V2.1 Snake River reach impacts near steady state in the Shelley to Near Blackfoot reach resulting from the proposed transfer are reduced from 21% to only 12% of the diversion volume and

the Near Blackfoot to Neeley reach is reduced from 65% to only 39%, while the Neeley to Minidoka reach rises to become a major reach at 21% where it was previously less than 1%. Transient impacts from resuming pumping increase moderately quickly reaching 95% of their maximum authorized impacts within 30 years.

Combined Impacts of Transfer

According to results of the transfer spreadsheet, approximately 64% of the un-diverted volume at the historical place of use is currently being expressed as river reach gains directly into the Near Blackfoot to Neeley reach of the Snake River which is captured within American Falls Reservoir, a storage reservoir owned and operated by the United States Bureau of Reclamation (BOR). Modeling of the diversion at the new location indicates the after-transfer impacts in this same reach are only 39% (reduced by 25%) with an additional 21% depletion calculated in the Neeley to Minidoka reach. The additional depletions calculated in the Neeley to Minidoka reach are less than the reach credits calculated for the Near Blackfoot to Neeley reach directly above resulting in a net combined river gain between Near Blackfoot to Minidoka from approval of the transfers.

The increased impacts and mitigation requirement indicated for the Neeley to Minidoka reach would normally prevent IDWR approval of the transfer, however, physical operation of the American Falls Dam and Reservoir delivers mitigation naturally accruing as reach gains in the Near Blackfoot to Neeley combined reach resulting from the non-use at the original POD. According to the BOR: “During typical water years, Lake Walcott is maintained close to full to optimize power generation at the Minidoka Dam powerplant. During the summer months, the amount of water released from American Falls Reservoir (which enters Lake Walcott) and from Lake Walcott are set to maintain a fairly constant pool level. There are two canals that divert directly from Lake Walcott. Their headworks are included in the Minidoka Dam superstructure. During the winter months, the reservoir is maintained slightly below full and maintained at a constant level.” Because of this BOR river and reservoir operation, the aquifer credits generated in the Near Blackfoot to Neeley reach (-26%) fully expressed as a result of the protected non-use of the water right under the CREP program are delivered as natural flow or physically captured within American Falls

Reservoir as storage water which is deliberately released as described above to maintain the river stage elevation at Lake Walcott exactly where the modeled increased impacts resulting from the transfers are calculated to occur. Further, when analyzed cumulatively with all other transfers as IDWR has done annually, there appears currently an overall net gain to the Neeley to Minidoka reach. Approval of transfers 84488 and 84490 will produce a slight equalization of cumulative impacts between these two upper reaches.

Impacts Below Milner

Modeled impacts of the transfers show an increase in depletions below Milner at steady state. However, the impact changes calculated for all spring reaches are each less than 10% of the total calculated depletion and therefore fall below IDWR thresholds requiring mitigation. As with other reaches, IDWR's updated Cumulative review of ESPA transfers between 2012 and 2024 memo provides that all reaches below Milner show an increase in reach gains, and, based on the calculated impacts of all prior transfers the overall reach gain below Milner is 0.08 cfs and 61 acre-feet per year. As a result of these transfers, total additional depletions to all spring reaches would constitute less than 12 additional acre-ft per year.

Conclusion

Relative to these transfers, the timing of historical impacts associated with the protected non-use of the water right (under the CREP program) proposed for transfer combined with the regulatory management of the American Falls and Lake Walcott systems allow combination of the Near Blackfoot to Neeley and Neeley to Minidoka reaches of the Snake River for determination of acceptable impacts. The combined impacts at every transient time-step of the combined reach impacts demonstrates a net reach gain to the major reaches of the Snake River. While the transfers are calculated to result in additional depletions from the hydraulically connected river system in the form of localized increased impacts in the Neeley to Minidoka reach, the modeled reach gains accruing to the Near Blackfoot to Neeley reach from nonuse of ground water at the originally authorized POD location provides an excess to

calculated mitigation requirements based on ESPAM 2.1 for natural flow delivery through American Falls Reservoir mitigating additional impacts to the Snake River including Lake Walcott. This is occurring in-place and in-time while also increasing opportunity for non-consumptive power generation from the water passing through American Falls Reservoir and simultaneously reducing power consumption (because of a lower pumping lift required at the proposed wells identified in the transfers) to accomplish the same diversion and beneficial use of water under water right 35-14041.

The residual credits associated with the protected non-use of the transferred water right effectively eliminate any typical initial requirement for reduced pumping associated with transient impacts. The transfers seek to transfer an existing water right for beneficial irrigation use within their authorized limitations and such use is in the local public interest for production of crops and appears acceptable under IDWR's transfer requirements within the ESPA. An appropriate analysis of ESPA impacts resulting from the proposed transfers was prepared utilizing the current authorized version of the ESPA model at the time the transfers were filed. Subsequent detailed evaluation of ESPAM 2.2 calibration results reveals lower agreement with measured flows specifically in the Neeley to Minidoka reach where the transfer is located so the ESPAM 2.1 model analysis is considered more accurate to observed site-specific conditions and is therefore preferred for modeling the impacts of these particular transfers. According to the analysis, impacts to ESPA Snake River reaches are within acceptable limits and no mitigation appears necessary other than an extended well casing seal to minimize local shallow aquifer impacts.

References:

Lindholm, G.F., 1996, *Summary of the Snake River Plain Regional Aquifer-System Analysis in Idaho and Eastern Oregon* U.S. Geological Survey Professional Paper 1408-A, 68 p., 1 pls.

Whitehead, R.L., 1992, *Geohydrologic framework of the Snake River Plain regional aquifer system, Idaho and eastern Oregon*: U.S. Geological Survey Professional Paper 1408-B, 32 p., 6 pls.

Garabedian, S.P., 1992, *Hydrology and digital simulation of the regional aquifer system, eastern Snake River Plain, Idaho*: U.S. Geological Survey Professional Paper 1408-F, 102 p., 10 pls. (Also available at http://pubs.usgs.gov/pp/1408f/.)

Hortness, J.E., Vidmar, Peter, 2005, Surface-Water/Ground-Water Interaction along Reaches of the Snake River and Henrys Fork, Idaho: U.S. Geological Survey Scientific Investigations Report 2004-5115, 18p. 3apps.

U.S. Department of the Interior Bureau of Reclamation Pacific Northwest Region Snake River Area Office PN FONSI #19-4: Environmental Assessment (Maintenance and Rehabilitation of Spillway and Dam Structures at American Falls Dam), Minidoka Project, Power County, Idaho May, 2019. https:/www.usbr.gov/pn/programs/ea/Idaho/americanfalls/finalea.pdf

U.S. Geological Survey, 2013c, *National Water Information System—Web interface*, USGS water data for Idaho: U.S. Geological Survey database, accessed July 2, 2021, at http://waterdata.usgs.gov/id/nwis/nwis.

Sukow, Jennifer, *Cumulative review of ESPA transfers between 2012 and 2024* (updated on December 5, 2024 for transfers approved through September 30, 2024).

RECEIVED
Sep 12, 2025
DEPARTMENT OF
WATER RESOURCES

EXPERT REPORT ON LCSC ENTERPRIZES LLC 2024 FIELD ACTIVITIES

In support of Transfer Applications
Nos. 84488 and 84490

Prepared for:
LCSC Enterprises LLC
November 25, 2024

The technical material in this report was prepared by or under the supervision and direction of the undersigned, whose seal as a Professional Geologist is affixed below.



The following members of the Clearwater Geosciences, LLP staff contributed to the preparation of this report.
Thomas R. Wood, Ph.D., PG - Principal-in-Charge
Rachel J. Geringer, PG – Senior Hydrogeologist

PO Box 3179 Idaho Falls, ID 83403 208.589.5555

Introduction

The LCSC site is located north of the Snake River approximately 16 miles downstream (southwest) of the American Falls Dam (Figure 1). A better understanding of the local hydrogeology is required to fully evaluate the potential impact the proposed transfers will have on water in Snake River and Eastern Snake River Plain Aquifer. To date, analyses of the impact from the proposed transfers have been based upon regional understandings of aquifer-river relationships. This study provides site specific data from two new monitoring wells and water level data collected over a five-month period from the monitoring wells and an active irrigation well immediately adjacent to the proposed Place of Use (POU) and Point of Diversion (POD).

The water table in this area is shallow, and the protestants of the transfers have asserted possible localized affects to the Snake River from pumping of the aquifer via proposed new PODs. Of particular interest for these transfers is the relationship between pumping of the regional Eastern Snake River Plain Aquifer and the nearby Snake River. This study has been designed to describe hydrogeology of the subsurface, and to evaluate how the proposed wells might impact water in the Snake River. A secondary purpose of this investigation is to determine if a well can be constructed in such a way as to pump water that is not directly connected to the Snake River.

This summary report includes: 1) description of two monitoring wells drilled to define the geology of the shallow subsurface; 2) presentation of water levels monitored in three wells on a continuous basis throughout the irrigation season; and 3) synthesis of the data into a hydrogeological conceptual model for the site.

Field Investigation

Well Drilling

Two monitoring wells were drilled in April of 2024 by American Pump and Drilling Company at locations shown in Figure 2. A casing advancing drilling technique was employed. Six-inch diameter steel casing was advanced to the total depth of the well. This method provided excellent drill cutting recovery for preparing lithologic logs. The well logs prepared from the drill cuttings accurately represent of the subsurface geology. Both MW-1 and MW-2 were constructed in a similar manner. Two-inch diameter PVC well casing with 20 ft of PVC well screen was installed inside the 6-inch steel casing. As the filter pack was installed, the 6-inch casing was withdrawn. Sand levels were carefully monitored to ensure that the filter pack sand did not bridge. The sanitary well seal consists of bentonite chips.

MW-1 was drilled 90 ft west of the active irrigation well 352874 (Vern Duffin well, 1979). Well 352874 has a completed depth of 535 ft and it is open to the regional aquifer from 256 to 535 ft (see Attachment 1). The purpose of MW-1 is to define the shallow lithology and monitor the shallow water levels adjacent to Well 352974 while it is pumped during the irrigation season.

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The as-built diagram for MW-1 is provide in Figure 3. The well was drilled to 43 ft by advancing the 6-inch steel casing to depth and then building the 2-inch diameter PVC well inside the casing. Slotted (0.020") PVC casing extends from 23 to 43 ft. The filter pack is 10-20 silica sand that extends from 18 to 43 ft. The annular seal consists of bentonite chips extending from 18 ft to land surface. Materials in the well were tagged every 5 ft to ensure that bridging did not occur. The depth to water in April was 29.95 ft below casing.

The lithology at the MW-1 location consists of top soil and sand from 0 to 4 ft, basalt boulders and gravel from 4 to 23 ft, basalt boulders, gravel and sand from 23 to 37 ft and sand and gravel from 37 to 43 ft. Minor amounts of silt and clay were observed and its presence increased with depth. However, the clay and silt likely occur in thin stringers in this section.

MW-2 is approximately 500 ft north of the Snake River as shown in Figure 2. The purpose of MW-2 is to monitor the shallow water near the Snake River while ground water pumping occurs during the irrigation season. Irrigation pumping that affects the shallow water at MW-2 would be interpreted to impact the Snake River as well.

The as-built diagram for MW-2 is provide in Figure 4. The well was drilled to 43 ft by advancing the 6-inch steel casing to depth. The water level in MW-2 was 10 ft higher than in MW-1 and the decision was made to build the well such that a few feet of open screen was above the water table in case water levels in the well were to rise later in the season. Thus, the bottom five feet of the hole was back filled with silica sand. Slotted (0.020") PVC casing extends from 17.5 to 37.5 ft. The filter pack is 10-20 silica sand that extends from 15 to 43 ft. The annular seal consists of bentonite chips extending from 15 ft to land surface. Materials in the well were tagged every 5 ft to ensure that bridging did not occur. The depth to water in April was 20.30 ft below casing.

The lithology at the MW-2 location consists of top soil and sand from 0 to 4 ft, sand and basalt boulders from 4 to 14 ft, sand, gravel and basalt boulders from 14 to 29 ft, gravel, sand, and clay from 29 to 34 ft with an increasing amount of clay from 34 to 37 ft, a water bearing gravel from 36 to 37 ft and sand and gravel from 37 to 43 ft.

Geology

The shallow geology is known from the monitoring wells, which penetrated the subsurface to 43 ft. The deep geology is known from the drilling log of LCSC irrigation Well 352874 and a well near the potato cellars Well 352857.

Well 352874 was drilled in 1979 to a depth of 535 ft. The well is cased from land surface to a depth of 256 ft and has an open hole below this to the bottom of the well. The well log is provided in Attachment 1. The lithology of the upper 40 ft of well 352874 is very similar to MW 1 and 2; consisting of a few feet of soil, a layer of basalt boulders, gravel and sand to 40 feet. The 205 ft thick interval from 40 to 245 feet is a clay rich layer of sediment. The clay is described as ranging in color from brown, yellow and white. The entire 205 ft thick interval is specified as non-water bearing on the well log. A 33 ft thick layer of brown clay is described

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from 173 to 210 ft. The top of the regional basalt is at 245 ft and various textures and colors of basalt extends to 525 ft. From 525 to 535 ft the lithology is described as reddish rock with layers of crystals (this is possibly rhyolite).

The domestic Well 352857 was drilled in 1979 to a depth of 250 ft. Below the surface soil is a layer described as sandstone that extends to 98 ft. A basalt layer extends from 98 ft to 125 ft and below the basalt is 9 ft of clay and 11 ft of sandstone overlying another layer of basalt. The basalt extends from 145 to 178 ft. The lithology is described as a sandstone from 178 ft to the bottom of the well. The presence of basalt layers in Well 353857 is different than that of Well 352874, which had no basalt until a depth of 245 ft. Layers or lobes of basalt are common in this area, however, the lack of basalt in Well 352874 suggests that it may have been eroded.

A geologic cross section was prepared based on MW-1, MW-2, Well 352874 and Well 352857. as shown in Figure 5. The cross section is presented in Figure 6. On the south the lithology consists of a layer of top soil underlain by a layer of basalt boulders, coarse sand, and gravel, below this is a clay rich layer of sediment overlying a sequence of basalt flows. On land surface at the LCSC are many rounded basalt boulders taken from the farm fields. The deposits of rounded basalt boulders were formed by the erosion basalt deposited during the Bonneville flood, which was caused by the catastrophic failure of Red Rock Pass draining Lake Bonneville. These deposits are unconsolidated and poorly sorted to unsorted sand and gravel (Armstrong, et al., 1978).

Beneath the Bonneville Flood sediments is layer of unconsolidated sediment that is clay rich. The various layers in this interval all contain clay and the entire sequence is non water bearing. This sequence of sediment may be the Upper Pleistocene Alluvium and possibly associated American Falls Lake Bed sediments as described by Armstrong, et. al., 1978.

The lower basalt penetrated at a depth of 245 ft can be one of several basalt flows of Quaternary and Tertiary age; without rock sample it is not possible to know the age of the basalt.

The sandstone described at the north end of the cross-section may be the Raft Formation, which is described as massive beds of light-colored clay and silt, and thin-bedded calcareous quartzose silt and sand that is cross bedded locally (Anderson et al., 1978). The thin basalt flows penetrated by Well 352857 may be one of the several Pleistocene age basalt units mapped by Anderson et. al., 1978.

The geologic data suggests that the channel of the Snake River has been active here for a long period of time. The river has been both eroding and depositing sediment. As illustrated in the cross-section (Figure 6) the ancestral Snake River may have eroded the Raft Formation and Pleistocene Basalts creating a river channel. Subsequently, the river channel was filled by alluvium and lake bed deposits forming the clay rich sedimentary sequence. The Bonneville Flood cut into the clay rich sequence and re-deposited coarse sediment and basalt boulders.

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Water Levels in Nearby Wells

Water levels were periodically measured by hand in four wells. The elevations for these measurements are listed in Table 1. The water level elevations in the shallow monitoring wells and the distal Diamond D 336369 remained relatively constant. Well 352874 the pumped irrigation well, is cased to 256 ft and draws water from the aquifer between 256 ft and 535 ft. The fact that pumping of the deep aquifer did not impact water levels in shallow wells indicates that the upper aquifer is isolated from the lower aquifer by the clay rich sediments and clay layer between 40 and 245 ft.

Water levels were monitored continuously in MW-1, MW-2 and Well 352874 from April 28, 2024 to September 24, 2024. This period preceded the onset of irrigation and continued until the end of the irrigation season. Solinist Level Logger® transducers were installed in the wells and set to sampling intervals of 1 or 5 minutes. To download the data loggers, the transducers were removed from the wells and connected to a laptop PC periodically throughout the summer.

The hydrograph of water levels for all three wells is presented in Figure 7. Water levels in MW-1 and MW-2 remained relatively constant throughout the irrigation season. Water levels in Well 352874 were significantly impacted by pumping. When the pump cycled on water levels dropped over 35 ft to below the level of the pressure transducer. The transducer was installed as deeply as possible in Well 352874, but due to a constriction in the well it could not be set deeper. The water level in Well 352874 recovered when the pump was shut off and at the end of the irrigation season to the pre-irrigation season water level. The water level hydrograph shows that there is no hydraulic communication between the shallow aquifer tapped by MW-1 and MW-2 and the deep aquifer tapped by Well 352874. This indicates that the upper aquifer is isolated from the lower aquifer by the clay rich sediments and clay layer between 40 and 245 ft.

The recovery data for the Irrigation Well 352874 was analyzed to estimate aquifer transmissivity. Two methods for a confined aquifer were employed. The Theis solution and the Cooper-Jacob straight line method. The results are presented in Figure 8. The Theis Solution yields 1.44×10^4 ft^2/day and the Cooper-Jacob Solution yields 1.53×10^4 ft^2/day. Although the storativity value estimated from a single well pumping test is unreliable, the extremely low storativity values (on the order of 10^{-11} and 10^{-12}) suggests the deep aquifer is under confined conditions due to the clay rich sediments and clay layer between 40 and 245 ft.

Discussion

The field study has defined a shallow aquifer extending to about 40 ft, consisting of Bonneville Flood Deposits and Pleistocene Alluvium. The lower basalt aquifer is hydraulically isolated from the shallow aquifer by a thick sequence of clay rich sediments. The isolation of the shallow aquifer by the clay rich sediments is generally representative of perched aquifer conditions. Water level monitoring of the two shallow MW wells demonstrates hydraulic isolation from the deeper aquifer. Even though the head in the lower aquifer was decreased to more than 35 ft repeatedly during the irrigation season, the head in MW-1 only 90 ft away was unaffected.

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Wells completed in the shallow perched aquifer will have a much better connection to the Snake River than deeper wells. Pumping of the shallow perched aquifer will result in relatively faster depletions of surface water. MW-2, which is 500 ft away from the Snake River, showed no seasonal response to irrigation pumping from Well 352874 (2460 ft north of MW-2). Pumping of the deeper well had no impact on the shallow perch aquifer adjacent to the Snake River because of the hydraulic isolation caused by the layer of clay rich sediments.

The non-responsive behavior of water levels in the shallow aquifer from pumping Well 352874 from the aquifer below 245 ft demonstrates that it is possible to construct a well in this location that is not directly connected to the Snake River. This isolation of the deep aquifer from the shallow aquifer was accomplished in Well 352874 with steel well casing extending from land surface to a depth of 256 ft. The well was drilled with a cable tool rig that drove the 16-inch casing 11 ft into the top of the basalt. A similar approach can be used for the wells proposed for the new PODs to ensure that pumping of the deep aquifer does not impact the Snake River. An alternative method to isolate the shallow surface water from the deep aquifer would be to overbore the drill hole and seal the annulus between the formation and well casing with grout or cement.

Summary

Two 2-inch diameter, 43 ft deep monitoring wells were drilled for this project. MW-1 was drilled proximal to an existing irrigation well, that taps the deep aquifer. MW-2 was drilled near the Snake River to monitor surface water – ground water interactions. Water levels were monitored continuously in three wells for 5 months during the 2024 irrigation season. Water levels in the shallow aquifer wells were not impacted by pumping of the irrigation well even though drops in head level of the lower aquifer was greater than 35 ft. Correlation of the lithology into a north-south cross section illustrates a thick sequence of clay rich sediments that acts as a perching layer isolating the shallow aquifer from the deeper aquifer. The new and existing data demonstrates that new wells to be installed for Transfers 84488 and 84490 can be constructed to not directly impact the Snake River.

References

Armstrong, R.L., J.F. Smith jr., H.R. Covington and P.L. Williams, 1978, Preliminary Geologic Map of the West Half of the Pocatello 1° x 2° Quadrangle, Idaho, USGS.

Table 1. Periodic water elevations for wells in the LCSC area wells.

Date	4/16/2024	4/19/2024	4/29/2024	7/2/2024	8/27/2024	9/24/2024
MW-1	4201.05	4201.25	4201.35	4200.5	4200.68	4200.74
MW-2	4197.2	4197.45	4197.35	4196.69	4196.72	4196.74
Diamond D 336369		4195.2			4196.15	
Well 352874	4196.8		4201.2	4193.55	4195.07	

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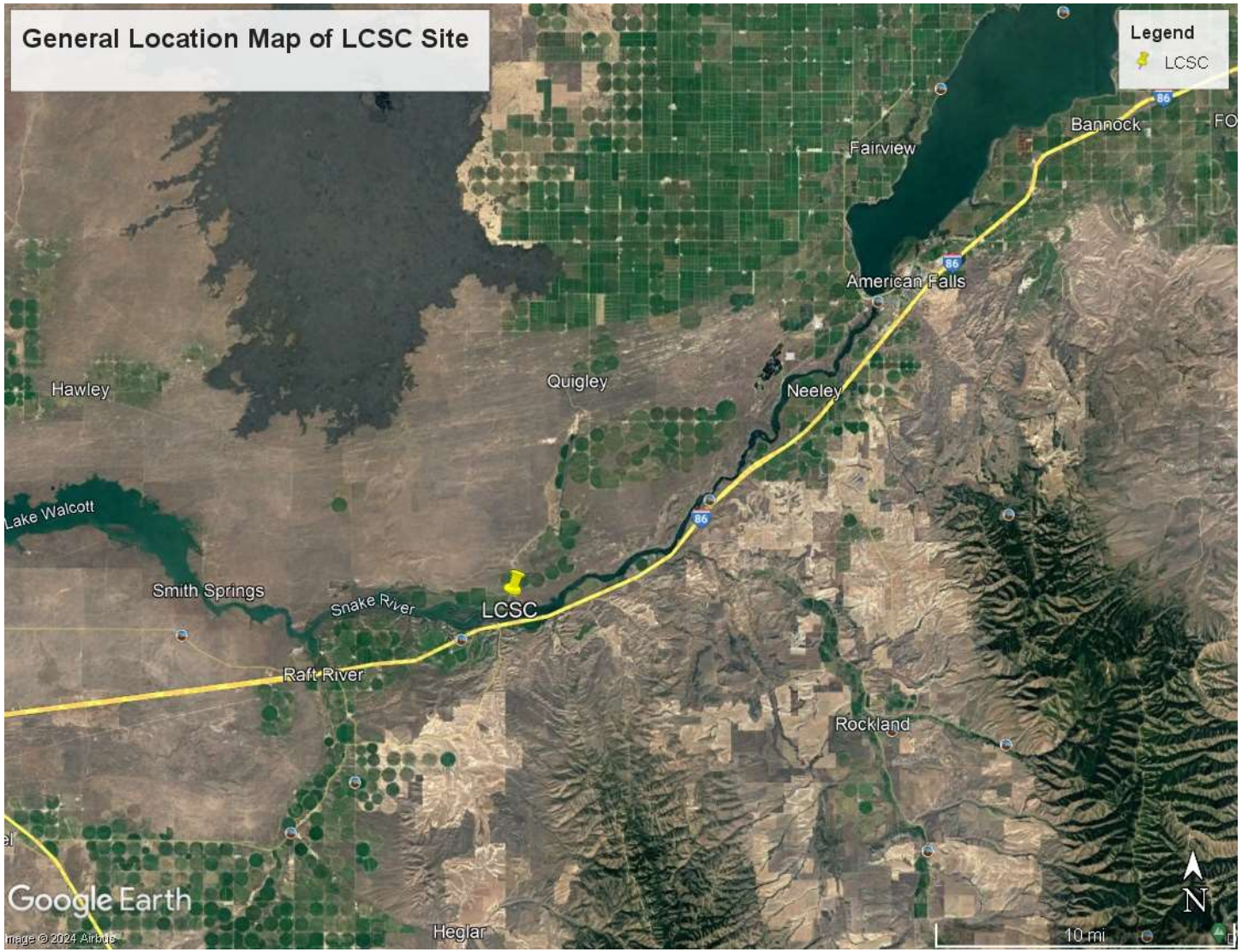


Figure 1. Location of the LCSC Site shown with a yellow pin.

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Figure 2. Locations of monitoring wells, MW-1 and MW-2, drilled for this project and Irrigation Well 352874.

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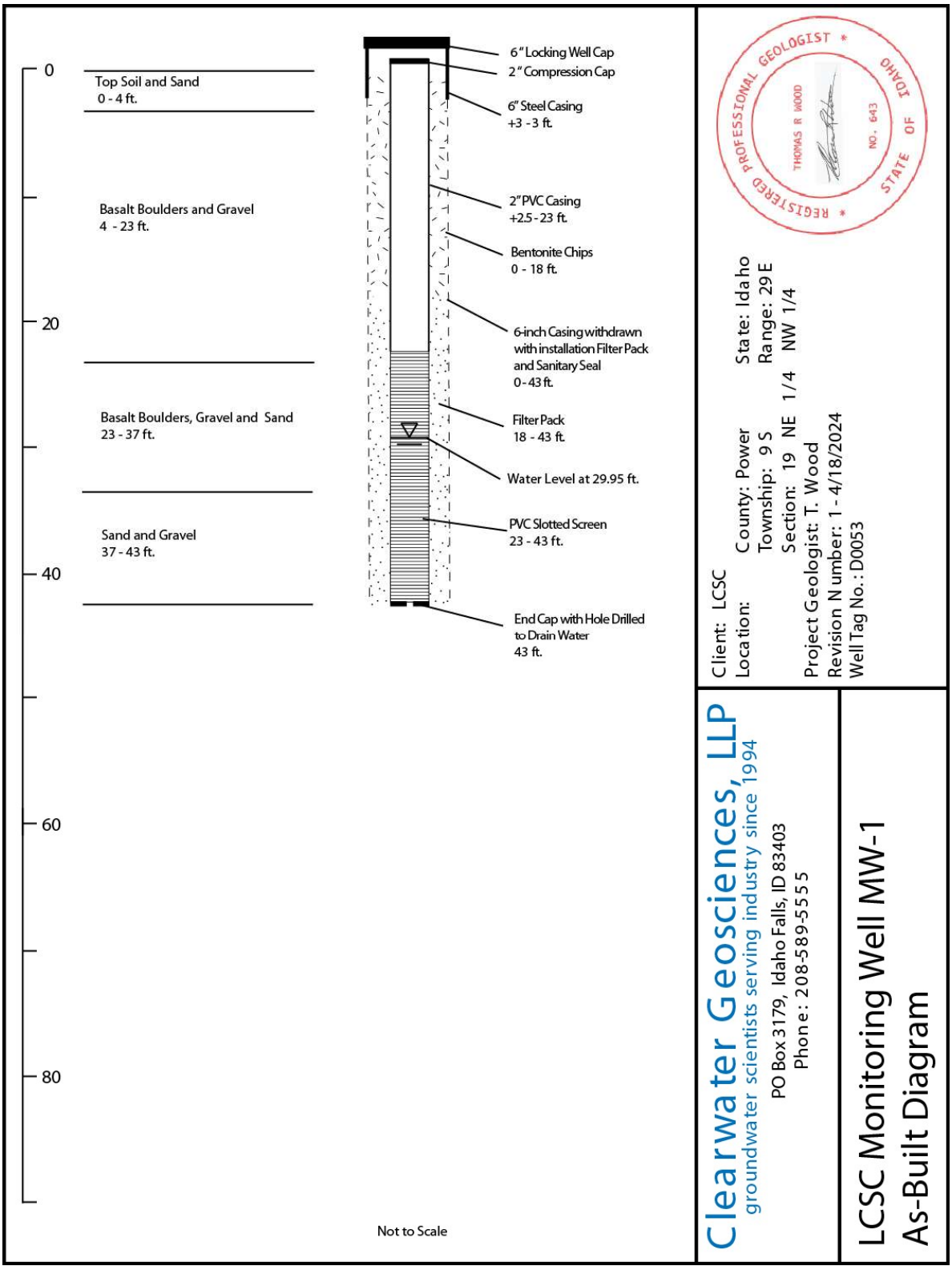


Figure 3. As-built diagram of MW-1.

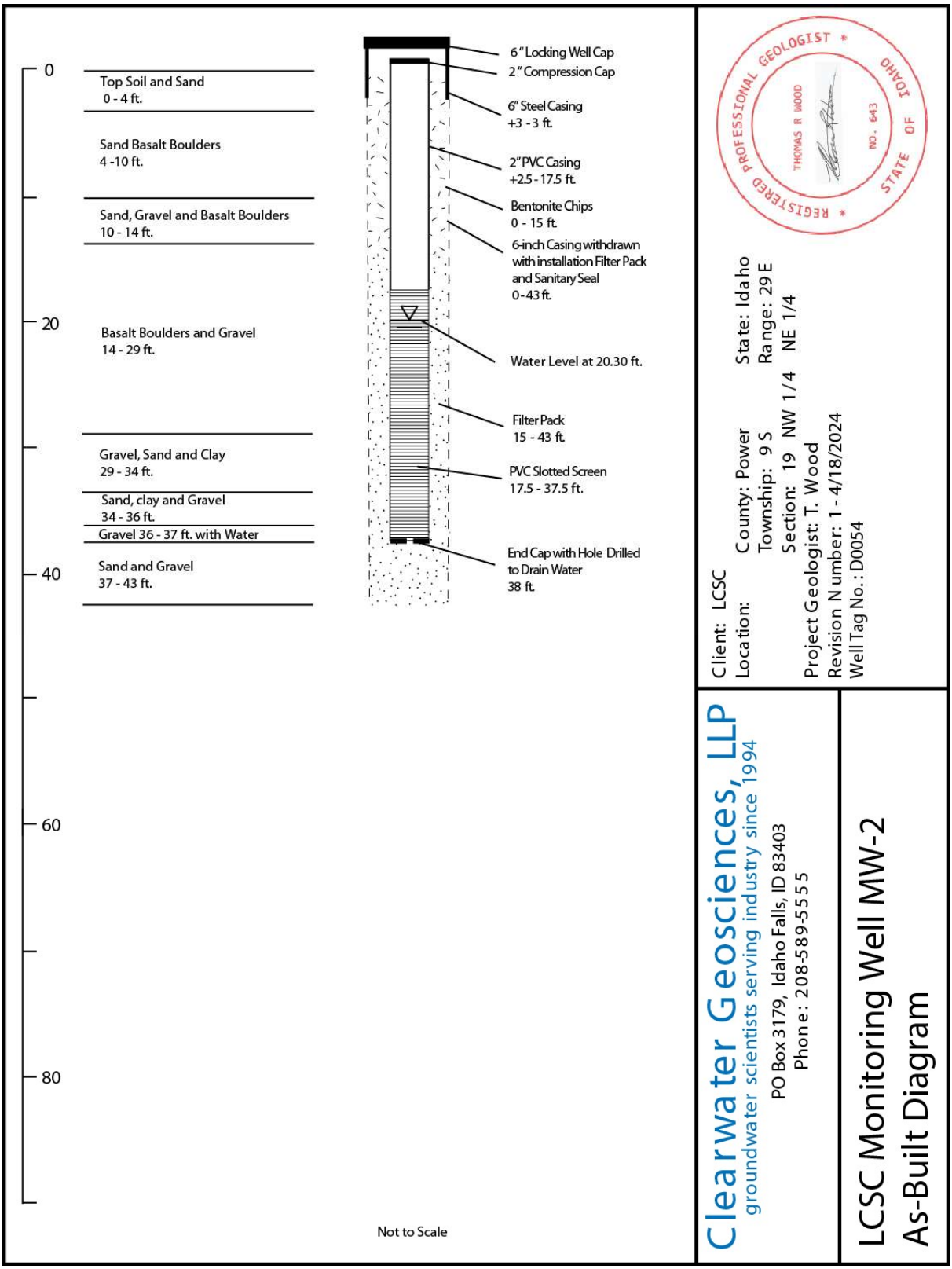


Figure 4. As-built diagram of MW-2.



Figure 5. Wells in the area of LCSC and line of geologic cross section.

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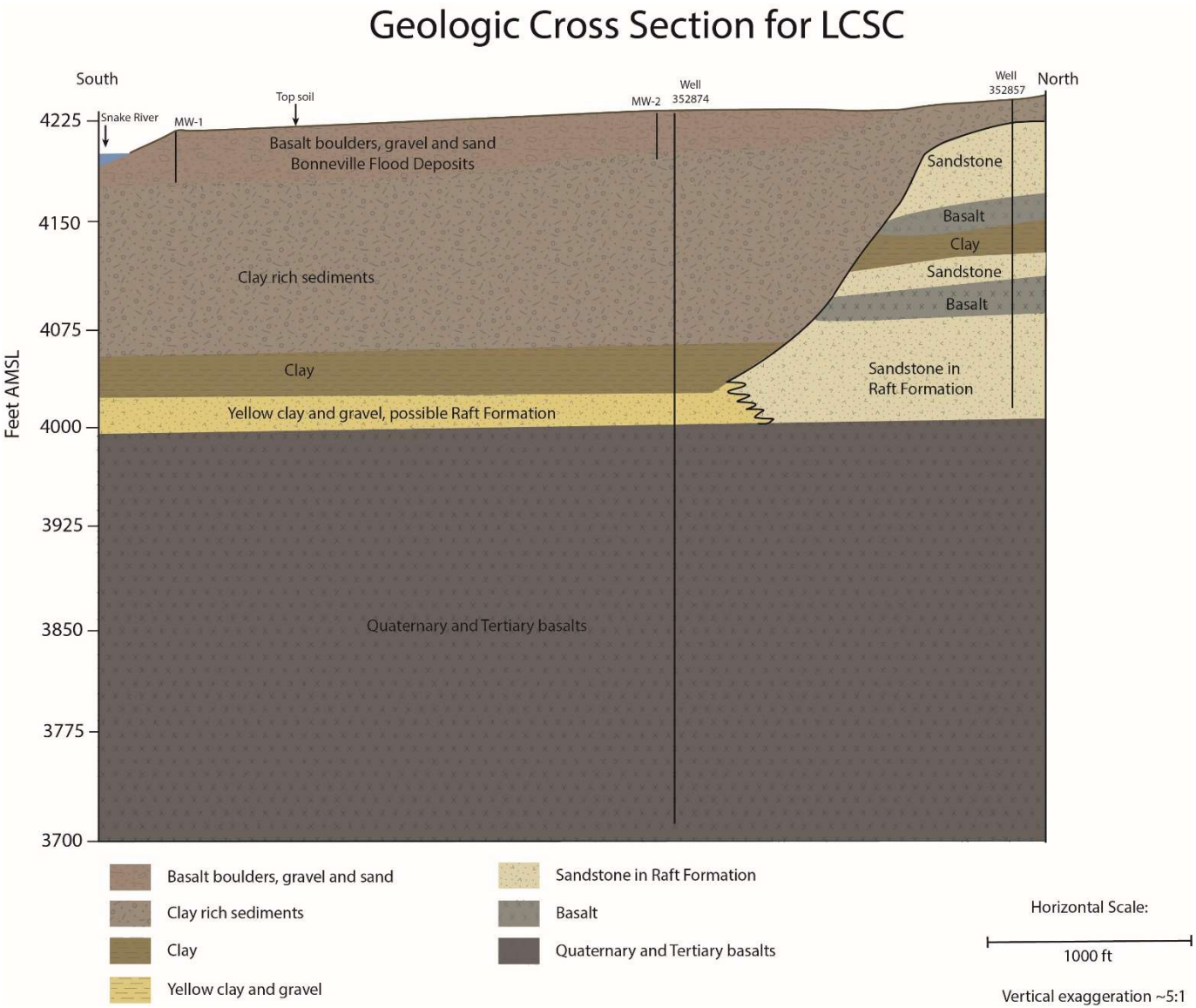


Figure 6. Geologic cross-section from the southeast at Snake River trending northwest to Well 352457.

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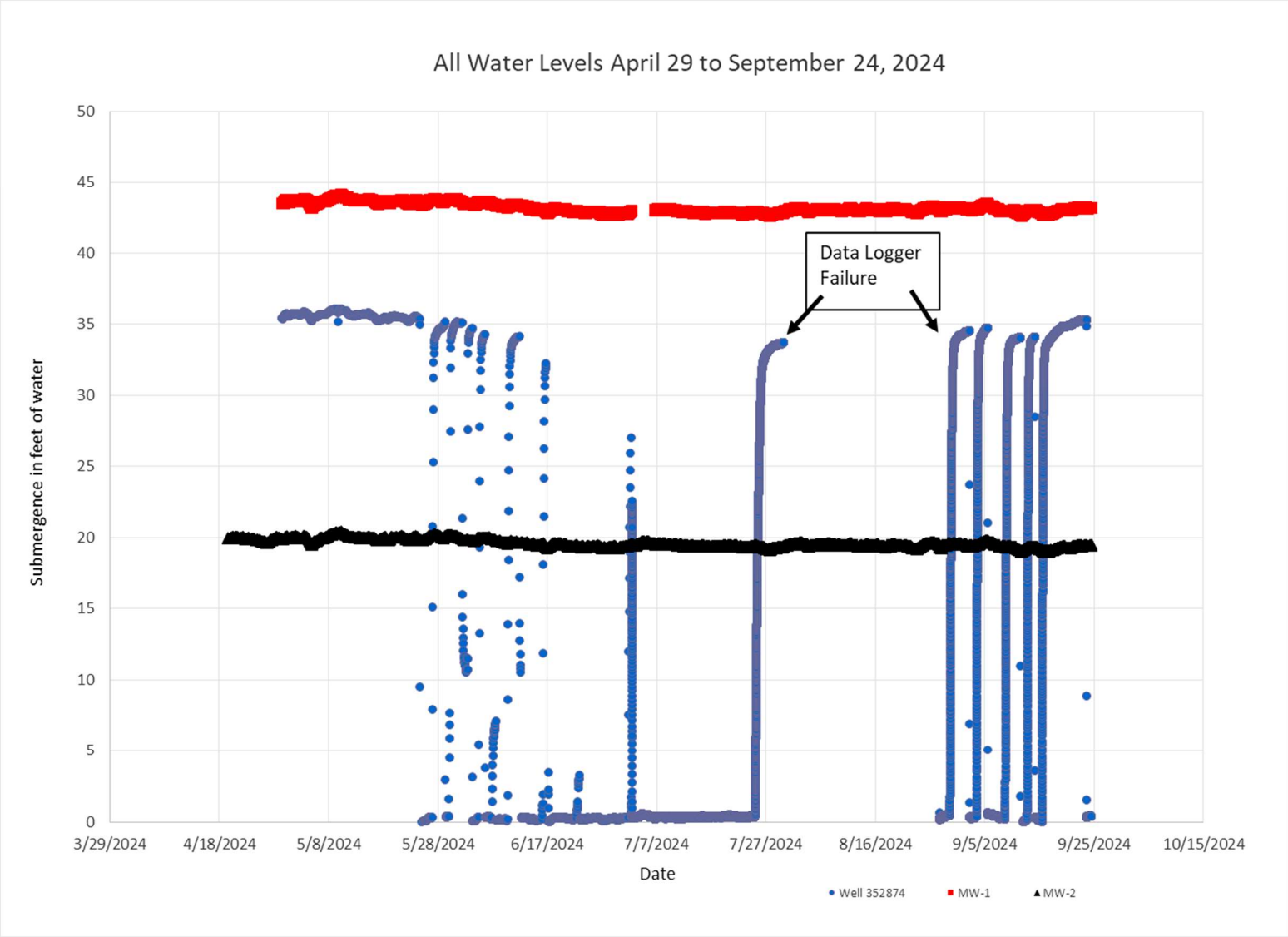


Figure 7. Water levels in MW-1, MW-2 and Well 352874 from April 29 to September 24, 2024.

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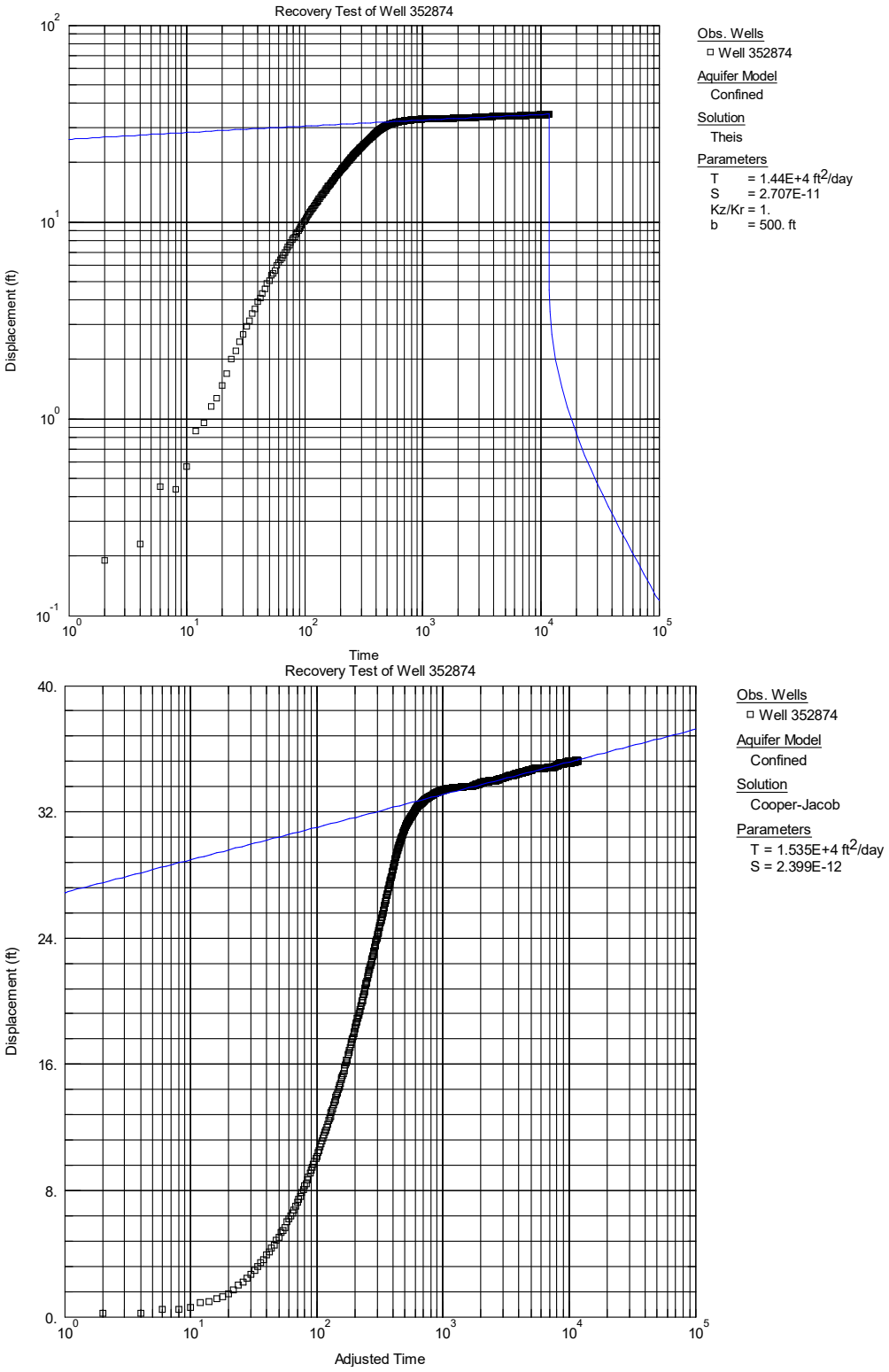


Figure 8. Time-drawdown plots and curve matching for calculating aquifer transmissivity. Top Theis Solution 1.44×10^4 ft^2/day; Bottom Cooper-Jacob Solution 1.53×10^4 ft^2/day.

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ATTACHMENT 1
WELL LOGS

PO Box 3179 Idaho Falls, ID 83403 208.589.5555

Form 238-7
Rev 7/12/23

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0099453
Drilling Permit No. 912743
Water right or injection well #

2. OWNER: LCSC Enterprises, LLC.
Name MW-1
Address 433 E Las Colinas Blvd Ste 1290
City Irving State TX Zip 75039

3.WELL LOCATION:
Twp. 09 North ☐ or South ■ Rge. 29 East ■ or West ☐
Sec. 19 NE 1/4 (40 acres) NW 1/4 (160 acres)
Gov't Lot ____ County Power
Lat. 42 ° 37.914' (Deg. and Decimal minutes)
Long. -113 ° 6.935' (Deg. and Decimal minutes)
Address of Well Site South end of Lake Channel Rd.
(Give at least name of road + Distance to Road or Landmark) City American Falls
Lot. ____ Blk. ____ Sub. Name ____

4. USE:
☐ Domestic ☐ Municipal ■ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other ____

5. TYPE OF WORK:
■ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other ____

6. DRILL METHOD:
■ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other ____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Bentonite	0	18	750	Surface load

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
2"	+2	23	SCH80	PVC	☐	☐	☑	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Was drive shoe used? ☐ Y ■ N Shoe Depth(s) ____

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ■ N Method ____
Manufactured screen ■ Y ☐ N Type PVC
Method of installation ____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
23	43	20	20	2"	PVC	SCH80

Length of Headpipe ____ Length of Tailpipe ____
Packer ☐ Y ■ N Type ____

10.FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
10/20 sand	18	43	2950	Surface load

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ■ N Artesian Pressure (PSIG) ____
Describe control device ____

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 30 Static water level (ft) 27.6
Water temp. (°F) Cold Bottom hole temp. (°F) Cold
Describe access port ____

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Test method: Pump	Bailer	Air	Flowing artesian
	10	30	☐	☐	☑	☐
			☐	☐	☐	☐

Water quality test or comments: ____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
8	0	4	Top soil		x
8	4	23	Basalt boulders/gravel		x
8	23	37	Basalt/gravel/sand	x	
8	37	43	Sand/gravel		x

Completed Depth (Measurable): 43'
Date Started: 4/16/24 Date Completed: 4/17/24

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Thomas Drilling, Inc./ APD Co. No. 390
*Principal Driller ____ Date 4-18-24
*Driller ____ Date 4-18-24
*Operator ____ Date ____
*Operator ____ Date ____
Other ____ Date ____
Other ____ Date ____

*** Signature of Principal Driller and rig operator are required.**

Figure 1-1. Well log for MW-1.

Form 238-7
Rev 7/12/23

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0099454
Drilling Permit No. 912744
Water right or injection well #
2. OWNER: LCSC Enterprises, LLC.
Name MW-2
Address 433 E Las Colinas Blvd Ste 1290
City Irving State TX Zip 75039

3.WELL LOCATION:
Twp. 09 North ☐ or South ☑ Rge. 29 East ☑ or West ☐
Sec. 19 NE 1/4 (40 acres) NW 1/4 (160 acres)
Gov't Lot County Power
Lat. 42 ° 37.914' (Deg. and Decimal minutes)
Long. -113 ° 6.935' (Deg. and Decimal minutes)
Address of Well Site South end of Lake Channel Rd.
(Give at least name of road + Distance to Road or Landmark) City American Falls
Lot. Blk. Sub. Name

4. USE:
☐ Domestic ☐ Municipal ☑ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other

5. TYPE OF WORK:
☑ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other

6. DRILL METHOD:
☑ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Bentonite	0	18	1000	Surface load

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
2"	+2	18	SCH80	PVC	☐	☐	☑	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Was drive shoe used? ☐ Y ☑ N Shoe Depth(s)

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☑ N Method
Manufactured screen ☑ Y ☐ N Type PVC
Method of installation

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
18	38	20	20	2"	PVC	SCH80

Length of Headpipe Length of Tailpipe
Packer ☐ Y ☑ N Type

10.FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method
10/20 sand	18	43	830	Surface load

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☑ N Artesian Pressure (PSIG)
Describe control device

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 18 Static water level (ft) 18
Water temp. (°F) Cold Bottom hole temp. (°F) Cold
Describe access port

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Test method: Pump	Bailer	Air	Flowing artesian
	10	30	☐	☐	☑	☐
			☐	☐	☐	☐

Water quality test or comments:

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
8	0	4	Top soil		x
8	4	10	Sand/Basalt boulders		x
8	10	14	Basalt/gravel/sand		x
8	14	29	Basalt/gravel		x
8	29	34	Gravel/sand	x	
8	34	36	Sand/clay/gravel	x	
8	36	43	Gravel/sand	x	

Completed Depth (Measurable): 38'
Date Started: 4/15/24 Date Completed: 4/16/24

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Thomas Drilling, Inc./ APD Co. No. 390
*Principal Driller Date 4-18-24
*Driller Date 4-18-24
*Operator Date
*Operator Date
Other Date
Other Date

*** Signature of Principal Driller and rig operator are required.**

Figure 1-2. Well log for MW-2.

Form 238-7
/78

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Southern District Office

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

Statute requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

Location Corrected by IDWR To:
T09S R29E Sec. 18 SESW
By: mciscell 2012-05-09

1. WELL OWNER
Name Vern Duffin
Address Aberdeen, Ida 83210
Owner's Permit No.

2. NATURE OF WORK
☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning)

3. PROPOSED USE
☐ Domestic ☒ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other (specify type)

4. METHOD DRILLED
☐ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☑ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION
Casing schedule: ☒ Steel ☐ Concrete ☐ Other

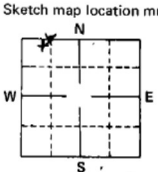
Thickness	Diameter	From	To
.250 inches	16 inches	+ 1 feet	256 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation ____ inches by ____ inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☐ Yes ☐ No
Manufacturer's name
Type Model No.
Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel
Placed from ____ feet to ____ feet
Surface seal depth 20' Material used in seal: ☐ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port 2" pipe

6. LOCATION OF WELL
Sketch map location must agree with written location.



Subdivision Name
Lot No. Block No.
County Bingham
NW ¼ NW ¼ Sec. 19, T. 9 S, R. 29 E

7. WATER LEVEL
Static water level ____ feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow
Artesian closed-in pressure ____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature ____ °F. Quality

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8. WELL TEST DATA
☐ Pump ☐ Bailer ☐ Air ☐ Other

Discharge G.P.M.	Pumping	Hours Pumped

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
16"	0'	3'	Top Soil		
	3'	5'	Gray sandy Clay & Rock		
	5'	10'	Black Lava Boulders		
	10'	15'	Broken Black Lava	√	
	15'	35'	Black lava Gravel & Gray Clay	√	
	35'	40'	Gravel	√	
	40'	70'	Brown Sandy Clay & Gravel		
	70'	110'	Yellow Clay & Red Gravel		
	110'	123'	White Silt Clay		
	123'	210'	Brown Clay		
	210'	345'	Yellow Brown Clay & gravel		
	345'	375'	Black Lava Broken	√	
	375'	395'	Brownish Lava	√	
	395'	305'	Black Lava	√	
	305'	310'	Multicolored Lava	√	
	310'	312'	Red Lava & Clay		
	312'	345'	Multicolored Lava		
	345'	370'	Red & Black Lava		
	370'	385'	Red & Black Lava & Red Clay		
	385'	387'	Red White Clay		
	387'	401'	Red Lava White Soap Stone		
	401'	450'	Multicolored Lava & Red Clay		
	450'	455'	White & Black Clay		
	455'	465'	Black Lava		
	465'	470'	Multicolored Lava		
	470'	500'	Gray Lava		
	500'	515'	Sharp Gray Lava (No Cuttings)		
	515'	530'	Red Lava		
	530'	535'	Multicolored Lava		
	535'	530'	Redish Rock With Layered Crystals		
	530'		Red Clay & Red Lava & Crystals		
		535'	End of Hole		

10.
Work started 10-11-78 finished 1-18-79

11. DRILLERS CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name Paul Vollmer & Son Firm No. 67
Address Box B Aberdeen, Ida Date 3-12-79
Signed by (Firm Official) Gary Vollmer
and
(Operator) Jim Taylor

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Figure 1-3. Well log for Duffin 352874.

Form 238-7
/78

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of
within 30 days after the completion or abandonment of the w

Location Corrected by IDWR To:
T09S R29E Sec. 18 NWSWSE
By: mciscell 2012-08-28

1. WELL OWNER
Name Vern Duffin
Address Aberdeen, Ida 83210
Owner's Permit No. _____

2. NATURE OF WORK
☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE
☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED
☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION
Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

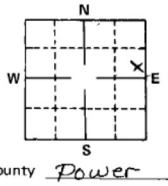
Thickness	Diameter	From	To
.250 inches	6 inches +	1 feet	149 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 150' Material used in seal: ☒ Cement grout
☒ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing
☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld
☐ Cemented between strata
Describe access port ~~3" pipe~~ well cap.

6. LOCATION OF WELL
Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____
County Power
SE ¼ NE ¼ Sec. 22, T. 7 N/S, R. 31 E/W

7. WATER LEVEL
Static water level 85' feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____

8. WELL TEST DATA Good
☐ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	0	3'	Dirt		–
	3'	15'	Sand Semi Solid		–
	15'	98'	Sand Stone		
	98'	125'	Lava		
	125'	134'	Clay		
	134'	145'	Sandstone		
	145'	178'	Lava	✓	
	178'	250	Sandstone	✓	

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Eastern District Office
MAR 5 1980
Department of Water Resources

10. Work started 2-9-79 finished 2-12-79

11. DRILLERS CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name Paul Vollmer & Son Firm No. 67
Address Box B Aberdeen, Ida Date 3-12-79
Signed by (Firm Official) Gary Vollmer
and
(Operator) Gary Vollmer

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Figure 1-4. Well log for Duffin 352857.

Form 238-7 11/97 DMD

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat: : : Long: : :

1. WELL TAG NO. D 0008780
DRILLING PERMIT NO. 764323
Other IDWR No. _____

2. OWNER:
Name DIAMOND D FARMS
Address P O BOX 204/3584 S LIBERTY LN
City AMERICAN FALLS State ID Zip 83211

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Twp. 9 North ☐ or South ☒
Rge. 29 East ☒ or West ☐
Sec. 18 NW 1/4 (10 acres) NW 1/4 (40 acres) NE 1/4 (160 acres)
Gov't Lot ____ County POWER
Lat: : : Long: : :
Address of Well Site MORGAN RD.
City AM. FALLS
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other &potato cellar

5. TYPE OF WORK check all that apply (Replacement etc.)
☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☐ Air Rotary ☒ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
cement	19	5	10	overbore
bentonite	5	0	3	"

Was drive shoe used? ☐Y ☒ N Shoe Depth(s) _____
Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
65/8	+2.0	195	250	steel	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS
Perforations Method torch
Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
192	186	1/8	36	65/8	steel	☒	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
75 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: remove well cap

11. WELL TESTS:
☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
21	6 ft.	81	4 hrs

Water Temp. _____ Bottom hole temp. _____
Water Quality test or comments: _____
Depth first Water Encounter _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
10	0	2	topsoil		
	2	6	gray sand		
	6	29	gravel & some sand		
6	29	64	sand & gravel		
	64	77	gravel		
	77	92	brown clay		
	92	146	brown sandy clay		
	146	151	brown sandstone & gravel		
	151	158	brown sandy clay		
	158	171	gray clay		
	171	175	brown clay		
	175	184	brown sandy clay		
	184	193	cemented gravel	x	
	193	196	brown clay		
			put some gravel in bottom of well to hold sand from pumping		

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Eastern Region

Completed Depth 193 (Measurable)
Date: Started 5-9-2000 Completed 5-15-2000

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name COUCH WELL DRILLING INC. No. 161
Firm Official Scott Couch Date 5-21-2000
and
Driller or Operator Scott Couch Date _____
by S.C.
(Sign once if Firm Official & Operator)

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Figure 1-5. Well log for Diamond D.

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EXPERT REPORT ON MODELING ANALYSIS ASSOCIATED WITH LCSC ENTERPRISES LLC TRANSFER APPLICATIONS

In Support of Transfer Application
Nos. 84488 and 84490

Prepared for:
LCSC Enterprises LLC
April 30, 2025

The technical material in this report was prepared by or under the supervision and direction of the undersigned, whose seal as a Professional Geologist is affixed below.



The following members of the Clearwater Geosciences, LLP staff contributed to the preparation of this report.
Thomas R. Wood, Ph.D., PG – Principal-in-Charge
Hai Huang, Ph.D. – Principal Ground water Modeler

The following outside consultants also contributed to the preparation of this report.
Jason Helms, P.E. – ETRAN Specialist

PO Box 3179 Idaho Falls, ID 83403 208.589.5555

1. Overview of Transfer Applications

On October 13, 2020, LCSC Enterprises, LLC ("LCSC" or "Applicant") submitted two applications for water right transfer which were administratively assigned the identification numbers of 84488 and 84490 (hereinafter individually "84448" or "84490" or collectively the "transfer applications"). The transfer applications both seek to change the place of use ("POU") and point of diversion ("POD") for water right 35-14041 ("35-14041"), which was decreed on January 31, 2002, in the Snake River Basin Adjudication by the District Court for the Fifth Judicial District of the State of Idaho.

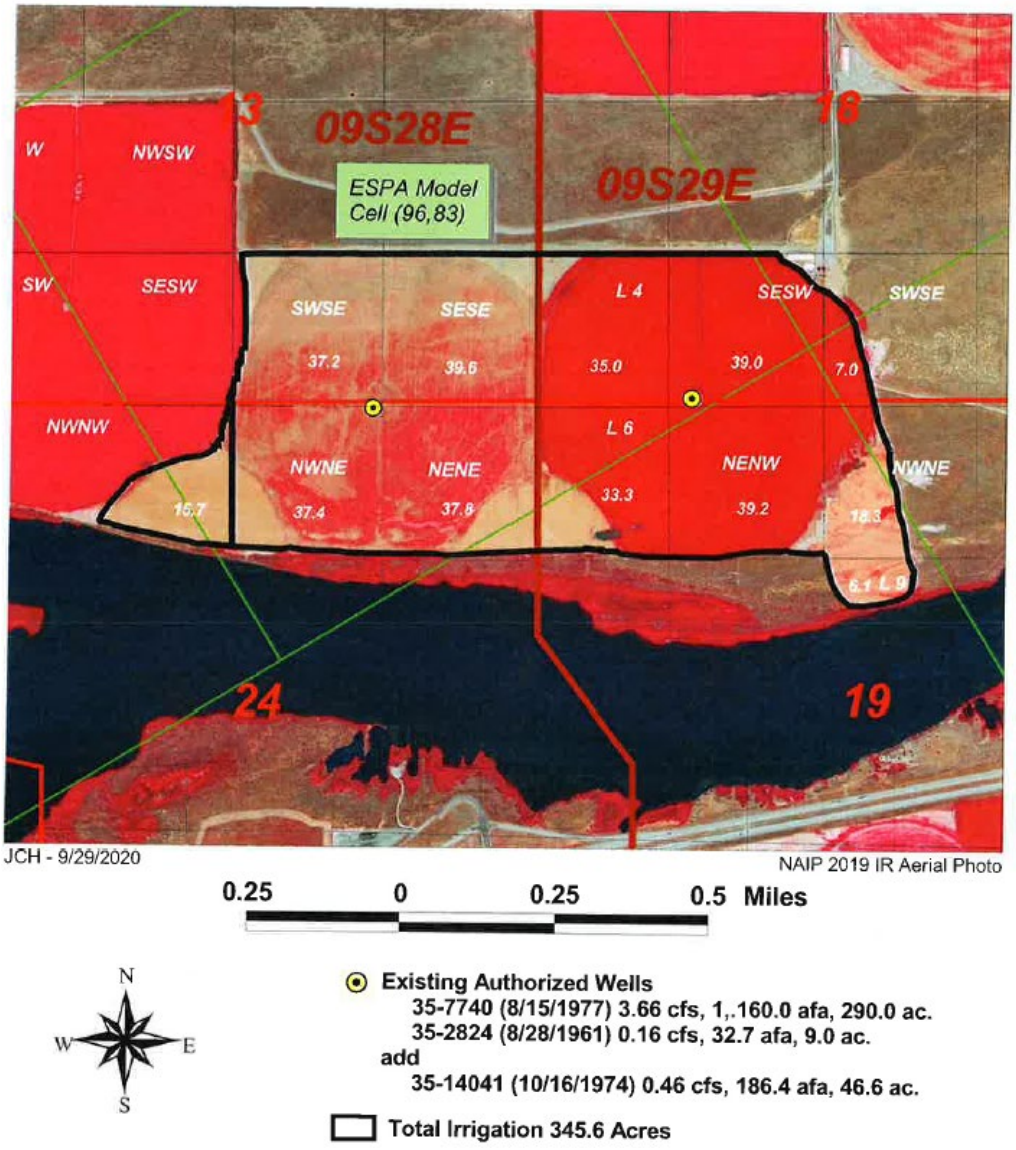
As currently described on the records of the Idaho Department of Water Resources ("IDWR" or "Department"), 35-14041 contains the following elements:

Current Owner:	LCSC Enterprises, LLC
Priority Date:	October 16, 1974
Source:	Ground water
Point of Diversion:	NWSE, Sec. 12, Township 01S., Range 32E. (Bingham County)
Nature of Use:	Irrigation
Season of Use:	04/01 to 11/01
Diversion Rate:	3.18 cfs
Diversion Volume:	1290 acre-feet per year
Irrigated Acres:	322.5 acres

84488 proposes to change the POD for a 46.6-acre portion of 35-14041 to be diverted out of two existing wells located on LCSC property (the NWNWNE, Sec. 24, Township 09S., Range 28E. (Power County) and the SWSESW, Sec. 18, Township 09S., Range 29E. (Power County)). These existing wells are already authorized to divert two existing water rights (water right nos. 35-7740 and 35-2824).

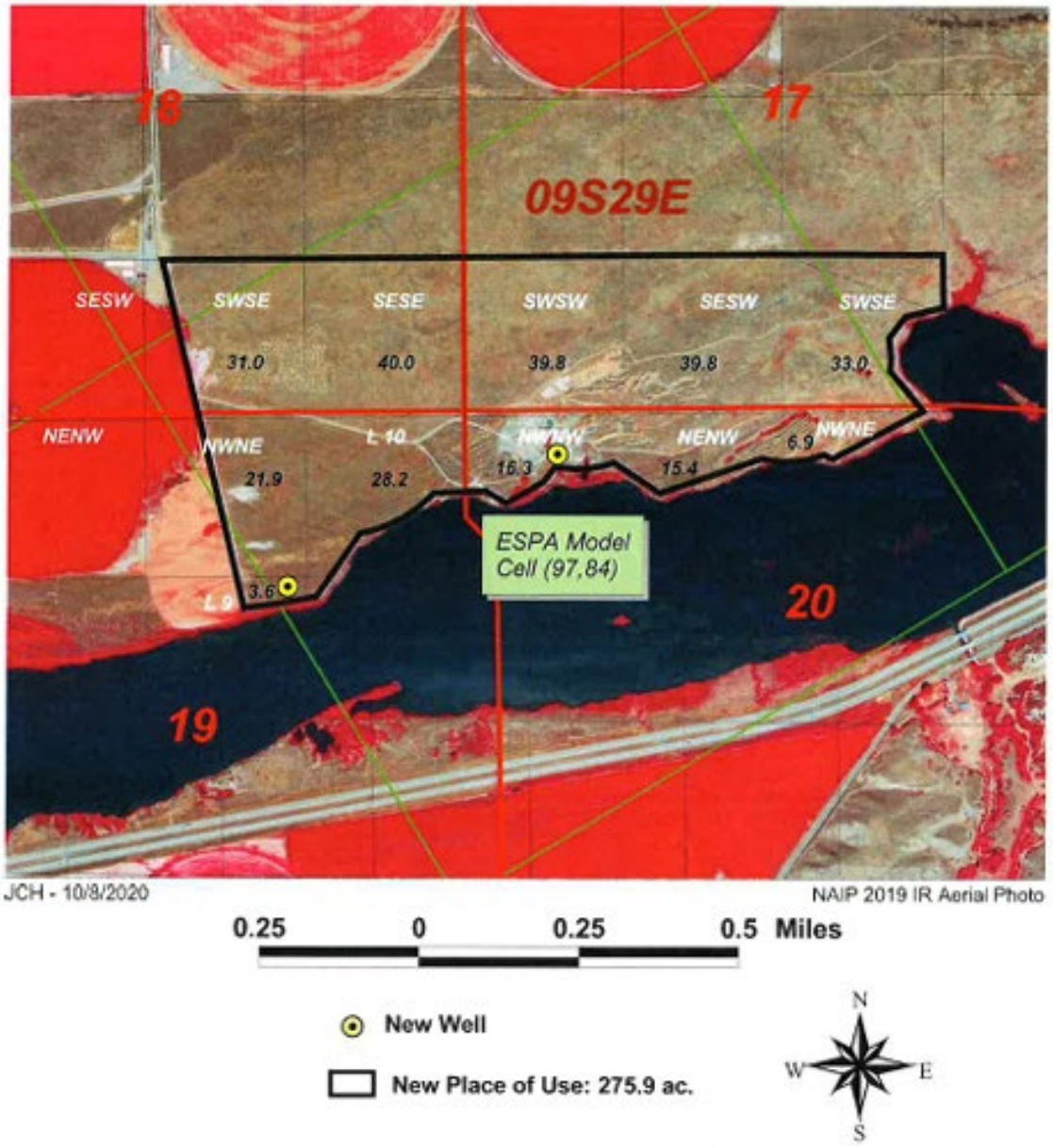
84488 also proposes to change the POU of the 46.6-acre portion of 35-14041 to be combined with the current POU of water right nos. 35-7740 and 35-2824 for a total POU of 345.6 acres. The locations of the PODs and POU proposed by 84488 are depicted on the following map submitted in the application for 84488:

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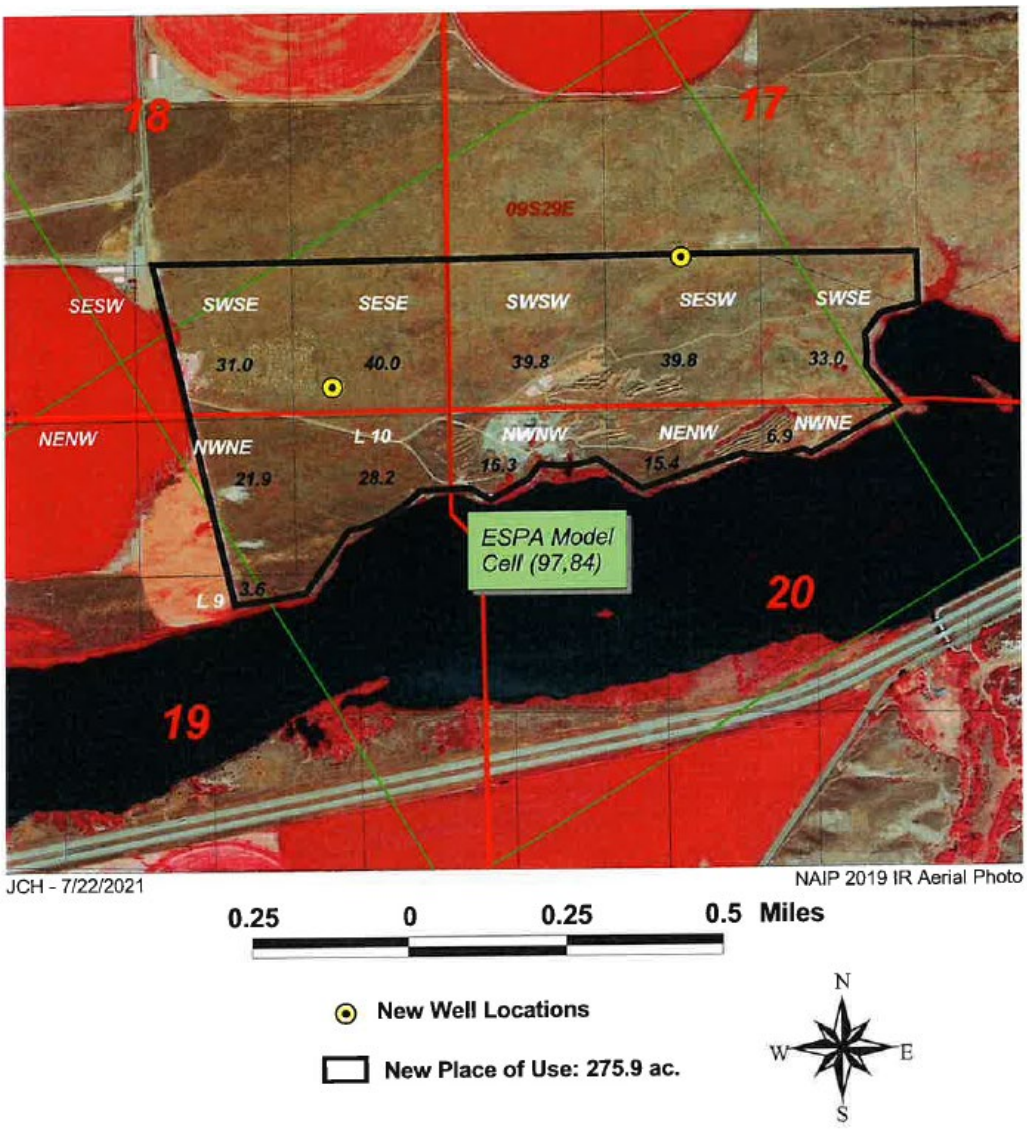


84490 proposes to change the POD of the entire remining 275.9-acre portion of 35-14041 to be diverted out of two proposed new wells located on LCSC property. The original proposed new well locations were depicted on the following map submitted with the original application for 84490:

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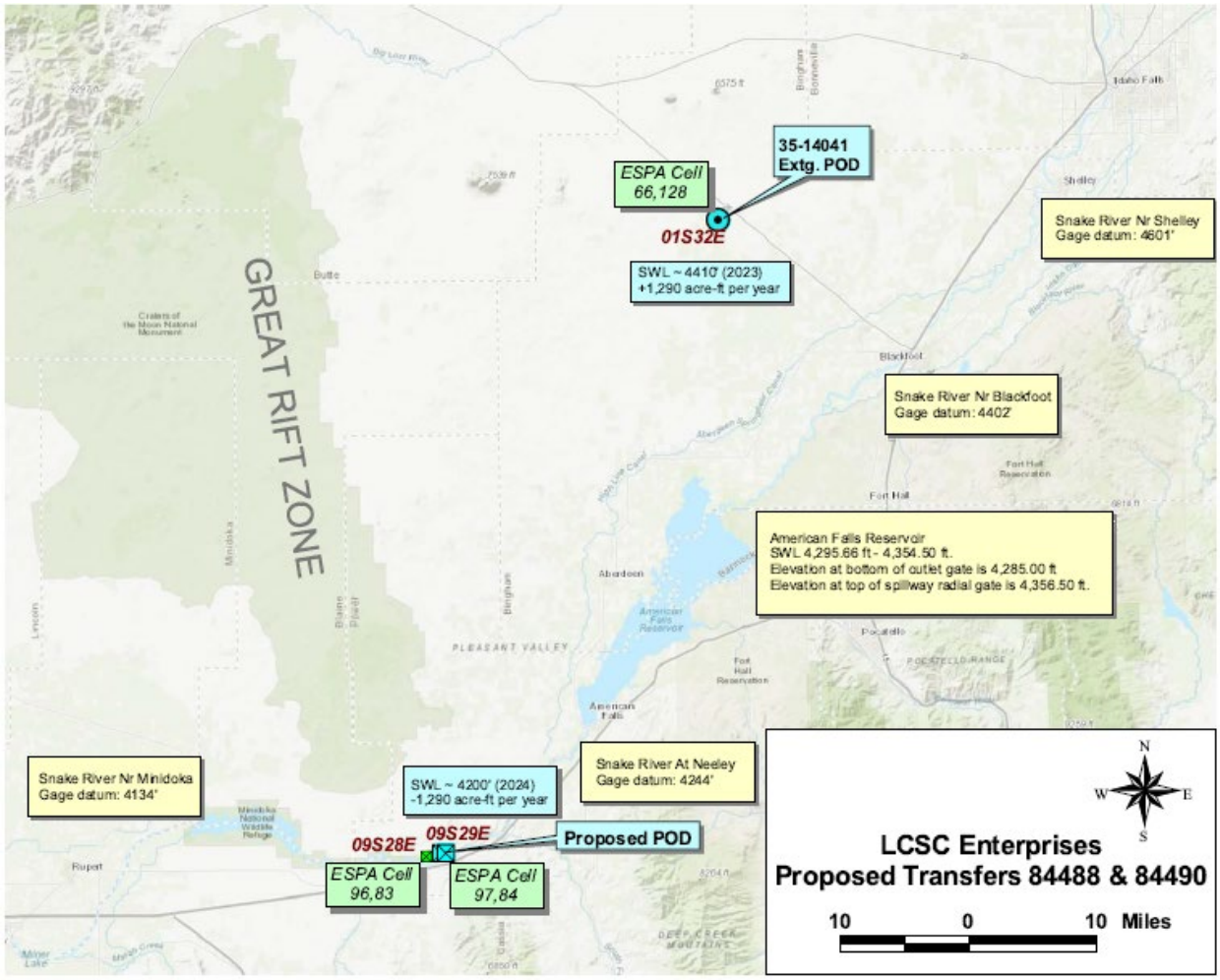


84490 was later amended to move the PODs further north than the originally proposed well locations further away from the Snake River to locations located in the NWSESW, Sec. 17, Township 09S., Range 29E. (Power County) and the SWSESE, Sec. 18, Township 09S., Range 29E. (Power County). The locations of the updated proposed PODs and the 275.9-acre POU now proposed by 84490 are depicted on the following map submitted with the amendment of 84490:



A map showing the overall changes proposed by the transfer applications is set forth here:

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The transfer applications do not propose to increase the rate, volume, or authorized irrigated acres currently described for 35-14041. The entirety of 35-14041 was leased annually to the Idaho Water Supply Bank since expiration of a CREP contract which was active from 2007 through 2022.

In its review of applications for transfer, IDWR utilizes an Eastern Snake River Plan Aquifer (ESPA) Model Transfer Spreadsheet (ETRAN). Included with the transfer applications submitted in October of 2020 were the necessary analyses utilizing ETRAN3.2 (a simplified version of the fully populated ESPAM2.1 model). Submission of modeling was required at the time and remains required under current IDWR policies and procedures.[1] Modeling analysis

[1] Administrator's Memorandum, Transfer Processing No. 24, October 1, 2024, at 16 (the "Transfer Memo") (Ground Water Points of Diversion in the Eastern Snake Plain Aquifer (ESPA). Consistent with the application form, an application proposing to change the point of diversion for a ground water right within the model boundary of the ESPA must include information about the effect of the proposed change on the Snake River. Guidance for modeling and quantifying the effects of ground water transfers on the Snake River is set forth in separate resource documents. Guidance for evaluating the effects of such transfers is set forth in a separate administrative memo.).

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addresses the potential for injury to other water rights as described in Idaho Code § 42-222. *See, e.g., Transfer Memo* at 15 ("Injury is generally understood as a reduction in the quantity of water available to supply existing water rights.").

The analyses submitted with the transfer applications demonstrated that the transfer applications were below Snake River reach impact limits for approval of permanent water right transfers in the ESPA based on IDWR transfer application processing policies and procedures under each of the three "mitigation checks" for steady state analysis and two "mitigation checks" for transient state analysis. These mitigation checks are depicted on IDWR's "mitigation analysis tool" spreadsheet set forth below and summarized below within associated guidance memoranda as follows:

Steady State Analysis	Mitigation Check 1 - >10% of Historical:
	Mitigation Check 2: > 2 AF/T:
	Mitigation Check 3 - >10% of Total:
	Mitigation Required?:
	Mitigation Vol. Req'd (ac-ft):
Transient State Analysis	Mitigation Check 1 - >10% of Historical:
	Mitigation Check 2: > 2.01 AF/T:
	Mitigation Required?:
	Mitigation Vol. Req'd (ac-ft):

8.7.1. Steady State Analysis: Depletions to the Snake River require adjustment or mitigation when all three steady state conditions below occur for any reach:

- ***Net increased depletion caused by the transfer is greater than 10% of the historical depletion volume.***
- ***Depletion increases are greater than 2 acre-feet/trimester.***
- ***The depletion in a specific reach is greater than 10% of the total depletion to all reaches.***

For those reaches where all three conditions occur, the increase in depletion volume must be fully mitigated. It is not acceptable for the applicant to mitigate only enough to fall below one of the criteria in the steady state.

8.7.2. Transient State Analysis: Depletions to the Snake River require adjustment or mitigation when both of the two conditions below occur for any reach:

- ***Net increased depletion caused by the transfer is greater than 10% of the historical depletion volume.***
- ***Depletion increases are greater than 2 acre-feet/trimester.***

For those reaches where both conditions occur, the increase in depletion volume must be fully mitigated. It is not acceptable for the applicant to mitigate only enough to fall below one of the two criteria in the transient state.

Use of the ESPA Model Transfer Spreadsheet (ETRAN) & Mitigation Analysis Spreadsheet for Water Right Transfers in the Eastern Snake Plain Aquifer, October 2016, at 13-14 (*available at* https://idwr.idaho.gov/wp-content/uploads/sites/2/forms/waterrightsforms/Use-of-ESPA-Modeling-Spreadsheet-for-WR-Transfers-in-ESPA.pdf). Notably, IDWR also continually tracks the cumulative impacts of approved transfers approved since January 1, 2012, on the various Snake River reaches, with its most recent update through September 30, 2024. *See* https://idwr.idaho.gov/wp-content/uploads/sites/2/water-rights/ESPAXferMemo2024final.pdf.

The transfer applications satisfied all modeling mitigation checks described above. As part of the ETRAN modeling analysis, the Department's historic policy of allowing the combination of the Near Blackfoot to Neeley and Neeley to Minidoka reaches of the Snake River was utilized. The aquifer credits (Snake River gains including spring flows into American Falls Reservoir) generated in the Near Blackfoot to Neeley reach because of the non-use of 35-14041 are physically captured within American Falls Reservoir which is deliberately operated to maintain the river stage elevation at Lake Walcott below exactly where the increased impacts resulting from the transfer are calculated to occur. The physical operation of the American Falls Dam and Reservoir directly delivers reach gains from the Near Blackfoot to Neeley reach resulting from the non-use of 35-14041 at the original POD. According to the United States (Bureau of Reclamation):

> During typical water years, Lake Walcott is maintained close to full to optimize power generation at the Minidoka Dam powerplant. During the summer months, the amount of water released from American Falls Reservoir (which enters Lake Walcott) and from Lake Walcott are set to maintain a fairly constant pool level. There are two canals that divert directly from Lake Walcott. Their headworks are included in the Minidoka Dam superstructure. During the winter months, the reservoir is maintained slightly below full and maintained at a constant level.

(United States, 2019).

The transfer applications were protested by the A&B Irrigation District, American Falls Reservoir District #2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company, and Twin Falls Canal Company (collectively the "Coalition"), and the Idaho Power Company ("IPCO").

Following submittal of the transfer applications in 2020, and after the transfer applications were protested by the Coalition and IPCO, IDWR subsequently released ETRAN3.4 (a simplified version of the ESPAM 2.2 model) in July of 2021. Anticipating that the Department would require use of ETRAN3.4 to analyze the transfer applications in the contested case on the transfer applications, the Applicant elected to repeat its modeling analysis with the new transfer tool version. Results using ETRAN3.4 showed the combined reach impacts no longer fell below ESPA mitigation requirements and the impacts in the Neeley to Minidoka reach of the Snake River increased to over 300% of the impacts calculated by ESPAM 2.1. The purpose of this report is to analyze both

ESPAM models and the substantial changes in modeling outputs between the versions and conclude which model version should be utilized for purposes of the transfer applications.

2. Comparison of ESPAM to ETRAN Results

ETRAN was designed for individuals with little or no experience using ground water modeling software. The ETRAN3.4 spreadsheet acts as a user interface for a supposition model (Sukow, 2021a), i.e., the computational engine of ETRAN, which is a simplified version of the fully populated ESPAM2.2 (Sukow, 2021b). The fully populated version of the model represents all components of aquifer stress, including recharge on irrigated and non-irrigated lands, ground water pumping for agricultural and municipal purposes, tributary underflow, perched river/canal seepage, spring discharges, river gains from and/or losses to the ESPA, etc. The superposition version of the model is a simplified version that can be used to predict the response of a single component of the water stress. This approach simplifies analysis and presentation of results for simulations involving managed recharge, curtailment of ground water pumping, transfer of water right diversion locations, and mitigation activities (Sukow, 2021a). Essentially, the ETRAN Excel workbook allows the user to quickly review the calculated effects of the transfer proposal on reach gains and losses along the Snake River (IDWR, 2025a).

We performed a side-by-side comparison of the output of the ESPAM2.2 Model to the results generated by ETRAN V3.4. This was done mainly to understand the validity of the ETRAN V3.4 predictions. Both the ESPAM2.2 and ETRAN 3.4 simulations were carried out for a proposed transfer scenario of 1103.6 acre-ft/year (the amount of water proposed to be moved under 84490 only). ESPAM2.2 was run multiple times as follows: (1) the base case (i.e., with all existing aquifer sources and sinks based on averaged 2009 through 2018 water year budgets (Sukow, 2021a)); (2) pumping at the existing water right location (i.e., equivalent to the effect of "**From Well**" in ETRAN); (3) pumping at the transfer target location (i.e., equivalent to the effect of "**To Well**" in ETRAN) and (4) pumping at the transfer target location while shutting off the pumping at the existing water right location (i.e. equivalent to the "**Net Transfer Effect**" in ETRAN).

Table 1 provides the detailed comparison of results for the simulated long-term, steady-state reach depletions associated with the transfer applications from ESPAM2.2 and ETRAN3.4, respectively. By comparing results from the various cases (i.e. finding the differences) we were able to arrive at the conclusion that *the results are, in general, comparable to each other for most reaches along the Snake River*, with differences typically less than 1-10%, except for a few extreme outliers, mostly for reaches below Minidoka. The differences between the ESPAM2.2 and ETRAN3.4 predictions are caused primarily by the simplifications of the fully populated ESPAM2.2 model.

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It is worth noting that the differences of simulation results between ESPAM2.2 and ETRAN3.4 become larger when the applied ground water pumping location is closer to the Snake River. Therefore, caution is needed when applying the ETRAN model for assessing the effects of ground water pumping at locations near the Snake River.

Nevertheless, both ETRAN3.4 and ESPAM2.2 predicted excessive depletion of the Near Neeley to Minidoka Reach that needs to be mitigated, which is contrary to the prediction result of ETRAN3.2, which is based on the simplifications of the earlier version of ESPAM2.1 model (IDWR, 2013).

The contradictory predictive results of ETRAN3.2 and ETRAN3.4 motivated us to examine the details of the model input files and changes of model parameters between the fully populated ESPAM2.2 and ESPAM2.1 models. We focused on the Near Neeley to Minidoka Reach because it drives the issue for the transfer applications. The key model parameter that determines the aquifer-river water exchange rate is the parameter labeled as "Riverbed Conductance." The calibrated Riverbed Conductance of the Near Neeley to Minidoka Reach is **1625.975 ft^2/day in ESPAM2.1** (IDWR, 2013) and **5965.499 ft^2/day in ESPAM2.2 (**see Sukow, 2021b**)**, respectively. Riverbed Conductance in this reach was increased by a factor of nearly **3.7**, implying that for any given amount of ground water level decrease underneath the reach caused by ground water pumping, the simulated depletions for Near Neeley to Minidoka Reach by ESPAM2.2 and ETRAN3.4 will be increased by a factor of ~3.7. This explains why ETRAN3.2 and ETRAN3.4 were producing contradictory results, as described in the previous section.

The general notion, for which we agree, is that the ESPAM2.2 is a more robust regional-scale model than ESPAM2.1 due to many improvements made during the development and calibration processes of ESPAM 2.2, such as more spring discharge and reach gain/loss measurements as calibration targets, more accurate riverbed elevations and so on (Sukow, 2021b).

However, neither ESPAM2.1 nor ESPAM2.2 are very reliable for evaluating impacts from the transfer applications along the Near Neeley to Minidoka Reach. Of the two versions, it is our expert opinion, based on the lower R^2 value, that ESPAM2.1 represents the potential impacts to this particular river reach more reliably.

The Near Neeley to Minidoka Reach abuts the target transfer locations and the magnitude of Riverbed Conductance greatly impacts the transfer applications. Therefore, the significant increase of the Riverbed Conductance for this reach should have strong technical justification, for example, better matches to the measured reach gains and(or) losses for the Near Neeley to Minidoka Reach. However, this is not the case.

Figure 1 shows the side-by-side comparison of calibration results between ESPAM2.1 (IDWR, 2013) and ESPAM2.2 (Sukow, 2021b) for the Near Neeley to Minidoka Reach. It is obvious that both ESPAM2.1 and ESPAM2.2 models *failed to match the measured reach gains and losses* to any reasonably satisfactory degree. The scatter plots of the modeled *vs*. measured values of both models collapsed to a nearly horizontal line, instead of randomly scattering around the 1:1

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"*perfect matching*" line, clearly indicating that the models are not adequately representing the complex river-aquifer interaction nature for the Near Neeley to Minidoka Reach.

The R^2 values of both models provide a quantitative measure of the "*goodness of fit*", that is, how well a model fits a set of observations. An R^2 of 1 means the model fits the measurements perfectly. An R^2 of 0 means the worst possible model fits to the measured data. Both ESPAM2.1 and 2.2 have very small R^2 values for the Near Neeley to Minidoka Reach, 0.0147 and 0.0079, respectively, strongly indicating **very poor fittings** to the data by both models for this reach. In fact, the smaller R^2 value of ESPAM2.2 model suggests an even worse match to the measured data at Near Neeley to Minidoka Reach, compared with ESPAM2.1. It is also critical to understand that for most other reaches and springs along the Snake River, both the ESPAM2.1 and ESPAM2.2 models achieved much more satisfactory fittings to measured reach gains and losses.

The IDWR modeling report for ESPAM 2.2 lists **5000 ft^2/day** as the "*preferred*" riverbed conductance value of the Near Neeley to Minidoka Reach (see Table 1 in Sukow, 2021b) during the model calibrations, without providing technical justification about such choice. Thus, during the model calibration process, the automated parameter estimation software PEST used by the ESPAM model developers to calibrate the model would preferentially set the model parameters to its preferred value unless the measured data informs the PEST software to vary the model parameters from the preferred values. The fact that the final calibrated Riverbed Conductance of **5965.499 ft^2/day** for the Near Neeley to Minidoka Reach is very close to the preferred value of **5000 ft^2/day** clearly indicates that the measured reach gains of Near Neeley to Minidoka Reach were not weighted appropriately to influence the parameter adjustments during model calibration using PEST software.

Justification of 5000 ft^2/day as the preferred value is not provided in any IDWR-generated document. This is especially concerning. How was this value selected? Where the goodness-of-fit, as measured by the R^2 value, was reduced for this reach, why is it still preferred? Overall, the selection of the Riverbed Conductance value appears to be arbitrary because there is no technical justification for the selected value for ESPAM2.2.

IDWR states on their webpage (https://idwr.idaho.gov/water-rights/transfers/resources/)

> *The calibration of ESPAM Version 2.2 incorporated groundwater flow modeling improvements to the representation of aquifer interaction with the Snake River in the Heise to Shelley, near Blackfoot to Neeley, and Neeley to Minidoka reaches, and the extension of the calibration period to include water years 2009 through 2018. ESPAM Version 2.2 is* ***accepted as the best available science****.*

(emphasis added). This statement, authored by IDWR, may be valid for the entire upgraded model ESPAM2.2 when taken as a whole. However, ESPAM2.2 is not the best available science for the Near Neeley to Minidoka Reach of the river. The ESPAM2.2 model developers realized this short coming and explicitly recommended "*Research groundwater-surface water interaction*

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in the Neeley to Minidoka reach. Consider whether the model representation of uniform riverbed conductance within this reach is appropriate and whether additional subreach targets could be developed for this reach to support calibration of subreach conductance values" (see Sukow, 2021b, page 179).

Because of the apparent inadequacy of the ESPAM2.2 and ETRAN3.4 for representing the complex river-aquifer interaction nature for the Neeley to Minidoka Reach, the predicted river depletion for the Neeley to Minidoka Reach by these models is not robust or reliable, particularly when the proposed transfer pumping locations are near this river reach.

3. Implications of Site Characterization on Modeling

The modeling discussion in the preceding sections provide an analysis of the impact from the transfer applications based upon regional understandings of aquifer-river relationships. ESPAM employs a one mile by one mile grid in a single layer, which is designed to provide regional and sub-regional understandings of ground water flow in the Eastern Snake River Plain Aquifer. As the area of consideration becomes smaller, local characteristics must be considered by any simulation of ground water flow. ESPAM is not capable of the refinement necessary to understand ground water behavior at the local scale. For instance, in this transfer, the "to" locations are adjacent to the active model domain boundary and share the cells with the Snake River channel. In this section we will describe local hydrologic characteristics of the site defined by field work conducted specifically for the transfer applications.

Clearwater Geosciences conducted a field investigation in 2024 and the details of the work are presented in a final report previously submitted to the parties (Clearwater, 2024). The study provides site specific data from two new monitoring wells and water level data collected over a five-month period from the monitoring wells and an active irrigation well that is already authorized to divert two existing water rights (water right nos. 35-7740 and 35-2824) and is one of the proposed PODs for 84488 and is directly adjacent to the proposed POU for 84490. Of particular interest for these transfers is the relationship between proposed pumping of the regional Eastern Snake River Plain Aquifer and the nearby Snake River. The study was designed to describe the local hydrogeology of the subsurface, and to evaluate how the proposed new wells descried in the application for 84490 might impact water in the Snake River. A secondary purpose of the investigation was to determine if a well can be constructed in such a way as to fully ensure that water pumped from the well will not be directly connected to the Snake River (i.e., a deep completion that pulls water from depth in the aquifer).

For the LCSC site characterization project, two 2-inch diameter, 43 ft deep monitoring wells were drilled. One well, MW-1, was drilled 90 ft west of the existing irrigation well. The other

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well, MW-2, was drilled 500 ft north of the Snake River to monitor if the shallow surface water near the river was impacted by pumping of the deep aquifer during the irrigation season. The active irrigation well (352874) water levels were also monitored. Well 352874 has a completed depth of 535 ft and it is open to the regional aquifer from 256 to 535 ft. A clay rich sequence extends from 40 to 245 ft. The top of the regional Snake River Basalt is at a depth of 245 ft. Water levels were monitored continuously in the three wells for 5 months during the 2024 irrigation season. Water levels in both monitoring wells showed no relationship to fluctuating water levels in the deep irrigation well (water level declines during pumping of the irrigation well were greater than 35 ft). During the irrigation season the pump was on for long periods of time dropping the water level in the well. No corresponding decline in water levels were observed in either MW-1 or MW-2. This indicates significant isolation of the shallow aquifer (hydraulically connected with the Snake River) from the deep aquifer. It also suggests that pumping of the deep aquifer near the river does not cause change ongoing local reach-gain relationships near the LCSC farmland.

This LCSC farm location has been subject to erosion during flooding, for instance, the catastrophic draining of ancient Lake Bonneville eroded deep channels in the Portneuf and Snake River drainages. Backwater flooding of this area deposited tens of feet of fine-grained sediments when the Snake River was dammed by lava flows. The Raft Formation (45% clay, 15% sandy clay and 40% sand) was formed in a lake caused by damming of the ancestral Snake River. Houser (1992) states that the lava flow that dammed the Snake River may have been near the mouth of the Raft River, which is about 6 miles downstream of the LCSC farm. The local geologic history has generated a complex geologic sequence beneath this property, which are not (and cannot be) incorporated into the single layer, one-mile by one-mile grid cell resolution contained in ESPAM models.

The LCSC study illuminated the complexity of the local hydrogeology. In this location the one mile by one mile and single layer grid of the ESPAM is not adequate. The study also demonstrated that new wells planned for 84490 can be constructed without directly impacting flows the Snake River.

4. Discussion

The previous sections of this report identify material concerns associated with using ETRAN3.4 and ESPAM2.2 to evaluate the impacts of the transfer applications. As part of our analysis, we have reviewed the expert reports presented by the protestants prepared by LRE Water (2021) and Idaho Power (Schreuder and Blew, 2021). The consultants used different versions of the ETRAN models developed by IDWR (IDWR, 2016) to calculate the impacts of planned transfers upon gaining and losing river reaches but made the same observation—the ESPAM models (one-mile by one-mile grid resolution) are too coarse to provide reliable evaluation of the impact of near-river pumping. We agree with these expert opinions. The expert reports go on to criticize the blind applications of the ESPAM model for local-scale, site specific studies. We agree with these expert opinions as well.

After careful reviews of both expert reports, calculation methods used, all relevant ESPAM modeling reports, driller logs near the LCSC proposed well locations, and our hydrogeological characterization effort, we conclude that calculations presented in the two expert reports, are unreliable because they do not represent the local site geological/hydrogeological conditions.

ESPAM is a 2-D model, i.e., it has one layer, thus in the context of the model, the well construction is not considered. Conceptually, in ESPAM, water is pulled from a grid cell one mile on a side from the entire thickness of the aquifer. In a similar manner, the river penetrates the entire thickness of the grid cell. Obviously, the Snake River does not fully penetrate the model cell. If modeled correctly with a 3-D model, we could show attenuation of river leakage with depth because the river only penetrates a few tens of feet into the aquifer and the wells draw from depth. Generally, K (hydraulic conductivity) horizontal is about ten times greater than K vertical. We know that a thick, low permeability layer exists at this site, limiting communication in a vertical direction in the upper 245 ft of the local aquifer. This anisotropy pulls water preferentially in a horizontal direction. None of this can be represented in ESPAM at the scale of relevance for the transfer applications.

The LRE report on page 10 devotes a section to perched well impacts. The case for perched water is difficult to support with the available data. However, during pumping of the deep irrigation well, perched conditions may have existed. If there is perched water at this location it supports a position for complete isolation of surface water from the regional aquifer. If the Snake River is perched in this area, then pumping of the regional aquifer will have no impact locally on the adjacent Snake River.

For the transfer applications, it is obvious that any blind application of ETRAN/ESPAM models will lead to unreliable and unfavorable predicted impacts. While IDWR policies describe the need of using ETRAN for water right transfer assessments, the models are more appropriate in evaluating regional, broad-scale responses to changes of regional aquifer stresses (Sukow, 2021b, page 177),

> *"…user should avoid the temptation to model localized phenomena, such as the impact of a single well on a specific spring".*

Realizing such model limitations, IDWR (2016, page 2) also explicitly states in its ETRAN User Guide,

> *"This document is a general resource, and it will not prevent IDWR from allowing variances in sound analysis methodology on a case-specific basis".*

It is our expert opinion that the application of ESPAM 2.2 to the transfer applications specific to this matter are not appropriate for evaluating injury to water rights because ESPAM2.2 is less able to match Riverbed Conductance along this reach of the river than ESPAM2.1. If any ESPAM should be used to evaluate the transfer applications, it is ESPAM2.1. This is because the particular component of ESPAM2.2 critical to the proper evaluation of the transfer

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applications, Riverbed Conductance, is not the best available science for evaluation of the transfer applications.

Further, the large grid cells found in ESPAM cannot honor or supersede important local data obtained for the transfer applications. Grid refinement and multiple layers in the model near the target reach of the river would surely improve predictions of impact, but in any event, the data obtained during the previously conducted pump test on the LCSC property must be considered the best available science and information by IDWR in this contested case because it is site and case specific.

5. Conclusions

It is our expert opinion that:

1. ESPAM is not capable of the refinement necessary to understand ground water behavior at the local scale.
2. Site specific data is the best available science and information for evaluating the transfer applications. Clearwater Geosciences conducted a field investigation in 2024, and the details of the work are presented in a final report previously submitted to the parties (Clearwater, 2024). The study provides site specific data from two new monitoring wells and water level data collected over a five-month period from the monitoring wells and an active irrigation well that is already authorized to divert two existing water rights (water right nos. 35-7740 and 35-2824) and is one of the proposed PODs for 84488 and is directly adjacent to the proposed POU for 84490. Water levels in the shallow aquifer wells were not impacted by pumping of the irrigation well even though drops in head level of the lower aquifer was greater than 35 ft.
3. Based on the Clearwater Geosciences field work, isolation of the deep aquifer from the shallow aquifer was accomplished in Well 352874 with steel well casing extending from land surface to a depth of 256 ft, and a similar approach will be used by the Applicant for the new wells described in 84490 to fully ensure that pumping of the deep aquifer does not impact flows in the Snake River and injure other water users.
4. Pumping from the existing irrigation well (which has steel casing to a depth of 256 ft) of the 46.6-acre portion of 35-14041 under 84488 will not impact flows in the Snake River and therefore will not injure other water rights.
5. Pumping from the new irrigation wells with a steel casing to a depth of 256 feet for the 275.9-acre portion 35-14041 under 84490 will not impact flows in the Snake River and therefore will not injure other water rights.

In addition to the foregoing, and to the extent ESPAM is also considered for evaluation of injury to existing water rights in this matter, it is our expert opinion that:

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6. The calibrated Riverbed Conductance of the Near Neeley to Minidoka Reach is **1625.975 ft^2/day in ESPAM2.1** (IDWR, 2013) and **5965.499 ft^2/day in ESPAM2.2 (**see Sukow, 2021b), respectively. Riverbed Conductance in this reach was increased by a factor of nearly 3.7.
7. Change to the Riverbed Conductance parameter for the Neeley to Minidoka Reach in ESPAM2.2 resulted in a decrease in the goodness-of-fit for the Near Neeley to Minidoka Reach when compared to the goodness-of-fit in ESPAM2.1 for the same river reach. This is the most poorly calibrated section of the Snake River.
8. Modelers "preferred" a high Riverbed Conductance number for Near Neeley to Minidoka Reach during the calibration process of ESPAM2.2 without sufficient or scientifically supported justification for this change, suggesting that the change was arbitrary.
9. For the relevant reaches of the Snake River implicated by the transfer applications, ESPAM2.2 code is not the best available science. The ESPAM2.1 model should be utilized as the best available science because it provides a better fit to the data as evidenced by higher R^2 values.
10. Use of ESPAM2.1 for analysis of the transfer applications demonstrates that the transfer applications are below Snake River reach impact limits for approval of permanent water right transfers in the ESPA based on IDWR transfer application policies and procedures under each of three "mitigation checks" for steady state analysis and two "mitigation checks" for transient state analysis.
11. Utilizing ESPAM2.1, the transfer applications do not impact other reaches of the Snake River above the described mitigation thresholds.
12. Pumping from the transfer applications will not injure other water rights under ESPAM2.1 because the modeled outputs are below IDWR-established mitigation thresholds.

6. References

Clearwater Geosciences, LLP, 2024, Expert Report on LCSC Enterprises LLC 2024 Field Activities, Prepared for LCSC Enterprises, LLC, November 4, 2024.

Houser, B.B., 1992, Quaternary Stratigraphy of an area Northeast of American Falls Reservoir, Easter Snake River Plain, Idaho, Geological Society of America Memoir 179.

IDWR, 2025, Quick Guide to the ESPA Modeling Tools, https://idwr.idaho.gov/water-rights/transfers/resources/, downloaded April 23, 2025.

IDWR, 2016, Use of the ESPA Model Transfer Spreadsheet (ETRAN) & Mitigation Analysis spreadsheet for Water Right Transfers in the Eastern Snake Plain Aquifer

IDWR, 2013, ENHANCED SNAKE PLAIN AQUIFER MODEL VERSION 2.1

LRE Water, 2021, Expert Report on LCSC Transfer Applications Nos. 84488 and 84490, prepared for: The Surface Water Coalition July 16, 2021, 1604FLE01-21

Schreuder, W. and D. Blew, 2021, Expert Report on LCSC Transfers T84488 and T84990

Sukow, 2021a, COMPARISON OF SUPERPOSITION MODEL WITH FULLY-POPULATED MODEL FOR EASTERN SNAKE PLAIN AQUIFER MODEL VERSION 2.2

Sukow, 2021b, MODEL CALIBRATION REPORT EASTERN SNAKE PLAIN AQUIFER MODEL VERSION 2.2

U.S. Department of the Interior Bureau of Reclamation Pacific Northwest Region Snake River Area Office PN FONSI #19-4: Environmental Assessment (Maintenance and Rehabilitation of Spillway and Dam Structures at American Falls Dam), Minidoka Project, Power County, Idaho May, 2019 (*available at* https:/www.usbr.gov/pn/programs/ea/Idaho/americanfalls/finalea.pdf).

Table 1. Comparison of ESPAM2.2 to ETRAN V3.4 results.

	Above Minidoka					Below Minidoka						
ESPAM2.2 -Base Case: Existing Conditions	**Ashton-Rexburg**	**Heise-Shelley**	**Shelly-Nr Blackfoot**	**Nr. Blackfoot-Neeley**	**Neeley-Minidoka**	**Dev. Wbl.-Buhl**	**Buhl-Kspr**	**Kspr**	**Kspr-Malad**	**Malad**	**Malad -Bancroft**	
River Loss (ft^3/day)	42,231,360.00	64,740,070.00	64,310,700.00	3,097,673.00	1,148,008.00	23,783,820.00	18,829,690.00	53,492,630.00	8,436,079.00	0.00	29,684,270.00	River Gain (ft^3/day)
River Gain(ft^3/day)	13,755,910.00	19,856,740.00	1,439,213.00	161,581,500.00	6,672,897.00	62,024,910.00	102,825,200.00	90,464,410.00	3,667,694.00	86,527,620.00	5,721,527.00	Springs Outflow (ft^3/day)
Net River Gain-Exisiting (ft^3/day)	-28,475,450.00	-44,883,330.00	-62,871,487.00	158,493,827.00	5,524,889.00	85,808,730.00	121,654,890.00	143,957,040.00	12,103,773.00	86,527,620.00	35,405,797.00	Net River/Spring Gain (ft^3/day)
Net River Gain-Exisiting (acre-ft/trimester)	**-79,541.42**	**-125,374.10**	**-175,621.02**	**442,726.09**	**15,432.86**	**239,692.39**	**339,822.66**	**402,120.00**	**33,809.87**	**241,700.49**	**98,900.19**	**Net Rive/spting Gain (acre-ft/trimester)**
Effect of Pumping at Existing Water Rignt Location												
River Loss (ft^3/day)	42,228,800.00	64,736,310.00	64,286,310.00	3,094,759.00	1,147,854.00	23,784,020.00	18,829,750.00	53,492,750.00	8,436,125.00	0.00	29,684,320.00	River Gain (ft^3/day)
River Gain(ft^3/day)	13,756,570.00	19,858,330.00	1,441,607.00	161,679,600.00	6,674,011.00	62,026,040.00	102,826,200.00	90,465,040.00	3,667,817.00	86,528,160.00	5,721,543.00	Springs Outflow (ft^3/day)
Net River Gain (ft^3/day)	-28,472,230.00	-44,877,980.00	-62,844,703.00	158,584,841.00	5,526,157.00	85,810,060.00	121,655,960.00	143,957,790.00	12,103,942.00	86,528,160.00	35,405,863.00	Net River/Spring Gain (ft^3/day)
Induced Reach Depeletion (ft^3/day)	3,220.00	5,350.00	26,784.00	91,014.00	1,268.00	1,330.00	1,060.00	750.00	169.00	540.00	66.00	
ETRAN3.4 Siumatied Reach Depletion (acre-ft/trimester)]	**8.9877**	**14.9753**	**74.8723**	**254.3389**	**3.5376**	**3.6937**	**2.9043**	**1.3644**	**1.2739**	**1.4557**	**0.1922**	
ESPAM2.2 Simualted Reach Depletion (acre-ft/trimester)	**8.9945**	**14.9443**	**74.8166**	**254.2324**	**3.5419**	**3.7151**	**2.9609**	**2.0950**	**0.4721**	**1.5084**	**0.1844**	
Prediction error	**-0.08%**	**0.21%**	**0.07%**	**0.04%**	**-0.12%**	**-0.58%**	**1.13%**	**-34.87%**	**169.85%**	**-3.49%**	**4.24%**	
Effect of Pumping at Transfer Target Location												
River Loss (ft^3/day)	42,231,980.00	64,740,810.00	64,315,620.00	3,098,664.00	1,172,543.00	23,783,250.00	18,829,520.00	53,492,280.00	8,435,960.00	0.00	29,684,120.00	River Gain (ft^3/day)
River Gain(ft^3/day)	13,755,750.00	19,856,390.00	1,438,763.00	161,568,100.00	6,608,691.00	62,021,660.00	102,822,300.00	90,462,610.00	3,667,347.00	86,526,130.00	5,721,479.00	Springs Outflow (ft^3/day)
Net River Gain (ft^3/day)	-28,476,230.00	-44,884,420.00	-62,876,857.00	158,469,496.00	5,436,148.00	85,804,910.00	121,661,820.00	143,954,890.00	12,103,297.00	86,526,130.00	35,405,599.00	Net River/Spring Gain (ft^3/day)
Iduced Reach Depeletion (ft^3/day)	780.00	1,090.00	5,370.00	24,331.00	88,741.00	3,820.00	3,670.00	2,150.00	476.00	1,490.00	198.00	
ETRAN3.4 Siumatied Reach Depletion (acre-ft/trimester)]	**1.6767**	**2.7332**	**14.6286**	**66.6834**	**250.9683**	**10.3011**	**8.3087**	**3.7740**	**3.5037**	**3.9603**	**0.5219**	
ESPAM2.2 Simualted Reach Depletion (acre-ft/trimester)	**2.1788**	**3.0447**	**15.0002**	**67.9646**	**247.8832**	**10.6705**	**8.5755**	**6.0057**	**1.3296**	**4.1621**	**0.5531**	
Prediction error	**-23.04%**	**-10.23%**	**-2.48%**	**-1.89%**	**1.25%**	**-3.46%**	**-3.11%**	**-37.16%**	**163.51%**	**-4.85%**	**-5.64%**	
Net Transfer Effect												
River Loss (ft^3/day)	42,229,290.00	64,737,010.00	64,291,220.00	3,096,692.00	1,172,370.00	23,783,450.00	18,829,580.00	53,492,400.00	8,435,966.00	0.00	29,684,170.00	River Gain (ft^3/day)
River Gain(ft^3/day)	13,756,440.00	19,858,030.00	1,441,160.00	161,656,100.00	6,609,786.00	62,022,770.00	102,823,300.00	90,463,230.00	3,667,467.00	86,526,660.00	5,721,496.00	Springs Outflow (ft^3/day)
Net River Gain after transfer (ft^3/day)	-28,472,850.00	-44,878,980.00	-62,850,060.00	158,560,408.00	5,437,396.00	85,806,220.00	121,652,880.00	143,955,630.00	12,103,462.00	86,526,660.00	35,405,666.00	Net River/Spring Gain (ft^3/day)
Transfer-Induced Net Change of Reach Depeletion (ft^3/day)	-2,600.00	-4,350.00	-21,427.00	-66,581.00	87,493.00	2,510.00	2,010.00	1,410.00	311.00	960.00	131.00	
ETRAN3.4 Siumatied Net Change of Reach Depletion (acre-ft/trimester)	**-7.3110**	**-12.2421**	**-60.2437**	**-187.6555**	**247.4507**	**6.6074**	**5.3144**	**2.4096**	**2.2298**	**2.5046**	**0.3297**	
ESPAM2.2 Simualted Net Change of Reach Depletion (acre-ft/trimester)	**-7.2627**	**-12.1510**	**-59.8528**	**-185.9829**	**244.3971**	**7.0113**	**5.6146**	**3.9386**	**0.8687**	**2.6816**	**0.3659**	
Prediction error	**0.67%**	**0.75%**	**0.65%**	**0.90%**	**1.25%**	**-5.76%**	**-5.35%**	**-38.82%**	**156.67%**	**-6.60%**	**-9.90%**	

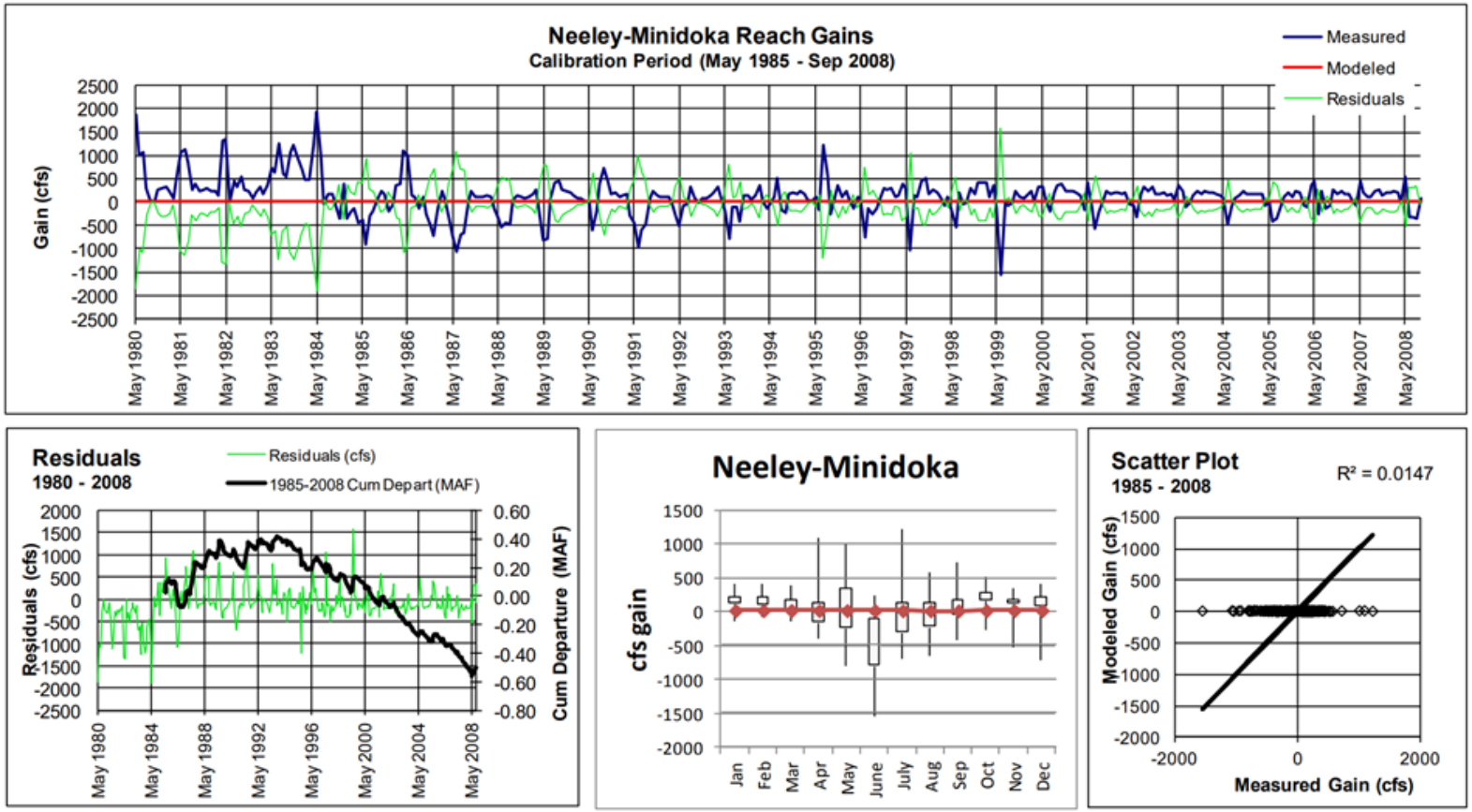


Figure 82. Reach gains in the Neeley-to-Minidoka reach. The top chart shows the measured gains, modeled gains, and residual over the calibration period. The lower chart figure shows the cumulative departures. The lower middle chart is a Box-and-Whisker plot of the gains. The lower right chart is a scatter plot of modeled gains against measured gains

Figure 1. Comparison of calibration results at Neely-Minidoka Reach between ESPAM2.1 (above) and ESPAM2.2 (next page)

PO Box 3179 Idaho Falls, ID 83403 208.589.5555

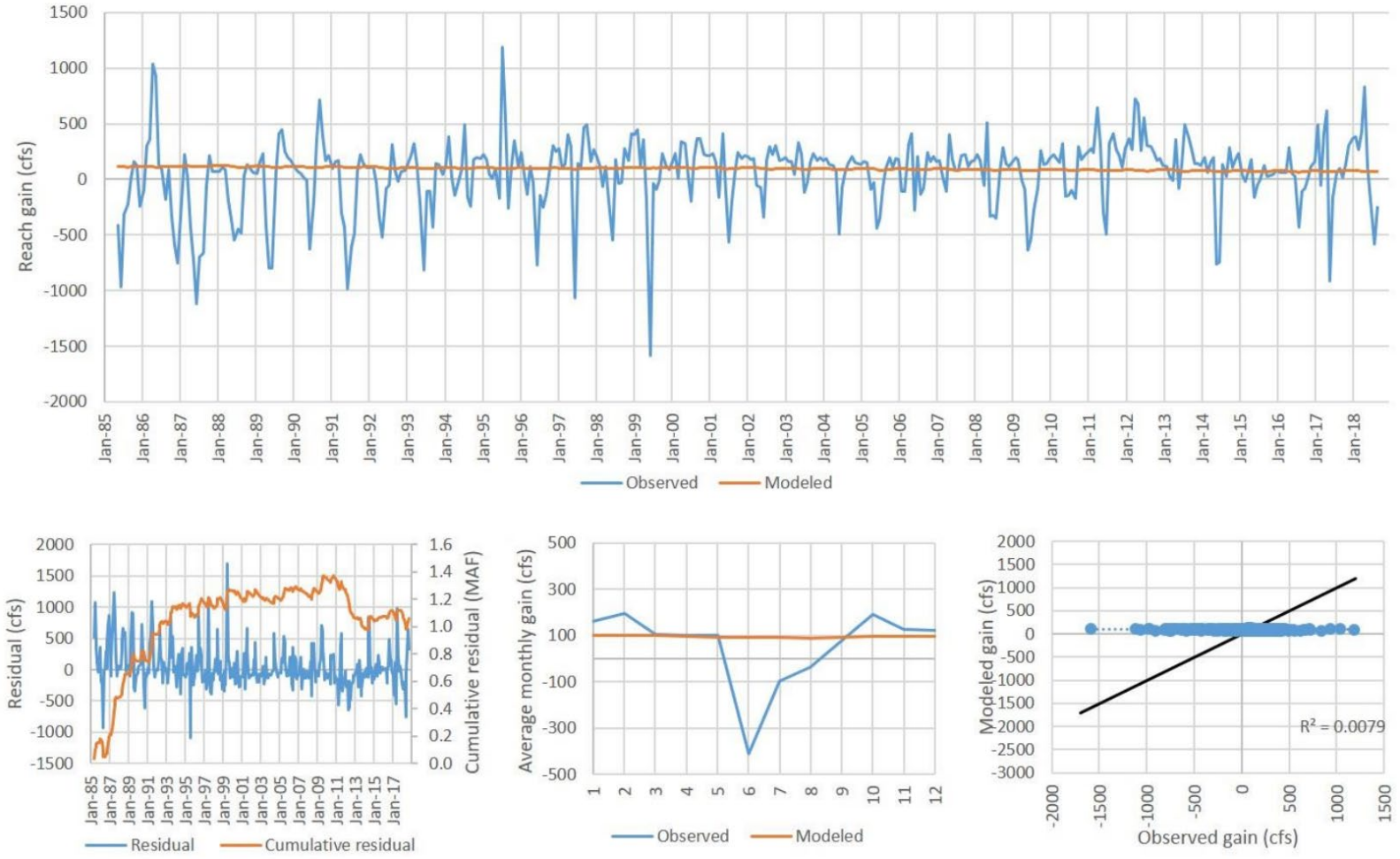


Figure 120. Observed and modeled Neeley to Minidoka reach gain

Figure 1.(con't)

PO Box 3179 Idaho Falls, ID 83403 208.589.5555

Existing Water Rights						
	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Listed Owner
Split	35-14041	10/16/1974	3.18	1290.0	322.5	Bonanza Bar Ranch, LLC
	ESPA Cell (96,83)					
	35-7740	8/15/1977	3.66	1160.0	290.0	LCSC Enterprises, LLC
	35-2824	8/28/1961	0.16	32.7	9.0	LCSC Enterprises, LLC
	TOTAL EXISTING:		7.00	2482.7	621.5	
Transfer #1 (9S,28E ; 9S,29E)						
FROM:	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Action
	35-14041	10/16/1974	0.46	186.4	**46.6**	Split, transfer to extg POD, new POU
TO:	ESPA Cell (96,83)					
	35-7740	8/15/1977	3.66	1160.0	290.0	Existing, update POU
	35-2824	8/28/1961	0.16	32.7	9.0	Existing, update POU
	TOTAL SYSTEM 1:		4.28	1379.1	345.6	
Transfer #2 (9S,29E)						
FROM:	ESPA Cell (66,128)		Rate [cfs]	Vol [afa]	Acres	Action
TO:	ESPA Cell (97,84)					
	35-14041	10/16/1974	2.72	1103.6	**275.9**	Split, transfer to new POD,POU
	TOTAL SYSTEM 2:		2.72	1103.6	275.9	

Water Right Split Worksheet

Attachment #10

JCH - 9/26/2020

SUM 2122	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	1.4	4.3	13.2	40.3	0.2	0.8	0.9	0.4	0.2	0.2	0.0
WIN 2122	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	1.4	4.3	13.2	40.3	0.2	0.8	0.9	0.4	0.2	0.2	0.0
SPR 2123	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	1.4	4.3	13.2	40.3	0.2	0.8	0.9	0.4	0.2	0.2	0.0
SUM 2123	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	1.4	4.3	13.2	40.3	0.2	0.8	0.9	0.4	0.2	0.2	0.0
WIN 2123	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	0.8	2.4	7.3	23.5	12.7	4.4	5.0	2.2	1.4	1.3	0.1	1.4	4.3	13.2	40.3	0.2	0.8	0.9	0.4	0.2	0.2	0.0

Enter First Time Step of Transfer: SPR 2010

Match: 109 Match: 466

	AtR	HS	StNB	NBtN	NtM	DWtB	RtTS	TS	TStM	M	MtB	Total	
Preexisting Effects @ SS (Last Time Step):	1.44	4.33	13.18	40.28	0.24	0.76	0.87	0.38	0.24	0.22	0.01	61.95	Total Effects without Transfer - Last Timestep
Steady State - Value of Dep. @ Last Time Step:	0.81	2.41	7.27	23.64	12.74	4.44	5.00	2.22	1.40	1.28	0.08	61.19	Total Effects with Transfer - Last Time Step
Preexisting Effects @ Transient State (Max Value Timestep):	1.44	4.33	13.18	40.28	0.24	0.76	0.87	0.38	0.24	0.22	0.01	61.95	Total Effects without Transfer - Correlates to Max Value from Total Effects with Transfer
Transient State - Max Value of Dep. After Transfer:	1.23	2.58	7.27	23.64	12.74	4.44	5.00	2.22	1.40	1.28	0.08	61.78	Total Effects with Transfer - Max Value from Start of Transfer to Last Time Step
Steady State Change:	-0.63	-1.92	-5.91	-16.74	12.50	3.68	4.13	1.84	1.16	1.06	0.07		
Transient State Change:	-0.21	-1.75	-5.91	-16.74	12.50	3.68	4.13	1.84	1.16	1.06	0.07		

WIN 2122	0.3	0.5	2.6	11.8	40.9	2.0	1.6	0.7	0.7	0.8	0.1	0.3	0.5	2.6	11.8	40.9	2.0	1.6	0.7	0.7	0.8	0.1	1.5	2.5	12.6	43.0	0.6	0.6	0.5	0.2	0.2	0.2	0.0
SPR 2123	0.3	0.5	2.6	11.8	40.9	2.0	1.6	0.7	0.7	0.8	0.1	0.3	0.5	2.6	11.8	40.9	2.0	1.6	0.7	0.7	0.8	0.1	1.5	2.5	12.6	43.0	0.6	0.6	0.5	0.2	0.2	0.2	0.0
SUM 2123	0.3	0.5	2.6	11.8	40.9	2.0	1.6	0.7	0.7	0.8	0.1	0.3	0.5	2.6	11.8	40.9	2.0	1.6	0.7	0.7	0.8	0.1	1.5	2.5	12.6	43.0	0.6	0.6	0.5	0.2	0.2	0.2	0.0
WIN 2123	0.3	0.5	2.6	11.8	40.9	2.0	1.6	0.7	0.7	0.8	0.1	0.3	0.5	2.6	11.8	40.9	2.0	1.6	0.7	0.7	0.8	0.1	1.5	2.5	12.6	43.0	0.6	0.6	0.5	0.2	0.2	0.2	0.0

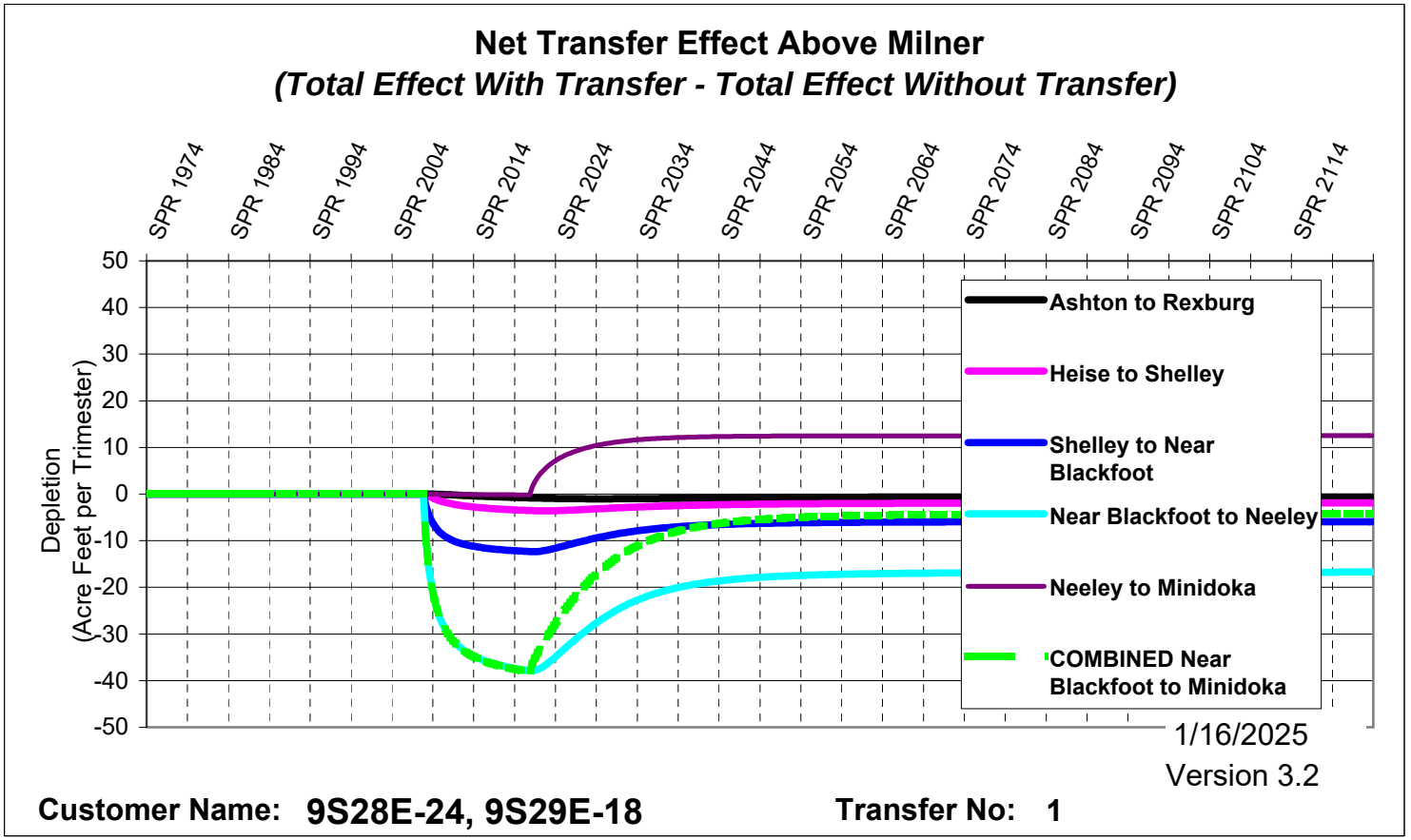
V3.2-V3.4 change: 26.67% 20.21% 35.83% 50.26% **321.14%** 44.59% 31.94% 32.87% 48.08% 59.37% 125.54%

Enter First Time Step of Transfer: SPR 2010

Match: 109 Match: 456

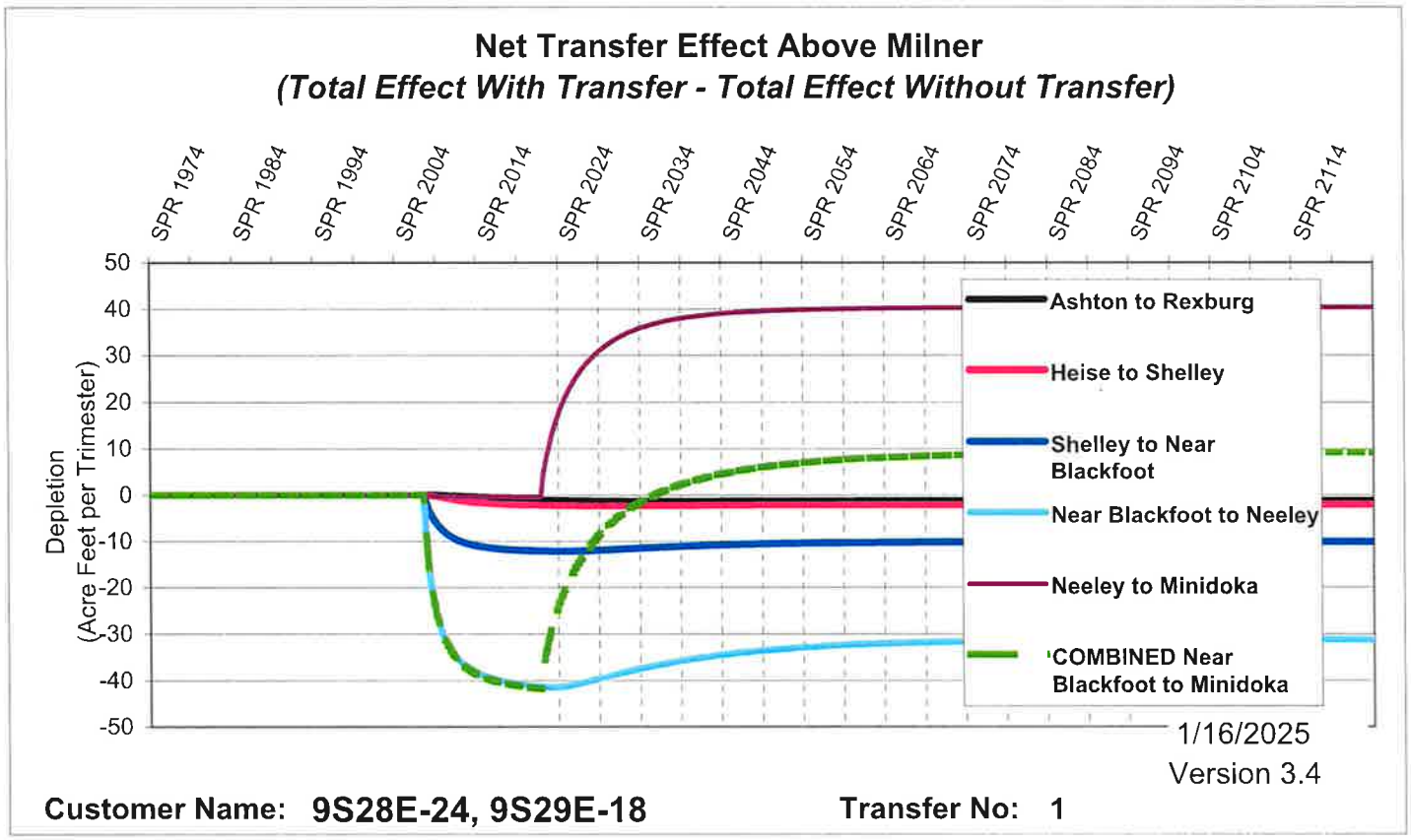
	AtR	NtS	StNB	NBtN	NtM	DWtB	BtTS	TS	TStM	M	MtB	Total	
Preexisting Effects @ SS (Last Time Step):	1.52	2.53	12.65	42.96	0.60	0.62	0.51	0.23	0.22	0.25	0.03	62.10	Total Effects without Transfer - Last Timestep
Steady State - Value of Dep. @ Last Time Step:	0.30	0.49	2.60	11.83	40.92	1.98	1.60	0.73	0.67	0.75	0.10	61.98	Total Effects with Transfer - Last Time Step
Preexisting Effects @ Transient State (Max Value Timestep):	1.52	2.53	12.65	42.96	0.60	0.62	0.51	0.23	0.22	0.25	0.03	62.10	Total Effects without Transfer - Correlates to Max Value from Total Effects with Transfer
Transient State - Max. Value of Dep. After Transfer:	1.38	1.85	4.38	11.83	40.92	1.98	1.60	0.73	0.67	0.75	0.10	66.20	Total Effects with Transfer - Max Value from Start of Transfer to Last Time Step
Steady State Change:	-1.22	-2.04	-10.04	-31.13	40.32	1.36	1.09	0.49	0.46	0.51	0.07		
Transient State Change:	-0.14	-0.68	-8.27	-31.13	40.32	1.36	1.09	0.49	0.46	0.51	0.07		

RECEIVED
Sep 12, 2025
DEPARTMENT OF
WATER RESOURCES



ESPA V3.2 Impacts Above Milner

JCH - 1/16/2025



JCH - 1/16/2025

ESPA **V3.4** Impacts Above Milner

Idaho Department of Water Resources

WMIS

Water Management Information System

Quick Search: For assistance, email WMIS Info

Login

Search Method: Metal Tag Number

Metal Tag Number: 0006384

Search

Point Of Diversion | PCC | Flow Meter | Time Clock | Alternate | Contacts | Data Summary | Other | Logout

Data Summary

You are viewing 500061; A0006384

Report Year	Alternate	FM	PCC	Time Clock
2024	0.0			
2012			0.00	
2011			0.00	
2010			0.00	
2009			0.00	
2008			36.96	
2007			61.94	
2006			278.20	
2005			0.00	
2004			0.00	
2003			161.10	
2002			778.90	
2001			0.00	
2000			812.20	
1999			630.90	
1998				

Idaho Department of Water Resources

WMIS

Water Management Information System

Quick Search:

For assistance, email WMIS Info

Login

Search Method: WMIS Number

WMIS Number: 00761

Search

Point Of Diversion | PCC | Flow Meter | Time Clock | Alternate | Contacts | Data Summary | Other | Logout

Point Of Diversion

You are viewing 600761; A0010324

WMIS Number	600761	**Network Well**	No
Reporting District	Aberdeen AF GWD	**Access Port**	Yes
Measurement Option	Flowmeter (1)	**Water District**	120
Metal Tag Number	A0010324	**Tag Location**	4 S
Followup Date	01/01/2017	**Comments**	
Diversion Name	R2072		

Search Water Rights

Contacts | PLSS | Spatial Data | Water Source | Water Rights

Water Right Number	Owner Type	Owner Name	Address	Phone	City/State/ Zip	Email
35-2824	Current Owner	LCSC ENTERPRISES LLC	433 LAS COLINAS BLVD E STE 1290	9729897330	IRVING, TX 75039-5058	
35-7740	Current Owner	LCSC ENTERPRISES LLC	433 LAS COLINAS BLVD E STE 1290	9729897330	IRVING, TX 75039-5058	

Idaho Department of Water Resources

WMIS

Water Management Information System

Quick Search: For assistance, email WMIS Info

Login

Search Method: WMIS Number

WMIS Number: 00779

Search

Point Of Diversion | PCC | Flow Meter | Time Clock | Alternate | Contacts | Data Summary | Other | Logout

Data Summary

You are viewing 600779; A0010323

Report Year	Alternate	FM	PCC	Time Clock
2025				
2024			486.60	
2023		480.78		
2022			514.78	
2021	644.4			
2020			637.23	
2019		566.15		
2018		701.46		
2017		1772.26	880.22	
2016			959.79	
2015			854.71	
2014			790.78	
2013			919.66	
2012			748.45	
2011			195.00	
2010			369.00	
2009			250.00	
2008				
2007			357.39	
2006			163.81	
2005			110.17	
2004			246.50	
2003			321.70	
2002			251.00	
2001			351.69	
2000			228.50	
1999			216.78	
1998			0.00	
1997			237.97	

Idaho Department of Water Resources

WMIS

Water Management Information System

Quick Search: For assistance, email WMIS Info

Login

Search Method: WMIS Number

WMIS Number: 00761

Search

Point Of Diversion | PCC | Flow Meter | Time Clock | Alternate | Contacts | Data Summary | Other | Logout

Data Summary

You are viewing 600761; A0010324

Report Year	Alternate	FM	PCC	Time Clock
2025				
2024	277.9			
2023	140.6			
2022	159.7			
2021		109.72		
2020		96.95		
2019		58.92		
2018		94.37		
2017		72.10		
2016		49.73	89.61	
2015			85.50	
2014			149.95	
2013			227.42	
2012			236.73	
2011			315.00	
2010			252.00	
2009			194.00	
2008			251.22	
2007			182.31	
2006			245.45	
2005			133.93	
2004			151.50	
2003			181.30	
2002			201.61	
2001			202.52	
2000			213.33	
1999			103.98	


Station Overview
Map
Table
Export
Search
Filter
2,839 / 2,839 Stations
Clear filter
Station Type
All
Projects/Programs
All
Water Level Data Type
All
County
All
Water Use
All
08S 29E 34CBC1
09S 29E 04BCA1
09S 29E 05DDD3
09S 28E 14CDBB1
09S 29E 18CDA1
09S 29E 20ACD1
Legend
Water Quality
Surface Water Quality
Water Levels
Geothermal

09S 29E 18CDA1

Site Name: POWER
Station Type: Water Levels
Depth: 250 (ft BGS)

Latitude: 42.63547
Longitude: -113.11083
Elevation: 4249.3

USGS Site ID: 423808113063601
Well Construction ID: 352857
Primary Water Use: Domestic



Time Series | Water Quality

Multiple Timeseries

Discrete Depth to Water

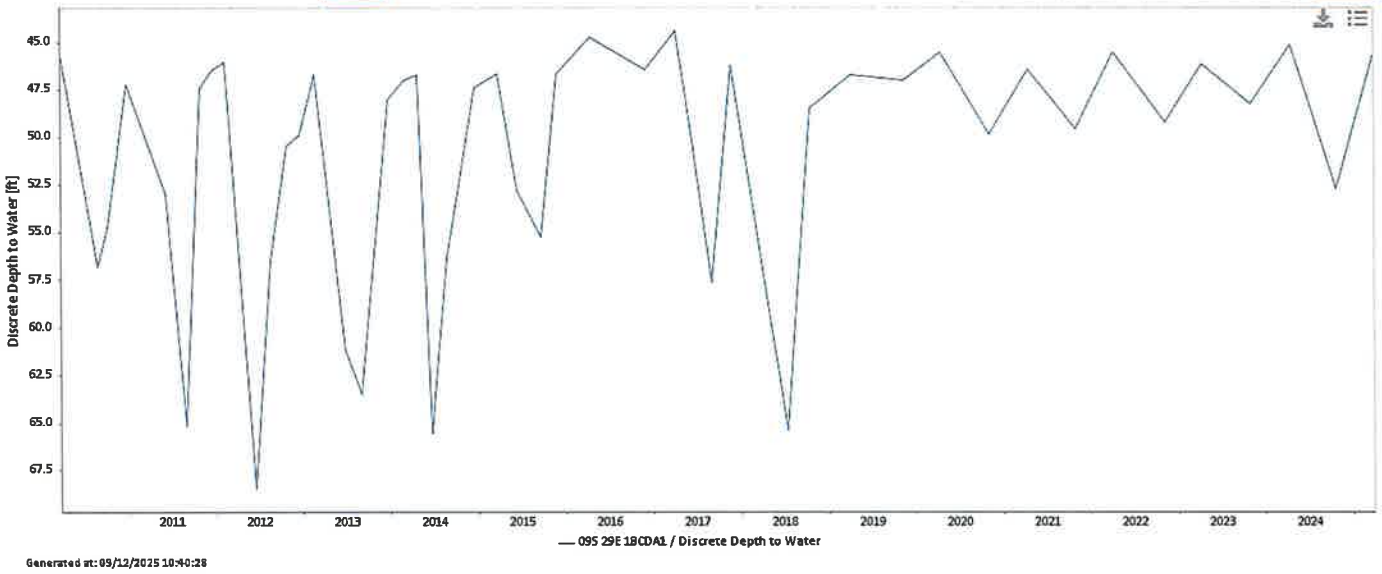
USGS Depth To Water

Documents

Selection | Graph

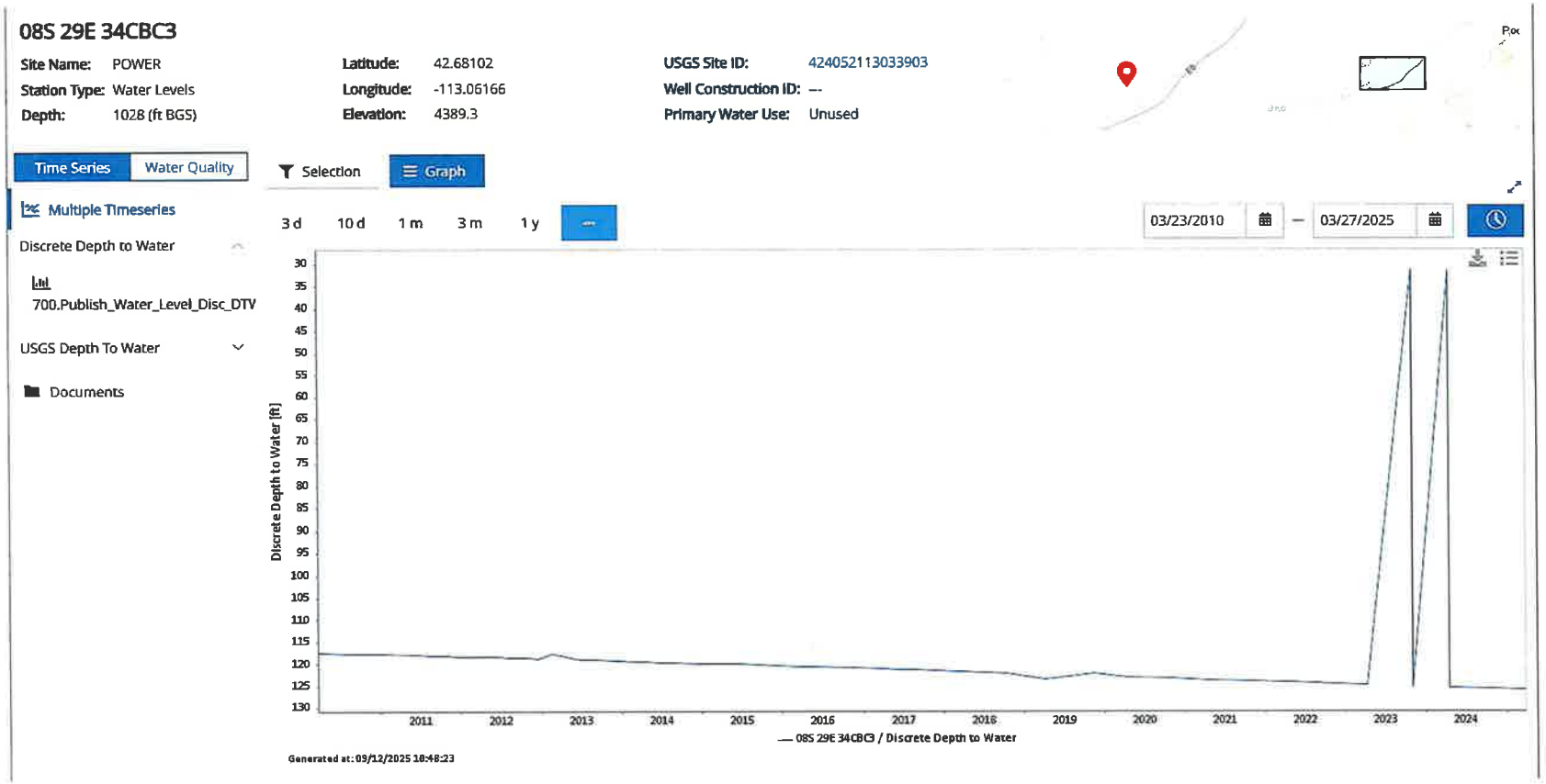
3 d 10 d 1 m 3 m 1 y

03/23/2010 — 03/27/2025



Generated at: 09/12/2025 10:40:28


09S 29E 04BCA1
Site Name: POWER
Station Type: Water Levels
Depth: 53 (ft BGS)
Latitude: 42.67047
Longitude: -113.07916
Elevation: 4226.7
USGS Site ID: 424013113043801
Well Construction ID: --
Primary Water Use: Unused
Time Series
Water Quality
Selection
Graph
Multiple Timeseries
Discrete Depth to Water
700.Publish_Water_Level_Disc_DTV
USGS Depth To Water
Documents
3 d
10 d
1 m
3 m
1 y
09/24/1987
03/27/2025
Discrete Depth to Water [ft]
09S 29E 04BCA1 / Discrete Depth to Water
Generated at: 09/12/2025 10:47:26


08S 29E 34CBC3
Site Name: POWER
Station Type: Water Levels
Depth: 1028 (ft BGS)
Latitude: 42.68102
Longitude: -113.06166
Elevation: 4389.3
USGS Site ID: 424052113033903
Well Construction ID: --
Primary Water Use: Unused
Time Series
Water Quality
Selection
Graph
Multiple Timeseries
Discrete Depth to Water
700.Publish_Water_Level_Disc_DTV
USGS Depth To Water
Documents
3 d
10 d
1 m
3 m
1 y
03/23/2010
03/27/2025
Discrete Depth to Water [ft]
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
105
110
115
120
125
130
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
08S 29E 34CBC3 / Discrete Depth to Water
Generated at: 09/12/2025 18:48:23

IDAHO DEPARTMENT OF WATER RESOURCES 7/7/2020
Proof Report

Water Right 35-14041

Owner Type	Name and Address
Current Owner	BONANZA BAR RANCH LLC PO BOX 724 IDAHO CITY, ID 83631 (208) 392-2277

Priority Date: 10/16/1974
Basis: Decreed
Status: Active

Source	Tributary
GROUND WATER	

Beneficial Use	From	To	Diversion Rate	Volume
IRRIGATION	04/01	11/01	3.180 CFS	1,290.0 AF
	Total Diversion		3.180 CFS	1,290.0 AF

Source and Point(s) of Diversion

GROUND WATER	NWSE	Sec. 12, Twp 01S, Rge 32E, BINGHAM County

Place Of Use

IRRIGATION within BINGHAM County

			NE				NW				SW				SE				
Twp	Rng	Sec	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
01S	32E	12		29.0	31.1	25.0	39.0	35.0	35.1	39.9			39.0	26.4	23.0				322.5

POU Total Acres: 322.5

Conditions of Approval:

1. T19 Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

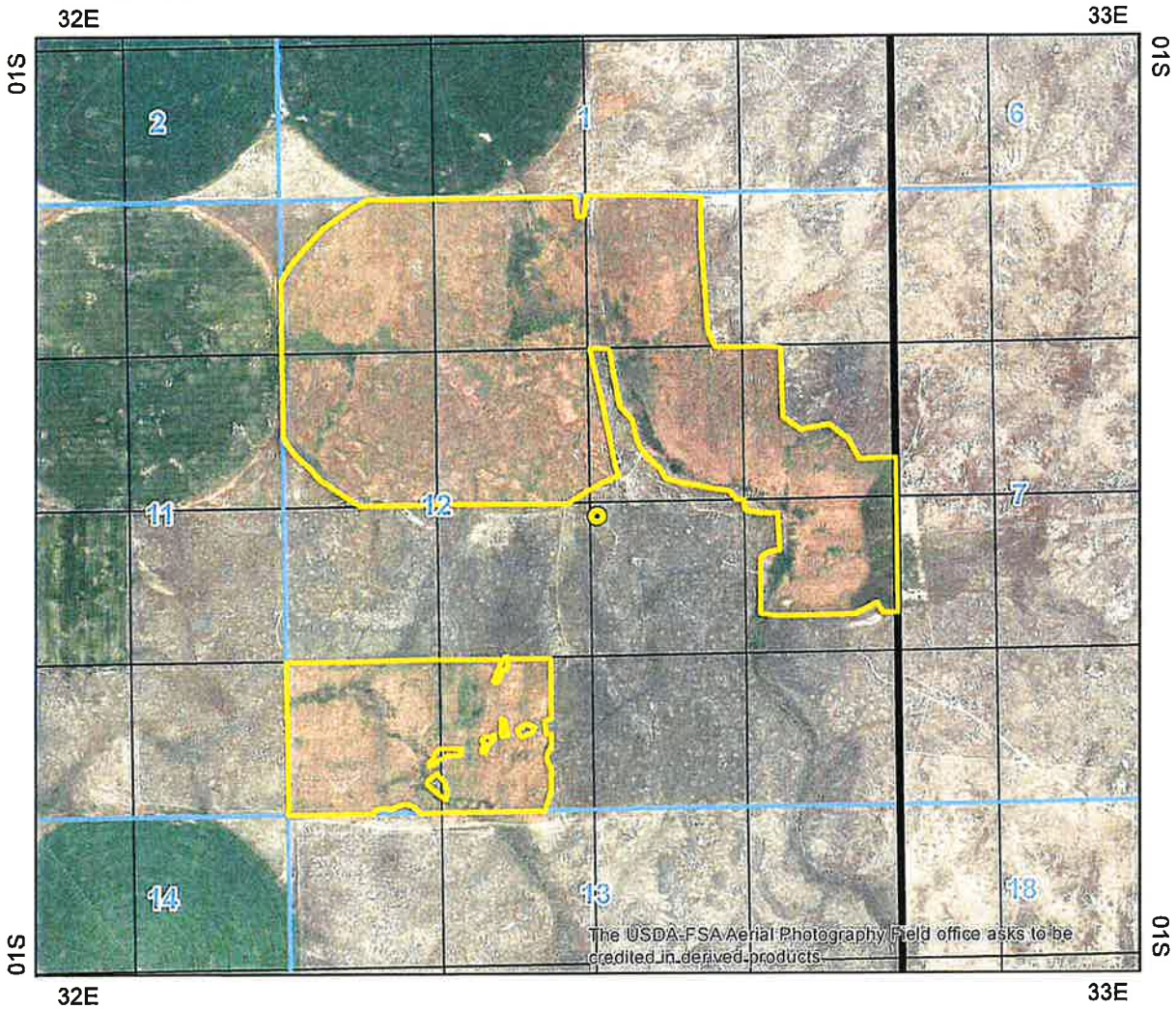
State of Idaho
Department of Water Resources

Water Right

35-14041

IRRIGATION

The map depicts the place of use for the water use listed above and point(s) of diversion of this right as currently derived from interpretations of the paper records and is used solely for illustrative purposes. Discrepancies between the computer representation and the permanent document file will be resolved in favor of the actual water right documents in the water right file.



Map produced on July 07, 2020

This form is available electronically.

CRP-1 (03-26-04) — U.S. DEPARTMENT OF AGRICULTURE, Commodity Credit Corporation

CONSERVATION RESERVE PROGRAM CONTRACT

NOTE: The authority for collecting the following information is Pub. L. 107-171. This authority allows for the collection of information without prior OMB approval mandated by the Paperwork Reduction Act of 1995. The time required to complete this information collection is estimated to average 4 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

1. ST. & CO CODE & ADMIN. LOCATION	2. SIGN-UP NUMBER
16-077	35CREP
3. CONTRACT NUMBER	**4. ACRES FOR ENROLLMENT**
68A	322.5

7. COUNTY OFFICE ADDRESS (Include Zip Code)
POWER COUNTY FSA OFFICE
2769 FAIRGROUNDS RD, STE B
AMERICAN FALLS, ID 83211-5418

8. TELEPHONE NUMBER (Include Area Code): 208-226-5139

5. FARM NUMBER	6. TRACT NUMBER(S)
2936	3412

8. OFFER (Select one)
GENERAL ☐
ENVIRONMENTAL PRIORITY ☒

9. CONTRACT PERIOD

FROM: (MM-DD-YYYY)	TO: (MM-DD-YYYY)
9/1/2007	9/30/2021

THIS CONTRACT is entered into between the Commodity Credit Corporation (referred to as "CCC") and the undersigned owners, operators, or tenants (who may be referred to as "the Participant".). The Participant agrees to place the designated acreage into the Conservation Reserve Program ("CRP") or other use set by CCC for the stipulated contract period from the date the Contract is executed by the CCC. The Participant also agrees to implement on such designated acreage the Conservation Plan developed for such acreage and approved by the CCC and the Participant. Additionally, the Participant and CCC agree to comply with the terms and conditions contained in this Contract, including the Appendix to this Contract, entitled Appendix to CRP-1, Conservation Reserve Program Contract (referred to as "Appendix"). By signing below, the Participant acknowledges that a copy of the Appendix for the applicable sign-up period has been provided to such person. Such person also agrees to pay such liquidated damages in an amount specified in the Appendix if the Participant withdraws prior to CCC acceptance or rejection. The terms and conditions of this contract are contained in this Form CRP-1 and in the CRP-1 Appendix and any addendum thereto. BY SIGNING THIS CONTRACT PRODUCERS ACKNOWLEDGE RECEIPT OF THE FOLLOWING FORMS: CRP-1; CRP-1 Appendix and any addendum thereto; CRP-2 or CRP-2C, if applicable; and, if applicable, CRP-15.

10A. Rental Rate Per Acre $ 134.00

B. Annual Contract Payment $ 43,215.00

C. First Year Payment $

(Item 10C applicable only to continuous signup when the first year payment is prorated.)

11. Identification of CRP Land *(See Page 2 for additional space)*

A. Tract No.	B. Field No.	C. Practice No.	D. Acres	E. Total Estimated Cost-Share
3412	2	CP4D	143.3	N/A
3412	3	CP4D	6.2	N/A
3412	5	CP4D	8.4	N/A

12. PARTICIPANTS

A(1) PARTICIPANT'S NAME AND ADDRESS *(Zip Code)*:
BONANZA BAR RANCH, LLC
P.O. BOX 724
IDAHO CITY, ID 83631

(2) SHARE: 61.23 %

(3) SOCIAL SECURITY NUMBER: **-***0314

(4) SIGNATURE: Bonanza Bar Ranch LLC by Jaimie Beebe — DATE *(MM-DD-YYYY)*: 08-12-09

(If more than three individuals are signing, continue on attachment.)

b(1) PARTICIPANT'S NAME AND ADDRESS *(Zip Code)*:
KOOMPIN FARMS
3062 S. FRONTAGE RD.
AMERICAN FALLS, ID 83211-5439

(2) SHARE: 38.77 %

(3) SOCIAL SECURITY NUMBER: **-***9335

(4) SIGNATURE — DATE *(MM-DD-YYYY)*

(If more than three individuals are signing, continue on attachment.)

C(1) PARTICIPANT'S NAME AND ADDRESS *(Zip Code)*:

(2) SHARE: %

(3) SOCIAL SECURITY NUMBER:

(4) SIGNATURE — DATE *(MM-DD-YYYY)*

(If more than three individuals are signing, continue on attachment.)

A. SIGNATURE OF CCC REPRESENTATIVE — B. DATE *(MM-DD-YYYY)*

13. **CCC USE ONLY** – Payments according to the shares are approved.

NOTE: *The following statement is made in accordance with the Privacy Act of 1974 (5 USC 552a) and the Paperwork Reduction Act of 1995, as amended. The authority for requesting the following information is the Food Security Act of 1985, (Pub. L. 99-198), as amended and the Farm Security and Rural Investment Act of 2002 (Pub. L. 107-171) and regulations promulgated at 7 CFR Part 1410 and the Internal Revenue Code (26 USC 6109). The information requested is necessary for CCC to consider and process the offer to enter into a Conservation Reserve Program Contract, to assist in determining eligibility, and to determine the correct parties to the contract. Furnishing the requested information is voluntary. Failure to furnish the requested information will result in determination of ineligibility for certain program benefits and other financial assistance administered by USDA agency. This information may be provided to other agencies, IRS, Department of Justice, or other State and Federal Law enforcement agencies, and in response to a court magistrate or administrative tribunal. The provisions of criminal and civil fraud statutes, including 18 USC 286, 287, 371, 641, 651, 1001; 15 USC 714m; and 31 USC 3729, may be applicable to the information provided.* ***RETURN THIS COMPLETED FORM TO YOUR COUNTY FSA OFFICE.***

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

☐ Original – County Office Copy ☐ Owner's Copy ☐ Operator's Copy

This Guidance Document is not new law but is an agency interpretation of existing law. For more information or to provide input on the document, please contact the Water Rights Section Manager at 208-287-4800. (Feb.2020)

RECEIVED
Sep 12, 2025
DEPARTMENT OF
WATER RESOURCES

ADMINISTRATOR'S MEMORANDUM

Transfer Processing No. 24

To: Water Management Division Staff

From: Jeff Peppersack

RE: **TRANSFER PROCESSING POLICIES & PROCEDURES**

Date: December 21, 2009

This memorandum supersedes Transfer Processing Memorandum No. 24 dated January 21, 2009.

The purpose of this memorandum is to provide policy guidance for processing applications for transfers of water rights pursuant to Section 42-222, *Idaho Code*, and other applicable law. The revisions to the October 30, 2002 memorandum are provided to recognize statewide application of this memorandum, to clarify the guidance based on updates to statutes and Department policy, and to streamline transfer processing to reduce application processing time and existing application backlogs. These policies and procedures are to be followed until rescinded or amended, or superseded by statute or rule or court decision, to assure that applications are processed efficiently and with consistency.

Regardless of whether or not an application for transfer is protested, Section 42-222, *Idaho Code*, requires that the department evaluate whether there would be injury to other water rights, there would be an enlargement in use of the original right, the proposed use would be a beneficial use, the proposed use would be in the local public interest, the proposed use would be consistent with the conservation of water resources within the State of Idaho, and whether the proposed change would impact the agricultural base of the local area. In the case where the place of use is outside of the watershed or local area where the source of water originates, the department must also evaluate whether the change would adversely impact the local economy of the watershed or local area. The department must also evaluate the validity of the right (or part thereof) being changed and must assure that the applicant owns the right or otherwise has the authority to apply for the transfer.

1. When a Transfer is Required.

Section 42-222, *Idaho Code*, requires the holder of a water right to obtain approval from the department prior to changing: (1) the point of diversion, (2) the place of use, (3) the period of use, or (4) the nature of use of an established water right. An established water right is a licensed right, a decreed right, or a right established by diversion and beneficial use. Approval is sought by filing an application for transfer with the department. A claim in an adjudication or a statutory claim must be filed to allow a transfer application to be processed for a right based upon diversion and beneficial use.

Changes to Elements of a Water Right. An application for transfer is required if a proposed change would alter any of the four elements of the water right listed above that can be changed pursuant to Section 42-222, *Idaho Code*, as recorded with the department or by decree. Conditions or other provisions of a water right may further define or limit a recorded element of a water right; an application for transfer is required for a proposed change that could alter such a condition. For example, a proposed change of use under a water right for an industrial use, which includes a condition limiting the quantity of water that can be consumptively used, to a different industrial use that would increase the quantity of water that would be consumptively used can not be made unless enlargement is prevented.

If a proposed change has the potential to injure other rights or the potential to enlarge the right, even when there would be no change in any of the recorded elements of the right, an application for transfer should be filed to provide for evaluation of injury and enlargement issues before the change is made. For example, if the point of diversion from a fully appropriated creek is proposed to be moved where additional water would be available for diversion or if the proposed point of diversion as changed would move upstream of the points of diversion for other rights, the change can not be made unless other conditions are imposed, such as mitigation, to prevent injury.

Changes to Points of Diversion. If a point of diversion is proposed to be moved to a different tract than described as an element under an established water right, then a transfer application is required. This includes a change from one 10-acre legal subdivision to another if the point of diversion has been previously described as a 10-acre legal subdivision. An application for transfer is also required when a point of diversion is proposed to be added for a water right, even when the existing authorized point of diversion is recorded as a 10-acre legal subdivision and the additional diversion would be within the same 10-acre legal subdivision.

If a point of diversion is proposed to be moved from a tributary to a location downstream from the confluence of the tributary and the surface water stream to which the tributary is joined, then an application for transfer is required. If a point of diversion is proposed to be moved from a stream to the stream to which it is tributary at a location upstream of the confluence between them, or moved from one tributary to another tributary, an application for exchange is required pursuant to Section 42-240, *Idaho Code* rather than an application for transfer.

Changes in Place of Use. An application for transfer is required if a change in the location of use between 40-acre legal subdivisions is proposed that would result in an increase in the number of acres within a 40-acre legal subdivision or in use of water at a new 40-acre legal subdivision that is not included within the recorded place of use element for the right. An application for transfer is also required for a proposed change in location of use under a water right for irrigation to a location outside of prescribed boundaries such as those provided under Section 42-219, *Idaho Code*, with or without a proposed change in purpose of use, except for those rights held by irrigation districts or municipal providers, even when the change in location would be included within the same 40-acre legal subdivisions existing prior to the proposed change. A proposed change to any water right held for irrigation involving a change in the number of irrigated acres of less than one acre at the original place of use or at a proposed new place of use is not approvable unless the proposed change involves a new purpose of use within the original place of use or the applicant provides a verification procedure approved by the Director that can be practically administered to prevent injury or enlargement.

Consolidation of Acreage. An application for transfer is required for proposed consolidation of water use for irrigation by permanently reducing the number of acres authorized for irrigation under a water right, while maintaining the original diversion rate or annual diversion volume.

Land Application of Wastewater. An application for transfer is required for a proposed change in the place of use under a water right for uses such as industrial, dairy, or confined animal feeding operations that would allow land application of wastewater from that use or change the location of lands used for application of wastewater, when there is not a full existing water right for irrigation of the place of use receiving wastewater.[1]

Correction of Errors. An application for transfer may also be required to correct errors in licenses or decrees. For example, a transfer application may be required to correct the location of the place of use of a water right decreed by a court if the decree is later determined to be in error. However, a transfer action is not always required to correct such errors. For example, if a water right claim is determined to be in error, the claim can be amended to correct the error. Similarly, some clerical errors in a license or decree may be corrected by issuance of an amended license or decree (by the jurisdictional court) without using the transfer process. Also, a change to a description of the location of the place of use or point of diversion, as used by the department for administration of water rights, resulting from improved methodology does not require an application for transfer, as described below. In addition, conditions that are no longer applicable may be modified or removed from a license without a transfer, provided other rights are not materially affected. For decrees, conditions that are no longer applicable should be noted in comments on the department's electronic record for the right. However, a change to any element of a decreed water right requires filing an application for transfer, unless the appropriate court makes the change by amending the decree.

[1] The guidance provided here effectively revises the guidance to staff for filing an application for transfer as provided in Application Processing Memorandum No. 61 concerning wastewater from industrial uses.

2. When a Transfer is not Required.

An application for transfer is not required if a proposed change will not alter any of the elements of a water right as licensed or decreed, except that even when the recorded elements of a water right are not changed an application should be filed under such circumstances described in Section 1 above. In addition, an application for transfer is not needed when an accomplished change to a water right or an enlargement of a right has been claimed in an adjudication in accordance with the provisions of Sections 42-1425 or 42-1426, *Idaho Code*.

Changes in Consumptive Use. Consumptive use of water under a water right is not, by itself, an element of the water right subject to the requirements to file an application for transfer. Unless there is a specific condition of the water right limiting the amount of consumptive use, changes in water use under a water right for the authorized purpose of use that simply change the amount of consumptive use do not require an application for transfer provided that no element of the water right is changed. However, when determining the amount of water that can be transferred pursuant to an application for transfer proposing to change the nature or purpose of use, and for certain other circumstances as described herein, historical consumptive use is considered.

Change in Ownership. An application for transfer is not required to change the owner of record for a water right or address of record for a right holder. Changes in ownership or address are to be filed in accordance with Section 42-248, *Idaho Code*, or for adjudication claims in accordance with Section 42-1409(6), *Idaho Code*. However, a transfer application filed pursuant to Section 42-222, *Idaho Code*, accompanied by evidence documenting a change in ownership for a water right, or showing a change in the address of the owner of a water right, satisfies the requirements of Section 42-248, *Idaho Code*.

An application for transfer is not required to change the owner of record of one or more water rights, or portions thereof, that are part of a larger group of water rights authorized for use within and appurtenant to a permissible place of use[2] if the conveyance documents provide evidence of the change in ownership and appurtenance of each of the rights and if other elements of the rights will not be changed.

An application for transfer is not required to eliminate one or more points of diversion authorized under a water right through a change in ownership if the conveyance

[2] A permissible place of use is defined as a legal description of the authorized location where water may be applied under a water right for irrigation use, but the use in any year is limited to a specified number of acres which is less than the larger described location. For example, a water right may describe a permissible place of use as four 40-acre legal subdivisions totaling 160 acres, but the water right also limits the acreage that may be irrigated to 40 acres. The water right owner cannot irrigate more than 40 acres in a given year under the right. A permissible place of use is typically, but not always, irrigated by multiple rights with separate acreage limitations that, when used together, provide for irrigation of the entire permissible place of use in the same year.

documents provide evidence of the limitation and if other elements of the rights will not be changed.

Partial Relinquishment. An application for transfer is not required to relinquish a portion of a water right such as elimination of a purpose of use or a point of diversion or a reduction in acres and proportional rate. The water right owner should provide a notarized statement of relinquishment including specific identification of the water right(s) and the specific reduction(s).

Split Rights. An application for transfer is not required when a water right for irrigation is proposed to be split, with notice to the department pursuant to the provisions of Section 42-248, *Idaho Code*, such that a disproportionate per acre share of the right would be conveyed to another party provided that the resulting diversion rates do not exceed 0.02 cfs per acre, the amount of water historically applied per acre, or the amount of water diverted at a particular point of diversion, whichever is greater, for that part of the right conveyed or retained, and provided no other changes are made.

Changes to Points of Diversion within Recorded Location. An application for transfer is not required if a change in point of diversion is proposed to be moved to a location within the same legal public land survey subdivision as currently recorded on the water right and the change will not enlarge the right or injure other rights (if within a recorded legal public land survey subdivision, a transfer is required if injury is likely when moving the point of diversion to bypass another point of diversion or when moving a well significantly closer to another well or surface water source).

An application for transfer is not required for the situation described in the preceding paragraph, even when the point of diversion is described by a shapefile in the department's GIS database. The department will not initiate an enforcement action against the water right owner due to a discrepancy between the department's shape file and the physical location of use within the recorded legal subdivision if the discrepancy is limited to the situation described in the preceding paragraph. The department may update the shapefile in its GIS database from its own information or information provided by the water right owner.

Replacement of Point of Diversion. An application for transfer is not required to replace a point of diversion if the new point of diversion is constructed at the same location as described in the license or decree for the water right, and the change will not enlarge the right or injure other rights.

Refined Descriptions. An application for transfer is not required when a change in the description of the location of the point of diversion or place of use is only the result of improved methodology for referencing and displaying the location, which results in a more accurate description of the same physical location. The department will not initiate an enforcement action against the water right owner due to the discrepancy between the water right record and the referenced location if the discrepancy is created by better methodology and is not due to a change in the physical location. However, if the water right owner wishes to correct the water right record, an application for transfer

or an appropriate amendment will be required, as previously described for correction of errors.

Changes in Place of Use within Recorded Location. An application for transfer is not required if a change in the location of use within 40-acre legal subdivisions is proposed that would not result in an increase in the number of acres within any 40-acre legal subdivision nor use of water at a new 40-acre legal subdivision (except for a proposed change in location outside of prescribed boundaries such as those provided for irrigation use under Section 42-219, *Idaho Code* or by court decree, even when the change in location would be included within the same 40-acre legal subdivisions existing prior to the proposed change).

An application for transfer is not required for the situation described in the preceding paragraph, even when the place of use is described by a shapefile in the department's GIS database. The department will not initiate an enforcement action against the water right owner due to a discrepancy between the department's shape file and the physical location of use within the 40-acre legal subdivisions if the discrepancy is limited to the situation described in the preceding paragraph. The department may update the shapefile in its GIS database from its own information or information provided by the water right owner.

Generally Described Place of Use. As provided in Section 42-219, *Idaho Code*, an application for transfer is not required to change the place of use within a generally described place of use. A generally described place of use may be by court decree or as provided in Section 42-219(5) and (6). Pursuant to Section 42-219(7), any change within a generally described place of use can not result in an increase in the diversion rate, or in the total number of acres irrigated under the water right, and can not cause injury to other water rights. Any change to the boundaries of a generally described place of use requires an application for transfer, except for a municipal provider as described below or for an irrigation district where changes in boundaries must be documented by a map of the revised boundaries filed with the department in accordance with Section 43-323(2), *Idaho Code*.

Municipal Places of Use. An application for transfer is not required to change or add a place of use for "municipal purposes" within the "service area" of a "municipal provider." See Sections 42-202B and 42-222(1), *Idaho Code*, for appropriate definitions and provisions governing use of municipal water rights. The ownership of a portion of a municipal water right held by a municipal provider for reasonably anticipated future needs can be changed to a different municipal provider subject to the provisions of Section 42-248, *Idaho Code*. However, the right can not be changed to a place of use outside the service area of a municipal provider or to a new nature of use, and an application filed for such a change is to be returned and any associated application fee refunded.

In-stream Stock Watering. An application for transfer is not required to divert water away from a stream for stock watering purposes provided the diversion is added and used in conjunction with an in-stream stockwater right and provided the diversion meets

certain conditions pursuant to Section 42-113(3), *Idaho Code*. See guidance memorandum for in-stream stock diversions dated June 26, 2000, for additional information.

Intensified Use of Water. An application for transfer is not required to increase production under an authorized use of water, unless the proposed change would also result in a change to one or more of the elements of the water right(s) as licensed or decreed. For example, an application for transfer is not required to increase the number or volume of raceways in a fish propagation facility, increase the number of cows at a dairy, change irrigation to a more water consumptive crop, or increase the generating capacity of hydroelectric generators, so long as none of the elements of the associated water rights are changed.

Mitigation Through Non-Use of a Right. An application for transfer is not required to mitigate for the diversion and use of water under another right if the mitigation is accomplished through non-use of water under an existing valid water right, except under specific circumstances where a transfer is required as part of the Department's approval of the mitigation plan (see Section 42-223 (10), *Idaho Code* for reference to mitigation approvals where non-use of water may apply).

Land Application of Wastewater to Replace Existing Supply. An application for transfer is not required for a proposed change in the place of use under a water right for uses such as industrial, dairy, or confined animal feeding operations that would allow land application of wastewater from that use or change the location of lands used for application of wastewater, when there is a full existing water right for irrigation of the place of use receiving wastewater.[1]

3. Requirements for an Acceptable Application for Transfer.

The department is a public service oriented agency, and department employees traditionally have helped applicants complete transfer application forms. The existing transfer backlog, together with the increasing number and complexity of new applications for transfer, requires that staff focus their time on processing existing acceptable applications. Department employees are encouraged to provide general assistance to applicants but should refrain from completing application forms on behalf of applicants.

An applicant or qualified consultant must prepare and submit an application for transfer in accordance with the minimum requirements enumerated below to be acceptable for initiating the processing of the application by the department. An application that does not comply with these minimum requirements is to be considered incomplete and is to be returned to the applicant along with a letter or checklist identifying the deficiencies. The letter shall state that unless the application is resubmitted within 30 days of its return, the application fee will be refunded. An application for transfer that satisfies the minimum requirements will be processed in accordance with Section 5, Information Needed to Complete Processing of a Transfer Application.

(1) Application Forms. An application for transfer must be submitted on a current form provided by the department entitled, "Application for Transfer of Water Right." The current form is available from the department's Internet homepage at:

http://www.idwr.idaho.gov/water/rights/water_rights_forms.htm

(2) Name and Address. An application for transfer must include the name and address of the applicant. In addition, the application must include the name and address of any new right holder(s) for the water rights (or parts thereof) being transferred, if different than the applicant. The applicant's name must match the department's current record of ownership for the water rights (or parts thereof) being transferred. Otherwise, adequate documentation must be included to show that a change in ownership or authority to make the change has legally occurred. Adequate documentation can be a warranty or other deed, title policy, contract of sale or option for purchase by applicant (if the contract or option allows the transfer), or other similar document confirming ownership of the water right(s) or the authority to change the water right. See Records Memorandum No. 9 for additional guidance on water right ownership documentation.

A transfer application filed to change a right (or part thereof) claimed in a pending adjudication, where the claimed place of use is based on an accomplished transfer pursuant to Section 42-1425, *Idaho Code*, must include adequate documentation demonstrating the applicant's ownership of the right or authority to make the change.

(3) List of Water Rights to be Changed. An application for transfer must list all water rights for use in a common system of diversion and distribution for which the point of diversion, place of use, period of use, or nature of use are proposed to be changed (the water rights to be transferred). Proposed changes which involve separate diversion and distribution systems must be filed as separate applications. A proposed change to the remaining portion of an existing water right subsequent to a proposed transfer requires a separate application for transfer.

(4) Associated Water Rights or Water Supply. The application must include a separate list of individual water rights, other than those proposed to be changed, and a description of water supplied by a canal company, irrigation district, or municipality, that provide water currently used in the same diversion system or at the same place of use as the right(s) proposed to be transferred (associated water rights or water supply). In addition, the application must include a separate list of associated water rights or water supply proposed to be used in the same system or at a new place of use. If the associated water rights or water supply are not owned by the applicant and changes to conditions

for those rights are necessary, documentation must be submitted confirming that the applicant has the legal authority to make such changes on behalf of the current owner of the other rights.

Changes to conditions or remarks for associated water rights that are necessary as a result of an approved transfer and that do not affect the rights of other persons or entities can be made without a separate transfer application or process. Such changes usually result from a division in ownership and should be included in the transfer approval document.

(5) Reason for Change. The application must list the purpose for and a general statement of the reason for the proposed change.

(6) Description of Proposed Change. The application must describe in writing the proposed changes, which must include the following:

a. The right number(s) assigned by the department for the right(s) proposed to be changed must be identified. If the right was established by a beneficial use for which a claim has not been filed, a claim must be filed before or together with the transfer application. If the right is represented by a decree and the department has not assigned a number to the right, a copy of the decree must be included with a description of the right that is proposed to be changed.

b. The amount of water proposed to be diverted, as a rate of flow in cubic feet per second and as acre-feet per year, if the transferred water right has a volume limitation, for natural flow and ground water rights must be set forth. The amount of any stored water involved in a transfer must be identified in terms of acre-feet per year for each purpose of use listed.

c. The proposed nature or purpose of use must be stated. For non-irrigation uses such as "industrial" or "commercial," a more detailed description of the proposed use(s) must be provided under the "Remarks" section of the application, or as an attachment to the application. For applications proposing to change the nature of use to municipal purposes for reasonably anticipated future needs (RAFN), the applicant shall provide information to establish that the applicant qualifies as a municipal provider and that the RAFN, service area, and planning horizon are consistent with the definitions and requirements specified in Section 42-202B, *Idaho Code*.

d. The period of each year during which water is proposed to be diverted, or diverted and stored, and beneficially used must be set forth for each use listed.

e. The source of water for the proposed changes must be listed. An application proposing a diversion, injection, and re-diversion of water must list the source for the original diversion as the source for the injection and re-diversion. An application proposing to change the point of diversion to a location resulting in a change from ground water to surface water or from surface water to ground water shall include an analysis confirming a direct and immediate hydraulic connection (at least 50 percent depletion in original source from depletion at proposed point of diversion in one day). See Section 5c. (7) for further details.

f. The legal description of the point(s) of diversion must be described. The description must be to the nearest 40–acre subdivision or U. S. Government Lot of the Public Land Survey System. Existing point(s) of diversion should be described to the nearest 10-acre tract, if based on a previously recorded 10-acre description or other accurate means such as GPS or a detailed and accurate map. Proposed point(s) of diversion need only be described to the nearest 40-acre tract. The location of springs must be described to the nearest 10–acre tract. Subdivision names, lot and block numbers, and any name in common usage for the point of diversion should be included in the "Remarks" section of the application form.

g. Except as provided herein, the legal description of the place of use must be set forth to the nearest 40-acre subdivision or U. S. Government Lot of the Public Land Survey System. Subdivision names, block and lot numbers, and any name in common usage for the place of use should be included in the "Remarks" section of the application form. For water rights held by irrigation districts, municipal providers, and others included under the provisions of Sections 42-202B or 42-219, *Idaho Code*, the place of use may be generally described even if previously described to the nearest 40-acre subdivision or government lot.

    i. If irrigation is a purpose of use, the number of acres in each 40-acre tract of the place of use or within a generally described place of use must be shown. The location of uses, other than for municipal providers or

for irrigation, must be identified in the appropriate 40-acre tract(s).

ii. Except for wastewater when there is a full existing water right for irrigation of the place of use receiving wastewater, if a proposed change includes disposal or use of wastewater by land application to growing crops the application must identify the location of the waste disposal area by legal description under the use from which the wastewater originates.

h. An adequate description of the proposed diversion, delivery and application system(s) must be provided. This may include preliminary sizes and dimensions of pumps, pipelines, headgates, ditches, dams, impoundments, and application equipment. The type and location of measuring devices might also be required for applications providing for measurement of water to address specific injury or enlargement concerns. For large existing systems, such as those owned by municipal providers, irrigation districts, and canal companies, only those features proposed to be added or modified need to be described.

(7) Map of System. A map corresponding to the written description above must be included showing the location of points of diversion, reservoirs, dams, canals, ditches, pipelines, and other works proposed to be used in the diversion and conveyance of water. The map must clearly show the location of the place of use including lands to be irrigated, if any. If only a part of the water right(s) is proposed to be changed, the map must include the location of the part of the existing recorded right(s) proposed to be removed (or changed). Legal descriptions including townships, ranges, sections, quarter-quarters, and government lots must be evident or labeled unless other reference information is evident on the map to identify the specific location. In lieu of creating a map, a copy of a published map, such as a U. S. Geological Survey quadrangle map, or an aerial photograph, can be attached to the application with the required identification shown thereon. For large existing systems, such as those owned by municipal providers, irrigation districts, and canal companies, only those features proposed to be added or modified need to be shown.

(8) Response to Questions on the Form. The application for transfer must include responses to the questions on the application form concerning the validity of the right, the proposed use of the land from which the right is proposed to be removed (if applicable) and the existence of mortgages or liens. In addition, the application should address any agreements or commitments not to divert water under the right(s)

proposed for transfer such as a lease to the water supply bank (WSB), enrollment in the federal Conservation Reserve Enhancement Program (CREP) or dedication of the right(s) for mitigation purposes.

(9) Changes to Part of a Right. If only a part of a right is being changed, the application for transfer must define that part by describing each of the elements, as currently licensed or decreed or otherwise recorded, for the part of the right being changed.

(10) Signature. The application for transfer must include the signature of the applicant or the applicant's authorized representative. If a representative signs the application, evidence of authority to sign for the applicant must accompany the application. An application in more than one name must be signed by each applicant unless the right is held in the name of one joint owner "or" other joint owner(s), or the right is held in the name of one joint owner "and/or" other joint owner(s).

(11) Filing Fee. The filing fee provided in Section 42-221, *Idaho Code*, must be submitted with the application for transfer. If the applicant is a governmental agency, a purchase order for the required amount is acceptable. (See the memorandum titled "Guidance on SB 1337 Amending Section 42-221, I.C.," dated June 26, 2000, and Transfer Processing Memorandum No. 23 for further guidance on application fees.)

(12) Changes to Point of Diversion from Eastern Snake Plain Aquifer. Except as provided below, if the application for transfer proposes to move the point of diversion for a water right to divert and use ground water from one location to another within the Eastern Snake Plain Aquifer (ESPA) including any modeled tributary aquifers, the applicant must submit an attachment with the application that sets forth the time series of calculated depletions (transient to steady-state) to reaches of the Snake River that are hydraulically-connected to the ESPA using or based on the department's current ground water model for the ESPA, or other equivalent analysis acceptable to the department. When using results from or based on the department's ground water model, the time series of calculated depletions must be for the cells containing the points of diversion both before and after the proposed transfer (initiating at the date of priority of the water right and ending at future steady state condition). If the cells are the same, the attachment is not required except as described below. A copy of the department's ESPA ground water model, or associated transfer spreadsheet[3] can be obtained by contacting the department or visiting the department's web site.

[3] The Department's ESPA transfer spreadsheet has a fixed 150-year analysis period which may not reach a true steady-state condition in all instances; however, the analysis period provided by the spreadsheet is acceptable to the Department for purposes of the required attachment. For purposes of this

The purpose of the time series of depletion attachment is to provide a basis for evaluating whether the proposed transfer will increase depletions to hydraulically-connected reaches of the Snake River.[4] Increases in such depletions are presumed to cause injury to existing water rights because all of the hydraulically-connected reaches of the Snake River (including tributary springs) have water rights that are not fully satisfied at certain times. Increased depletions greater than 10 percent for any reach are presumed to cause injury and must be fully mitigated such that there are no increases in depletion to those reaches except as described below.[5]

Increased depletions greater than 10% in any reach are considered insignificant under either of the following conditions and will not require mitigation for the proposed transfer to be approvable:

a. Increased depletions (transient to steady-state) to the reach are two acre-feet or less per trimester; or

b. The reach, at steady-state conditions, will not be depleted by an amount greater than 10% of the total depletion to all reaches caused by the diversion under the proposed transfer.[6]

Where mitigation is necessary for increased transient-state depletions, variance from the requirement for full mitigation during the transient state is allowed to provide for periods of static mitigation within the period of change. Mitigation for increased transient-state depletion to a reach is acceptable if the resultant depletion to a reach is no more than 5% over the simulated pre-transfer depletion to the reach and any deficient mitigation is approximately the same as excess mitigation during the transient state.

If the application for transfer proposes to move or add a point of diversion within or adjacent to the model cell for the existing point(s) of diversion, the attachment described above is not required when the application is submitted. However, if the department determines that the proposed change may significantly increase depletions to a

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memorandum, the transient state is the initial period of significant change to calculated depletions prior to approaching steady-state conditions.

[4] Increased depletions are based on the depletion volume that will be transferred through the change in point of diversion (i.e. not to include any volume for unchanged portions of rights or other associated rights not part of the change in point of diversion).

[5] This 10% threshold for mitigation reflects overall model uncertainty, of which one factor is the inherent error associated with measuring flows of water used as input to the model.

[6] This exclusion from the mitigation requirement is consistent with the Department standard in various delivery calls against ground water users diverting water from the ESPA that establishes a minimum percentage of 10% below which ground water users are not required to mitigate or replace simulated depletions to the reach.

hydraulically-connected reach of the Snake River (including tributary springs), the attachment will be required to complete processing of the application for transfer. See the Department's August 13, 2007 memo entitled, "ESPA Transfer Spreadsheet Version 3.1 – Implementation and Use" for further guidelines on use of the ESPA transfer spreadsheet.[7]

If the applicant offers reduced ground water withdrawals as mitigation, any proposed schedule for adjusting reduced withdrawals must also be set forth in the application for transfer.

Increased reach gains from other proposed ESPA transfers (offsetting transfers) can be used to provide part or all of the mitigation necessary for reaches requiring mitigation due to increased depletions (as determined by a stand-alone analysis of each individual transfer as described above). If the applicant offers offsetting transfers as mitigation, the transfer applications shall be submitted together as part of a plan to mitigate the individual transfer effects.

(13) Historic Beneficial Use. If the application for transfer proposes to change the nature or purpose of use or the season of use, the applicant must include an attachment documenting the historic extent of beneficial use under the right. For a transfer seeking to change a water right from irrigation, the attachment must provide sufficient data and information to determine historic consumptive water use. This can be satisfied by submitting records of cropping pattern or rotation, or records of water diverted and system efficiency, for at least the most recent, five consecutive years as described in Sections 5d.(5) and (6). If the application for transfer proposes to change the place of use for a supplemental water right, the applicant must include information to demonstrate that the supplemental right will not be enlarged (see Sections 5d.(3), (4) and (5) for definition and further discussion of supplemental rights).

(14) Electronic Shape Files or Photographs Documenting Place of Use Changes. If the application for transfer proposes to change the purpose of use for a water right from irrigation to another use, or change the place of use for a water right for irrigation to another location, either of which requires the drying up of acres at the original place of use, the applicant must submit an attachment to the application for transfer. The attachment must provide a clear delineation of the location and extent of the irrigated acres prior to the proposed transfer, and must also

[7] This memorandum supersedes portions of the Department's August 13, 2007 memo entitled, "ESPA Transfer Spreadsheet Version 3.1 – Implementation and Use" related to mitigation within 5 percent for transient and steady-state increases. The changes are being implemented to be consistent with use of the current ground water model for administration of water delivery calls in the ESPA. The remaining portions of the memo are still applicable.

provide a clear delineation of the location and extent of the irrigated acres, if any, after the transfer, if it is approved. This attachment may either consist of two electronic shape files in a format that is compatible with the department's GIS system or aerial photographs of sufficient detail acceptable to the department with the boundaries of the irrigated areas clearly shown and referenced to the Public Land Survey System. If a place of use involved with the application for transfer currently consists of a permissible place of use or a generally described place of use (see section 3(6)g above), then the applicable attachment is not required provided the application contains a clear statement that the boundaries for that place of use are not proposed to be changed by the transfer and the total number of irrigated acres within the place of use before and after the transfer is clearly set forth.

(15) Applications Involving Water Rights for Domestic Purposes. An application for transfer involving multiple water rights for domestic purposes as defined in Section 42-111, *Idaho Code*, even when evidenced by a decree, that proposes to establish a use, which itself would not be included within the scope of the definition for domestic purposes in Section 42-111, *Idaho Code*, is not approvable except as provided below. *Idaho Code* specifically prohibits the diversion and use of water under a combination of domestic uses to provide a supply of water for a use that does not meet the exemption of Section 42-227, *Idaho Code*, and is required to comply with the mandatory application and permit process for appropriating a right to the use of water pursuant to Chapter 2, Title 42, *Idaho Code*. An application for transfer filed for such a change is to be returned together and any associated application fee refunded.

An application for transfer involving multiple water rights for domestic purposes that is not proposing to change the nature of use or place of use may be approvable if the individual domestic uses will remain in place and the transfer is only intended to connect individual wells into a common system. Such transfer application may also include addition of a non-domestic right to add a use so long as the existing domestic uses will remain in place and will not be enlarged as a result of the transfer.

4. Changes to Applications for Transfer.

Amendment of Application. An applicant may revise or amend an acceptable application for transfer to clarify or correct information on the application. Significant changes to the place, period, or nature of the proposed use, amount of water, method or location of diversion, or other substantial changes from those shown on a pending application for transfer, will require filing a new application for transfer to replace the original application. If the revisions are not substantial, the application may be revised or amended with an initialed, dated endorsement by the applicant, or by the applicant's representative, on the original application, or by a letter describing the amendments in

sufficient detail. Changes initialed or signed by the applicant's representative must be accompanied by evidence providing authority to sign for the applicant if not previously provided. Changes to the application or supporting information are not to be made by staff under any circumstances. A replacement application must be identified as "changed," "amended" or "revised" on its face so that it can be distinguished from the original application, and the original application must be marked as "superseded." An additional filing fee may be required if the revised or replacement application involves more water than proposed in the original application for transfer. A re-advertisement fee, as provided in Section 42-221F, *Idaho Code*, will be required if notice of the original application has been published and changes to the original application are significant and warrant re-notice. (See Transfer Processing Memorandum No. 20 for additional information regarding changes to applications.)

Assignment of Application. An applicant may assign, in writing (must be notarized), an application for transfer to another entity while the application is pending before the department. An assignment does not require additional notice of the application to be published, and there is no fee for an assignment of an application. The assignment will change the name of the transfer applicant, but ownership of the water right(s) involved in the transfer cannot be changed without proper notice and documentation. Section 42-248, *Idaho Code*, provides that a transfer application can substitute for a notice of change in water right ownership if adequate documentation is provided with the application.

5. Processing an Application for Transfer Prior to Hearing.

Processing of an application for transfer consists of the steps outlined below. Flexibility is provided for some steps with the intent to streamline or expedite processing of routine or non-complex applications. Regional Managers have been delegated authority to sign routine water right approvals and denials and should continue to implement their signature authority as outlined in the Department's June 7, 2007 memo entitled, "Delegation of Authority for Water Right Approval/Denial" and other delegation that may be provided.

(1) Initiating Processing – Data Entry. Once an application has been accepted and the application fee receipted pursuant to Section 3, Requirements for an Acceptable Application for Transfer, the Regional Office shall complete data entry of the basic information contained in the application and initiate working in parallel with the State Office to process non-routine or complex applications.

(2) Additional Information. For those applications to be processed in parallel, the Regional Office and the State Office will determine what, if any, additional information is necessary to complete or supplement the application. For all applications, the Regional Office will correspond with the applicant to obtain the additional information, obtain watermaster recommendation as described below, and perform any field review that is also necessary in coordination with staff from the

Adjudication Bureau if the water right is claimed in a pending adjudication.

(3) Administrative, Hydrologic, and Legal Review. For those applications to be processed in parallel, the Regional and State Offices will complete a review of all information submitted, in coordination with the Adjudication Bureau as needed, and forward appropriate information to the Hydrology Section and Administration for additional hydrologic, policy, and legal review as necessary.

(4) Preparation of Staff Memorandum. Once the review is complete, the Regional Office will prepare a memorandum, with the concurrence of the State Office if necessary for parallel review, that documents the review and evaluation of the sufficiency of the information submitted and whether processing of the application can continue because there is no clear inconsistency with the criteria set forth in Section 42-222, *Idaho Code*. If it is determined that processing of the application can continue, the Regional Office will complete necessary GIS descriptions, finalize data entry, and draft conditions for entry into Work Flow.

(5) Rejection or Denial of Application. If it is determined that the application for transfer should be rejected or can not be approved pursuant to Section 42-222, *Idaho Code*, the Regional Office or State Office (for parallel review) will prepare and issue a preliminary order rejecting or denying the application. An application for transfer may be rejected if the applicant fails to provide additional or adequate information pursuant to the requirements in this Section 5. An application for transfer that clearly does not satisfy the criteria set forth in Section 42-222, *Idaho Code*, must be denied. A rejected application may be re-filed when adequate information can be provided; a denied application can not generally be re-filed for substantially the same proposed transfer, unless a showing is made that substantial changes have subsequently occurred such that the criteria set forth in Section 42-222, *Idaho Code*, can potentially be satisfied. In either case, application fees will be retained. Note that notice of a rejected or denied application shall be sent to the applicant by certified mail pursuant to Section 42-222, *Idaho Code*.

(6) Applicant Contest of Rejection or Denial. If the applicant contests the preliminary order rejecting or denying the application and requests a hearing pursuant to Section 42-1701A, *Idaho Code*, the Regional Office will publish notice of the application for transfer pursuant to Section 42-222, *Idaho Code*, including notice of the contested case, and provide opportunity to protest the application and intervene in the contested case unless published notice is not required for the application as described below.

(7) Public Notice. If it is determined that processing of the application can continue consistent with the criteria set forth in Section 42-222, *Idaho Code*, the Regional Office will publish notice of the application for transfer. In some cases, published notice of the application may not be required. Pursuant to Section 42-222, *Idaho Code*, the Department has discretion to provide notice as deemed appropriate for applications proposing to change only the point of diversion or place of use in a manner that will not change the effect on the original or hydraulically-connected source or affect other water rights.

The timing of the public notice in these steps should remain flexible in order to streamline or expedite processing of the application. For example, processing time may be reduced by preparation of draft documents during the notice period. However, notice should not be provided prior to determining that the application meets the minimum requirements described in Section 3 and that there is a clear understanding by staff regarding the purpose of the transfer. Premature notice could result in the requirement to republish notice due to changes to an application or could result in unnecessary publication costs where an application is likely to be rejected or denied.

(8) Preparation of Approval Document. If no protest to the application for transfer is filed under step (7) above, or all protests filed are withdrawn prior to hearing, the Regional Office will finalize an electronic approval document and issue an approved transfer, subject to appropriate conditions, as a preliminary order and complete data updates in Work Flow. For those applications processed in parallel, the Regional office will finalize an electronic approval document and forward the document to the State Office for final approval and data updates.

(9) Contested Case Proceedings. If protest to the application for transfer is filed under either step (6) or (7) above, a contested case process will be completed. The hearing officer will forward electronically any final order that results from the contested case to appropriate staff to complete data updates in Work Flow.

Gathering Information Needed for Processing. In completing the steps outlined above, additional information may be needed for clarification of the purpose and intent of the proposed change, to further document the information on the application, or to provide a sufficient basis for determining whether the proposed change satisfies the statutory criteria for approval. **The applicant bears the burden of providing sufficient information.** However, staff should locate and assemble information available in the department's records that does not require compilation, interpretation, or analysis by an engineer, geologist, or other technical specialist.

Requests for Additional Information. Correspondence shall be prepared requesting any additional information needed and providing a reasonable period of time for response

(generally 30 days). When additional information is requested from the applicant, the applicant shall be informed of the need for a timely response to avoid delays in processing. The applicant shall also be informed that the application may be rejected if the additional information requested from the applicant is not timely received or is inadequate. The department can grant additional time to submit the required information if the applicant submits a written request for additional time and sufficient justification is provided.

Watermaster Recommendation. Section 42-222, *Idaho Code*, requires that the department shall advise the watermaster of any water district in which the water is used of any proposed change. The department shall not take final action on an application for transfer until the watermaster's recommendation has been received and considered.

Delays or non-response from watermasters results in delays in processing applications. The watermaster shall be informed that a non-response will be considered by the department to be the watermaster's recommendation not objecting to approval of the proposed transfer. Department staff should ensure that all watermasters understand their responsibility to provide recommendations.

Staff to Exercise Judgment. **Department staff has discretion to adapt the requirements set forth herein according to the nature and complexity of a proposed transfer**. While it is important that the information and documentation requirements are consistently applied, **staff is to use sound judgment to avoid asking the applicant for unnecessary information or seeking unnecessary review and comment from other state or local governmental entities as these guidelines are applied**.

5a. Evaluation of Authority to File an Application for Transfer.

(1) Presumption Based Upon Department Ownership Records. For any application for transfer, the department must have sufficient information to determine that the applicant has the authority to seek the proposed change in use of the water right(s). The department can presume, absent information to the contrary, that the applicant is the owner of the right(s) if the department's ownership records maintained pursuant to Sections 42-248 or 42-1409(6), *Idaho Code*, list the applicant as the current owner. The department may need to seek documentation regarding ownership if there is reason to believe that the department's ownership records may be inaccurate. One situation where the department's records may not confirm current ownership is described below.

A transfer application filed to change a right (or part thereof) claimed in a pending adjudication, where the claimed place of use is based on an accomplished transfer pursuant to Section 42-1425, *Idaho Code*, must include adequate documentation demonstrating the applicant's ownership of the right or authority to make the change.

(2) Other Acceptable Documentation. If the applicant's name does not match the name in the department's records for the current owner of the right(s) sought to be transferred, the applicant must provide evidence of current ownership or authority to make the proposed change(s). Adequate documentation can be a warranty or other deed, title policy, contract of sale or option for purchase by applicant (if contract or option allows the transfer), or other similar document confirming ownership of the water right(s) or the authority to change the water right. See Records Memorandum No. 9 for additional guidance on water right ownership documentation.

(3) Applicant Does Not Own New Place of Use. If the application for transfer proposes to change the place of use authorized under the water right(s), and the applicant does not own the land at the proposed new place of use, then the applicant must provide documentation that authorizes the change on behalf of the current owner of the proposed new place of use, except when the applicant is a municipal provider, irrigation district, canal company, or other similar entity. Such entities may only need to provide evidence of their authority to provide water for the proposed place of use in instances where evidence of such authority is necessary.

(4) Conditions on Associated Rights. If an application for transfer proposes a change from or to a system where there is an associated water right that is not listed on the application as a right being transferred, a change to conditions for that right is required (other than changes to conditions resulting from an ownership split), and that right is not owned by the applicant, then the applicant must provide documentation authorizing the change on behalf of the current owner of the associated right.

(5) Authority to Sign on Behalf of an Applicant. If the application for transfer is signed by someone other than the applicant(s) as listed on the application, documentation is needed to establish that the signatory is a representative of the applicant and is authorized to sign on the applicant's behalf. The documentation can be a copy of a current "power of attorney" authorizing signature on behalf of the applicant, or other similar documentation. An application could also be signed by an officer of a corporation or company, an elected official of a municipality, or any individual authorized by an organization to sign the application for a corporation, company, or municipality (if accompanied by documentation confirming authorization). The signatory's title must be shown with the signature.

(6) Corporation, Partnership, Joint Venture, Association, or other Business Entity. If the application for transfer is in the name of a corporation,

partnership, joint venture, association, or other business entity, department staff must verify that the organization is a viable and legally recognizable entity. Department staff will conduct a Business Entity Search at the Idaho Secretary of State's website: http://www.sos.idaho.gov/. If the Business Entity Search does not confirm that the corporation, partnership, joint venture, association, or other business entity is properly registered in the State of Idaho, department staff will request further clarification from the applicant. The intent of this search is to ensure that the organization is properly identified, including identification of individuals with signature authority and responsibility to conduct the organization's activity. Department staff may utilize other available resources to obtain the necessary information.

(7) Approval of Irrigation Entity or Legislature. Section 42-108, *Idaho Code*, requires that if the right(s), diversion works, or irrigation system is represented by shares in a corporation, or owned by an irrigation district, no change can be made without the consent of such corporation or irrigation district. This includes the use of such right(s), diversion works, or irrigation system for mitigation purposes related to a proposed transfer. Any permanent or temporary change in period of use or nature of use, in or out-of-state, involving a quantity of water greater than fifty (50) cfs or a storage volume greater than five thousand (5,000) acre-feet must also be approved by the legislature if approved by the department, except that any temporary change within the State of Idaho for a period of less than three (3) years does not require legislative approval.

(8) Liens, Mortgages, or Contract Restrictions. The department is required to provide notice to the holder of a security interest in any water right(s) proposed to be changed if the security interest holder has filed a request for notice pursuant to Section 42-248(6), *Idaho Code*. If the transfer proposes a change that might impact the value of the land such as moving the place of use or diversion facility to other land or changing the nature of use and the land from which the water right is proposed to be transferred is subject to liens, mortgages, or other contract restrictions affecting the right to transfer the water, a notarized statement or a statement on official letterhead signed by an authorized representative of a mortgage company or similar entity is required from the holder of each such lien, mortgage, or contract (see Transfer Processing Memorandum No. 10).

(9) Municipal Provider. If an application for transfer proposes to change the nature of use of a water right to municipal purposes in the name of a municipal provider for reasonably anticipated future needs, the applicant must provide documentation to establish its qualifications as a municipal provider as defined in Section 42-202B, *Idaho Code.*

(10) Agreement not to Divert. The applicant must describe any agreement or commitment not to divert water under the right(s) proposed for transfer such as a lease to the water supply bank (WSB), enrollment in the federal Conservation Reserve Enhancement Program (CREP) or dedication of the right for mitigation purposes.

5b. Evaluation of Water Right Validity.

For any application for transfer, the department must determine the validity of the water right(s), or part thereof, proposed to be changed. The following factors must be considered when processing an application for transfer and may require additional information from the applicant.

(1) Department Records. For any application for transfer, the department must determine that a right, or part thereof, proposed to be transferred is valid and has not been lost by forfeiture or partial forfeiture. The department will presume, absent other information indicating forfeiture, that the right has not been forfeited if the department's water measurement records, aerial photography, remote sensing, or other information, shows use of water during the previous, consecutive, five-year period. The department will also presume that the right has not been forfeited when it is claimed in a pending adjudication or initially decreed in an adjudication within the previous five-year period. If staff makes a field inspection (all transfers seeking a change to a right evidenced only by a claim are to be field inspected or otherwise reviewed, see Transfer Processing Memorandum No. 1 as revised in Section 5b.(4) below), information must be gathered concerning the current status of diversion and delivery facilities and the apparent recent use of water.

(2) Other Acceptable Documentation. If the records available to the department do not establish that a right has been used within the previous, consecutive, five-year period (except as provided in (1) above or for a right held by a municipal provider for reasonably anticipated future needs pursuant to Section 42-223(2), *Idaho Code*), the applicant must be asked to provide written documentation demonstrating that the right has been used within that time period. Examples of appropriate documentation include power records for pumps used to divert water under the right, Farm Service Agency (FSA) crop production records, receipts or other evidence of expenditures or revenue from the use of water under the right, and adequate affidavits of objective persons having actual knowledge of the uses of water under the right. Alternatively, if the right has not been used within the previous, consecutive, five-year period, then the applicant must be asked to provide information showing that exceptions or defenses to forfeiture are applicable. Exceptions or defenses to forfeiture include those set

forth in Section 42-223, *Idaho Code*; extensions provided for in Section 42-222, *Idaho Code*; and case law relating to factors such as resumption of use, unavailability of water when needed, or non-use when other water is available. Note that filing an application for transfer does not toll the statutory period for forfeiture of a water right due to non-use.

(3) Validity of Unchanged Parts of a Water Right. For applications for transfer proposing to change part of a water right or rights, the remaining part(s) of the right(s) that are not involved in the proposed transfer are generally not subject to a finding of forfeiture as part of the transfer action by the department.[8] In addition, the remaining part(s) of the right(s) are generally not subject to any additional conditions beyond the requirements of the original right(s). However, in some circumstances, department staff may be required to perform a comprehensive forfeiture analysis for the remaining part(s) of the right(s) to determine if a transfer can be approved. For example, a transfer application proposing to change part of the irrigated acres within a permissible place of use may require a comprehensive review of all the acres within the permissible place of use to determine if there are sufficient acres available to be transferred. When there has not been a comprehensive forfeiture analysis performed for the remaining, unchanged part(s) of the right(s), a remark will be included for any remaining part(s) of the right(s) to indicate that an approved transfer does not confirm the validity of the remaining, unchanged part(s) of the right(s).

(4) Statutory or Beneficial Use Claims. Applications for transfer proposing to change a water right based on a statutory or beneficial use claim must be reviewed to determine the validity, priority date, and extent of beneficial use established under the claimed right. Review must include field verification or other means to verify the right. This memo effectively revises the means of verification as required in Transfer Processing Memorandum No. 1. In addition, the applicant must be asked to provide information confirming the priority date of the claim. Adjudication staff must also be consulted for questions regarding review of the priority date if the claim is filed in a pending adjudication. A transfer approval for the water right (or part thereof) based on a claim shall incorporate the department's findings regarding the validity of the right. If a statutory or beneficial use claim is the basis for a pending claim in an adjudication, adjudication staff shall be notified of the results of the validity review, and the claimant shall be informed of the findings.

[8] Section 42-350, Idaho Code provides a process for revocation of a license at any time after issuance of the license upon a finding by the Director that the water has not been put to beneficial use for a period of five years.

5c. Injury to Other Water Rights

For any application for transfer, the department must determine whether the proposed change will injure any other rights, whether junior or senior in priority to the right being changed. The following factors must be considered when processing a transfer and may require additional information from the applicant.

(1) Reduction in Quantity of Water Available to Other Water Rights. Whether the amount of water available under an existing water right, senior or junior in priority, will be reduced below the amount recorded by permit, license, decree, or valid claim, or the historical amount beneficially used by the right holder, whichever is less. Consideration of this factor may require an analysis of the timing and location of return flows both before and after a proposed change to determine if the change will reduce the supply available to other water rights.

(2) Rotation. Whether a proposed change in the point of diversion of a water right that has been delivered in rotation with delivery of other water rights will result in significant additional losses borne by the water rights remaining in rotation.

(3) Unreasonable Effort or Expense. Whether the holder of an existing water right will be forced to an unreasonable effort or expense to divert water under the existing water right.

Existing ground water rights are subject to reasonable pumping level provisions of Section 42-226, *Idaho Code*, as well as applicable court decisions (e.g., Parker v. Wallentine, 103 Idaho 506, 650 P.2d 648 (1982), regarding in part the obligation to pay increased costs to divert an existing right).

An application for transfer that is approved to provide alternate points of diversion from ground water under one or more municipal water rights to develop or expand a common delivery system shall include conditions of approval to identify the point(s) of diversion authorized under each right prior to the transfer. The purpose of the condition is to provide for future administration of water rights in situations where increased municipal pumping over time is determined to cause injury through interference with other nearby wells.

(4) Unusable Water Quality. Whether the quality of water available to the holder of an existing water right would be made unusable for the purposes of the existing right.

(5) Mitigation. Whether mitigation would be needed to prevent injury to an existing water right that would be injured otherwise.

Unless agreed to in writing by the holder of an existing right, the only mitigation that can be considered acceptable by the department is the provision of replacement water in the full amount of the injury, at the same time injury would otherwise occur, and of acceptable water quality at the point of diversion for the existing right.

For applications that propose to move the point of diversion for a water right to divert and use ground water from one location to another within the ESPA, including any modeled tributary aquifers, mitigation is required for transfer approval when all of the following conditions occur: (a) the transfer would result in increased depletions (transient or steady state) greater than 10%, to any hydraulically-connected reach of the Snake River; (b) the increased depletion (transient or steady state) to the reach is greater than 2 acre-feet per trimester; and (c) the depletion, at steady-state conditions, to the reach is greater than 10% of the total depletion to all reaches resulting from the diversion under the proposed transfer. When greater increases in such depletions would occur, acceptable mitigation includes reduction in the quantity of ground water diverted and depleted such that there is no increase in depletions (for transient-state increases, no more than 5 percent over pre-transfer depletions so long as de ficient mitigation is approximately equal to excess mitigation) for each hydraulically-connected reach of the Snake River requiring mitigation. When this form of mitigation is proposed, the quantity of ground water diverted may be increased periodically (no more frequently than annually) if supported by an analysis of the timing of calculated depletions (transient to steady-state) to reaches of the Snake River that are hydraulically-connected to the ESPA for the points of diversion both before and after the proposed transfer. However, the proposed schedule for increased diversions must be set forth in the application for transfer.[9] See Section 3(12) for additional guidance.

Increased reach gains from other proposed ESPA transfers (offsetting transfers) can be used to provide part or all of the mitigation necessary for reaches requiring mitigation due to increased depletions (as determined by a stand-alone analysis of each individual transfer as described above). If approved, the transfers will not require mutual dependence for ongoing mitigation. However, any approval issued on the basis of offsetting transfers shall include conditions of approval to address future changes back to the original point(s) of diversion or future changes to a new location. In addition, conditions of approval

[9] If the transfer is approved with mitigation by reducing the amount of ground water withdrawn, and as a result the reach gains to one or more other hydraulically-connected reaches of the Snake River increase, then the applicant shall retain the right to receive credit for the increased reach gains. Such credits can not currently be used because there is no administrative system in place to recognize such credits. In the event that an administrative system is created in the future whereby such credits available at that time can be recognized, the applicant shall retain the right to the possible future use of such credits, which shall be reflected in a condition of approval for the transfer.

shall be included to address changes that would result in increased impacts to reaches of the Snake River due to differences in priority date between the rights involved in the offsetting transfers. Such changes could result in injury to surface water rights in connected reaches of the Snake River in the event of a curtailment order affecting ground water rights in the ESPA. See the Department's August 13, 2007 memo entitled, "ESPA Transfer Spreadsheet Version 3.1 – Implementation and Use" for further guidance.

(6) Ground Water Management Area or Critical Ground Water Area. Whether the point of diversion for a ground water right would move from outside the boundaries of a critical ground water area (CGWA) or ground water management area (GWMA) to within the boundaries of a CGWA or GWMA, or whether the point of diversion would move from within the boundaries of a GWMA to within the boundaries of a CGWA.

An application for transfer proposing such a change in the location of the point of diversion for a ground water right is not approvable unless the applicant proposes acceptable mitigation to prevent injury to other water rights. For cold water (85° F or less) GWMAs over the ESPA, mitigation beyond that satisfying condition (4) above will not be required at this time as a condition of approval, unless injury would occur to a water right to divert ground water or injury would occur to a water right to divert surface water that has not been offset by stipulated agreement or through a mitigation plan approved by the department,

(7) Change of Source. Whether the source would be changed from ground water to surface water, or from surface water to ground water.

Section 42-222, *Idaho Code* does not provide for a change from a ground water to surface water source, or from a surface water to ground water source. An application for transfer proposing such a change in source is not approvable unless the ground water and surface water sources are so interconnected that they constitute the same source for purposes of a proposed change in point of diversion. The ground water and surface water sources must have a direct and immediate hydraulic connection (at least 50 percent depletion in original source from depletion at proposed point of diversion in one day). The existing point of diversion and proposed point of diversion must be proximate such that diversion and use of water from the proposed point of diversion would have substantially the same effect on the hydraulically-connected source as diversion and use of water from the original point of diversion. If such application for transfer is approved, the changed water right shall be administered no differently than any other water right from the surface water source. If approved, the source for a change from a surface water source to a ground water source should be listed as ground water tributary to the surface water source.

(8) Changing Aquifer Source. Whether a proposed change in point of diversion for a ground water right is from one aquifer to another aquifer.

An application for transfer proposing to change the point of diversion from one distinct aquifer to a totally separate aquifer is not approvable, just as an application for transfer proposing to change the point of diversion for a surface water right from one distinct surface water source to a totally separate surface water source is not approvable.

(9) Conveyance Losses. Whether the proposed change would move part or all of a right from a canal impacting conveyance losses associated with the delivery of multiple water rights in the canal.

If such application for transfer is otherwise approvable, the approval must require that the applicant retain an appropriate amount of water in the canal to prevent any additional reduction in the amount of water available from the canal to fill other water rights because of the portion of the conveyance losses that, prior to the transfer, were attributable to the right being transferred.

Additional Considerations. In addition to the considerations above, the following information may be needed to evaluate injury involving an application for transfer for a ground water right, depending on the specific circumstances of the proposed transfer. If the information is not available in the department's records, the applicant must provide the following information that department staff determines is necessary:

(1) Location of Nearby Wells. The location of the nearest production well, including domestic wells, to the proposed point of diversion, and if different, the nearest production well down gradient from the proposed point of diversion (the location of other nearby production wells may also be required);

(2) Location of Nearby Springs. The location of nearby springs from which water is diverted under existing rights, including domestic uses, that could be affected by ground water diversions from the proposed point of diversion;

(3) Ground Water Levels. The depth to water, the stability of ground water levels, or the stability of confined aquifer pressures, in the area of the proposed point of diversion; and

(4) Water-Bearing Zones. The depth and thickness of water-bearing zones, including identification of the zone or zones sought for the proposed use.

5d. Enlargement of Use

For any application for transfer, the department must determine whether the proposed change will enlarge the use of water under the water right(s). Enlargement will occur if the total diversion rate, annual diversion volume, or extent of beneficial use (except for nonconsumptive water rights), exceeds the amounts or beneficial use authorized under the water right(s) prior to the proposed transfer. The following factors must be considered when processing an application for transfer, which may require that additional information be provided by the applicant:

(1) Diversion Rate, Annual Diversion Volume, and Number of Acres Licensed or Decreed. The authorized diversion rate, annual diversion volume (ground water rights only and certain surface water rights), and number of acres authorized for irrigation (if applicable), as licensed or decreed for the water right, shall not be increased. If the annual diversion volume is not specifically stated on the license or decree for a ground water right, then the amount will be based on the most current standards adopted by the department unless the applicant can show a larger amount has been reasonably diverted and beneficially used.

(2) Beneficial Use. An application for transfer proposing to change the place of use or nature of use for all or part of a water right or water rights, which change would not result in an equivalent reduction in beneficial use under the original right(s), will be presumed to enlarge the water right(s). For example, hydropower use cannot be added to a right used for irrigation, even though no additional water would be diverted for the hydropower use. The irrigation use, or part thereof, could be changed to hydropower use by reducing the irrigation use by an equivalent amount, or the new use could be provided without reducing the irrigation use by obtaining a new permit to appropriate water for hydropower use.

(3) Stacked Water Rights. 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. An application for transfer proposing to "unstack" one or more water rights used for irrigation or other use, without changing all the rights for the same use, is presumed to enlarge the water right. However, the place of use for a supplemental irrigation right may be changed for continued use as a supplemental irrigation right at a different place of use without, by definition, enlarging the original right or the supplemental right proposed for transfer, so long as the primary rights at the original and proposed places of use provide comparable water supplies. In other words, use of the supplemental right at the proposed place of use can

not materially exceed use of the supplemental right at the current place of use.

(4) Changing Supplemental Right to Primary Water Right. A supplemental irrigation right is a stacked water right authorizing the diversion of water for irrigation from a secondary source to provide a full supply for crops when used in combination with a primary right. A supplemental right can provide additional water in conjunction with a primary source, or at times when the primary source is unavailable. The use of a supplemental right is dependent on the supply available under the associated primary right and can be highly variable from year to year. An application for transfer proposing to change a supplemental irrigation right to a use as a primary water right for irrigation or other use will be presumed to enlarge the supplemental right. An exception is when the applicant can clearly demonstrate, using historic diversion records for the supplemental right as described in (5) below, or other convincing water use information, that there would be no enlargement of the water right being changed or other related water rights. Evidence of the quantity of water beneficially used under the primary right must be accompanied by some evidence of the quantity of water used under the supplemental right to qualify as "convincing water use information." The supplemental right must have been used on a regular basis (used more than 50 percent of the time). Insufficient data will be grounds to reject the application because the department will not be able to ascertain if the right will be enlarged.

If an application proposes to change only a portion of a supplemental irrigation right to a use as a primary water right, the application is not approvable unless the extent of beneficial use under all associated rights prior to the transfer will be proportionately reduced or transferred to another place of use to avoid enlargement of the remaining portion of the supplemental right. The associated right(s) will not need to be reduced if the entire supplemental right will be changed through the transfer.

A general exception to the presumption of enlargement when changing a supplemental right to a primary right applies when the supplemental right is a storage right. Section 42-222(1), *Idaho Code*, provides that a transfer of a water right for the use of stored water for irrigation purposes does not constitute an enlargement in the use of the original water right, even when more acres are irrigated, provided that no other water rights are injured.

(5) Historic Beneficial Use. For an application for transfer seeking to change the nature or purpose of use, or season of use, including for a supplemental water right, the historic extent of beneficial use under the right must not be enlarged. The extent of historic beneficial use may

also have to be considered for other proposed changes in the place of use under some circumstances when there are other sources of water, such as natural subirrigation, even when the purpose of use or period of use are not proposed to be changed. For a transfer seeking to change a water right for irrigation, the consumptive water use based on the cropping pattern or rotation, or estimated from records of water diverted and system efficiency, for the most recent, five consecutive years is presumed to provide a reasonable basis to establish historic use under the water right proposed for transfer, unless information provided by the applicant supports using a longer historic period. Exceptions or defenses to forfeiture may also justify extending the time period considered in establishing the historic use prior to the proposed transfer. The highest-year historic consumptive use (i.e. highest-use crop rotation using a climatic average for crop water use estimates), except for supplemental rights, will be the basis for the annual volume of consumptive use available for transfer. When it is necessary to determine the historic consumptive use under a supplemental right, the average annual historic consumptive use, over an appropriately representative time period not less than five years but that may require greater than five years, will be the basis for the volume available for transfer. For supplemental irrigation rights, a representative time period will include years with both good and bad surface water supplies for the area. In some rare instances, the diversion rate, the annual diversion volume, and season of use could also be limited based on the extent of historic use.

For an application for transfer seeking to change the place of use under a supplemental water right for use in conjunction with a different primary right, the historic extent of beneficial use under the right must not be enlarged. For such changes, information regarding the historic availability or reliability of supply of the rights being supplemented (primary rights), both before and after the proposed change, is presumed to provide a reasonable basis to establish historic use under the supplemental right proposed for transfer.

(6) Period of Use. An application for transfer, which proposes an increased period of use in connection with a changed nature of use for ground water, is presumed not to be an enlargement in use if the rate of diversion, total annual volume diverted, and annual volume of consumptive use are not increased. However, a change to an increased period of use for a surface water right is presumed to be an enlargement and would cause injury where there are junior priority rights that rely on surface water during the time period outside of the historic period of use for the right proposed to be changed.

(7) Confined Animal Feeding Operations. For the purpose of quantifying the amount of water needed or used in connection with a confined

animal feeding operation, such as a feedlot or dairy, the water use will be considered fully (100 percent) consumptive.

(8) Fish Propagation. An application for transfer, which proposes to increase the number or volume of raceways in a fish propagation facility, will not be presumed to be an enlargement of the water right, unless the diversion rate or annual volume of water diverted are proposed to be increased.

(9) Disposal of Waste Water. An application for transfer filed to provide for the disposal of wastewater, by land application on cultivated fields or other beneficial use disposing of the wastewater, resulting from use of water under non-irrigation uses such as a dairy or other confined animal feeding operation, or "municipal" or "industrial" water rights where the use of water is considered to be fully consumptive, is not considered an enlargement of the commercial, municipal, or industrial water right. While not an enlargement of the water right, such use of wastewater must not injure other water rights (see Application Processing Memorandum No. 61 as revised under Section 1 of this memorandum) and must comply with best management practices required by the Idaho Department of Environmental Quality, the U. S. Environmental Protection Agency, or other state or federal agency having regulatory jurisdiction.

(10) Enhanced Water Supply. An application for transfer, which proposes to change a point of diversion from a surface water source to a new location where the water available is greater or more reliable, such as moving from the tributary of a stream downstream to the mainstem of the stream, is presumed to enlarge the water right, unless the proposed change is subject to conditions limiting diversion of water at the proposed new point of diversion to times when water is available and in priority at the original point of diversion.

(11) Water Held for Reasonably Anticipated Future Needs. Section 42-222, *Idaho Code*, provides that when a water right, or part thereof, to be changed is held by a municipal provider for municipal purposes, that portion of the right held for reasonably anticipated future needs can not be changed to a new place of use outside the service area of the municipal provider or to a new nature of use. See Section 42-202B, *Idaho Code* for applicable definitions related to municipal water use.

(12) Changing the Purpose of Use for a Water Right to Municipal Purposes. An application for transfer, which proposes to convey an established water right to a municipal provider and change the nature of use to municipal purposes, as defined in Section 42-202B, *Idaho Code*, shall not be approved without limiting the volume of water divertible under the right to the historic consumptive use under the water right prior to the

proposed change. If the proposed transfer involves a surface water right, the transfer shall not be approved without also limiting the right to the historic period of use under the right prior to the proposed change.

(13) Historic Use Recognized for Municipal Purposes. An application for transfer, which proposes to change the nature of use to municipal purposes for a water right established and held by a municipality that lists the purpose(s) of use as some combination of domestic, commercial, industrial, or irrigation, where those uses have historically been essentially for municipal purposes, as defined in Section 42-202B, *Idaho Code*, will not be presumed to be an enlargement of the right and will not require limitation to the historic consumptive use under the right. However, the change will be subject to the annual diversion volume, if specifically stated on the water right license or decree.

(14) Stored Water. Section 42-222(1), *Idaho Code*, provides that a transfer of a water right for the use of stored water for irrigation purposes does not constitute an enlargement in the use of the original water right, even when more acres are irrigated, provided that no other water rights are injured.

(15) Conveyance Losses. An application for transfer, which proposes to change the purpose of use for a portion of a water right covering conveyance losses to a use that would provide for irrigating additional acres, or other additional use, is presumed to be an enlargement of the water right.

(16) Measuring Requirements for Ground Water Diversions in the ESPA and Modeled Tributaries. Any water right transfer authorizing one or more changes to the diversion and use of ground water approved subsequent to the date of this memorandum shall include a condition of approval that requires the installation and maintenance of one or more measuring devices or means of measurement approved by the department. Until and unless changed pursuant to Section 42-701, *Idaho Code*, the following flow meter installation is required for the transferred right prior to diverting and using ground water under the transferred right:

a. One or more magnetic flow meters shall be installed, as required by the department, having an accuracy of 0.5 percent of rate of flow for flow velocities between 0.1 and 33 ft/sec in pipe sizes up to 4 inches in diameter and for flow velocities between 0.1 and 20 ft/sec in pipe sizes greater than 4 inches in diameter;

b. Each magnetic flow meter must be installed and maintained in accordance with the manufacture's specifications and

equipped with an LCD backlit display unit that displays instantaneous flow rate and total volume of water diverted in accordance with the department's requirements;

c. Each magnetic flow meter must provide analog output for flow rate, scaled pulse frequency for total volume of water diverted, and an RS232 port for communications.

In any transfer approval, the department may require, prior to diversion under the approved transfer, that each magnetic flow meter must be equipped with a data logger specified by the department and capable of storing 120 days of data including dates and cumulative volume of ground water diverted updated daily, as a minimum. If installation of a data logger is not required at the time of transfer approval, the department will condition the transfer approval that installation of a data logger may be required in the future.

Detailed specifications for the above requirements will be provided by the Water Distribution Section of the department upon request. A municipal provider subject to other measurement provisions that satisfy the department's measuring and reporting requirements are exempt from the above condition. Wells used solely for domestic use as defined under Section 42-111, *Idaho Code* or stockwater use under Section 42-1401A, *Idaho Code* are also exempt from the above condition. Water use for domestic and/or stockwater purposes in addition to any other purpose (e.g. commercial use) in a common system is not exempt from the above condition. Holders of ground water rights seeking approval of a transfer for diversion through existing systems or for irrigation systems m ay request a variance from the above requirements (at any time before or after approval), which may or may not be granted.

5e. Local Public Interest

For any application for transfer, the department must consider whether the proposed change(s) are in the local public interest as defined in Section 42-202B(3), *Idaho Code*. Consistent with earlier guidance herein regarding use of discretion and sound judgment, department staff is to address pertinent items from the following list, as well as other issues that are pertinent to specific circumstances, in considering whether sufficient information has been provided regarding local public interest issues and effects on the public water resource. When there are one or more significant questions about whether a particular transfer would be in the local public interest, additional information from the applicant or comments from other state or local governmental entities that have germane expertise on local public interest issues must be sought. In most cases, the applicant should gather the information and submit it to the department rather than department staff sending a form letter to other agencies seeking comment, unless the

local agency requests direct contact with the department. Staff should inform the applicant of their responsibility to provide the information to the department.

(1) Recreation, Fish, and Wildlife Impacts. The effect the proposed transfer could have on the public water resource in relation to recreation, fish, and wildlife resources in the local area that would be affected by the proposed change (Transfer Processing Memoranda Nos. 19 and 21 provide guidance related to state protected river reaches and minimum stream flow reaches);

(2) Water, and Hazardous Substance Standards. Whether the proposed transfer would comply with applicable water and hazardous substance standards designed to protect the public water resource;

(3) Local and State Requirements. Whether the proposed transfer would comply with local government and state government, if any, planning and zoning ordinances, regulations, records of decisions, or policies affecting the public water resource (e.g. requirement of a local government to use surface water for irrigation for developments involving land use changes pursuant to Section 67-6537, *Idaho Code* is considered an expression of local public interest);

(4) Neighboring Jurisdictions. Whether the proposed transfer would comply with existing requirements for land use and other uses of natural resources affecting the public water resource, if any, adjacent to the place of use proposed by the transfer but beyond the jurisdiction of the local government having authority or control over the proposed place of use; and

(5) State Water Plan. Whether the proposed transfer would be compatible with the objectives and policies of the State Water Plan pertaining to the local public interest.

5f. Beneficial Use and Conservation of Water Resources

For any application for transfer, the department must consider whether the proposed use of water is a beneficial use consistent with the conservation of water resources within the State of Idaho. The following factors must be considered when processing a transfer and may require additional information from the applicant:

(1) Efficiency of Diversion and Use. Whether the water delivery and distribution/application systems for the use proposed by the transfer would be consistent with contemporary standards for reasonably efficient use of water.

(2) Diversion Rates for Irrigation Use. Whether the proposed transfer, if involving irrigation, proposes a diversion rate in excess of 0.02 cfs per

acre of land irrigated (see Section 42-220, *Idaho Code*), and if the application for transfer proposes a higher diversion rate, whether the higher rate would be justified based on soils, crop types, irrigation system, climate, and reasonable conveyance losses from the point of diversion to the place of use. A higher diversion rate may also be justified for irrigating lands that because of public access can only be irrigated during certain times of the day (see Application Processing Memorandum No. 60). For the irrigation of five acres or less, justification is not necessary for a diversion rate of up to 0.03 cfs per acre (see Application Processing Memorandum No. 17). If the right proposed for transfer is based on a decree or license authorizing a diversion rate greater than 0.02 cfs per acre, then additional justification is not necessary unless:

a. The proposed transfer would change the place of use to a new place of use, rather than simply rearranging acreage at the general location of the existing place of use;

b. The proposed transfer would change the point of diversion with the intent to abandon the existing conveyance system and replace it with a new conveyance system that would reduce conveyance losses; or

c. The proposed transfer would add additional rights to an existing place of use from the same source as the existing water right(s) at the place of use.

(3) State Water Plan. Whether the proposed transfer would be compatible with the objectives and policies of the State Water Plan pertaining to beneficial use and conservation of water resources.

5g. Effect on Economy of Local Area

In the case where the proposed place of use is outside of the watershed or local area where the source of water originates, the department must consider whether the overall effects of the change proposed by the transfer would adversely impact the economy of the watershed or local area. The economic effect of the proposed transfer should be measured by assessing the following factors resulting from the change in use of water:

(1) Changes in Employment. Estimated changes in current and projected short-term and long-term employment;

(2) Changes in Economic Activity. Estimated changes to short-term and long-term changes in economic activity; and

(3) Stability of Economic Activity.

5h. Effect on Agricultural Base of the Local Area

Section 42-222(1), *Idaho Code*, provides that a change in nature of use from agricultural use shall not be approved if it would significantly affect the agricultural base of the local area. Department staff should presume the phrase "change in nature of use from agricultural use" can only be significant if the application for transfer proposes a change in nature of use for irrigation rights. Other water rights may authorize use in a process that is related to agriculture, such as commercial use for a dairy or an industrial use for a potato processing plant, but these uses are usually small enough compared to irrigation uses that a proposed change in these uses is presumed to not be significant. It is possible that a change in nature of use of a fish propagation water right authorizing diversion of a large flow rate might invoke this provision if fish propagation is interpreted to be an agricultural use.

The boundaries of the "local area" may be determined by considering one or any combination of the following:

(1) the boundaries of local government or the combined boundaries of local governments that cooperatively share plans for transportation, recreation, environmental quality, and similar water uses;

(2) the boundaries of any taxing entities or districts created, including school districts, that rely directly upon tax receipts for businesses that might be affected by a reduction in agricultural production;

(3) areas of common socio-economic values and operations, including those created by a) water delivery entities, b) similar agricultural crops grown, or c) the areas where agricultural processing facilities derive the agricultural products processed, or;

(4) natural geographic features that separate various areas, particularly hydrologic basin separations.

Whether the change would significantly affect the local agricultural base may be determined by considering one or any of the following factors:

(1) Financial Impacts on Local Governments. The financial impact the change will have on local governments, combinations of local governments, taxing entities, or districts within the local area that derived income from the agricultural use;

(2) Financial Impacts on Others. The financial impact the change will have on water delivery entities, the ability of farmers to continue to grow and harvest the crops previously grown, and the ability of processors of agricultural products to obtain the products necessary for business viability;

(3) Agricultural Job Displacement. The degree to which those working in agriculture will be displaced or will lose income resulting from the proposed change;

(4) Agrarian Lands. The degree to which agrarian lands are taken out of production; or

(5) Financial Impact on Overall Economy. The financial impact on the overall agricultural economy of a local area.

This Guidance Document is not new law but is an agency interpretation of existing law. For more information or to provide input on the document, please contact the Water Right Section Manager at 208-287-4800.

ADMINISTRATOR'S MEMORANDUM

Transfer Processing No. 24

To: **Water Allocation Bureau and Regional Offices**

From: **James R. Cefalo** JRC

RE: **Transfer Processing Guidance**

Date: **October 1, 2024**

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This memorandum supersedes the December 21, 2009 version of Transfer Processing Memorandum No. 24.

The purpose of this memorandum is to provide guidance to Department staff for processing applications for transfer of water rights pursuant to Section 42-222(1), *Idaho Code,* and other applicable law. This memorandum reflects multiple changes to the statutes governing transfer applications that were adopted between 2009 and 2024. The guidance provided herein is intended to streamline transfer application processing and promote efficiency and consistency in the Department's review of transfer applications. Department staff should use their judgment and discretion to adapt the guidance set forth herein to the nature and complexity of each transfer application.

1. When a Transfer Application is Required

Section 42-222(1), *Idaho Code,* requires the holder of a water right to obtain approval from the Department prior to changing the point of diversion, place of use, period of use, or nature of use of all or any part of a water right. Water right holders seek approval by filing a transfer application with the Department. A water right included in a transfer application must be a license, a claim to a water right established through diversion and beneficial use, or a decree issued by a court. A water right established through diversion and beneficial use must be filed as an adjudication claim (and, for a late claim,

accepted by the adjudication court) or as a statutory claim pursuant to Section 42-243, *Idaho Code*, prior to filing a transfer application.

1.1 Changes to Elements of a Water Right. A transfer application is always required if a proposed change would alter any of the water right elements that may be changed through a transfer application (point of diversion, place of use, period of use, nature of use), as recorded by license, claim, or decree. A transfer application is also required if a proposed change would alter a water right condition that defines or limits the point of diversion, place of use, period of use, or nature of use of a water right. A transfer application is also required if a proposed change would substantially alter an approved mitigation plan for a water right.

1.2 Changes Raising Injury or Enlargement Concerns. If a proposed change has the potential to injure other rights or the potential to enlarge a water right, even when there is no change in any of the recorded elements of the right, a transfer application should be filed to provide the Department an opportunity to evaluate and address any potential injury or enlargement.

1.3 Changes to Points of Diversion. A transfer application is required to change the point of diversion for a water right to a different tract or legal subdivision than is described as an element on the right. This includes a proposal to change from one 10-acre legal subdivision to another, if the point of diversion was previously described within a 10-acre tract. A transfer application is also required when a water user proposes to add a point of diversion to a water right, even if the proposed additional point of diversion is located within the same legal subdivision as an existing point of diversion. A transfer application is also required to move a point of diversion from a shared point of diversion to a separate point of diversion if the existing point of diversion continues to divert water pursuant to other water rights.

A transfer application is also required to change the point of diversion for a water right to a location where additional water would be available for diversion, such as moving downstream on a gaining stream reach, or to a location upstream or downstream of points of diversion for other water rights, even if the proposed point of diversion is located within the same legal subdivision as the existing point of diversion. The transfer application process provides public notice of the proposed change and provides the Department an opportunity to evaluate and address any potential injury or enlargement.

A transfer application is also required to move a point of diversion from a tributary stream to a location downstream of the confluence with another stream, even if the proposed point of diversion is in the same legal subdivision as the existing point of diversion. If a water user proposes to move a point of diversion from one stream to another stream upstream of the confluence of the two streams or move a point of diversion from one tributary to another tributary, the water user should file an application for exchange pursuant to Section 42-240, *Idaho Code*, rather than a transfer application.

1.4 Changes to Places of Use. A transfer application is required to change the place of use for a water right to a different legal subdivision or to add legal subdivisions to the authorized place of use for a water right. A transfer application is also required to increase the number of irrigated acres within any 40-acre legal subdivision or government lot authorized by a water right. For example, a transfer application is required to change the place of use of a 30-acre irrigation water right from 10 acres in the NW¼NW¼ and 20 acres in the NE¼NW¼ to 20 acres in the NW¼NW¼ and 10 acres in the NE¼NW¼. Department staff should carefully evaluate any proposal to change the place of use or nature of use for less than one acre of an irrigation water right. Changes of less than one acre raise significant concerns of enlargement and injury and should only be approved if there is persuasive evidence that the acre proposed to be taken out of production will, in fact, no longer be irrigated.

1.5 Consolidation of Irrigated Acreage. A transfer application is required to consolidate or permanently reduce the number of acres authorized for irrigation under a water right while maintaining the original diversion rate or annual diversion volume.

1.6 Land Application of Wastewater. A transfer application is required to change the place of use for a water right that relies on land application of wastewater (such as rights for industrial, dairy, or confined animal feeding operations) if the change would result in wastewater being applied to lands that do not have a full supply irrigation water right.

1.7 No Physical Change. A transfer application may also be required to update the point of diversion or place of use elements in licenses or decrees to reflect the historical use of a water right. In such an instance, there would not be an actual change to the diversion and delivery system, only a change to the legal descriptions for the elements of a water right. In some cases, it may be possible to update a water right without a transfer application. For example, some clerical errors might be addressed by an adjudication (or other jurisdictional) court. Similarly, in some cases, the Department may be able to issue an amended license to address a clerical error.

1.8 Obsolete Water Right Conditions. A transfer application is required to remove or change conditions on a decreed right, even if the conditions are obsolete or ambiguous. In some cases, water users may be able to petition an adjudication court to remove obsolete or ambiguous conditions. A transfer application is not required to modify or remove obsolete conditions from a water right license, provided other water rights are not materially affected by the change. Such changes should be accomplished through an order of the Department

1.9 Stockwater Rights on Federal Land. Pursuant to Section 42-113(2)(b), Idaho Code, a water right for stockwater use on federally owned or managed land is an appurtenance to the base property of the grazing allotment permittee. When such a water right is conveyed to a new owner, a transfer application is required to move the water right from the base property of the previous owner to the base property of the new owner.

2. When a Transfer Application is not Required

A transfer application is not required if a proposed change in water use will not alter any of the elements of a license, claim, or decree, except when the change in a point of diversion presents injury or enlargement concerns as described above. A transfer application is not required when an accomplished change to a water right or an enlargement of a right has been claimed in an adjudication in accordance with the provisions of Sections 42-1425 or 42-1426, *Idaho Code*.

2.1 Change in Consumptive Use. Consumptive use is not, by itself, an element of a water right subject to the requirements to file a transfer application. A change in the amount of consumptive use does not require a transfer application provided the authorized nature of use does not change and no recorded element or approval condition of the right is changed. Historical consumptive use may be considered when a transfer application proposes to change the nature of use of a water right, as discussed in greater detail later in this memo.

2.2 Change in Ownership. A transfer application is not required to change the ownership records for a water right or to change the contact information for a water right holder.[1] A water user may request to update the ownership records of water rights in conjunction with a transfer application proposing to change other elements of the rights. Consistent with Section 42-248(3), *Idaho Code*, the water user must still pay the filing fee for the ownership change in addition to any filing fees required for the transfer application.

A transfer application is not required to update the ownership records of one or more water rights, or portions thereof, that are part of a larger group of water rights authorized for use within and appurtenant to a permissible place of use[2] if the conveyance documents specify which water rights, or portions thereof, are included in the conveyance and if other elements of the affected rights will not be changed.

2.3 Partial Abandonment. A transfer application is not required to abandon any portion of a water right such as removing a purpose of use or a point of diversion or reducing the number of irrigated acres and a proportional share of the diversion rate and volume. A water right holder proposing to abandon a portion of a water right must provide a notarized statement of abandonment identifying the water rights to be changed and describing the specific changes to be made.

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[1] The term "transfer" is a term of art in Idaho water law and is often confused with the process of updating ownership records. It is common for water users to say, "I need to transfer my water rights," when they simply need to update ownership records. Changes in ownership or contact information may be filed in accordance with Section 42-248, *Idaho Code*, or in accordance with Section 42-1409(6), *Idaho Code*, for adjudication claims.

[2] A permissible place of use exists when a legal description for the place of use of an irrigation water right is larger than the individual acre limit for the right. For example, an irrigation water right may describe a permissible place of use of 160 acres, even though the water right is limited to the irrigation of 40 acres in an irrigation season.

2.4 Split Rights. A transfer application is not required when an irrigation water right is proposed to be split through an ownership change filed pursuant to Section 42-248, *Idaho Code,* and a disproportionate share of the diversion rate was described in the conveyance document, as long as the resulting diversion rates do not exceed 0.02 cfs per irrigated acre for any portion of the water right, and no other changes are made to the water rights.

2.5 Changes to Points of Diversion within a Recorded Location. A transfer application is not required to move a point of diversion to a location within the same legal subdivision currently listed on the water right and the change will not enlarge the right or injure other water rights. A transfer application is required to move the point of diversion for a water right upstream or downstream of existing points of diversion for other rights or when a ground water well will move significantly closer to another well or a surface water source. The transfer application process provides public notice of the proposed change and provides the Department an opportunity to evaluate and address any potential injury or enlargement.

A transfer application is not required to update a point of diversion shape in the Department's GIS database to reflect the actual location of a point of diversion. The Department will not initiate an enforcement action based on a discrepancy between the point displayed in the Department's GIS records and the physical location of a point of diversion, as long as both points are located within the same legal subdivision.

2.6 Replacement Point of Diversion. A transfer application is not required to replace a point of diversion if the new point of diversion is constructed in the same legal subdivision as described in the license, claim, or decree, and the change will not enlarge the water right or injure other water rights. For example, a water right holder may drill a new well within the legal subdivision identified for the point of diversion on the water right without filing a transfer application, as long as the original point of diversion is properly decommissioned, and the change will not enlarge the water right or injure other water rights. If a condition defines the location of the point of diversion to a smaller tract of land, such as a lot within a subdivision, a transfer application would be required to update the condition to describe a different lot in the same subdivision, even if the legal description of the point of diversion does not change.

2.7 Refined Descriptions. A transfer application is not required when there is a discrepancy between the point of diversion or place of use on a water right and the physical location of the point of diversion or place of use due to improved mapping technology or revised land survey data. The Department will not initiate an enforcement action against the water right holder based on such a discrepancy. If the water right holder chooses to address the discrepancy, however, a transfer application is required as described above (No Physical Change).

2.8 Changes in Place of Use within Recorded Location. A transfer application is not required to change the location of irrigated acres within a 40-acre legal subdivision or government lot, as long as the proposed change will not result in an increase in the number of irrigated acres within the 40-acre subdivision or government lot nor result in

irrigation of a legal subdivision that is not already identified within the irrigation place of use on the right. If a condition defines the location of the place of use to a smaller tract of land, such as a lot within a subdivision, a transfer application would be required to update the condition to describe a different lot in the subdivision, even if the legal description of the place of use does not change.

2.9 Generally Described Place of Use. A transfer application is not required for an irrigation district to change its generally described place of use (service boundary) pursuant to Section 42-219(7), *Idaho Code*, or for an irrigation corporation to change its generally described place of use pursuant to Section 42-222B, *Idaho Code*. Department staff should ensure that the change in service boundary will not result in an increase in the diversion rate or the total number of acres irrigated and that the change will not enlarge the water rights or injure existing rights. Any change to the boundary of a generally described place of use must be documented by a map of the revised boundary filed with the Department in accordance with Section 43-323(2), *Idaho Code*, (for irrigation districts) and Section 42-222B(1), *Idaho Code*, (for irrigation corporations).

2.10 Municipal Place of Use. A transfer application is not required to change or add a place of use for "municipal purposes" within the "service area" of a "municipal provider" as those terms are defined in Section 42-202B, *Idaho Code*. The service area of a municipal provider is established by Idaho law. The shapefile in the Department's GIS records is only a general depiction of the service area and does not create any legal rights or obligations. The ownership of a portion of a municipal water right held by a municipal provider for reasonably anticipated future needs can be changed to a different municipal provider subject to the provisions of Section 42-248, *Idaho Code.* However, the right cannot be changed to a place of use outside the service area of a municipal provider or to a different nature of use.

2.11 In-stream Stockwater. A transfer application is not required to divert water away from a stream for stock watering purposes provided the diversion is added and used in conjunction with an in-stream stockwater right and the diversion meets the conditions set forth in Section 42-113(3), *Idaho Code,* including the notice requirement.

2.12 Intensified Water Use. A transfer application is not required to increase production under an authorized use of water, unless the proposed change would also result in a change to one or more of the elements of the water rights as licensed or decreed. For example, a transfer application is not required to increase the number of or volume of raceways in a fish propagation facility, increase the number of cows at a dairy, change irrigation to a more water consumptive crop, or increase the generating capacity of hydroelectric generators, so long as none of the elements of the associated water rights are changed and the water use does not exceed the elements of the water rights, including any limits set forth in water right conditions.

2.13 Mitigation Through Non-Use of a Right. A transfer application is not required to mitigate for the diversion and use of water under another right if the mitigation is accomplished through non-use of water under an existing valid water right, except

under specific circumstances where a transfer is required as part of the Department's approval of a mitigation plan.

2.14 Land Application of Wastewater to Replace Existing Supply. For a water right with a beneficial use that relies on land application of wastewater (such as industrial, dairy, or confined animal feeding operations), a transfer application is not required to change the location of lands used for application of wastewater, when there is a full supply irrigation water right for the place of use receiving the wastewater.

3. Requirements for an Acceptable Transfer Application

The requirements for filing a transfer application are set forth in their entirety on the transfer application form ("application form") titled "Application for Transfer of Water Right." The current version of the application form is available on the Department's website. An applicant or authorized representative must use the application form and must provide all relevant information requested by the form. An application that does not include all the information requested on the application form is considered incomplete, and Department staff may request that the applicant address any deficiencies. The letter or email requesting additional or corrected information may state that unless the application is corrected or the missing information is submitted within 30 days of the request, the application will be returned, and the filing fee refunded. A transfer application that includes all the information requested on the application form will be processed in accordance with Section 42-222(1), *Idaho Code*.

Department staff may help water users understand the components and requirements of the application form and may assist water users in generating maps for transfer applications, as time permits. Department staff should refrain from answering the questions set forth on the application form for the applicant. The application form includes a paragraph above the signature line where the applicant affirms that the information provided is true and accurate based on the applicant's knowledge. Consequently, the statements made on the application form should be the statements of the applicant or their authorized representative, not the statements of Department staff.

4. Changes to Transfer Applications

An applicant may amend a transfer application to clarify or correct information on the application or to address concerns raised in a protest. If the changes to the proposed place of use, period of use, nature of use, amount of water, method of diversion, or location of diversion are substantial, the applicant should file a new application to replace the original application. If the revisions are not substantial, an applicant or authorized representative may amend the application through an initialed, dated endorsement or by sending the Department a letter or email describing the revisions in detail. Changes initialed or signed by the applicant's representative must be accompanied by evidence of authority to sign for the applicant, if not previously provided. Department staff should not make changes to an application, except those described in a letter or email from the applicant or authorized representative. A replacement application, or individual page, must be identified as "amended" on its face

so that it can be distinguished from the original application, and the original application, or individual page, must be marked as "superseded." An additional filing fee may be required if the amended application proposes to change a greater amount of water rights than proposed in the original transfer application.

Generally, the Department must publish notice of an amended transfer application. If the amended application proposes to only change the point of diversion or place of use for water rights or reduces the amount of water rights proposed to be changed and the amendment will not change the effect on the source for the right and any other hydraulically connected sources when compared to the original application, the Department is not required to publish notice of the amended application. If an amended application must be re-advertised, the applicant must provide a re-advertisement fee, as described in Section 42-221F, *Idaho Code*.

An applicant may assign a transfer application to another person or entity while the application is pending before the Department. An assignment must be in writing, signed by the current applicant, and notarized. Department staff do not need to re-publish notice of the application because of an assignment of application. There is no fee for an assignment. An assignment will change the name of the transfer applicant, but the ownership records for the water rights involved in the transfer application cannot be changed without proper documentation and filing fees.

5. Processing a Transfer Application

When a transfer application is filed, Department staff should promptly review the application to ensure the applicant has responded to all questions on the application form and has provided all documents or other information required by the application form. Department staff should send an email or letter asking the applicant to address any deficiencies, as described above. Department staff may prepare a memo or checklist to evaluate whether the application is complete and includes all the required information. Department staff should not complete a memo evaluating an application under the review criteria set forth in Section 42-222(1), *Idaho Code*, until after the application has come out of the public notice phase, if public notice is required. Evaluating the merits of a transfer application prior to publication, if public notice is required, gives the appearance that the Department has pre-judged the contested case, if an application is protested.

Once any deficiencies are addressed, Department staff may enter the application into the Department's Workflow transfer processing program and prepare the application for publication, if public notice is required. Department staff should ensure that an application is complete and accurate prior to publication to avoid the need to re-publish the application.

Whether or not public notice is required, the Department must always seek comment from the watermaster(s) of the water district(s) with the authority to administer the water source(s) at the proposed and existing points of diversion. Department staff are not required to seek comments from a watermaster if the source of the right proposed to be

changed is excluded from the subject water district. For example, Department staff do not need to seek comment from the watermaster of Water District 120 (which only administers ground water rights) for surface water transfer applications within the Water District 120 boundary. Department staff should refer to the water district information in the Department's water rights database and the materials prepared by the Water Distribution Section for determining the rights administered by water districts. Pursuant to Section 42-222(1), *Idaho Code*, watermaster comments are a prerequisite for the Department to act on a transfer application. However, some watermasters do not respond to some requests for comment. Therefore, every request for watermaster comment should include a statement that failure to respond within a designated time period will be considered a statement of no objection from the watermaster.

Department staff may conduct any field inspections that may be needed to validate water rights or to understand and evaluate the proposed changes. For example, a transfer which includes a statutory claim may require a field inspection to verify the elements of the claimed right. Other applications may require field inspections to verify components of the existing or proposed diversion and delivery system. Department staff may also request review by the Hydrology Section or other Department technical staff to evaluate the hydrologic effects of the proposed changes.

Consistent with Idaho law, the applicant bears the burden of proof for the review criteria set forth in Section 42-222(1), *Idaho Code*. At any time, Department staff may request additional information from the applicant to clarify the purpose of the proposed changes, to further document the information provided with the application or statements made on the application, or to provide a sufficient basis for determining whether the proposed changes satisfy the statutory criteria for approval. Department staff may request this additional information through written correspondence (letter or email) and should set a deadline for response. If an applicant fails to respond to a request for additional information within the time period established, the application may be denied on the basis that the applicant failed to satisfy their burden of proof with respect to the review criteria in Section 42-222(1), *Idaho Code*.

If a transfer application is protested, the application will be processed as a contested case before the Department under the Department's Rules of Procedure (IDAPA 37.01.01). For all applications, protested or not protested, Department staff must consider all of the evidence and information provided by the applicant, any relevant data or information in the Department's records, and all other relevant information and determine (1) whether the applicant has the authority to make the proposed changes, (2) whether the water rights (or portions thereof) proposed to be changed are valid water rights, and (3) whether the application satisfies the criteria set forth in Section 42-222(1), *Idaho Code*. For a transfer application that satisfies the review criteria, Department staff should prepare an order or memorandum summarizing the changes proposed in the application and explaining how the application satisfies the review criteria. If an application does not satisfy the criteria set forth in Section 42-222(1), *Idaho Code*, Department staff should issue a preliminary order denying the application. Because this memo is an internal guidance memo, Department orders approving or denying transfer applications should not include citations to this memo. Statutes, case

law, previous orders of the Department, and the transfer application form provide a sufficient basis for evaluating transfer applications. Deputy attorney generals assigned to the Department are available to help Department staff find appropriate citations.

Although each transfer application involves a unique set of water rights and a unique hydrologic setting, there are many common types of transfer applications and similar issues shared by many transfer applications. To maintain consistency throughout the state in how Department staff consider applications under the review criteria in Section 42-222(1), *Idaho Code*, the following guiding principles have been compiled. Many of these principles are based on statutes and case law, even if the statutes and cases are not cited. The following principles are not rules, however, and deviation therefrom may be warranted if the deviation is supported by evidence available to the Department and is consistent with statute or applicable case law.

5.1 Authority to File Transfer Application

For every transfer application, the Department must confirm that the applicant has the authority to seek approval for the proposed water right changes. The following principles may help Department staff verify that the transfer applicant has the authority to seek the proposed changes.

(1) Current Owner of Record. Absent information to the contrary, if the transfer applicant is the current owner of record for the subject water rights, Department staff may assume that the applicant has the authority to file the transfer application. Department staff should check online county parcel maps, if available, to verify that the existing place of use for the subject water rights is still owned by the applicant.

(2) Transfer of Pending Adjudication Claim. A transfer application filed to change a water right, or portion thereof, claimed in a pending adjudication, where the claimed place of use is based on an accomplished transfer pursuant to Section 42-1425, *Idaho Code,* must include documentation demonstrating the applicant's ownership of the right or authority to make the proposed changes.

(3) Applicant Does not Own Water Right. Sometimes a transfer application is filed by a water right broker or a prospective buyer prior to the actual conveyance of the water right. If the applicant is not the current owner of record for the rights proposed to be changed, the application form requires an applicant to provide evidence of current ownership of the rights or authority to make the proposed changes. Documentation could include a warranty deed or other deed, title policy, contract for sale, option to purchase the water right, or other similar documents confirming the authority to change the water rights. See Records Memorandum No. 9 for additional guidance on water right ownership documentation.

(4) Applicant Does not Own Proposed Place of Use. If a transfer application proposes to change the place of use for the transferred rights, and the applicant does not own the land at the proposed place of use, the application form requires an applicant to provide documentation confirming legal access to the proposed place of use, except when the applicant is a municipal provider, irrigation district, canal company, homeowners' association or other entity delivering water to lands owned by others.

(5) Applicant Does not Own Proposed Delivery System. If a transfer application proposes to convey water in a delivery system owned by another (for example, an existing ditch or pipeline), the application form requires the applicant to provide documents confirming legal access to the delivery system. If the applicant has permission from the system owners to use a delivery system owned by another, the applicant need not demonstrate legal access to the properties underlying the delivery system. If the proposed delivery system is already in place (such as a shared ditch) and crosses federal land, Department staff should not require the applicant to obtain an easement or right-of-way from the relevant federal agency as a pre-requisite to approving the transfer, as long as any approval is conditioned such that access must be obtained prior to the diversion and delivery of water pursuant to the water right.

(6) Conditions on Associated Rights. If a transfer application would require a substantive change to the water right conditions of an associated right[3] (other than changes associated with an ownership split), and the associated right is not owned by the applicant, the application form requires an applicant to provide documentation from the owner of the associated water right consenting to the proposed changes.

(7) Authority to Sign on Behalf of Applicant. If a transfer application is signed by someone other than the applicant, the application form requires an applicant to provide documentation that the representative is authorized to sign on the applicant's behalf. The documentation could include a power of attorney, a current list of officers for a corporation or company, or documents confirming the representative's position as an elected official. The signer's title should be included with the signature.

(8) Corporation, Partnership, Trust, Joint Venture, or other Business Entity. If a transfer application is filed in the name of a corporation, partnership, trust, joint venture, association, or other business entity, Department staff must verify that the business entity is a viable and legally recognized entity. Department staff may conduct a Business Entity Search at the Idaho Secretary of State website. If unable to locate information about the

[3] An "associated right" is related by conditions of approval to a water right proposed to be changed in a transfer application. Changing one or more elements of a water right through the transfer process may necessitate updates to the conditions of the associated right.

applicant's business status on the Idaho Secretary of State website or other available sources, Department staff should request documents from the applicant confirming the status of the business entity. Such documents will help Department staff ensure that the entity is properly identified in ownership records and that the transfer application was properly signed.

(9) Approval from Irrigation Entity. Section 42-108, *Idaho Code,* requires an applicant to obtain the consent of a corporation, canal company or irrigation district if the water rights to be transferred are held by such an entity or the diversion works, or irrigation system involved in the transfer are owned or managed by such an entity.

(10) Approval from Idaho Legislature. Consistent with Section 42-108, *Idaho Code*, any transfer which changes the period of use or nature of use for a quantity of water greater than 50 cfs or a storage volume greater than 5,000 acre-feet requires approval of the legislature, if the transfer is approved by the Department.[4]

(11) Liens, Mortgages, or Contract Restrictions. The Department is required to provide notice of a transfer application to the holder of a security interest in any water right proposed to be changed if the security interest holder has requested such notice pursuant to Section 42-248(9), *Idaho Code.* If the transfer proposes a change that might impact the value of the existing place of use, such as moving irrigated acres or a diversion facility to other land or changing the nature of use of a water right, and the land from which the water right is proposed to be transferred is subject to liens, mortgages, or other contract restrictions, the application form requires an applicant to provide a statement of consent signed by an authorized representative of the affected entity.

(12) Municipal Provider. If a transfer application proposes to change the nature of use of a water right to municipal purposes in the name of a municipal provider for reasonably anticipated future needs, the application form requires the applicant to provide documentation to establish its qualifications as a municipal provider as defined in Section 42-202B, *Idaho Code.*

(13) Agreement not to Divert. The application form asks the applicant to disclose whether the water rights to be changed are enrolled in the Water Supply Bank, if the existing place of use is enrolled in a cropland set-aside program such as CRP or CREP, or if the water rights to be changed are held unused in conjunction with a mitigation plan or an agreement not to divert water. Some of the information provided by the applicant may be protected from public disclosure. Refer to Records Memo No. 12 for guidance on handling

[4] Section 42-108, *Idaho Code,* also requires legislative approval for temporary changes extending three or more years. Pursuant to Section 42-222A, *Idaho Code*, temporary changes shall expire no later than December 31 of the year the application is filed, so no temporary change would extend past one year.

CREP records. For water rights that are enrolled in the Water Supply Bank, Department staff should refer to the Transfers & Water Supply Bank Coordinated Processing document on the Water Rights Section page on WEnet.

5.2 Evaluation of Water Right Validity

For every transfer application, the Department must confirm the validity of the water rights, or portion thereof, proposed to be changed. The following may be considered when evaluating whether a water right proposed to be changed is valid. Department staff may need to request additional information from the applicant to complete an evaluation of water right validity.

(1) Evidence of Use from Department Records. The Department must confirm that any water right, or portion thereof, proposed to be changed is valid and has not been lost by forfeiture or partial forfeiture. Department staff may assume, absent other information indicating forfeiture, that a water right has not been forfeited if the Department's water measurement records, aerial photography, remote sensing, or other information available to the Department shows diversion and use of the right during the previous five-year period. For stacked irrigation water rights, the Department will consider a water right as valid if the irrigation use described under the transferred portion of the water right is achieved, regardless of which stacked water right was used to accomplish the irrigation. Department staff may also assume that a water right has not been forfeited when it was decreed in an adjudication within the previous five-year period. Multiple Programs Memo No. 2 provides additional guidance on the subject of forfeiture.

(2) Other Evidence of Use. If the evidence available to the Department does not establish that a water right has been used within the previous five-year period (except for rights held by a municipal provider to address reasonably anticipated future needs pursuant to Section 42-223(2), *Idaho Code*), the applicant should be given an opportunity to provide additional evidence of use. Such evidence could include power records, Farm Service Agency (FSA) crop production records, receipts for agriculture expenses, or an affidavit from an objective person with actual knowledge of the water use. An affidavit should include specific details about the method, date, and duration of irrigation. Alternatively, if the right has not been used within the previous five-year period, the applicant should be given an opportunity to provide information about any applicable exceptions or defenses to forfeiture. Exceptions or defenses to forfeiture include those set forth in Section 42-223, *Idaho Code*, and common law defenses that may be described in case law. Filing a transfer application does not toll the statutory period for forfeiture of a water right.

(3) Validity of Unchanged Portion of Water Right. For applications proposing to change only a portion of a water right, the remaining portion not involved in the application is not subject to a forfeiture evaluation as part of the transfer review. In addition, the remaining (unchanged) portion of the water right is generally not subject to additional conditions beyond the requirements of the original right unless conditions are required to prevent injury or enlargement. In some circumstances, however, Department staff may need to review all water rights on a property to understand the extent of use under a single right. For example, a transfer application proposing to change part of the irrigated acres within a permissible place of use may require a comprehensive review of all the acres within the permissible place of use to determine if there are sufficient valid acres available to be transferred. If there is evidence that the unchanged portion of the right has not been used for the previous five-year period, a condition may be added to the unchanged portion of the water right noting that the transfer approval does not confirm the validity of the unchanged portion of the right.

(4) Statutory or Beneficial Use Claims. A transfer application proposing to change any element of a water right based on a statutory claim or a beneficial use claim must be reviewed by Department staff to confirm the validity of the right, the priority date, and the extent of beneficial use established under the right. This review will likely include a field investigation or collection of data to verify the elements of the right. If evidence of priority does not already exist in the records of the Department, an applicant should be given an opportunity to provide evidence in support of the claimed priority date. Department staff processing the transfer application should consult with adjudication staff reviewing an adjudication claim to ensure consistency in analysis and to exchange information collected during the investigation.

5.3 Injury to Other Water Rights

For every transfer application, the Department must determine whether the proposed changes will injure other water rights. The following factors may be considered when evaluating whether a proposed change will injure other water rights.

(1) Reduction in Quantity of Water Available to Other Rights. Injury is generally understood as a reduction in the quantity of water available to supply existing water rights. *See* IDAPA 37.03.08.045.01.a. Injury also includes a diminishment of the quality of water available to supply existing water rights and any change that would force an existing water user to an unreasonable effort or expense to continue to divert their water rights. Affected rights may be junior or senior to the water rights proposed to be changed. An evaluation of injury may require an analysis of the timing and location of return flows both before and after a proposed change to determine if the change will reduce the supply available to other water rights. Unless agreed to in writing by the holder of an existing right that will be injured, the Department should only accept mitigation that provides replacement water of sufficient water

quality, in the full amount of the injury, at the same time injury would occur, at the point of diversion for the injured water right.

(2) Rotation / Conveyance Loss. Department staff should investigate whether the right to be changed has been delivered in rotation with other water rights or delivered in a common delivery system such as a shared ditch or canal. Department staff should determine whether the change would remove all or any portion of the transferred right from the rotation schedule or the common delivery system. If so, Department staff should determine if the removal of the transferred rights from the rotation schedule or common delivery system would result in significant additional losses borne by the water rights remaining in the rotation schedule or common delivery system. Such a transfer may be approved if a portion of the water right to be changed is left in the common delivery system to offset the applicant's proportionate share of the conveyance loss or if the water user has written permission from the other water users in the common delivery system supporting the proposed change.

(3) Unreasonable Effort or Expense. Department staff should evaluate whether the holder of an existing water right will be forced to incur an unreasonable effort or expense to continue to divert water under the existing water right as a result of the proposed changes. Existing ground water rights are subject to reasonable pumping level provisions of Section 42-226, *Idaho Code,* as well as applicable court decisions.

(4) Municipal Rights. Occasionally, a municipality or municipal provider proposes to include alternate points of diversion from ground water under one or more municipal rights. To protect existing water rights from injury, the Department has developed standard approval conditions that would require an evaluation of the priority date of water rights originally associated with each point of diversion if administration (curtailment) of water rights occurs in the future.

(5) Ground Water Points of Diversion in the Eastern Snake Plain Aquifer (ESPA). Consistent with the application form, an application proposing to change the point of diversion for a ground water right within the model boundary of the ESPA must include information about the effect of the proposed change on the Snake River. Guidance for modeling and quantifying the effects of ground water transfers on the Snake River is set forth in separate resource documents. Guidance for evaluating the effects of such transfers is set forth in a separate administrative memo.

(6) Ground Water Management Area or Critical Ground Water Area. If a transfer application proposes moving a ground water right from outside of a Critical Ground Water Area (CGWA) or Ground Water Management Area (GWMA) into the boundaries of a CGWA or GWMA, Department staff should be careful not to allow an increase in depletions within the CGWA or GWMA boundary without requiring the applicant to mitigate for the increase in depletions.

(7) Change of Source. Section 42-222, *Idaho Code*, does not authorize a change of source. In general, moving a water right from one source to another would injure junior water rights at the proposed source because less water would be available to satisfy junior water rights during a time of shortage. Changing a water right point of diversion from one source to another may not result in injury, however, if the existing and proposed points of diversion are hydraulically connected throughout the period of use for the right. For example, a point of diversion may be moved from a tributary stream to a mainstem river downstream of the confluence without injuring other water rights, as long as the tributary stream remains connected to the mainstem river throughout the period of use authorized by the water right. Some tributary streams remain connected to mainstem rivers only because of the release of storage water from upstream reservoirs. Department staff should carefully evaluate any proposal to move a point of diversion from one source to another source to ensure that the streams do not become administratively disconnected (differing curtailment levels) even if the streams remain physically connected. A proposal to move a point of diversion from a tributary stream to a mainstem stream upstream of the confluence or from a tributary stream to another tributary stream should be filed as an application for exchange under Section 42-240, *Idaho Code*, but still requires Department staff to consider injury to other rights.

A transfer application proposing to change the point of diversion from a surface water source to a ground water well is not approvable unless the applicant demonstrates that the ground water and surface water sources are so interconnected that they constitute the same source. The application form requires an applicant proposing to divert a surface water right from a ground water well to provide technical information analyzing the hydraulic connectivity of the water right source and the proposed ground water well. The existing point of diversion and proposed point of diversion must be proximate such that diversion and use of water from the proposed point of diversion would have substantially the same effect on the hydraulically connected source as diversion at the original point of diversion. This may be accomplished by showing that the authorized surface water source would be depleted by a volume of water greater than or equal to 50 percent of the volume of water pumped at the proposed ground water point of diversion within 24 hours. If the transfer application is approved, the changed water right shall be administered no differently than any other water right from the surface water source. The source listed on the water right should not change; it should continue to be the original source. A condition should also be added to the water right noting that water is diverted from a hydraulically connected ground water well near the surface water source.

A transfer application proposing to change the point of diversion for a ground water right from one distinct aquifer to a separate aquifer is not approvable.

Similarly, a transfer application proposing to change the point of diversion from a surface water source to a hydraulically disconnected surface or ground water source is not approvable. For example, a transfer application proposing to move from a spring tributary to sinks to a different spring tributary to sinks is not approvable.

(8) Additional Considerations. In addition to the guidance above, the following information may be needed to evaluate injury resulting from a proposed change to a ground water right, depending on the specific circumstances of the proposed transfer. If the information is not available in the Department's records, Department staff may ask the applicant to provide the following information:

a. The location of the nearest irrigation wells, production wells or domestic wells to the proposed point of diversion;

b. The location of nearby springs from which water is diverted under existing rights, including domestic uses, that could be affected by ground water diversions from the proposed point of diversion;

c. The depth to water, the stability of ground water levels, or the stability of confined aquifer pressures, around the proposed point of diversion; and

d. The depth and thickness of water-bearing zones around the proposed point of diversion.

e. The anticipated temperature of ground water at the proposed point of diversion.

5.4 Enlargement of Use

For every transfer application, the Department must determine whether the proposed changes will enlarge the use of water under the water right(s). Generally, enlargement occurs when there is an increase in the total diversion rate, annual diversion volume or extent of beneficial use (except for non-consumptive rights) beyond the amounts authorized under the water right prior to a transfer application. In certain circumstances, described below, enlargement may also occur when there is an increase in use beyond the historical consumptive use under the water right to be changed. The following principles should be considered when processing a transfer application:

(1) Diversion Rate, Annual Diversion Volume, Irrigated Acres. The authorized diversion rate, annual diversion volume, or number of irrigated acres described on the transferred right must not be increased. Department staff should carefully review the transfer application and transfer approval

documents to ensure that diversion rate, annual diversion volume, and irrigated acres are not increased.

(2) Beneficial Use. A transfer application proposing to change the place of use or nature of use or to add a nature of use for all or part of a water right, which does not include an equivalent reduction in beneficial use under the original right, may result in an enlargement of use under the water right. For example, recreation use cannot be added to an irrigation water right without a proportional reduction to the irrigation use, even though no additional water would be diverted for the recreation use. To prevent enlargement, the irrigation use must be reduced by an amount equivalent to the amount sought for recreation use.

In some cases, conditions further define or limit an element of a water right, including the nature of use element. For example, a condition may explain that a commercial use is for an office building. If a transfer application proposes to change the nature of use described in a condition from one type of use to another (for example, changing from commercial use for an office building to commercial use for a car wash), Department staff should evaluate whether the change would result in an enlargement of use under the water right.

(3) Combining Rights with Differing Water Supplies. A transfer application proposing to combine irrigation water rights with differing priority dates or differing quantities into a single application system, such as a center pivot, may result in enlargement of the right with the limited water supply. For example, combining an irrigation right with a full rate (0.02 cfs per acre) with an irrigation water right with a limited supply (0.01 cfs per acre) may result in more water being applied to the acres under the limited rate right than is authorized by the right. Similarly, combining an irrigation right with a senior priority date with an irrigation right that is frequently curtailed may result in acres under the junior right being irrigated during times when that right is curtailed.

(4) Stacked Water Rights. Water rights are stacked when two or more rights, often with different priority dates and often diverted from different sources, describe the same nature of use and serve the same place of use, regardless of whether the overlap is reflected in combined limit conditions. Water rights for irrigation within a permissible place of use are not necessarily stacked if the individual acre limits for the water rights within the permissible place of use, when added together, are equal to or less than the total number of acres described in the permissible place of use. A transfer application proposing to separate or unstack one or more water rights, without changing all the stacked rights for the same use, may result in an enlargement of use under the water right. Enlargement concerns may be overcome if the relevant evidence shows that the total beneficial use occurring under the unstacked water rights (after the transfer) will not exceed

the total historical beneficial use occurring under the stacked water rights (prior to the transfer).

(5) Changing a Supplemental Right to a Primary Right. A supplemental irrigation right is a stacked water right authorizing the diversion of water for irrigation from a secondary source to provide a full irrigation supply when used in combination with a primary right. A supplemental right may be used for irrigation when the primary water right is unavailable or is partially curtailed. Diversion and use of a supplemental right is dependent on the water supply available under the associated primary right and can be highly variable from year to year. A transfer application proposing to unstack a supplemental right from a primary right and to begin to use a supplemental right as a primary right may result in an enlargement of use under the supplemental right. Enlargement concerns may be overcome if the relevant evidence shows that the total beneficial use occurring under the unstacked primary right and supplemental right after the transfer will not exceed the historical beneficial use occurring under the stacked rights prior to the transfer. Department staff should review diversion records to evaluate the reliability of the primary right and the historical use of the supplemental right.

As an example, assume that diversion data and water district records show that a primary right is available for half of the irrigation season before being curtailed and the supplemental ground water right is used for the remainder of the irrigation season. A water user could propose to change the place of use for (unstack) the supplemental ground water right to irrigate new acres. The primary right would be limited to one-half of a full supply because of the natural water availability limits of the primary source. The transfer approval for the ground water right must limit the ground water right to a volume equivalent to one-half of the historical beneficial use occurring at the original place of use to prevent enlargement in use of the right.

Department staff may deny an application if there is insufficient information to ascertain if the right will be enlarged. If an application proposes to change only a portion of a supplemental irrigation right to a use as a primary water right, the application should not be approved unless the extent of beneficial use under all associated rights prior to the transfer will be proportionately reduced or transferred to the proposed place of use to avoid enlargement of the remaining portion of the supplemental right.

(6) Change in Nature of Use. For a transfer application seeking to change the nature of use of a water right, the extent of beneficial use under the right must not be enlarged. The extent of historical beneficial use may also have to be considered for other proposed changes in the place of use under some circumstances when there are other sources of water, such as natural subirrigation, even when the purpose of use or period of use are not changed. For a transfer seeking to change a water right previously used for irrigation, the historical consumptive use may be estimated using general

evapotranspiration data for the region and the crops grown (ET Idaho), diversion records and system efficiency data, or other reliable methods. In general, Department staff should rely on data from one or more of the most recent five years. An applicant may choose to provide data for a longer period. Exceptions or defenses to forfeiture may also justify extending the period considered in establishing the historical consumptive use for a water right. The estimated consumptive use for any given year should not exceed the actual recorded diversion volume. The highest year of consumptive use in the period selected, except for supplemental rights, will be the basis for the annual volume of historical consumptive use available for transfer.

When it is necessary to determine the historical consumptive use under a supplemental irrigation right, the average annual historical consumptive use, over an appropriately representative time period not less than five years, should be the basis for the volume available for transfer. For supplemental irrigation rights, a representative time period should include years with both good and bad surface water supplies for the area.

For a transfer application seeking to change the place of use under a supplemental water right for use in conjunction with a different primary right, the extent of beneficial use under the right must not be enlarged. For such changes, information regarding the historical availability or reliability of supply of the primary rights, both before and after the proposed change, provides a reasonable basis to establish historical use under the supplemental right.

(7) Period of Use. A transfer application that proposes an increased period of use in connection with a changed nature of use for ground water is usually not considered an enlargement in use if the rate of diversion, total annual volume diverted, and annual volume of consumptive use are not increased. However, a change to an increased period of use for a surface water right may result in an enlargement of use under the right and may cause injury when there are junior priority water rights that rely on surface water during the time period outside of the original period of use for the water right proposed to be changed.

(8) Confined Animal Feeding Operations. If a transfer proposes to change the nature of use of a water right to stockwater or commercial use for a confined animal feeding operation, such as a feedlot or dairy, the proposed water use should be considered fully consumptive.

(9) Fish Propagation. A transfer application that proposes to increase the number or volume of raceways in a fish propagation facility will usually not result in an enlargement of the water right, unless the water user proposes to increase the diversion rate or annual volume of water diverted.

(10) Disposal of Wastewater. A transfer application proposing to dispose of wastewater through land application would not be considered an enlargement if the wastewater is produced by a non-irrigation use that is considered fully consumptive, such as stockwater for confined animal feeding operations, municipal use, and certain industrial uses. While not an enlargement of the water right, such use of wastewater must not injure other water rights and must comply with best management practices required by the Idaho Department of Environmental Quality, the U.S. Environmental Protection Agency, or other state or federal agency having regulatory jurisdiction.

(11) Enhanced Water Supply. A transfer application that proposes to change a point of diversion from a surface water source to a new location where the water supply is better or more reliable, such as moving from one location on a stream to another location where water would be available in greater amounts or more often, may result in an enlargement of use under the water right, unless the proposed change is subject to conditions limiting diversion of water at the proposed new point of diversion to times when water is available and in priority at the original point of diversion.

(12) Water Rights Held for Reasonably Anticipated Future Needs. Section 42-222, *Idaho Code,* provides that when a water right, or part thereof, to be changed is held by a municipal provider for municipal purposes, that portion of the right held for reasonably anticipated future needs cannot be changed to a new place of use outside the service area of the municipal provider or to a new nature of use. *See* Section 42-202B, *Idaho Code* for applicable definitions related to municipal water use.

(13) Changing Purpose of Use to Municipal Use. A transfer application that proposes to convey an established water right to a municipal provider and change the nature of use to municipal purposes, as defined in Section 42-202B, *Idaho Code,* should not be approved without limiting the volume of water divertible under the right to the historical consumptive use under the water right prior to the proposed change. If the proposed transfer involves a surface water right, the transfer should not be approved without also limiting the right to the historical period of use under the right prior to the proposed change.

(14) Historical Use Recognized for Municipal Purposes. A transfer application that proposes to change the nature of use to municipal purposes for a water right established and held by a city in the past for purposes of use (such as domestic, commercial, industrial, or irrigation) that would now be characterized as municipal use, is usually not considered an enlargement of the right and will not require limitation to the historical consumptive use under the right. However, the change will be subject to the annual diversion volume, if specifically stated on the water right license or decree.

(15) Stored Water. Section 42-222(1), *Idaho Code,* provides that a transfer of a water right for the use of stored water for irrigation purposes does not constitute an enlargement in the use of the original water right, even when more acres are irrigated, provided that no other water rights are injured.

(16) Conveyance Loss. A transfer application that proposes to change the purpose of use for a portion of a water right covering conveyance losses, which are typically non-consumptive, to a use that would provide for irrigating additional acres, or other consumptive uses, may result in an enlargement of use under the water right.

(17) Water Supply Bank. A transfer application that proposes to change the place of use or nature of use for a water right or portion of a water right leased to the Water Supply Bank may cause an enlargement concern when the water right is also rented. A water supply bank lease contract will not be modified without filing a new lease application and filing fee, and an active rental agreement will not be modified to substitute a different water right due to a transfer application. Department staff should refer to the Transfer & Water Supply Bank Coordinated Processing document on the Water Rights Section page on WEnet.

5.5 Local Public Interest

For every transfer application, the Department must consider whether the proposed changes are in the local public interest as defined in Section 42-202B(3), *Idaho Code.* When Department staff have questions about whether a particular transfer would be in the local public interest, they may seek additional information from the applicant or comments from other state or local governmental entities that have germane expertise on local public interest issues. Some of the local public interest factors that may be considered in conjunction with a transfer application are (1) recreation, fish and wildlife impacts, (2) water quality or contamination concerns, (3) local and state ordinances, regulations, policies related to water use, or (4) goals, requirements, and limits associated with the State Water Plan.

5.6 Conservation of Water Resources

For every transfer application, the Department must consider whether the proposed use of water is consistent with the conservation of water resources within the State of Idaho. Department staff may consider the following questions when determining whether a transfer application is consistent with the conservation of water resources and may request information from the applicant to assist with this determination:

(1) Is the proposed water diversion and delivery system consistent with contemporary standards for the efficient use of water?

(2) Will the proposed change result in a diversion rate greater than 0.02 cfs per irrigated acre? If the transfer application proposes a higher rate per acre,

Department staff should determine if the increased rate is justified based on soils, crop types, irrigation system, climate or conveyance losses, or irrigation time limits for public areas (for example, cemeteries, schools, parks). (*See* Application Processing Memorandum No. 60). No justification is required for a diversion rate up to 0.03 cfs per acre for the irrigation of less than five acres. (*See* Application Processing Memorandum No. 17). Some water rights, as licensed or decreed, authorize a diversion rate greater than 0.02 cfs per acre. The rate per acre listed on the water right may be retained unless (1) the water right will be moved to a new, non-contiguous property, (2) the conditions warranting the increased rate are being changed (for example, a water right is moving from a ditch with high conveyance losses to a pipeline with no conveyance losses), or (3) the right is being combined with other rights from the same source.

5.7 Beneficial Use

The proposed use of water must be a beneficial use recognized under Idaho law. Consistent with Section 42-222(1), *Idaho Code*, water rights for a minimum stream flow cannot be established through a transfer application.

5.8 Effect on Economy of Local Area

In the case where the proposed place of use is outside of the watershed or local area where the source of water originates, the Department must consider whether the overall effects of the change proposed by the transfer would adversely impact the economy of the watershed or local area. Department staff may consider the following factors when evaluating the economic effect of the proposed transfer:

(1) Estimated changes in current and projected short-term and long-term employment for the local area;

(2) Estimated changes in current and projected short-term and long-term economic activity for the local area; and

(3) Stability of the local economy.

5.9 Effect on Agricultural Base of the Local Area

Section 42-222(1), *Idaho Code*, provides that a change in nature of use from agricultural use to another type of use shall not be approved if it would significantly affect the agricultural base of the local area. This issue has rarely been raised in contested cases before the Department or in Idaho courts. Therefore, Department staff should evaluate such applications on a case-by-case basis. Defining the "agricultural base" and "local area" will be an important step in completing this evaluation.

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UPDATE

The ESPA Modeling Tool ETRAN 3.3 was recently updated to ETRAN 3.4. The difference in user interface functionality between ETRAN 3.3 and the updated ETRAN 3.4 is negligible— the updated version executes ESPAM Version 2.2 MODFLOW files instead of ESPAM Version 2.1 files. ESPAM Version 2.2 superseded ESPAM Version 2.1 in May 2021. The calibration of ESPAM Version 2.2 incorporated groundwater flow modeling improvements to the representation of aquifer interaction with the Snake River in the Heise to Shelley, near Blackfoot to Neeley, and Neeley to Minidoka reaches, and the extension of the calibration period to include water years 2009 through 2018. ESPAM Version 2.2 is accepted as the best available science. Incorporating ESPAM Version 2.2 into the ETRAN 3.4 tool provides the water management community a common way to use the best available science to analyze the hydrologic impacts of new water right applications, transfers, and Water Supply Bank rentals within the ESPA. For a complete list of previous updates between versions, see the ESPAM22readme.txt file inside the zipped folder download.

IDWR will accept modeling completed in ETRAN 3.3 or ETRAN 3.4 until May 1st, 2022. In an effort to direct users to the latest version, ETRAN 3.3 is no longer available on this website. IDWR no longer accepts modeling completed with ETRAN 3.2. If you have an extenuating need to obtain a copy of ETRAN 3.2 or ETRAN 3.3, please contact us.

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DEPARTMENT OF
WATER RESOURCES

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: December 5, 2024
To: Phill Hummer, Water Rights Section Manager
Cc: Shelley Keen, Deputy Director
From: Jennifer Sukow, P.E., P.G., Hydrology Section JS
Subject: Cumulative review of ESPA transfers between 2012 and 2024

In 2019, the Idaho Department of Water Resources (IDWR) began analyzing and reporting the cumulative effect of water right transfers involving pumping from the Eastern Snake Plain aquifer (ESPA). IDWR's report is updated each year. The last analysis included water right transfers approved between January 1, 2012, and September 30, 2023 (Sukow, 2024).[1] This memorandum presents the results of an updated cumulative review including water right transfers approved between January 1, 2012, and September 30, 2024.

Water Allocation Bureau staff identified 52 transfers approved between October 1, 2023, and September 30, 2024, involving PODs located within the Eastern Snake Plain Aquifer Model Version 2.2 (ESPAM2.2) boundary. For each transfer, Water Allocation Bureau staff assigned "TO" and "FROM" well locations to a model row and column. For transfers involving a well location outside of the active model boundary, the well location was assigned to the model row and column of the nearest active model cell. Water Allocation Bureau staff also provided an annual pumping volume for each well. Figure 1 shows the locations of model cells with TO and FROM wells representing the 52 recently approved transfers. Figure 2 shows the cumulative change in annual pumping volume by model cell for the recently approved transfers.

[1] Sukow, J., 2024. *Cumulative review of ESPA transfers between 2012 and 2023*, Idaho Department of Water Resources, memorandum to Angela Hansen dated May 29, 2024, 12 p., https://idwr.idaho.gov/wp-content/uploads/sites/2/water-rights/ESPAXferMemo2023final.pdf.

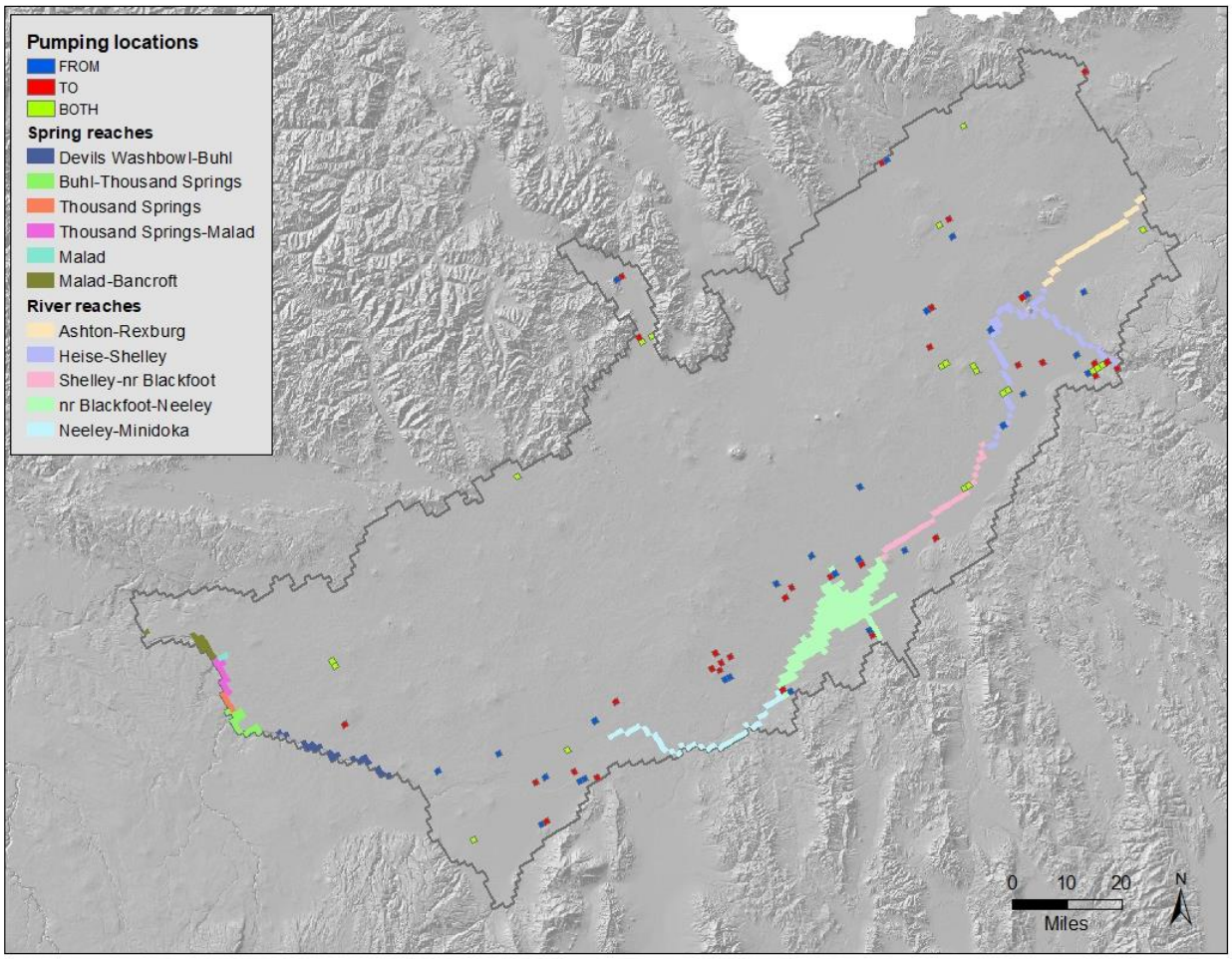


Figure 1. Locations of TO and FROM wells for transfers approved between October 1, 2023, and September 30, 2024

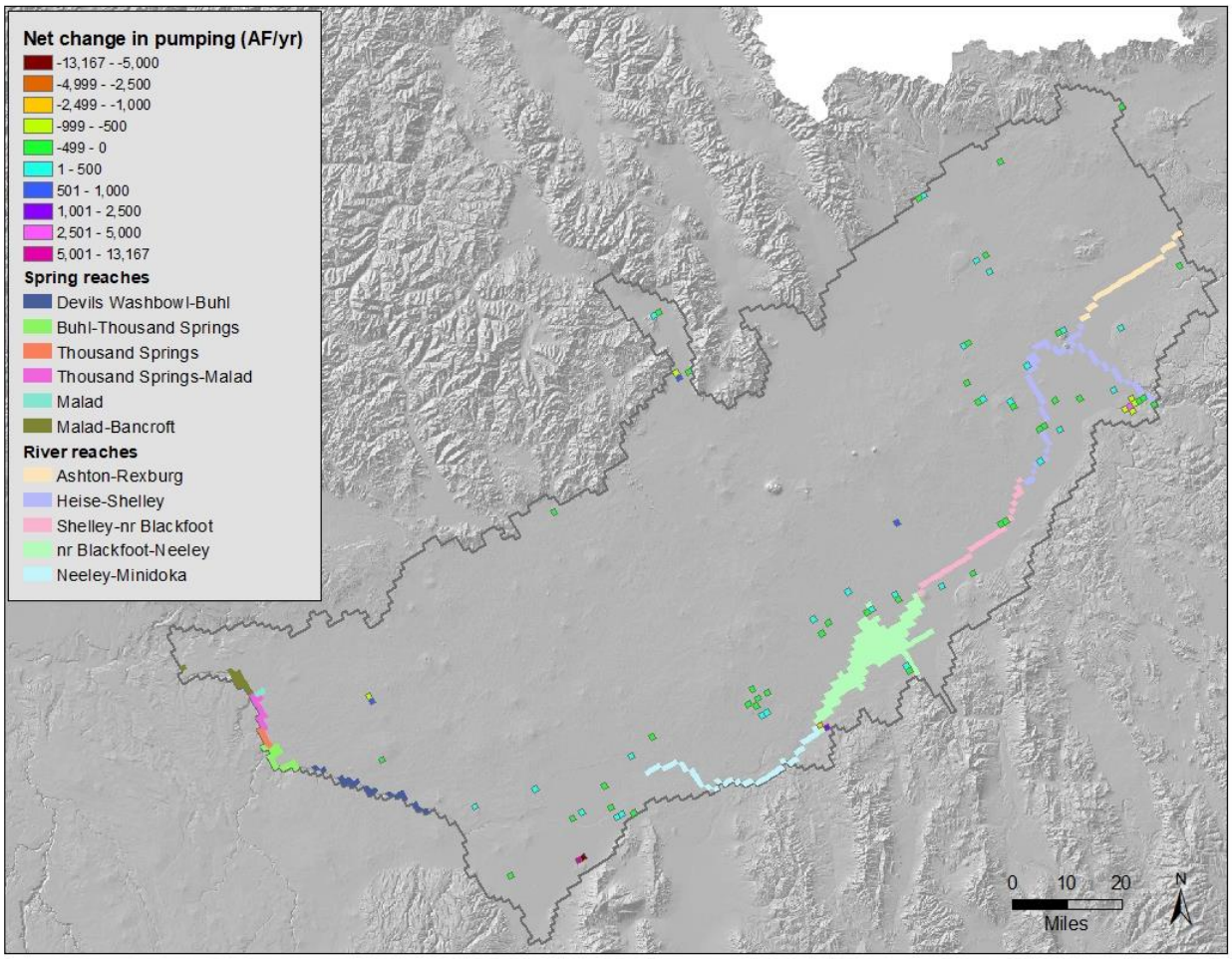


Figure 2. Net change in pumping resulting from transfers approved between October 1, 2023, and September 30, 2024

For the cumulative review, changes in pumping resulting from the recently approved transfers were added to changes in pumping resulting from the 743 transfers analyzed previously in Sukow (2024). The updated analysis includes a total of 795 transfers. Figure 3 shows the locations of model cells with TO and FROM wells representing the transfers approved between January 1, 2012, and September 30, 2024. Figure 4 shows the cumulative change in annual pumping volume by model cell for these transfers.

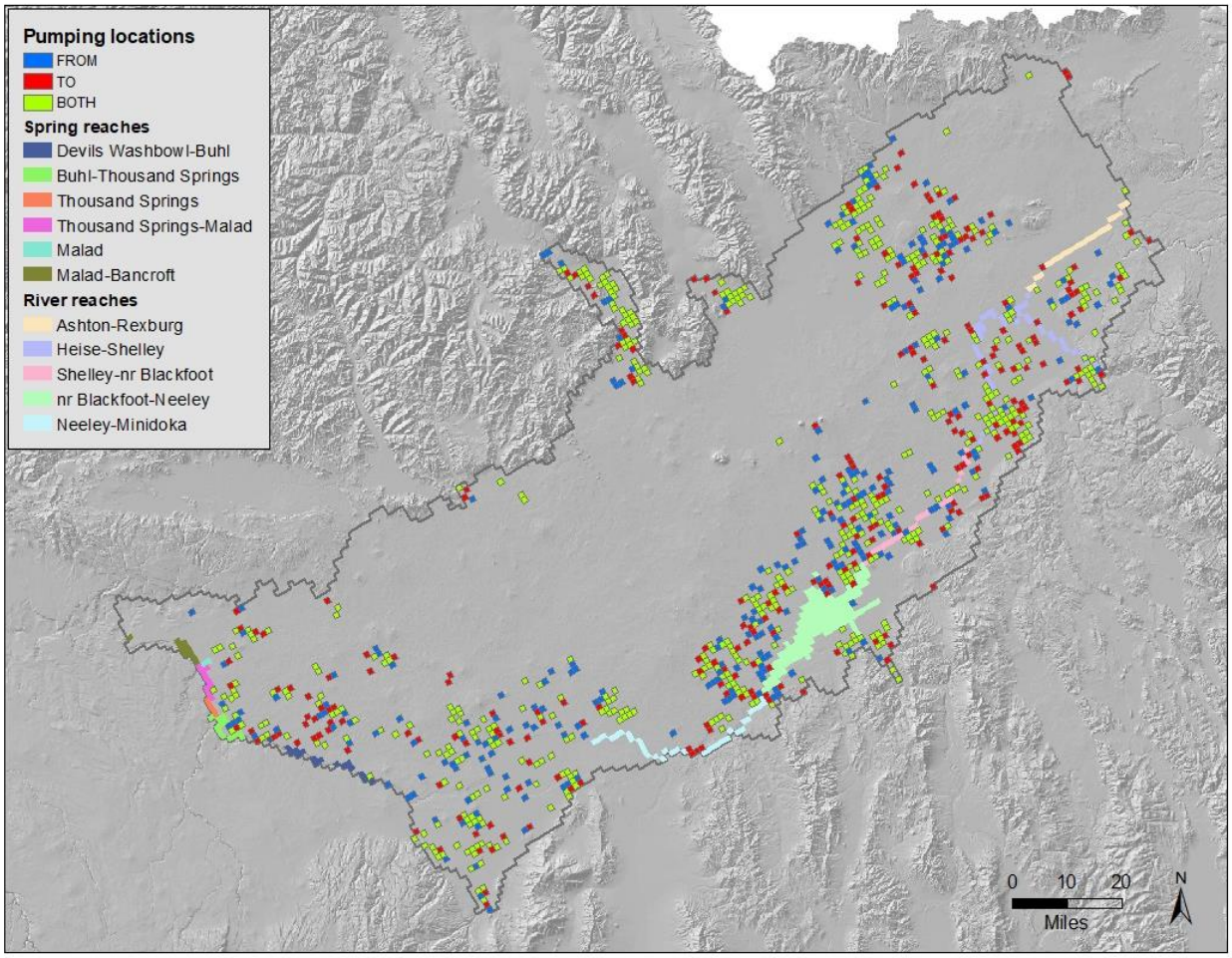


Figure 3. Location of TO and FROM wells for transfers approved between January 1, 2012, and September 30, 2024

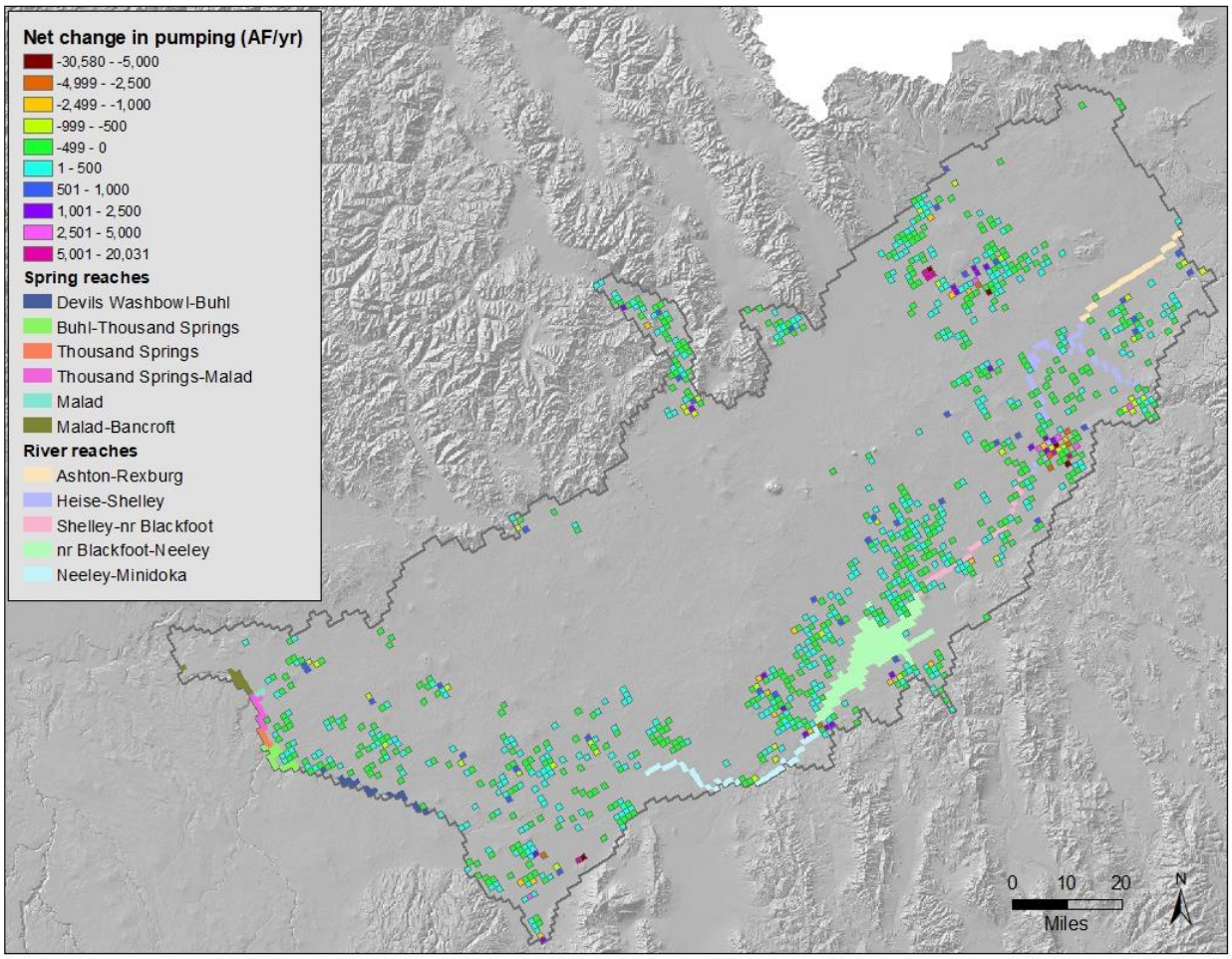


Figure 4. Net change in pumping resulting from transfers approved between January 1, 2012, and September 30, 2024

Most transfers involve relatively small amounts of water (Figure 5) or move points of diversion a relatively short distance (Figure 6). Figure 7 shows the cumulative volume of water transferred by the average distance between TO and FROM wells. Because mitigation was required for some transfers with longer distances, the cumulative TO volumes are less than the cumulative FROM volumes for all categories greater than one mile.

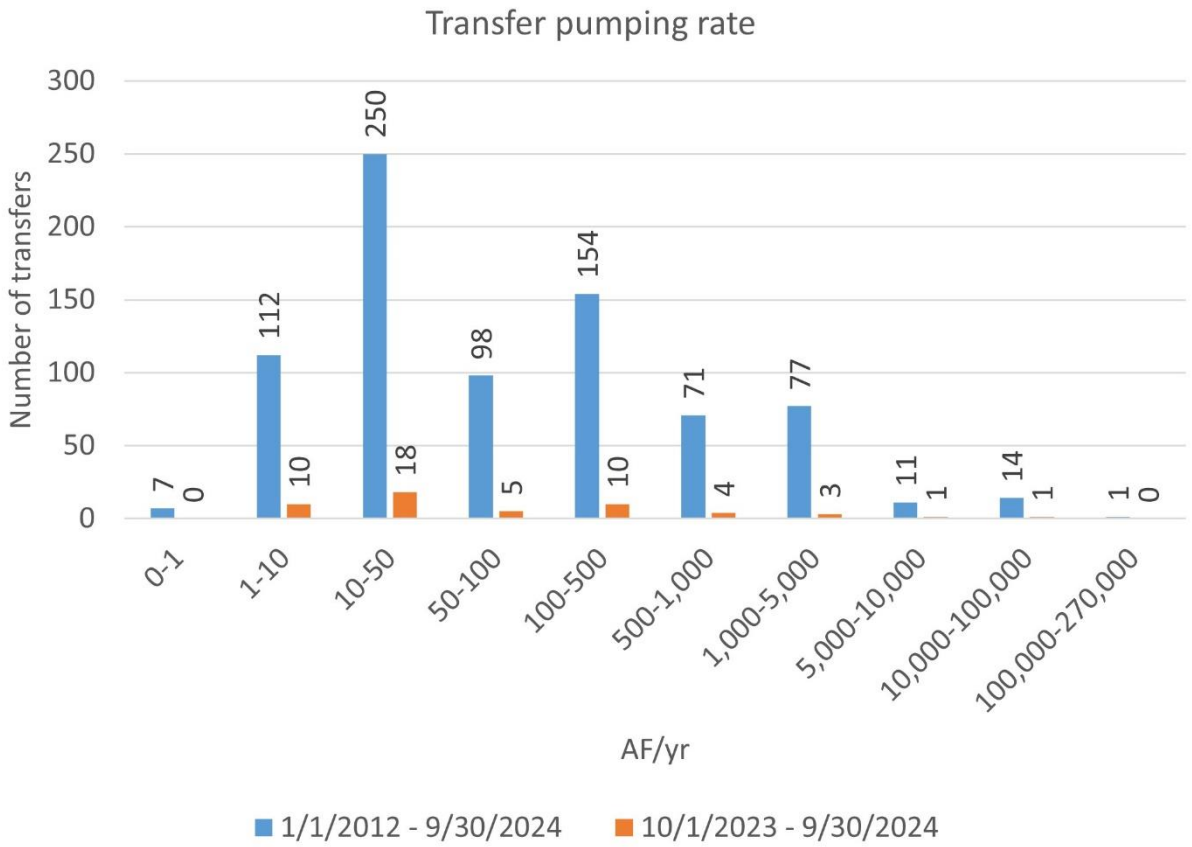


Figure 5. Transfer pumping volume

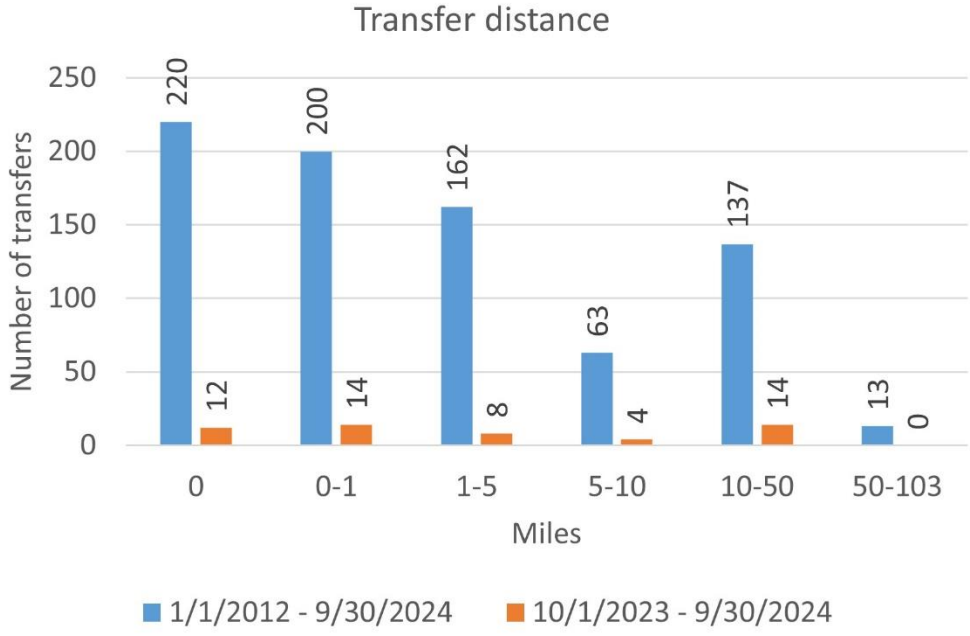


Figure 6. Average distance between TO and FROM wells

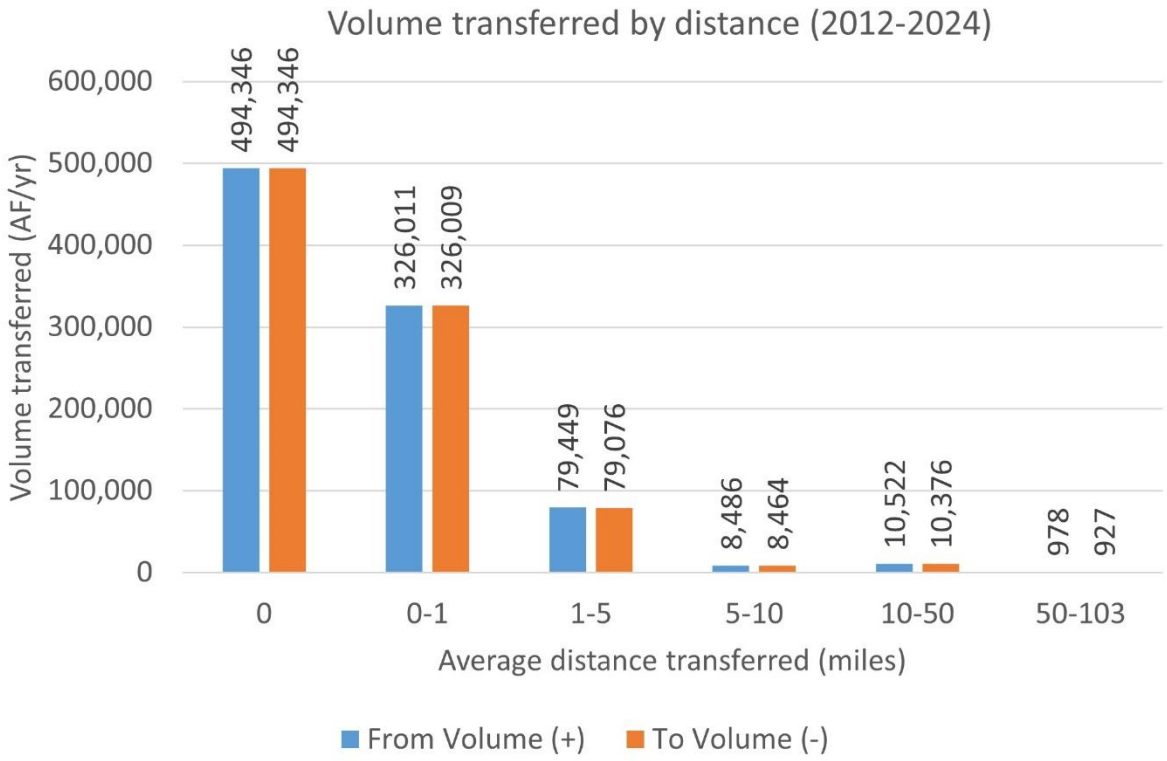


Figure 7. Cumulative volume transferred by distance transferred (1/1/2012 – 9/30/2024)

The Eastern Snake Plain Aquifer Model version 2.2 (ESPAM2.2)[2] was used to simulate the cumulative effects of the transfers on steady-state reach gains equivalent to the reaches represented in the ESPA Model Transfer Spreadsheet (ETRAN), which is commonly used as a tool by transfer applicants and Water Allocation Bureau staff to analyze the hydrologic impacts of individual transfers. ETRAN simulates the effects of changes in pumping location using the ESPAM2.2 groundwater flow model, but the ETRAN user interface only supports the simulation of a limited number of points of diversion. Because the cumulative analysis requires simulation of a large number of points of diversion, ESPAM2.2 was used with other pre- and post-processing tools to perform the analyses.

Transfer data provided by Water Allocation Bureau staff were reformatted to create MODFLOW input files. FROM wells were represented as a positive stress to simulate a decrease in pumping at these locations. TO wells were represented as a negative stress to simulate an increase in

[2] Sukow, J., 2021. *Model Calibration Report, Eastern Snake Plain Aquifer Model Version 2.2*, Idaho Department of Water Resources, May 2021, 226 p., https://research.idwr.idaho.gov/files/projects/espam/browse/ESPAM22_Reports/ModelCalibrationRpt/.

pumping at these locations. The superposition version of ESPAM2.2[3] was used to simulate the effects of the changes in pumping at steady state.

The cumulative effect of changes in pumping on reach gains in each of the eleven reaches of the Snake River was extracted from the model output. Results are summarized in Table 1. Changes in reach gains resulting from the transfers are very small compared to average reach gains (less than +/- 1.5%). The largest changes are an increase of 1,890 AF/yr (2.6 cfs) in the near Blackfoot to Neeley reach and a decrease of 928 AF/yr (-1.3 cfs) in the Neeley to Minidoka reach. The cumulative effect on the near Blackfoot to Minidoka reach is an increase of 962 AF/yr (1.3 cfs).

Table 1. Cumulative effect of transfers approved between January 1, 2012 and September 30, 2024 on reach gains in the Snake River

Reach	Transfer Impact		Average Reach Gain[4]		% change in reach gain
	(AF/yr)	(cfs)	(AF/yr)	(cfs)	
Ashton-Rexburg	295	0.41	-19,756	-27	1.493%
Heise-Shelley	-307	-0.42	-214,459	-296	-0.143%
Shelley-Near Blackfoot	-293	-0.40	-400,694	-553	-0.073%
Subtotal above nr Blackfoot	-305	-0.42	-634,908	-876	-0.048%
Near Blackfoot-Neeley	1,890	2.61	1,720,822	2,375	0.110%
Neeley-Minidoka	-928	-1.28	71,706	99	-1.294%
Subtotal nr Blackfoot-Minidoka	962	1.33	1,792,528	2,474	0.054%
Devil's Washbowl -Buhl	-39	-0.05	787,690	1,087	-0.005%
Buhl-Thousand Springs	-47	-0.07			
Thousand Springs	-6	-0.01			
Thousand Springs-Malad	1	0.00			
Malad	24	0.03			
Malad-Bancroft	6	0.01			
Subtotal Kimberly-King Hill	-61	-0.08	4,248,456	5,864	-0.001%
Total	596	0.82	5,406,075	7,462	0.011%

[3] Sukow, J., 2021, *Comparison of Superposition Model with Fully-populated Model for Eastern Snake Plain Aquifer Model Version 2.2*, Idaho Department of Water Resources, March 2021, 14 p., https://research.idwr.idaho.gov/files/projects/espam/browse/ESPAM22_Reports/Scenarios/Super_FullyPop_Final.pdf.

[4] Average reach gains were calculated from data compiled for development of ESPAM2.2 for water years 1981 through 2018.

Figure 8 shows the trend in the cumulative effect of transfers approved on or after January 1, 2012, on reaches of the Snake River above Minidoka. For reaches of the Snake River above the near Blackfoot gage, there is not an apparent trend in the cumulative effect of the transfers. For these reaches, the cumulative effect of transfers approved during a given year resulted in increases in reach gains for some years and decreases in reach gains for other years. For the near Blackfoot to Neeley reach, the cumulative effect of the transfers approved during a given year has resulted in a very small increase in reach gains for most years. For the Neeley to Minidoka reach, the cumulative effect of the transfers approved during a given year has resulted in a very small decrease in reach gains for most years. The cumulative effect on the combined near Blackfoot to Minidoka reach has been a very small increase in reach gains for most years. The slope of the trends in the near Blackfoot to Neeley, Neeley to Minidoka, and near Blackfoot to Minidoka reaches was generally greater prior to 2017 than after 2017.

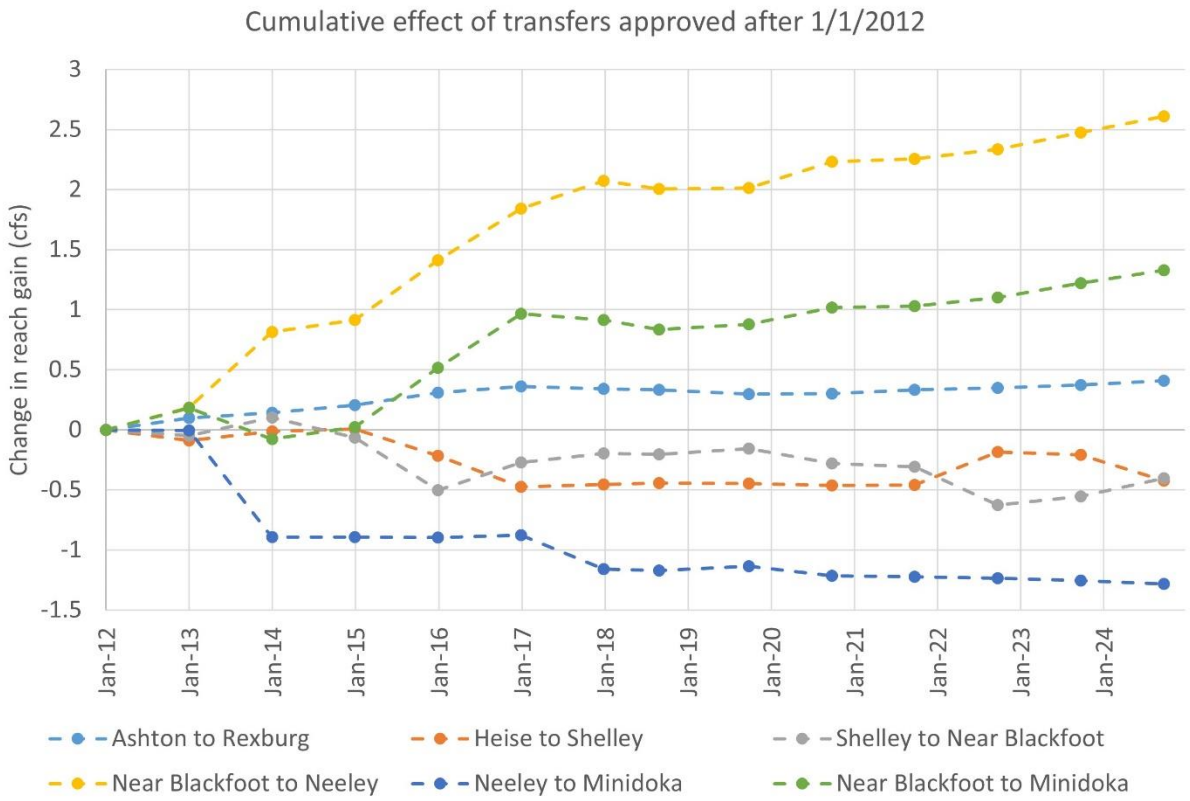


Figure 8. Trend in cumulative effect of transfers approved on or after January 1, 2012, on reaches of the Snake River above Minidoka

Figure 9 shows the trend in the cumulative effect of transfers approved on or after January 1, 2012, on reaches of the Snake River between Kimberly and King Hill. For reaches between Kimberly and King Hill, the cumulative effect of transfers approved during a given year resulted in increases in reach gains for some years and decreases in reach gains for other years. The effect on the Devil's Washbowl to Buhl reach has been a very small decrease in reach gains for seven of the thirteen years. The effect on the Buhl to Thousand Springs reach has been a very small decrease in reach gains for nine of the thirteen years. The total effect on the Kimberly to King Hill reach has been a very small decrease in reach gains for eight of the thirteen years, a very small increase for four of the thirteen years, and near zero impact for one year. In general, the cumulative effect of transfers approved between 2012 and 2018 was a very small increase in Kimberly to King Hill reach gains. The cumulative effect of transfers approved during water years 2019 through 2024 has been a very small decrease in reach gains.

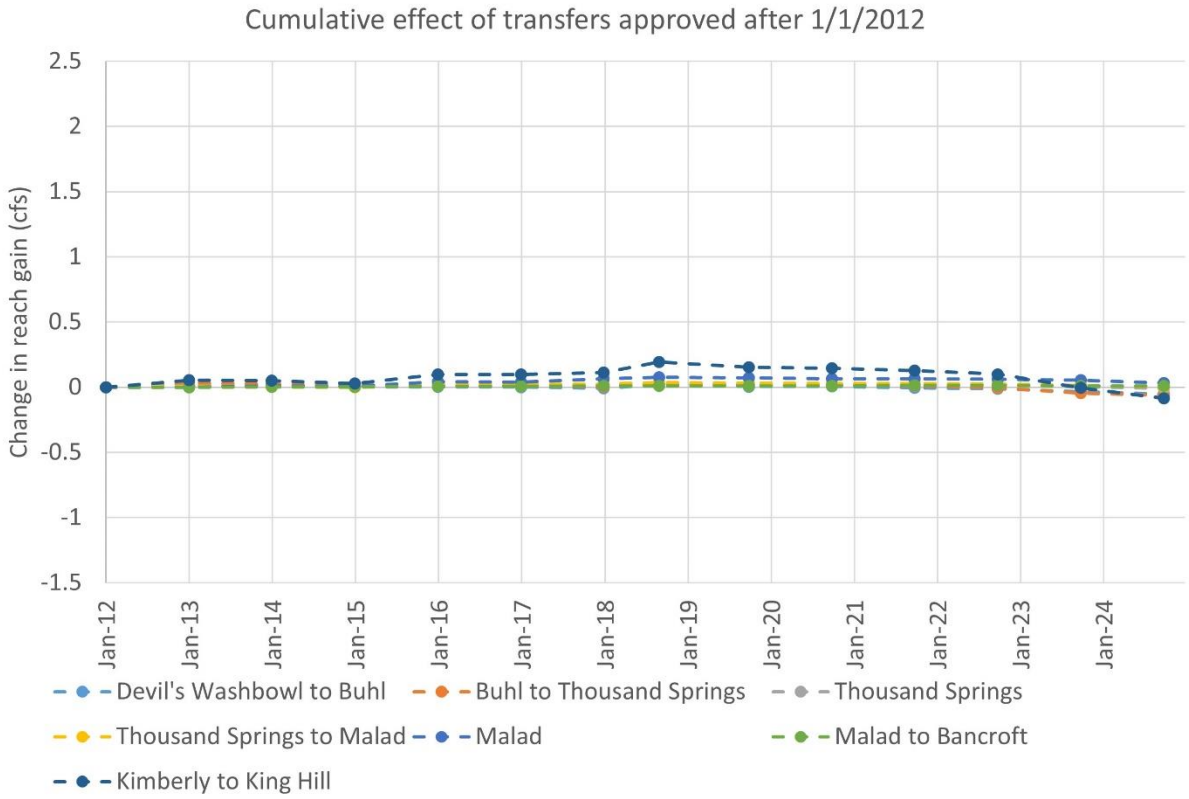


Figure 9. Trend in cumulative effect of transfers approved on or after January 1, 2012, on reaches of the Snake River between Kimberly and King Hill

Of the 795 transfers included in the cumulative analysis, 375 transfers had an average distance of greater than 1.0 mile between the TO and FROM model cell locations (Figure 10). The cumulative effects of these 375 transfers were simulated using the superposition version of ESPAM2.2. Results of the simulation are summarized in Table 2. The results are similar to the results of the simulation that included all of the transfers. Changes in reach gains resulting from the transfers are very small compared to average reach gains (less than +/- 1.5%). The largest changes are an increase of 1,262 AF/yr (1.7 cfs) in the near Blackfoot to Neeley reach and a decrease of 765 AF/yr (-1.1 cfs) in the Neeley to Minidoka reach. The cumulative effect on the near Blackfoot to Minidoka reach is an increase of 497 AF/yr (0.7 cfs).

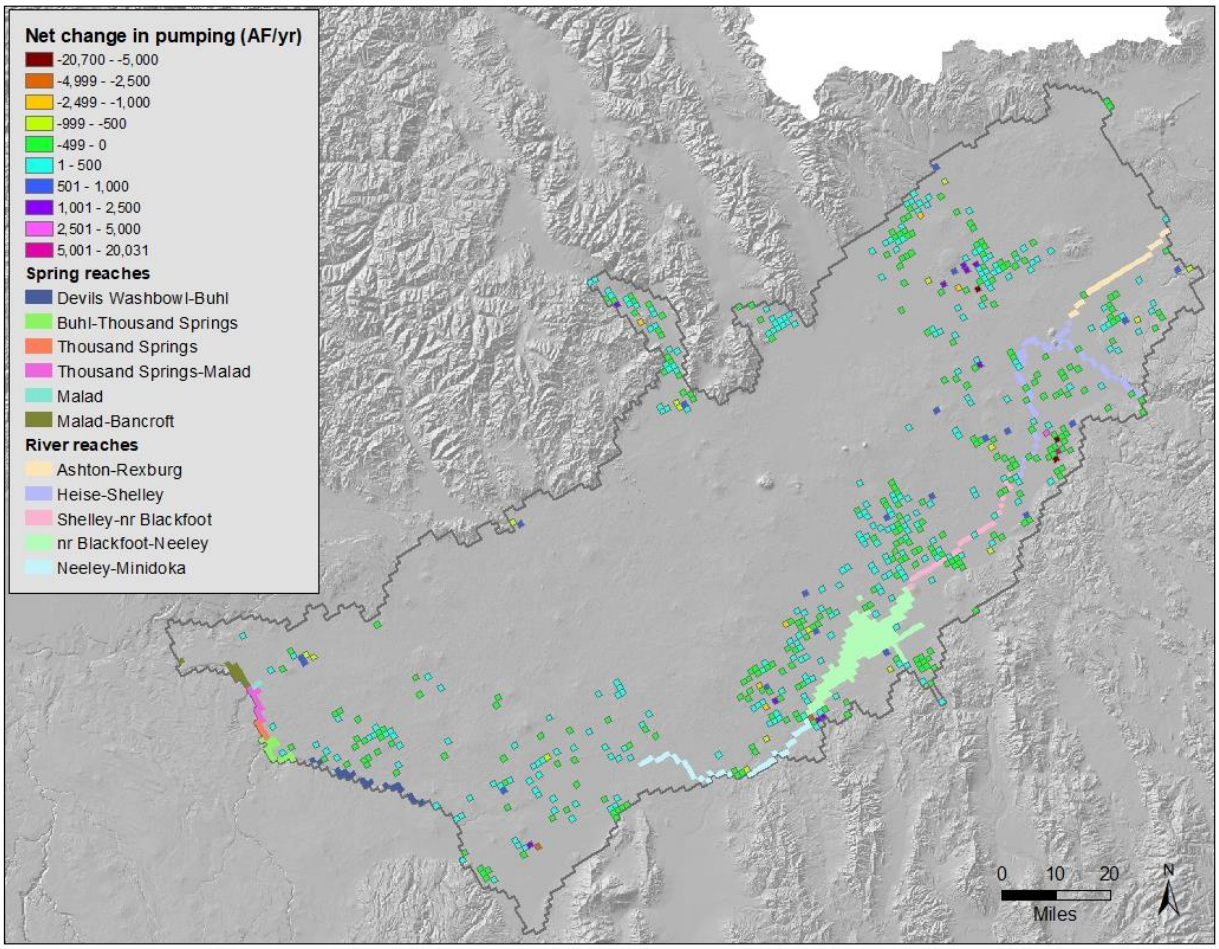


Figure 10. Net change in pumping resulting from transfers with an average distance of greater than one mile (approved between January 1, 2012, and September 30, 2024)

Table 2. Cumulative effects of transfers with an average distance greater than one mile on reach gains in the Snake River (for transfers approved between January 1, 2012, and September 30, 2024)

Reach	Transfer Impact		Average Reach Gain		% change in reach gain
	(AF/yr)	(cfs)	(AF/yr)	(cfs)	
Ashton-Rexburg	215	0.30	-19,756	-27	1.086%
Heise-Shelley	60	0.08	-214,459	-296	0.028%
Shelley-Near Blackfoot	-75	-0.10	-400,694	-553	-0.019%
Subtotal above nr Blackfoot	200	0.28	-634,908	-876	0.031%
Near Blackfoot-Neeley	1,262	1.74	1,720,822	2,375	0.073%
Neeley-Minidoka	-765	-1.06	71,706	99	-1.067%
Subtotal nr Blackfoot-Minidoka	497	0.69	1,792,528	2,474	0.028%
Devil's Washbowl -Buhl	-66	-0.09	787,690	1,087	-0.008%
Buhl-Thousand Springs	-39	-0.05			
Thousand Springs	-13	-0.02			
Thousand Springs-Malad	-5	-0.01			
Malad	16	0.02			
Malad-Bancroft	5	0.01			
Subtotal Kimberly-King Hill	-103	-0.14	4,248,456	5,864	-0.002%
Total	594	0.82	5,406,075	7,462	0.011%

This Guidance Document is not new law but is an agency interpretation of existing law. For more information or to provide input on the document, please contact the Water Right Section Manager at 208-287-4800

ADMINISTRATOR'S MEMORANDUM

Transfer Processing No. 31

To: **Water Allocation Bureau and Regional Offices**

From: **James R. Cefalo** JRC

RE: **Evaluating Injury in Transfer Applications Proposing to Change Ground Water Points of Diversion in the ESPA**

Date: **January 3, 2025**

This memo provides guidance to Department staff evaluating applications for transfer proposing to change points of diversion for ground water rights in the Eastern Snake Plain Aquifer ("ESPA").[1] This is an internal guidance memo and is not intended to establish presumptions or create new burdens of proof for applicants or protestants. Further, this memo is not intended to determine the outcome of any specific case. Department staff should use their technical expertise and judgment to evaluate each transfer application on its merits.

Background

The Department and Idaho courts have consistently recognized that the diversion of ground water from the ESPA affects stream flow in the Snake River. Water in the Snake River and in other sources hydraulically connected to the ESPA is considered fully appropriated during all or much of the year.[2] Consistent with Idaho Code § 42-222(1), a transfer applicant bears the burden of demonstrating that the changes proposed in a transfer application will not injure existing water rights. For a transfer application proposing to change a point of diversion for a ground water right within the ESPA, this burden includes demonstrating that the proposed change in point of diversion will not injure water rights diverted from the Snake River or other sources of water hydraulically connected to the ESPA.

In cooperation with water user groups across the ESPA, the Department has developed an Eastern Snake Plain Aquifer Model ("ESPAM") to simulate changes to the aquifer resulting from precipitation, recharge incidental to surface water irrigation, and ground

[1] For purposes of this memo, the terms Eastern Snake Plain Aquifer or ESPA mean the aquifer underlying the geographic area depicted by the active cells of the Department's Eastern Snake Plain Aquifer Model, Version 2.2. A map depicting this area is attached.

[2] *See Amended Snake River Basin Moratorium Order*, at 27–30 (July 16, 2024).



water diversions, and to analyze the extent of hydraulic communication between the ESPA and the Snake River. The Department has also developed an ESPA Transfer Tool to help water users quantify the effects of a proposed change to a ground water right on flows in the Snake River. The Transfer Tool is an Excel spreadsheet interface that applies data from the latest version of the ESPAM. The Transfer Tool estimates the effects of a proposed change at transient (short-term) and steady-state (long-term) time steps.

The Department must not approve water right changes which will result in injury to existing water rights. Transfer applications that would otherwise cause injury may be approved when the injury is mitigated. In 2002, the Department adopted certain thresholds ("transfer thresholds") for determining when an applicant must provide mitigation for a proposed change to a ground water right in the ESPA.[3] In 2009, the Department modified the transfer thresholds.[4] The 2009 memorandum was recently revised.[5] The transfer thresholds were removed from the general transfer processing memorandum and are now being addressed in this memorandum. Although challenges to the transfer thresholds have previously been raised in contested cases before the Department, the transfer thresholds have never been considered by a District Court or by the Idaho Supreme Court.

Since 2019, the Department has conducted an annual analysis of all transfers of ground water rights in the ESPA.[6] The analysis evaluates the cumulative effects of the movement of ground water rights in the ESPA on flows in the Snake River for transfers from 2012 forward. The Department recently conducted the 2024 annual cumulative analysis.[7] The 2024 analysis shows that the overall cumulative effect on the Snake River is an increase in reach gains of 596 acre-feet per year.[8] In other words, the transfers have resulted in a small overall increase in groundwater discharge to the Snake River. Looking at the Kimberly-King Hill Reach, the Department's 2024 cumulative analysis shows that the cumulative effect of transfers in the Kimberly-King Hill Reach between 2012 and 2022 resulted in a very small positive change in reach gain.[9] While the analysis also shows that the cumulative effect on gains in this reach dipped slightly below zero after 2022, this quantity is also very small, and the

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[3] *See* Department Policy Memorandum, *Transfer Processing No. 24, Transfer Processing Policies & Procedures* (Oct. 30, 2002).

[4] *See* Department Policy Memorandum, *Transfer Processing No. 24, Transfer Processing Policies & Procedures* (Dec. 21, 2009).

[5] *See* Department Policy Memorandum, *Transfer Processing No. 24, Transfer Processing Policies & Procedures* (Oct. 1, 2024).

[6] Annual reports are available on the Department's website: https://idwr.idaho.gov/water-rights/transfers/resources/.

[7] Memorandum from Jennifer Sukow to Phill Hummer, *Cumulative review of ESPA transfers between 2012 and 2024*, Idaho Dep't of Water Res., (Dec. 5, 2024). The 2024 cumulative analysis can be found on the Department's website: https://idwr.idaho.gov/water-rights/transfers/resources/.

[8] *Id.* at 8, Table 1.

[9] *Id.* at 10, Figure 9.

Department will continue to monitor the cumulative effects of ESPA transfers and will adjust the transfer thresholds as needed to protect river reaches from depletion.

Evaluating Transfers of Ground Water Points of Diversion in the ESPA

When a water user proposes to change a point of diversion for a ground water right in the ESPA, the Department's transfer application form requires the water user to provide "a technical analysis of the anticipated depletions to reaches of the Snake River that are hydraulically connected to the ESPA using the Department's current ground water model for the ESPA."[10] Department staff should encourage transfer applicants to use the latest version of the Transfer Tool to evaluate the impacts of the proposed change on the Snake River.[11] Transfer applicants are not required to use the Transfer Tool, but if they choose not to provide a Transfer Tool analysis, they must provide other technical information and analyses with estimates of depletion impacts for transient and steady-state time series for all hydraulically connected reaches of the Snake River, including reaches replenished from tributary springs, as represented in the Transfer Tool.[12] Applicants may also provide additional technical information to supplement a Transfer Tool analysis. Staff may refer the applicant's technical information and analysis to the Department's Hydrology Section for review.

The transfer application form requires an applicant to provide a technical analysis of anticipated depletions to the Snake River so that the Department can complete the injury evaluation required by Idaho Code § 42-222(1). If an applicant does not provide a Transfer Tool analysis or other technical information and analysis addressing the impacts of the proposed point of diversion change on the reaches of the Snake River, as required by the transfer application form, the transfer application is not complete, and the Department must reject the transfer application.

When an applicant provides a Transfer Tool analysis or other technical information and analysis, Department staff should continue to use the transfer thresholds below to determine (a) whether a transfer applicant must provide separate mitigation for impacts of a proposed change; or (b) whether the impacts are mitigated through the offsetting, cumulative impacts of all transfer approvals in the ESPA. The transfer thresholds are as follows:

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[10] Application for Transfer of Water Right, Part 4.B.6 (Rev. 11/24).

[11] The Transfer Tool and instructions for using it to evaluate a transfer proposal are available on the Department's website at https://idwr.idaho.gov/water-rights/transfers/resources/.

[12] There are currently eleven Snake River reaches identified in the Transfer Tool for analysis of ESPA transfers:

• Ashton to Rexburg • Heise to Shelley • Shelley to near Blackfoot • Near Blackfoot to Neeley • Neeley to Minidoka	• Devils Washbowl to Buhl • Buhl to Thousand Springs • Thousand Springs • Thousand Springs to Malad • Malad • Malad to Bancroft

If, at the steady state or transient state time steps, a proposed change results in an increase in the depletions in a designated reach of the Snake River greater than ten percent when compared to the pre-transfer depletions in the reach caused by pumping under the ground water right, then the increase in depletions to the reach must be fully mitigated[13] *unless:*

> *(a) the increase in the depletions in the reach (at the steady state and transient state time steps) are two acre-feet or less per trimester,*
>
> *or*
>
> *(b) the depletions in the reach after the transfer, at steady state conditions, are ten percent or less of the total depletion impacts to all reaches resulting from the water right, or portion thereof, being transferred.*

Where mitigation is necessary for increased transient-state depletions, variance from the requirement for full mitigation during the transient state is allowed to provide for periods of static mitigation within the period of change. Mitigation for increased transient-state depletion to a reach is acceptable if the resultant depletion to a reach is no more than 5% over the simulated pre-transfer depletion to the reach and any deficient mitigation is approximately the same as excess mitigation during the transient state.

Although not clearly stated in 2009, the Department has developed the following additional threshold from experience and has applied this threshold for many years:

If the increase in post-transfer transient state depletions is greater than ten percent when compared to pre-transfer depletions, mitigation is not required if (a) mitigation is not required at the steady state (last) time step, and (b) steady state depletions are greater than the transient state depletions at all time steps.

Consistent with Idaho Code § 42-222(1), the Department "shall examine all the evidence and available information" when reviewing a transfer application. For an application proposing to change a point of diversion of a ground water right in the ESPA, this "evidence and available information" includes, but is not limited to, the transfer thresholds, any technical information or analysis provided by an applicant, the Transfer Tool analysis, and the Department's latest cumulative analysis of ESPA transfer impacts.

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[13] To fully mitigate is to offset all increased depletions to the reach of the Snake River. It is not acceptable for the applicant to mitigate only enough to fall below one of the transfer thresholds.

If the Transfer Tool analysis or other credible technical evidence shows that the depletion impacts of a proposed change do not exceed the transfer thresholds described above, Department staff may approve the proposed change without requiring mitigation from the applicant. Mitigation is not required for the individual transfer because the Department's latest cumulative analysis of ESPA transfers shows that during the time when the Department has applied the transfer thresholds, impacts to the Snake River are adequately mitigated by the offsetting, cumulative effects of all transfer approvals across the ESPA.

Evaluating Multiple Transfers of Ground Water Points of Diversion in the ESPA

A transfer application may be filed in combination with one or more other transfer applications to offset impacts to specific reaches of the Snake River. Offsetting transfer applications should include an ESPA Transfer Tool analysis or other technical analysis evaluating the impacts to all designated river reaches of each individual application and the combined impacts to all designated river reaches of the combined changes. For an offsetting transfer package to be approved without mitigation, each Snake River reach that requires mitigation under the single transfer analysis must be fully mitigated through the offsetting transfers, as defined in footnote 13.

Some transfer proposals that exceed the transfer thresholds can be split into multiple, smaller transfer applications that individually do not exceed the transfer thresholds. Evading mitigation requirements in this way could result in injury to existing water rights. When each individual transfer does not exceed the transfer thresholds outlined above, Department staff should not approve multiple transfer applications if (a) the applications could have been filed as a single application, and (b) the combined impacts exceed the transfer thresholds. If the transfer applications are filed at the same time, Department staff should require the applicant to provide an analysis of the combined impacts of all the applications. However, if the transfer applications are filed sequentially and one or more transfers have already been approved, Department staff should require an applicant to fully mitigate for the impacts of the remaining applications.

Additional Considerations

In the past, the Department has allowed applicants to combine the Near Blackfoot to Neeley and Neeley to Minidoka reaches of the Snake River for purposes of evaluating ground water pumping impacts to those reaches of the river. Those reaches of the Snake River are administered as a single reach by the watermaster of Water District 1 for priority administration of Snake River water rights. In other words, gains in one reach offset losses in the other reach. Therefore, Department staff may continue this practice of accepting technical analyses where the Near Blackfoot to Neeley and Neeley to Minidoka reaches are combined.

In the past, the Department has received applications proposing to hold a water right, or a portion of a water right, as unused for a period of years to avoid transient impacts on a

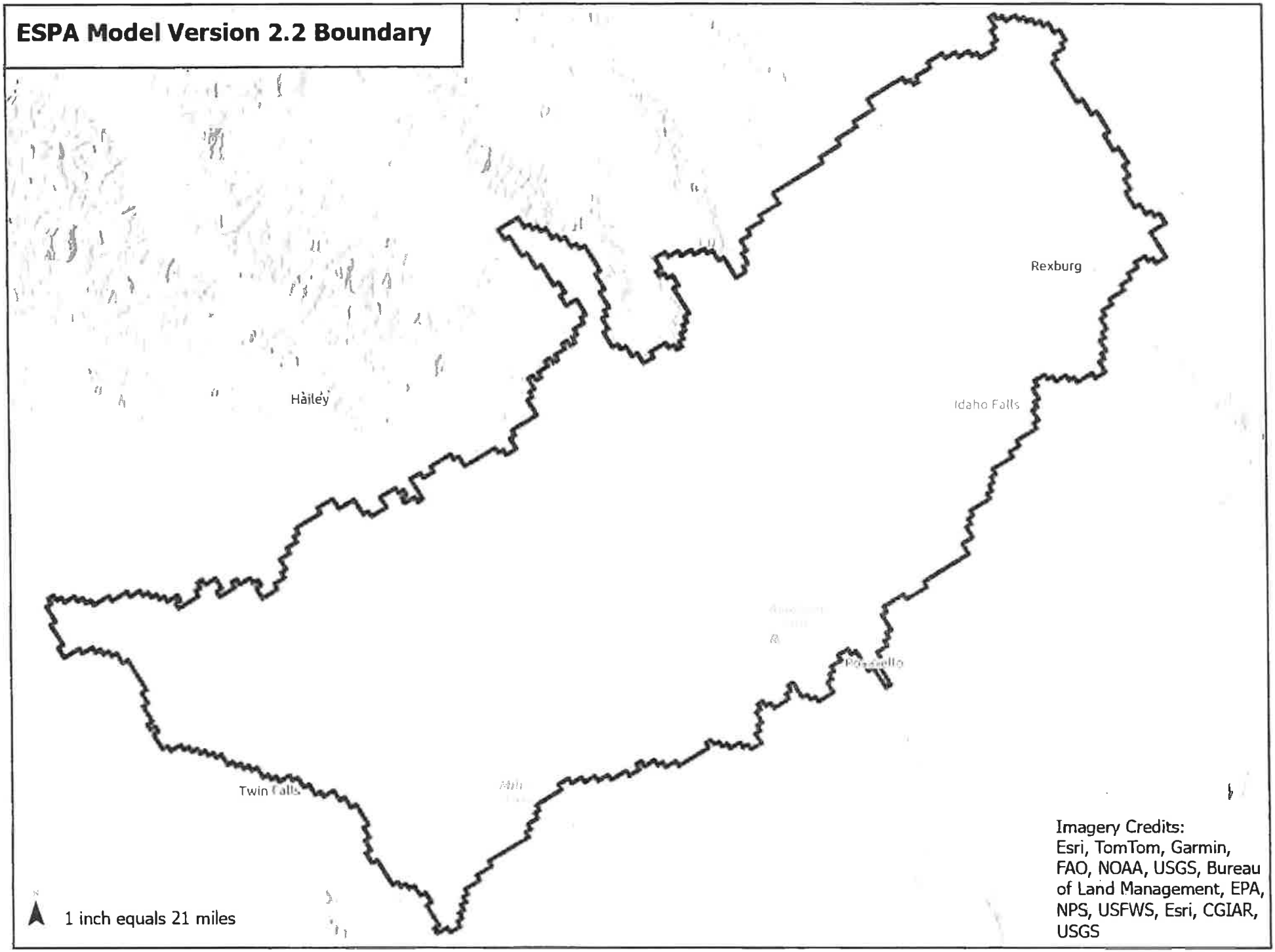
specific river reach. Department staff may accept a Transfer Tool analysis or other technical analysis that incorporates such non-use. Such a proposal is not mitigation for transient impacts, but rather is a method to reduce transient impacts. If an application proposes non-use of all or a portion of a water right for a period of years, that non-use should be clearly stated in any transfer approval.

Consistent with the transfer application form, an applicant is generally not required to provide a Transfer Tool or other ESPA technical analysis if the existing ground water point(s) of diversion and proposed ground water point(s) of diversion are in the same ESPAM cell or an adjacent ESPAM cell. The term "adjacent" includes model cells that are adjacent in the corners, so that each active cell in the ESPAM has eight adjacent cells. Moving a point of diversion to an adjacent ESPAM cell is unlikely to exceed the transfer thresholds in most cases. However, Department staff may ask a transfer applicant to provide a Transfer Tool or other ESPA technical analysis, regardless of model cell adjacency, if there is a concern that the proposed change would exceed the transfer thresholds. Regardless of model cell adjacency, Department staff should not approve a transfer application that does not meet the transfer thresholds, unless mitigation is provided.

The ESPA modeled area includes some areas over tributary aquifers that were added primarily for calibration purposes. The tributary aquifer characteristics may not be represented adequately by the ESPA model but do provide a simple method to estimate effects to the Snake River for transfers moving between the ESPA and modeled tributary aquifers.

Transfers moving from the ESPA modeled area to a location outside the modeled area, or from outside to within the ESPA modeled area, need to be reviewed carefully because a transfer must not be approved to move from one distinct aquifer to a separate aquifer. If a transfer proposes to move a point of diversion from a non-modeled tributary aquifer to the ESPA (or vice versa), the impacts on the designated Snake River reaches may require two separate analyses: one for the segment outside the ESPA, and another for the segment inside the ESPA. The first analysis would employ acceptable technical methods to show the effects between the non-modeled tributary aquifer and the ESPA. The second analysis would use the Transfer Tool or other ESPA technical analysis to show the effects on the transfer segment within the ESPA. The effects of the two separate analyses would then be combined to show the full impact of the transfer proposal on the designated Snake River reaches. For points of diversion between the ESPA and just outside the ESPA modeled area, it may be reasonable to allow use of the closest cell within the ESPA modeled area for analysis using the Transfer Tool and ignore other tributary effects.

ESPA Model Version 2.2 Boundary



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Travis L. Thompson, ISB #6168
Abby R. Bitzenburg, ISB #12198
PARSONS BEHLE & LATIMER
163 Second Avenue West
P.O. Box 63
Twin Falls, Idaho 83303-0063
Telephone: (208) 733-0700
Email: tthompson@parsonsbehle.com
abitzenburg@parsonsbehle.com

Attorneys for A&B Irrigation District, Burley Irrigation District, Milner Irrigation District, North Side Canal Company, and Twin Falls Canal Company

Norman M. Semanko, ISB #4761
Garrett M. Kitamura, ISB #11502
PARSONS BEHLE & LATIMER
800 W. Main St. Suite 1300
Boise, Idaho 83702
Telephone: (208) 562-4900
Email: nsemanko@parsonsbehle.com
gkitamura@parsonsbehle.com

Attorneys for American Falls Reservoir District #2 and Minidoka Irrigation District

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR TRANSFER NOS. 84488 AND 84490 IN THE NAME OF LCSC ENTERPRISES LLC	**SURFACE WATER COALITION'S WITNESS AND EXHIBIT LIST**

COME NOW, A&B IRRIGATION DISTRICT, AMERICAN FALLS RESERVOIR DISTRICT #2, BURLEY IRRIGATION DISTRICT, MILNER IRRIGATION DISTRICT, MINIDOKA IRRIGATION DISTRICT, NORTH SIDE CANAL COMPANY, and TWIN FALLS CANAL COMPANY ("Surface Water Coalition" or "Coalition"), by and through counsel of record, and hereby provides this *Surface Water Coalition's Witness and Exhibit List* pursuant to the *Notice of Hearing, Notice of Status Conference, and Scheduling Order* (January 13, 2025).

The Coalition submits the following list of witnesses and exhibits that may be called and offered at the hearing in the above-referenced matter:

Witnesses:

Dave Colvin, PG, LRE Water, Groundwater Team Leader
1221 Auraria Parkway, Denver, CO 80204
303-455-9589
Mr. Colvin is a Principal Hydrogeologist and Senior Project Manager with over 25 years of experience in groundwater hydrology, water resources, and environmental sciences. His technical expertise subject areas include water supply and storage development, groundwater management, groundwater governance/administration, surface water / groundwater interaction, horizontal wells, riverbank filtration (RBF), soil aquifer treatment (SAT), managed aquifer recharge (MAR), aquifer storage and recovery (ASR), aquifer characterization, groundwater modeling, and subsidence caused by groundwater pumping. Mr. Colvin prepared the expert report, *Expert Report on LCSC Transfer Applications Nos. 84488 and 84490* (July 16, 2021) and *LCSC Transfer Applications 84488 and 84490 SWC Rebuttal Report* (May 30, 2025).

Rachel J. Geringer, PG – Senior Hydrogeologist, Clearwater Geosciences, LLP
PO Box 3179 Idaho Falls, ID 83403
208-589-5555
Ms. Geringer assisted with the *Expert Report on LCSC Enterprises LLC 2024 Field Activities* dated November 25, 2024.

Jason C. Helms, P.E., JCH Engineering & Consulting, P.L.L.C.
6755 N. Albert Ln. Idaho Falls, ID 83401
208-308-2109
Mr. Helms is the consultant who prepared the transfer applications subject to this contested case and performed ETRAN modeling and other technical analyses associated with the transfers. Mr. Helms prepared the expert report*, Transfer Nos. 84488 and 84490 (Water Right 35-14041) Report* (July 16, 2021), previously submitted in this matter, as well as a recent update of this expert report. Mr. Helms also provided information and input in preparation of the *Expert Report on LCSC Enterprises Transfer Application Modeling Analysis* (April 30, 2025)

Hai Huang, Ph.D., Principal Ground Water Modeler, Clearwater Geosciences, LLP
P.O. Box 3179 Idaho Falls, ID 83403
208-589-5555
Mr. Huang co-authored the *Expert Report on LCSC Enterprises Transfer Application Modeling Analysis* (April 30, 2025). Mr. Huang performed model runs associated with this expert report.

Thomas R. Wood, Ph.D., PG, Principal-in-Charge, Clearwater Geosciences, LLP
P.O. Box 3179 Idaho Falls, ID 83403
208-589-5555
Mr. Wood conducted the fieldwork summarized in the *Expert Report on LCSC Enterprises LLC 2024 Field Activities* (November 25, 2024), which Mr. Wood also co-authored. Mr. Wood also co-authored the *Expert Report on LCSC Enterprises Transfer Application Modeling Analysis* (April 30, 2025).

Jennifer Sukow, IDWR
Ms. Sukow has been subpoenaed to testify on certain matters listed in the Hearing Officer's *Hearing Subpoena: Jennifer Sukow* (September 9, 2025).

The SWC reserves the right to call any other witnesses called by the Applicant, and other rebuttal witnesses as necessary.

Exhibits:

Any exhibits offered by IDWR or any other party to this contested case that are admitted into evidence, as well as the following:

Ex. 201	SWC Rebuttal Report (May 30, 2025)
Ex. 202	SWC Expert Report (July 16, 2021)
Ex. 203	SWC Water Rights List

SWC further reserves the right to introduce and offer additional rebuttal exhibits as necessary.

DATED this 12th day of September, 2025.

PARSONS BEHLE & LATIMER

Abby R. Bitzenburg

Travis L. Thompson
Abby R. Bitzenburg

Attorneys for A&B Irrigation District, Burley Irrigation District, Milner Irrigation District, North Side Canal Company, and Twin Falls Canal Company

PARSONS BEHLE & LATIMER

/s/ Norman M. Semanko

Norman M. Semanko
Garrett M. Kitamura

Attorneys for American Falls Reservoir District #2 & Minidoka Irrigation District

CERTIFICATE OF MAILING

I certify that on this 12th day of September, 2025, I served true and correct copies of the foregoing *Surface Water Coalition's Witness & Exhibit List* upon the following by the method indicated:

Hearing Officer James Cefalo
Idaho Department of Water Resources
900 North Skyline Drive, Suite A
Idaho Falls, Idaho 83402-1718
***service by electronic mail
file@idwr.idaho.gov
james.cefalo@idwr.idaho.gov

Robert L. Harris
Holden, Kidwell, Hahn & Crapo, PLLC
P.O. Box 50130
Idaho Falls, Idaho 83405
***service by electronic mail
rharris@holdenlegal.com

Jason C. Helms
6755 N. Albert Ln.
Idaho Falls, ID 83401
***service by electronic mail
jasoncivil@alumni.nd.edu

Abby R. Bitzenburg

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CONNECTING WATER TO LIFE

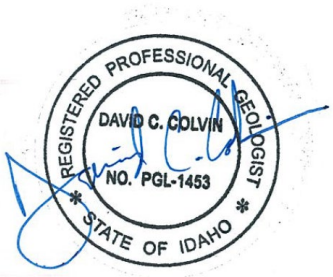
LCSC Transfer Applications 84488 and 84490
SWC Rebuttal Report

Prepared for:

Surface Water Coalition

May 30, 2025
1604FLE01

The technical material in this report was prepared by or under the supervision and direction of the undersigned.



David Colvin, PG

The following LRE Water staff members contributed to the preparation of this report.

Principal Hydrogeologist	David Colvin, PG
Senior Advisor	Jacob Bauer, PG
Project Geologist	Fabiana Fuentes
Project Geologist	Scott Stokes, PG
GIS Technician	Tucker Fullmer

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Figures

Figure 1 – Geologic Map and Cross Section Located Near LCSC Proposed PODs

Figure 2 - Cross Section of Driller's Logs for Wells Near the LCSC Proposed PODs

Figure 3 - Water Level Elevations in MW-1, MW-2, and Well 352874 (adapted from Clearwater Geosciences, LLP, 2024)

Figure 4 - Water Level Data Plotted on Multiple Scales

Figure 5 - Pre-Pumping Drawdown Data from Well 352874, MW-1, and MW-2

Appendices

Appendix A: Resume for David Colvin

1. Introduction

On October 13, 2020, LCSC Enterprises LLC (LCSC) submitted Water Right Transfer applications 84488[1] and 84490[2], proposing modifications to water right 35-14041[3]. This water right authorizes the diversion of 3.18 cubic feet per second (CFS) from the Eastern Snake Plain Aquifer (ESPA) to irrigate 322.5 acres, with an annual limit of 1,290 acre-feet (AF). The proposed transfers involve changing the place of use and point of diversion to a combination of existing and new wells within the ESPA, without altering the authorized diversion rate or volume.

The following report represents the expert opinions of David Colvin, Principal Hydrogeologist and Rocky Mountain Regional Manager for LRE Water. Mr. Colvin's resume is provided as Attachment A. If additional information becomes available, Mr. Colvin reserves the right to alter his opinions regarding these transfer applications.

2. LCSC Transfer Application Expert Report Assessments

On April 30, 2025, LCSC submitted an expert report disclosure associated with Transfer Applications 84488 and 84490. The disclosure contained several expert reports including:

- Jason C. Helms report titled *Transfer Nos. 84488 and 84490 (Water Right 35-14041) Report* (Helms, 2025);
- Clearwater Geosciences, LLP *Expert Report on LCSC Enterprises LLC 2024 Field Activities* (Clearwater Geosciences, 2024); and,
- Clearwater Geosciences, LLP *Expert Report on Modeling Analysis Associated with LCSC Enterprises LLC Transfer Applications* (Clearwater Geosciences, 2025)

The expert report disclosure also included a presentation and report prepared by Idaho Department of Water Resources (IDWR) staff which evaluated the cumulative effects of ESPA transfers since 2024.

[1] https://idwr.idaho.gov/apps/ExtSearch/RelatedDocsTransfers.asp?TransferNumber=84488
[2] https://idwr.idaho.gov/apps/ExtSearch/RelatedDocsTransfers.asp?TransferNumber=84490
[3]https://research.idwr.idaho.gov/apps/shared/WrExtSearch/Reports/WaterRightReport?basin=35&seq=14041&suffix=

My over-arching opinions regarding the LCSC Transfer Applications Nos. 84488 and 84490 include:

- **Opinion 1** – The applications are incomplete because they do not follow IDWR guidance for transfer application procedures. The unique characteristics of the applications require an alternative procedure, which the applicant failed to provide.
- **Opinion 2** – The applicant has not recommended an acceptable alternative method for evaluating impacts or injury. LCSC has not clearly quantified the impact of the applications on Snake River reaches and has not shown or proven that there is no injury to existing water rights.
- **Opinion 3** – Due to the short distance between the proposed points of diversion (PODs) and the Snake River, and the complex hydrogeology in the areas of the proposed PODs, the Eastern Snake Plain Aquifer Model (ESPAM) and the ESPA Model Transfer Spreadsheet (ETRAN) are inappropriate for evaluating these transfers and the impact of flows on specific reaches of the Snake River.

Near the site of the proposed PODs, the subsurface geology is characterized by interbedded basalt and sedimentary units, with significant local heterogeneity in permeability and aquifer connectivity. ESPAM incorporates a simplified representation of this geology, relying on a regional conceptualization that does not fully capture site-specific features such as perched aquifers, discontinuous impermeable layers, or preferential flow paths associated with basalt flow boundaries. All ESPAM versions include a single-layer structure with a one-mile grid. These characteristics limit ESPAM's ability to resolve local stratigraphic features, vertical anisotropy, and heterogeneity in hydraulic properties.

Idaho Code Section 42-222[4] states that, "*The director of the department of water resources shall examine all the evidence and available information and shall approve the change in whole, or in part, or upon conditions, provided no other water rights are injured thereby…*". The Idaho Department of Water Resources (IDWR) provides an undated Quick Guide to ESPA Modeling Tools[5] and ETRAN modeling and transfer mitigation analysis user's guide (IDWR, 2016). These documents detail procedures to identify injury to existing water rights and specify evaluation criteria that allow for unmitigated injury as a result of a transfer. This is in contrast to Section 42-222 of Idaho Code.

The following sections contain Mr. Colvin's rebuttal opinions related to the three LCSC expert reports.

[4] https://legislature.idaho.gov/statutesrules/idstat/title42/t42ch2/sect42-222/
[5] https://idwr.idaho.gov/wp-content/uploads/sites/2/water-rights/quick-guide-to-the-espa-modeling-tools.pdf

2.1 2025 J.C. Helms Transfer Nos. 84488 and 84490 (Water Right 35-14041) Report

LCSC submitted an expert report from Jason Helms (Helms, 2025) herein referred to as the "Helms report" as part of their transfer application materials. The Helms report describes the original water right transfer applications from 2020 and references the ETRAN analysis originally submitted using version ETRAN 3.2 (IDWR, 2020). ETRAN 3.2 is based on ESAPM 2.1 (IDWR, 2014). It appears that no ETRAN analysis update has been performed and that the original 2020 ETRAN modeling is still the basis for the applicant claiming that no mitigation is required.

LRE Water prepared a rebuttal expert report in 2021 (LRE Water, 2021) that addresses several issues with the Helms 2020 ETRAN analysis. Some of these issues are still relevant rebuttal opinions including the following opinions, which are restated here:

- **Opinion 4** – The applicant's interpretation of ETRAN results inappropriately combines predicted impacts on the near Blackfoot to Neeley and Neeley to Minidoka reaches. This combined reach would cover over 73 miles of the Snake River.
- **Opinion 5** – The ETRAN transfer analysis presented lacks steady state ETRAN results.
- **Opinion 6** – The applicant's ETRAN analysis lacks Mitigation Analysis Spreadsheet results.
- **Opinion 7** – The ETRAN analysis presented includes incorrect inputs showing year-round pumping rather than the period of use associated with the water rights (April 1 – November 1).

None of the information in the 2025 LCSC expert reports corrects the errors above. Additional descriptions of why these issues are unacceptable are in the LRE Water 2021 report.

While I do not propose the use of the ESPAM or ETRAN tools in evaluating these transfers, we attempted to verify the Helms analysis. As described in the LRE Water 2021 report, we evaluated the transfers using Helm's input information with IDWR ETRAN 3.3 transfer analysis methodology and tools, based on ESPAM 2.1, which LCSC's experts recommend over the latest and best available modeling tools. This analysis determined that transfer application No. 84488 and No. 84490 require mitigation of the Neeley to Minidoka reach because the depletive impacts exceed the steady state and transient mitigation criteria. Both applications also require mitigation of several spring reaches that exceed the transient mitigation criteria.

- **Opinion 8** – Utilizing the ESPAM and ETRAN versions proposed by Helms indicates mitigation is required in the Neeley to Minidoka reach and several spring reaches.

The "FROM" POD well was involved in the Conservation Reserve Enhancement Program (CREP) from 2007 through 2022. Helms claims this pumping reduction as transient reach credits that mitigate short-term impacts. However, this is not an approved mitigation plan and should not be treated as such.

Helms discusses various aspects of Lake Walcott and American Falls Reservoir operations as justification for combining the near Blackfoot to Neeley and Neeley to Minidoka reaches. Any impact to the individual reaches are changes to natural flow rights or accumulation of storage water rights and are essentially independent of reservoir operations. The IDWR prescribed methodology calculates the impacts to these reaches individually.

- **Opinion 9** – Neither CREP pumping reductions nor reservoir operations are approved mitigation plans. Reservoir operations do not justify combining reaches.

Helms goes on to say that the IDWR cumulative impacts analysis shows a net gain in the Neeley to Minidoka reach and that the LCSC transfers would equalize the cumulative impacts of other transfers. Transfers by other parties are not approved mitigation plans and should not be treated as such.

IDWR evaluated the cumulative impacts of 795 transfers from 2012 to 2024 (Sukow, 2024). They state that, "*Most transfers involve relatively small amounts of water (Figure 5) or move points of diversion a relatively short distance (Figure 6).*" It is notable that the LCSC transfer applications propose to move water rights over 50 miles, which is a distance that exceeds more than 98% of all transfers evaluated by IDWR. For large transfers over large distances such as the proposed LCSC transfer, the potential for injury is higher because pumping depletions before and after the transfer affect different river reaches.

2.1.1 Idaho Power Company 2021 Rebuttal Report

When LCSC filed the original 2020 applications and associated expert report, Idaho Power Company filed a rebuttal report (Schreuder and Blew, 2021) raising issues still relevant to the Helms 2024 report. Many of these issues are consistent with the LRE Water 2021 report and the opinions expressed herein, including:

- ESPAM 2.2 represents the best available science for transfer evaluation and yields results more reasonable than ESPAM 2.1;
- LCSC transfer analysis simulates pumping year-round instead of seasonally;
- The transfer application does not consider seasonal impacts; and,
- The IDWR transfer policies do not adequately protect water rights.

2.2 Clearwater Geosciences, LLP Expert Report on LCSC Enterprises LLC 2024 Field Activities

A 2024 report by Clearwater Geosciences, LLP (Clearwater Geosciences, LLP, 2024 herein referred to as the "Clearwater report") documents a field investigation that was conducted to estimate aquifer parameters and evaluate the potential for hydraulic connectivity between proposed groundwater Points of Diversion (PODs) and the Snake River. The study was developed in support of Water Right Transfer Applications Nos. 84488 and 84490, and claims that groundwater withdrawals from the deeper basalt does not cause depletion in the surface water system. During the field investigation two shallow monitoring wells were drilled; MW-1 and MW-2. Water levels were recorded by pressure transducer in MW-1, MW-2, and Well 352874 over a five-month period, from April 28 to September 24, 2024. During this time, Well 352874 was intermittently pumped for irrigation purposes.

The Clearwater report concludes that there is no hydraulic connection between the shallow perched aquifer and the deeper basalt aquifer, citing the presence of a thick low-permeability clay layer reported in the driller's lithology log for Well 352874 and their interpreted lack of response in shallow monitoring wells during deep well pumping. Based on these findings, the report concludes that the proposed PODs, located in the deep aquifer are unlikely to impact the Snake River. Setting aside the basic fact that irrigation pumping must cause a depletion somewhere unless water is only being removed from storage, the Clearwater report does not reach an accurate conclusion regarding the relationship between Well 352874 and water levels in the shallow monitoring wells.

LRE Water conducted an independent interpretation of the hydrogeologic framework and original water level dataset to reassess the potential for vertical connectivity between horizontal intervals of the aquifer system at the site. This included replotting and reanalyzing water level data collected during the 2024 irrigation season from the deep irrigation well (Well 352874) and the adjacent shallow monitoring wells (MW-1 and MW-2).

2.2.1 Site Specific Hydrogeologic Considerations

Clearwater presents a localized hydrogeologic model based on driller's logs from Well 352874, MW-1, MW-2, and a nearby domestic well (Well 353857). They claim that the data presented demonstrates a complete disconnection between shallow and deep aquifers and that pumping from the proposed PODs will not directly affect the Snake River. Near the site of the proposed PODs, the subsurface geology is characterized by interbedded basalt and sedimentary units,

with significant local heterogeneity in permeability and aquifer connectivity. We evaluated driller's logs for nearby wells and created a cross section shown below in Figure 1 and Figure 2.

Figure 1 shows significant geologic heterogeneity near the proposed LCSC transfer site.

The cross section shows significant variability in lithology near the proposed PODs and no clear evidence of a laterally contiguous impermeable layer separating shallow and deep aquifer materials. The LCSC transfer site includes Well 352874, MW-1, MW-2, and Well 352857. The lithology reported in Well 352857 is significantly different from Well 352874, with only a thin clay interval reported. This lithology does not support the theory that a thick, laterally continuous clay layer disconnects the deeper basalt aquifer from the Snake River.

The regional geologic framework also shows several mapped faults near the site, including the Great Rift Zone to the north of the proposed PODs and additional structures to the south of the Snake River (Figure 1). These faults may influence groundwater flow patterns in the area. Fault zones often exhibit enhanced fracturing and increased secondary permeability, which can create vertical pathways through otherwise low-permeability layers.

- **Opinion 10** – Geologic evidence does not support the theory that a laterally continuous impermeable layer vertically separates Snake River impacts from pumping proposed PODs.

2.2.2 Hydrogeological Interpretation of Observed Water Levels

Using the pressure-transducer collected water level data and manual water level measurements reported by Clearwater, we converted the water level data to elevations and drawdown (defined as the change of water levels relative to the start date with a negative drawdown value corresponding to the water level declining) values to better visualize relationships between Well 352874, MW-1, and MW-2. Figure 3 presents continuous water level data collected between April 29 and September 24, 2024, from Well 352874 and two adjacent shallow monitoring wells (MW-1 and MW-2).

The deep irrigation well exhibits clear and repeated drawdown events consistent with irrigation pumping cycles followed by recovery.

Clearwater plotted all the water level data on one scale, which obscures the changes in MW-1 and MW-2 water levels. In their graph, water levels in MW-1 and MW-2 appear generally stable during the monitoring period. However, when the water level data are plotted on separate scales with MW-1 and MW-2 as drawdown, fluctuations are visible during periods that correspond with deep well pumping (Figure 4). These are most apparent in late May, late July, and early to mid-September.

The timing and shape of these changes in shallow water levels suggest a measurable hydraulic response to deep aquifer pumping. The response repeats during multiple pumping and recovery events, supporting the possibility of vertical connectivity between the aquifers. These data do not support Clearwater's theory that the pumping of Well 352874 is disconnected from the Snake River.

The water level observations suggest the existence of vertical hydraulic connectivity between the shallow and deep aquifer zones and indicate that the aquifers may not be completely hydraulically isolated as previously concluded. This calls into question the effectiveness of the intervening clay-rich sequence as a confining unit and suggests that assumptions regarding aquifer isolation should be re-evaluated.

When focusing on the water levels during the May period before pumping started, Well 352874, MW-1, and MW-2 show similar water level patterns and magnitudes of change (Figure 5). In fact, over the period when water levels began increasing on May 5th until late on May 9th, all three wells increased by approximately one foot. In a disconnected system, this degree of correlation would be highly unusual compared to the alternative hypothesis, which is that the systems are connected.

- **Opinion 11** – Water level data presented by Clearwater do not clearly demonstrate that the shallow monitoring wells were unaffected by pumping of the deep irrigation Well 352874. The water level data does not clearly demonstrate that pumping from the proposed PODs will be disconnected from the Snake River. The water levels in the irrigation well and the shallow wells move in tandem indicating the different depth intervals are connected.

2.3 Clearwater Geosciences, LLP Expert Report on Modeling Analysis Associated with LCSC Enterprises LLC Transfer Applications

LCSC filed a second expert report from Clearwater (Clearwater Geosciences, LLP, 2025) as part of their transfer application materials. This report primarily addresses modeling performed in support of the transfer applications. Many of the opinions expressed by Clearwater are similar to the opinions presented by Helms, and covered by my opinions above.

Clearwater states that in their analyses, they followed IDWR's historic policy combining the Near Blackfoot to Neeley and Neeley to Minidoka reaches. We are unaware of such a policy. They claim that increased depletions in the Neeley to Minidoka reach of the river are offset by the increased reach gains of the Near Blackfoot to Neeley reach. This approach is inconsistent with

IDWR transfer analysis procedures, will deplete water rights in the Neeley to Minidoka reach, and will generally decrease the water available to fulfill water rights downstream of Neeley. Not all water rights rely upon both reaches of the Snake River as a source of water to fulfill the right. Combining the two reaches would result in a Snake River reach more than 73 miles long. As presented in Opinion 4 above, it is not appropriate to combine the predicted impacts on the near Blackfoot to Neeley and Neeley to Minidoka reaches.

Clearwater claims that Snake River reservoir operations effectively mitigate the impact of the proposed LCSC transfers. As previously mentioned in Opinion 9 above, reservoir operations do not represent an approved mitigation plan that offsets the impacts of these transfers on natural flow or storage water rights.

2.3.1 ESPAM and ETRAN Version Analysis

Clearwater conducted a detailed groundwater modeling evaluation to assess the potential impacts of LCSC Enterprises LLC's proposed water right transfers on the Snake River system, with particular focus on the reach between Neeley and Minidoka. This analysis included a comparative review of two versions of the Eastern Snake Plain Aquifer Model (ESPAM): Versions 2.1 and 2.2, along with their associated transfer tools, ETRAN 3.2 and ETRAN 3.4, respectively.

When the transfer applications were originally filed, ESPAM Version 2.2 had not yet been implemented. Although ESPAM 2.2 is now available, Clearwater claims that ESPAM 2.1 should be utilized because it more accurately represents hydrogeologic conditions near the Neeley to Minidoka reach. Clearwater justifies this claim by referencing the lower coefficients of determination for calibration quality of the Neeley to Minidoka reach targets: R^2 = 0.0147 for ESPAM 2.1 and R^2 = 0.0079 for ESPAM 2.2. There is effectively no statistical difference in these numbers with neither one showing a significant correlation between the model results and observed reach gains. This is further evidence that ESPAM is not appropriate for use in evaluating these transfers, but does not justify using ESPAM 2.1 over ESPAM 2.2.

It is also important to note that the results presented in Table 1, titled "Comparison of ESPAM 2.2 and ETRAN Version 3.4," are illegible and cannot be independently verified in their current format.

ESPAM 2.2 incorporates enhanced boundary conditions and improved calibration near American Falls Reservoir, making it suitable for analyzing regional-scale water budget trends. However, the model's simplified geologic structure and single-layer design limit its resolution of site-scale features. These limitations reduce its ability to represent vertical gradients and localized hydrostratigraphic variability. While ESPAM 2.2 is a valuable tool for regional assessments, it is not considered reliable for detailed, site-specific evaluations near the river.

There are several Clearwater points that we agree with, including these statements: "*The general notion, for which we agree, is that the ESPAM2.2 is a more robust regional-scale model than ESPAM2.1 due to many improvements made during the development and calibration processes of ESPAM 2.2, such as more spring discharge and reach gain/loss measurements as calibration targets, more accurate riverbed elevations and so on (Sukow, 2021b). However, neither ESPAM2.1 nor ESPAM2.2 are very reliable for evaluating impacts from the transfer applications along the Near Neeley to Minidoka Reach.*" (Clearwater Geosciences, LLP, 2025)

Although it is my opinion that ESPAM and ETRAN tools are inappropriate for evaluating the impacts of these transfers, if LCSC is required to use them, the latest versions should be used.

- **Opinion 12** – If LCSC is required to use ESPAM and ETRAN tools to evaluate the impacts of these transfers, the most recent versions should be used (ESPAM 2.2 and ETRAN 3.4).

3. Conclusions and Summary of Opinions

The LCSC transfer applications Nos. 84488 and 84490 propose to move water rights over 50 miles downstream, drastically changing the location and timing of depletive impacts on the Snake River and associated water rights. The applications propose to move the POD from a well over 16 miles away from the river to shallow/perched well locations less than half of a mile from the river. Moving the PODs to locations much closer to the river will significantly change the timing and magnitude of depletive impacts to Snake River reaches.

My detailed opinions regarding these transfers are summarized below.

- **Opinion 1** – The applications are incomplete because they do not follow IDWR guidance for transfer application procedures. The unique characteristics of the applications require an alternative procedure, which the applicant failed to provide.
- **Opinion 2** – The applicant has not recommended an acceptable alternative method for evaluating impacts or injury. LCSC has not clearly quantified the impact of the applications on Snake River reaches and has not shown or proven that there is no injury to existing water rights.
- **Opinion 3** – Due to the short distance between the proposed points of diversion (PODs) and the Snake River, and the complex hydrogeology in the areas of the proposed PODs, the Eastern Snake Plain Aquifer Model (ESPAM) and the ESPA Model Transfer Spreadsheet (ETRAN) are inappropriate for evaluating these transfers and the impact of flows on specific reaches of the Snake River.

- **Opinion 4** – The applicant's interpretation of ETRAN results inappropriately combines predicted impacts on the near Blackfoot to Neeley and Neeley to Minidoka reaches. This combined reach would cover over 73 miles of the Snake River.
- **Opinion 5** – The ETRAN transfer analysis presented lacks steady state ETRAN results.
- **Opinion 6** – The applicant's ETRAN analysis lacks Mitigation Analysis Spreadsheet results.
- **Opinion 7** – The ETRAN analysis presented includes incorrect inputs showing year-round pumping rather than the period of use associated with the water rights (April 1 – November 1).
- **Opinion 8** – Utilizing the ESPAM and ETRAN versions proposed by Helms indicates mitigation is required in the Neeley to Minidoka reach and several spring reaches.
- **Opinion 9** – Neither CREP pumping reductions nor reservoir operations are approved mitigation plans. Reservoir operations do not justify combining reaches.
- **Opinion 10** – Geologic evidence does not support the theory that a laterally continuous impermeable layer vertically separates Snake River impacts from pumping proposed PODs.
- **Opinion 11** – Water level data presented by Clearwater do not clearly demonstrate that the shallow monitoring wells were unaffected by pumping of the deep irrigation Well 352874. The water level data does not clearly demonstrate that pumping from the proposed PODs will be disconnected from the Snake River. The water levels in the irrigation well and the shallow wells move in tandem indicating the different depth intervals are connected.
- **Opinion 12** – If LCSC is required to use ESPAM and ETRAN tools to evaluate the impacts of these transfers, the most recent versions should be used (ESPAM 2.2 and ETRAN 3.4).

4. References

Clearwater Geosciences, LLP, 2024. *Expert Report on LCSC Enterprises LLC 2024 Field Activities*

Clearwater Geosciences, LLP, 2025. *Expert Report on Modeling Analysis Associated with LCSC Enterprises LLC Transfer Applications*

Helms, 2025. *Transfer Nos. 84488 and 84490 (Water Right 35-14041) Report*

Idaho Geological Survey, 2012. *Geologic Map of Idaho, Map 9*, Scale, 1:750,000. https://www.idahogeology.org/

IDWR, 2013. *Enhanced Snake Plain Aquifer Model Version 2.1, Final Report.* https://research.idwr.idaho.gov/files/projects/espam/browse/ESPAM_2_Final_Report/

IDWR. 2015. *Quick Guide to the ESPA Modeling Tools.* https://idwr.idaho.gov/wp-content/uploads/sites/2/water-rights/quick-guide-to-the-espa-modeling-tools.pdf

IDWR. 2016. *Use of the ESPA Model Transfer Spreadsheet (ETRAN) and Mitigation Analysis Spreadsheet for Water Right Transfers in the Eastern Snake Plain Aquifer*. https://idwr.idaho.gov/wp-content/uploads/sites/2/forms/waterrightsforms/Use-of-ESPA-Modeling-Spreadsheet-for-WR-Transfers-in-ESPA.pdf

IDWR, 2021. *Model Calibration Report, Eastern Snake Plain Aquifer Model Version 2.2.* https://research.idwr.idaho.gov/files/projects/espam/browse/ESPAM22_Reports/ModelCalibrationRpt/ModelCalibration22_Final.pdf

Schreuder and Blew, 2021. *Idaho Power Expert Report on LCSC Transfers T84488 and T84990*

LRE Water, 2021. *Surface Water Coalition EXPERT REPORT ON LCSC TRANSFER APPLICATIONS NOS. 84488 AND 84490*

Sukow, 2024. *Cumulative Review of ESPA Transfers between 2012 and 2024*. IDWR.

Peppersack, J. 2009. *Transfer Processing Policies and Procedures.* Administrator's Memorandum, IDWR.

Figures

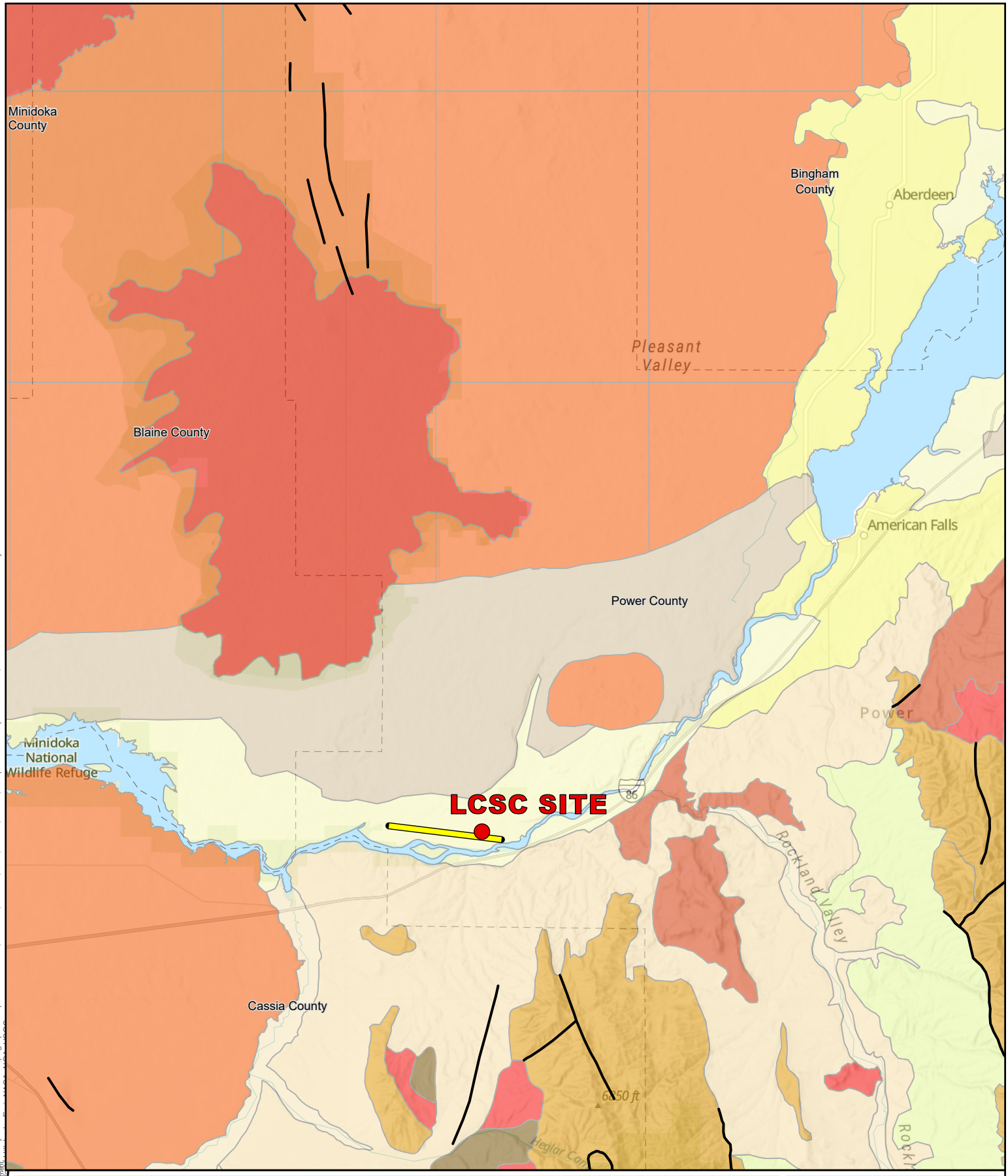
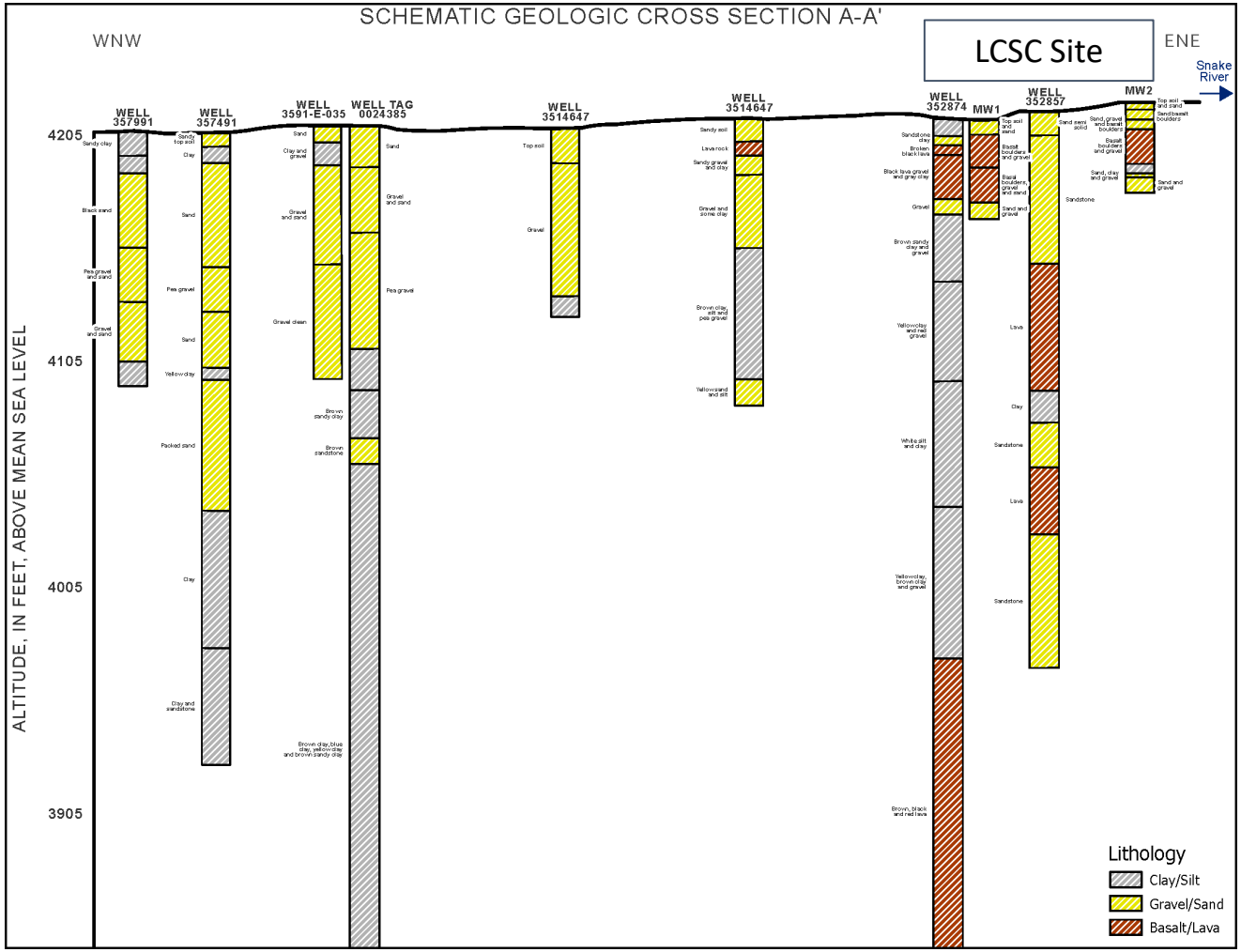


FIGURE 1
GEOLOGIC MAP AND CROSS SECTION LOCATION NEAR LCSC PROPOSED PODS

LRE WATER

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be construed as a legal document or survey instrument. Use of this product is governed by the terms of use for the data sources listed above.



DATE: 5/30/2025

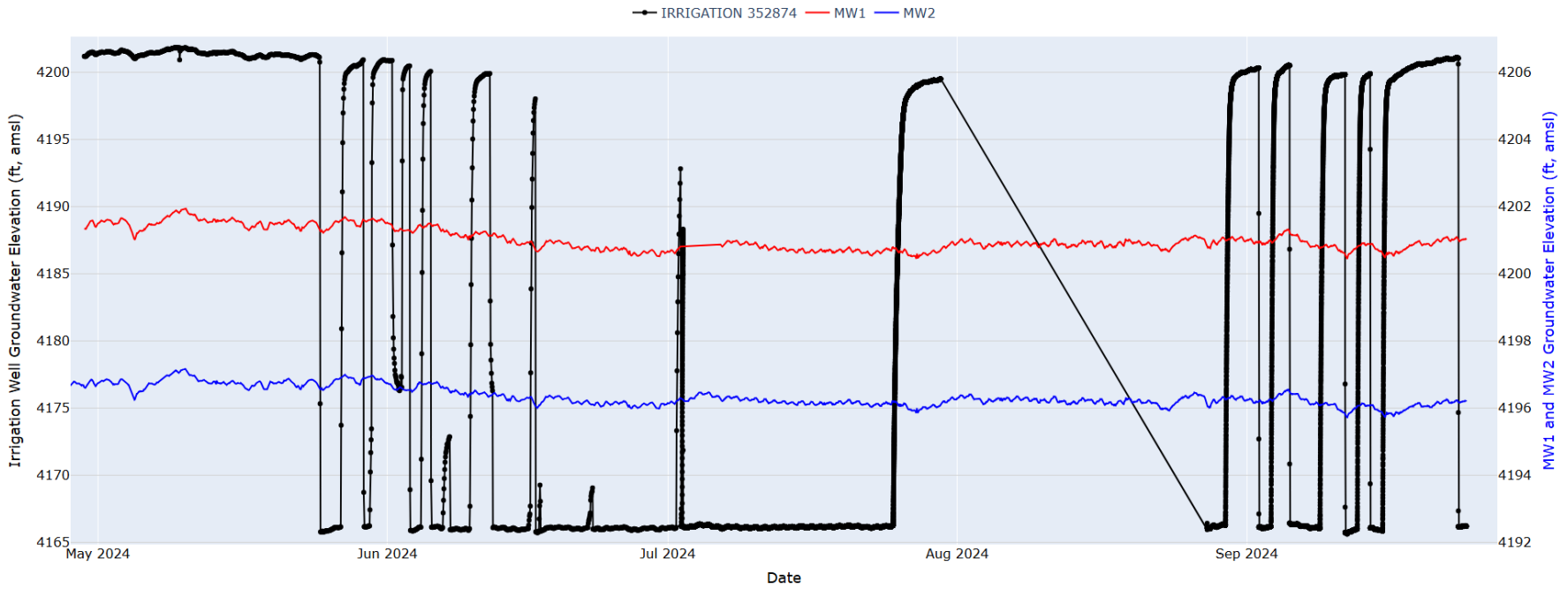
AUTHOR: TF

CHECKED BY: DC

Figure 2
Cross Section of Driller's Logs for Wells Near the LCSC Proposed PODs

LRE WATER
CONNECTING WATER TO LIFE

1221 Auraria Parkway, Denver, CO 80204



MW1 and MW2 (red and blue lines, correspond to the right axis.
Irrigation well (black line) corresponds to left axis

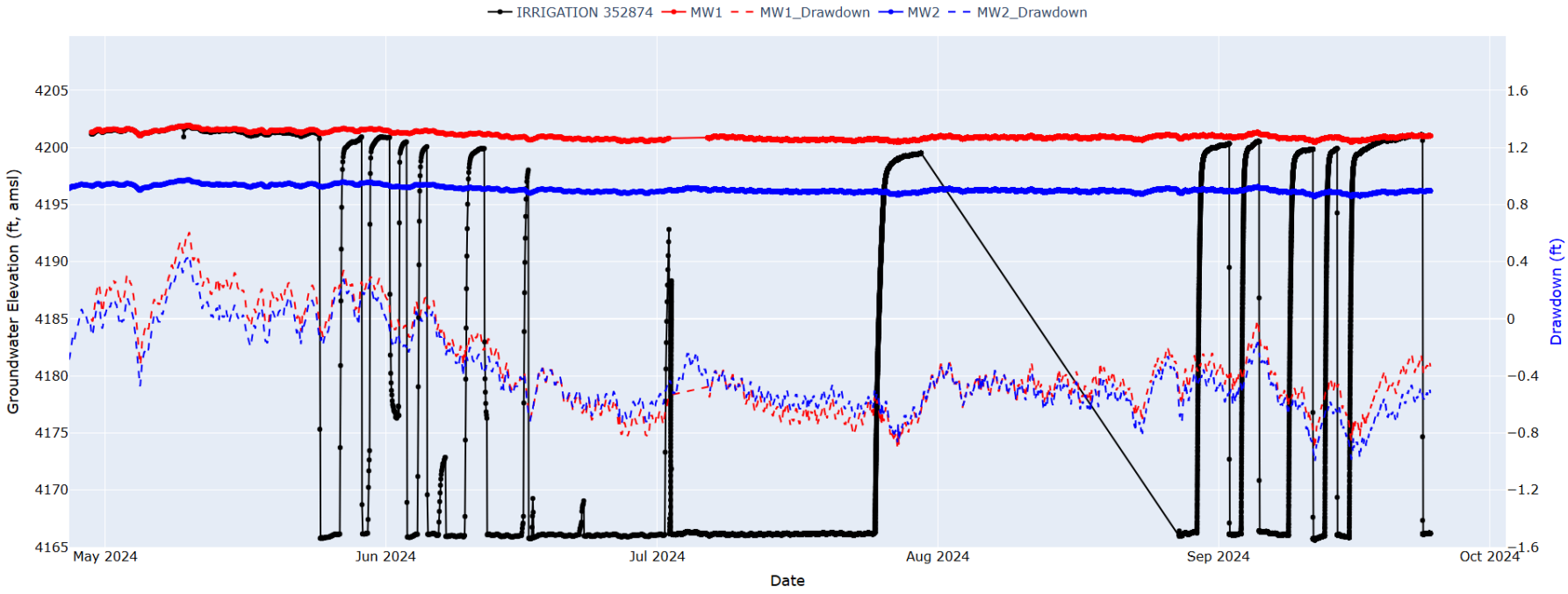
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AUTHOR: SS

CHECKED BY: JB

Figure 3
Water Level Elevations in MW-1, MW-2 and Well 352874 (adapted from Clearwater Geoscience, LLP, 2024)

LRE WATER
CONNECTING WATER TO LIFE
1221 Auraria Parkway, Denver, CO 80204



MW1 and MW2 drawdown curve (dashed lines) correspond to the right axis.

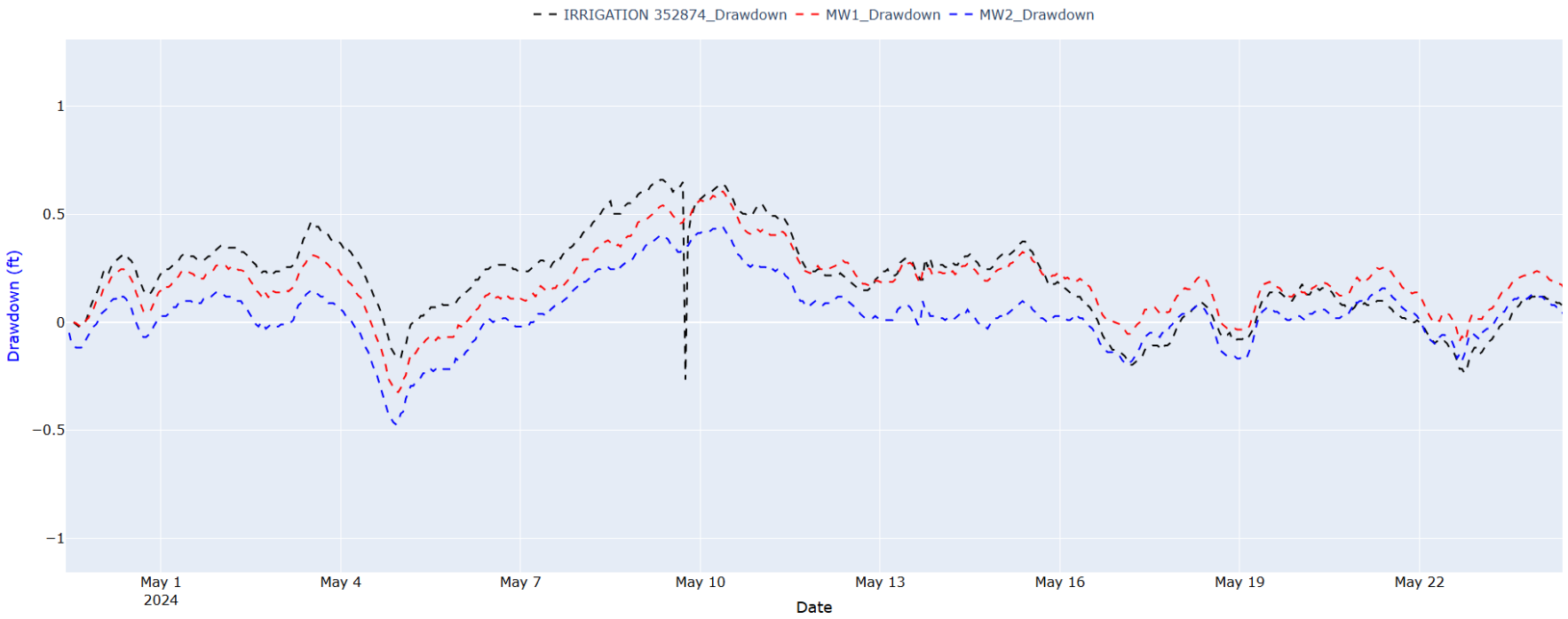
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Figure 4
Water Level Data Plotted On Multiple Scales

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1221 Auraria Parkway, Denver, CO 80204



DATE: 5/30/2025

AUTHOR: SS

CHECKED BY: JB

Figure 5
Pre-Pumping Drawdown Data from
Well 352874, MW-1, MW-2

LRE WATER
CONNECTING WATER TO LIFE
1221 Auraria Parkway, Denver,
CO 80204

Appendix A: Resume for David Colvin

DAVE COLVIN, PG

Rocky Mountain Regional Director | Senior Project Manager | Principal Hydrogeologist

EDUCATION

M.S. Environmental Science and Engineering, Colorado School of Mines, 2002

B.S. Geology, Syracuse University, 1996

PROFESSIONAL REGISTRATION

Professional Geoscientist
- AZ RG#68926
- ID #PGL-1453
- TX #11440
- WY #PG-3602
- KS #958

Project Management Professional (PMP) #1749472 (inactive)

PROFESSIONAL ACTIVITIES

AWRA Colorado
- 2017/2018 Past President

Water Education Colorado
- 2012 Water Leaders Program

Colorado Groundwater Association

National Groundwater Association

Dave is a Principal Hydrogeologist and Senior Project Manager with over 25 years of experience in groundwater hydrology, water resources, and environmental sciences. He supervises teams of diverse subject matter experts and provides technical leadership to solve today's water resource challenges. Dave serves as the Rocky Mountain Regional Director responsible for managing a diverse group of water resource professionals. His technical expertise subject areas include water supply and storage development, groundwater management, groundwater governance/administration, surface water/groundwater interaction, horizontal wells, riverbank filtration (RBF), soil aquifer treatment (SAT), managed aquifer recharge (MAR), aquifer storage and recovery (ASR), aquifer characterization, groundwater modeling, and subsidence caused by groundwater pumping.

FEATURED PROGRAM & PROJECT EXPERIENCE

Salt River Project – Gila River Basin Adjudication, Arizona Superior Court Case W1-103, San Pedro Basin, AZ (2018 – ongoing)

Hydrogeologist providing groundwater analysis and modeling supporting adjudication of water rights in the San Pedro Basin. Tasks include review of groundwater model development, calibration and uncertainty analysis, and trial/litigation support. Provides protection of surface water flows, riparian habitat, and water rights from negative impacts due to groundwater pumping.

Surface Water Coalition, Idaho (2019-ongoing)

Lead Hydrogeologist and Project Manager providing litigation support related to water management of the Eastern Snake Plain Aquifer. Provides protection of surface water flows and senior surface water rights from negative impacts of junior groundwater pumping. Serves on the Eastern Snake Plain Hydrologic Modeling Committee supporting MODFLOW modeling activities related to complex surface water/groundwater management and water rights administration. Also serves as the SWC representative on technical working groups guiding the implementation and adaptation of a settlement agreement between the SWC and Idaho Ground Water Appropriators including monitoring/evaluation of hydrology, pumping reductions, consumptive use and planning for managed aquifer recharge. Provides technical input to the development of a Groundwater Management Area adaptive management plan.

Salt River Project – Gila River Basin Adjudication, Arizona Superior Court Case W1-106 Verde River Watershed, AZ (2019 – ongoing)

Project manager and hydrogeologist providing groundwater analysis of Verde River watershed water management impacts to the Verde River. Support includes review and response to subflow administrative procedures.

Salt River Project – Cooperative Agreement No. 1, Big Chino Sub-Basin, AZ (2016 – ongoing)

Project manager and hydrogeologist providing groundwater analysis characterizing water management impacts on flows of the Upper Verde River Springs. Support includes specialized technical consulting, review and oversight of modeling and monitoring programs implemented by a multi stakeholder group seeking science-based resolution of water rights conflict.

City of Aurora – Horizontal Well Project; Weld County, CO (2019 – ongoing)

Project Manager for feasibility evaluation and planning of two radial collector wells for the City's Prairie Waters System. The project targets increasing system yield while maximizing riverbank filtration water quality improvements. Investigation included hydrogeophysical surveys, exploratory drilling, aquifer testing, and groundwater modeling. Results included design of horizontal wells that maintain the existing system water quality while providing adaptable system operations that can increase yield during drought demands. Currently the Lead Hydrogeologist providing design and construction phase services.

City of Northglenn – ASR Feasibility Evaluation and Pilot Testing (2020 – ongoing)

Lead hydrogeologist and Project Manager for feasibility investigation and pilot test system design services. Support includes ASR feasibility data analysis, water quality evaluation, DWR and EPA UIC permitting, pilot system design and test planning. The project will provide pilot storage of the City's fully consumable water rights, providing more surface storage space for other supplies. If recovered water quality is compatible, the pilot system will be converted into permanent infrastructure as the first phase of a larger ASR system.

Riverence Holdings LLC – Snake River Spring Supply Support (2022-ongoing)

Project Manager and lead hydrogeologist supporting multiple fish hatcheries throughout Idaho's Magic Valley. Provides hydrogeologic planning of spring fed aquaculture focusing on upgradient aquifer pumping and recharge impacts on water rights, water quality, and water supply reliability.

Dominion Water and Sanitation District – Groundwater Support; Douglas County, CO (2015-ongoing)

Lead Hydrogeologist providing Denver Basin and South Platte alluvial aquifer groundwater resources planning services including water rights evaluation, water quality assessment, well field yield estimation and project planning. Provides hydrogeologic and contractor management support during Denver Basin well site design, construction, testing, aquifer characterization, and sampling. Additional technical support includes regional groundwater management planning, documentation for County hearings, interactions with local water agencies, and groundwater transaction due diligence.

City of Aurora – Box Elder Basin Aquifer Storage and Recovery (ASR) Feasibility Investigation and Pilot Testing (2018 – Ongoing)

Project Manager and lead hydrogeologist investigating the feasibility of recharging and storing water in the Box Elder alluvial aquifer at the Aurora Center for Renewable Energy (ACRE). Tasks included hydrogeophysical surveys, exploratory drilling/test pits, and infiltration testing. The project identified recharge as a viable option for innovative underground water storage opportunities. Services include recharge source water characterization, water rights and permitting planning, water quality evaluation, groundwater modeling, and pilot system design.

Town of Erie – Water Supply Planning Support (2018 – ongoing)

Lead hydrogeologist and Project Manager providing groundwater support related to water supply planning. Services include aquifer characterization, water quality studies, ASR feasibility analysis, and water rights. Prepared Colorado Water Conservation Board and Division of Local Affairs grant applications to obtain project funding. Provided due diligence review and retrofit design of an existing horizontal well currently being incorporated as expanded supply. Provided feasibility investigation, alternatives analysis, water rights, design, construction procurement/oversight, and testing for a 1,000 foot long horizontal directionally drilled riverbank filtration well.

Town of Castle Rock – Groundwater Support; Douglas County, CO (2015-ongoing)

Project Manager providing comprehensive groundwater support. Projects have included:

- Denver Basin Well Drilling, Testing, and Aquifer Storage and Recovery (ASR) – Support includes Denver Basin ASR planning/permitting, bidding services, contractor management, construction oversight, well/pump design, aquifer testing, and groundwater regulatory support.
- Alluvial Well Field Expansion and Rehabilitation – Project Manager for two projects aimed at improving yields in well fields affected by biofouling and performance issues. Oversaw construction and testing of six horizontal directional drilled (HDD) wells installed to increase yield, performance, and sustainability.

City of Aurora and Town of Castle Rock – Lost Creek Underground Storage Pilot Project; Lost Creek Designated Basin, CO (2017-2018)

Project Manager for aquifer characterization and evaluation of recharge potential for underground water storage pilot project. Obtained grant funding and facilitated multiple stakeholder project planning and implementation. The project identified important field investigation methods and results for storage related aquifer characteristics previously overlooked in desktop studies.

City of Aurora – Prairie Waters North Campus Master Plan; Adams and Weld Counties, CO (2017-2019)

Lead hydrogeologist providing master planning services for approximately 20 MGD expansion of the Prairie Waters Project – North Campus over the next 20 years. Facility expansion included riverbank filtration well field, pipelines, and storage reservoirs. Led facilities operational planning, supported water resource planning, gap analysis, and capital improvements planning.

Denver Water – Aquifer Storage and Recovery (ASR) Pilot Project, City and County of Denver, CO (2016-current)

Groundwater technical support and project management for ASR feasibility investigation. Provided Denver Basin aquifer characterization including exploratory borehole drilling, hydrogeophysical investigation (Nuclear

Magnetic Resonance and conventional methods), and 3-D geologic modeling. Current services include an advisory role for installation of a multi-aquifer Westbay Denver Basin monitoring well.

City of Greeley – ASR Feasibility Evaluation (2019-2021)

Senior Technical Advisor for a project evaluating the feasibility of new and existing ASR projects in multiple bedrock aquifers. Includes evaluation of water quality, aquifer characteristics, well construction/testing, project planning, and regulatory support, including negotiating an EPA UIC Rule Authorization in less than two months.

Project 7 Water Authority – Riverbank Filtration Feasibility Study, Montrose CO (2019-2020)

Project Manager for RBF feasibility study in the Uncompahgre River alluvial aquifer. The study included geophysical surveys, borehole drilling, pumping test analyses, water quality investigation, and groundwater modeling. The project objectives where to characterize vertical and horizontal well field alternatives for maximum yield while providing water quality pre-treatment improvements.

Colorado Water Conservation Board - HB16-1256 South Platte Storage Study; CO (2018)

Lead hydrogeologist providing evaluation of underground water storage options for the Lower South Platte alluvial aquifer. Provided alluvial storage site evaluation, conceptual design, cost estimates, and comparison to surface storage options.

Aurora Prairie Waters Project – North Campus; Weld County, CO (2008)

Supported City of Aurora's Prairie Waters project near the South Platte River, CO. Acted as team liaison for multi-consultant, multi-disciplinary project team. Field investigation and construction tasks included field oversight of drilling, well construction, pump/motor installation, aquifer testing, system start up testing, well field yield optimization, and geotechnical investigations. Support also included the design, construction, and operation of alluvial recharge and riverbank filtration pilot test facilities. Developed and implemented pilot test procedures, including tracer studies to assess flow paths, travel times, and stream/aquifer interaction. MODFLOW modeling support for the Prairie Waters Project included development of regional groundwater model for Colorado Division 1 case 2006CW104. Performed parallel processing model calibration using UCODE. Prepared expert and rebuttal reports, exhibits and materials used in settlement negotiations.

Eagle River Water and Sanitation District and Upper Eagle Regional Water Authority – Groundwater Support; Eagle County, CO (2010-ongoing)

Project Manager and lead Hydrogeologist for alluvial well field groundwater support. Projects have included:

- GWUDI Evaluation – Regulatory support, groundwater modeling and operational monitoring of alluvial well fields in support of CDPHE GWUDI evaluation
- Lake Creek Well Field Planning – Services included groundwater modeling, well drilling, aquifer testing, source water quality characterization, regulatory support for Eagle County 1041, CDPHE, and DWR permitting
- Well field maintenance and rehabilitation support – well rehabilitation in response to well issues including pump issues, casing holes, and water quality contamination

City of Steamboat Springs – Infiltration Gallery System Expansion; Routt County, CO (2018-ongoing)

Project Manager for feasibility evaluation of alluvial groundwater supply expansion alternatives. Expansion options being considered include vertical and horizontal well options. Tasks included exploratory drilling, aquifer testing, groundwater modeling and conceptual expansion system design. Modeling was performed to optimize well siting to maximize yield, maintain water quality, and to minimize pipeline costs.

Texas Water Development Board – Statewide Subsidence Risk Evaluation (2018)

Technical advisor for risk evaluation of subsidence due to groundwater pumping in all Texas major and minor aquifers. The project used well lithology data with model predicted water level declines to create a statewide risk map and prioritized table. Recommended follow up actions for identified areas of risk. The project provided important subsidence risk information for statewide planning and local user considerations.

Village at Taos Ski Valley – Spring Water Supply Expansion; Taos County, NM (2018-ongoing)

Senior Technical Advisor providing groundwater evaluation into the management, protection and expansion of spring water supplies.

City of Phoenix – ASR Tracer Test Design; Maricopa County, AZ (2017)

Provided MT3D groundwater modeling to assist in aquifer characterization, travel time estimates, and the design of an ASR tracer injection test for feasibility. The testing was in support of the Northeast Phoenix Reclaimed Water Recharge and Recovery Study. The system is intended to create a potable water resource through Indirect Potable Reuse (IPR), provide additional non-potable supplies, and to mitigate land subsidence issues.

Groundwater Relief – Kutupalong Refugee Camp Groundwater Supplies; Cox's Bazaar, Bangladesh (2019)

Volunteer hydrogeologist providing well testing and water quality support to field geologists. The project is developing emergency water supplies for nearly 1 million Rohingya refugees who have fled religious persecution in Myanamar.

City of San Angelo – Riverbank Filtration Feasibility Evaluation; Tom Green County, TX (2018)

Provided feasibility evaluation, preliminary siting, design and costs for a potential riverbank filtration (RBF) well field near the Concho River. This information was used to evaluate RBF as an alternative for expansion of the City's water supply.

Tarrant Regional Water District – Cedar Creek Wetlands; Kaufman County, TX (2013)

Project manager and lead Hydrogeologist for riverbank filtration feasibility investigation along the Trinity River. Project tasks include geotechnical, hydrogeologic, and surface geophysical surveys, groundwater modeling, and design, construction and testing of riverbank filtration pilot test sites.

Rangen, Inc. – Water Rights Support; Gooding County, ID (2010-2016)

Expert witness providing testimony and trial support for a water rights hearing (IDWR Case No. CM-DC-2011-004) involving springs and complex surface water/groundwater interaction of the Eastern Snake Plain Aquifer. Represented a fish hatchery reliant on spring flow that was being impacted by groundwater pumping. Served

on the Eastern Snake Plain Hydrologic Modeling Committee supporting MODFLOW modeling activities in the Eastern Snake Plain of Idaho.

Overturf, McGath, and Hull, P.C. – Stewart No. 1 Ditch Company; Pitkin County, CO (2017)

Expert witness support including expert and rebuttal reports, depositions, and settlement negotiations for a civil case involving alleged roadway water damage from ditch operations.

Fredrickson Law Offices – In-Play Golf; Weld County, CO (2017)

Expert witness providing expert and rebuttal reports, depositions, and trial support for a civil case involving alleged water damages from golf course irrigation.

Boulder Valley School District – Douglass Elementary Non-Tributary Well Support; Boulder County, CO (2018)

Project Manager for a non-tributary well application in the Boulder Complex Area of the Denver Basin Aquifers. Provided aquifer characterization and regulatory support leading to a non-tributary determination and permit approval.

Boulder County Parks and Recreation – Kenosha Ponds Groundwater Evaluation; Boulder County, CO (2016)

Expert witness providing hydrogeology water rights support for a Boulder County Parks and Recreation augmentation pond. Technical support included expert report writing and trial exhibit preparation for the hydrologic characterization of a recharge pond between two streams where the pond bottom was below the water table.

City of Burkburnett, Texas – Alluvial Well Field Evaluation; Wichita County, TX (2016)

Project Manager and groundwater lead for evaluation of underperforming well fields near the Red River. Wells ranged from 3-50 years old with a variety of issues causing low yields. Project tasks included well operational data integration, analysis, and development of alternatives to improve well yields.

Penrose Water District – Arkansas River Alluvial Well Field; Fremont County, CO (2016)

Groundwater technical management for planning, design, and construction of an alluvial well field for diversion of Arkansas River water rights. Tasks included aquifer characterization, water rights support, groundwater modeling, contractor management, well drilling, construction and testing.

Salt River Project – New River Agua Fria Underground Storage Project; Phoenix, AZ (2013)

Project involved optimization and in-channel expansion design for an existing recharge facility. Support included evaluation of operational data and adaptation of an existing MODFLOW model for operational optimization and feasibility testing.

City of San Marcos, Texas – Well Performance Investigation and Replacement Plan; Hays County, TX (2015)

Project Manager and groundwater lead for investigation into reduced yield problems for a well in the Edwards Aquifer. Well construction and operational data were analyzed to test viability of rehabilitation or equipment replacement. Provided ultimate solution of siting a replacement well in a more productive aquifer area.

Oakwood Homes – Neighborhood Scale Dewatering Systems and Water Rights; CO (2016)
Project Manager and groundwater lead for planning, design, and permitting of neighborhood scale dewatering systems. Managed project work including groundwater modeling, system design, data analysis, contractor coordination, DWR and CDPHE permitting, and water rights evaluations.

Winkler Services – Well Field Siting and Design; Wink County, Texas (2017)
Technical advisor for well field siting in the Pecos Valley Alluvium and Upper Dockum Aquifer. Support included project planning, aquifer characterization, and geologic modeling.

Donala Water and Sanitation District – Reuse Evaluation; El Paso County, CO (2015)
Preliminary feasibility investigation into riverbank filtration alternatives for indirect potable reuse. Evaluated hydrogeologic conditions for permitting, cost, and performance feasibility considerations.

Confidential Client; Groundwater Supply and Subsidence Analysis; AZ (2011)
Development of regional MODFLOW models used to estimate well field yield and land subsidence due to groundwater pumping in Arizona. Work included statewide study of subsidence-related empirical relationships and prediction methods, aquifer characterization, 3-D geologic and groundwater flow modeling, automated model calibration and predictive uncertainty analysis using PEST, and numerical MODFLOW subsidence modeling.

City of Scottsbluff – Well Field Uranium Investigation and Monitoring; Scotts Bluff County, NE (2016)
Technical advisor for a project aimed at reducing uranium concentrations in an alluvial groundwater supply. Provided aquifer characterization and uranium monitoring data analysis.

Confidential Client - Oilfield Produced Water Infiltration Modeling, San Louis Obispo County, CA(2010)
Lead Hydrogeologist for the development of an engineering design MODFLOW-SURFACT model with the goal of infiltrating 13 acre-feet of water per day into the subsurface of a 200 acre alluvial site. Performed model calibration using PEST software in a parallel processing environment utilized 50 geologic conceptualizations for stochastic predictions of system performance.

Colorado Department of Public Health and Environment – Summitville Superfund Site; Summitville, CO (2008)
Provided support for abandoned mine hydrology and geochemistry, field sampling, monitoring and mine facility inspection, and database support. The project goal was to monitor and minimize mine waste impacts on the Alamosa River.

Various Mines – Groundwater Modeling and Analysis; Basin and Range Province; NV (2010)
Provided MODFLOW modeling and water balance studies in support of mine water management and regulatory reporting. Analyses included point flow surface water modeling to evaluate stream gain/loss; detailed water balance quantifications; well inventories and pumping estimates; groundwater underflow assessments.

Miron Construction - Laramie-Fox Hills Well; Hudson, Colorado (2008)
Assisted in design and field engineering for the construction and testing of a 960-foot deep, large capacity, municipal/industrial, Laramie-Fox Hills water supply well at the Hudson Correctional Facility.

Perini/US Army Corps of Engineers – Groundwater System Design and Optimization; Baghdad, Iraq (2007)
MODFLOW modeling support for the U.S. Agency for International Development in Baghdad, Iraq. Developed a numerical groundwater model for the optimization of water supply well locations and pumping operations. Main objectives were to maximize well yields while minimizing differential land subsidence across newly constructed East End Barracks.

Colorado Haiti Project (Volunteer Position); Petit Trou de Nippes, Haiti (2013)
Technical advisor for groundwater development, management, and protection in a rural, developing area of Haiti.

Water For People Groundwater Management Project (Volunteer Position); San Pedro Sula, Honduras (2008)
Technical advisor for development of a scope of work for a participatory groundwater management plan aimed at restoring and protecting an over utilized alluvial aquifer in a developing region.

ASARCO - California Gulch Superfund Site; Leadville, Colorado (2000-2005)
Conducted environmental sampling for the Kids First Program to identify and address sources of lead exposure for children in residential areas. Provided statistical analysis and reporting for evaluation of program effectiveness. Designed sampling plan and performed soil sampling and analysis to delineate extent of metals contamination at the Arkansas Valley Smelter Operable Unit. Provided technical support for hydrogeological and geochemical characterization of the Apache Tailings site; and implemented the surface water and groundwater performance monitoring program to assess the effectiveness of the remedial action. Conducted synoptic surface water flow measurement and water quality sampling.

Asarco - Omaha Lead Site, Omaha, Nebraska (2003)
Assisted in the development of program to identify sources of lead exposure for children in residential areas.

Mine Waste and Tailings Pile Sites, Various Locations (2000-2004)
Performed hydrologic evaluation of remedial alternatives for repository evaluation using Hydrologic Evaluation of Landfill Performance (HELP) model.

Industrial Groundwater Contamination Sites, Various Locations (2000-2005)
Performed groundwater modeling to assist design of groundwater extraction remediation wells using MODFLOW modeling code.

EPA - Vasquez Boulevard and Interstate 70 Superfund Site, Denver, Colorado (2002)
Designed, directed, and performed environmental sampling for project intended to identify sources of lead and arsenic exposure for children in residential areas.

Hertz Rent-a-Car - Former Underground Storage Tank, Colorado Springs, Colorado (2002)

Project Hydrogeologist and technical lead for the characterization, monitoring, and remediation of hydrocarbon contaminated soils and groundwater at a former underground storage tank site. Performed quarterly monitoring and reporting; developed and implemented an in-situ chemical oxidation remediation program.

R&R Super Service - Former Underground Storage Tank, Arvada, Colorado (2002)

Project Manager and technical lead for the characterization and remediation of soils and groundwater contaminated by petroleum hydrocarbons at a former service station. Responsibilities included client and regulatory interaction; site characterization activities to delineate the nature and extent of contamination in soil and groundwater; modeling of vapor and mass extraction rates using VENT2D; respirometry testing to quantify biodegradation rates in vadose zone soils; startup testing; operating, maintaining, and monitoring of an air sparge/soil vapor extraction system.

City and County of Denver - Former Stapleton International Airport Remediation; Denver, Colorado (2000)

Served as a hydrogeologist conducting field investigations to define nature and extent of hydrocarbon contamination and to determine remediation. Field tasks included lithologic logging with a hollow-stem auger and direct-push drilling rigs; soil, groundwater, and soil vapor testing, remediation system construction/operation/maintenance, data evaluation and reporting.

National Park Service – Mt. Rainier National Park, Longmire, Washington (1996-1997)

Biologist and crew leader for aquatic ecosystem studies in Mt. Rainier National Park. Conducted field surveys and sub-alpine wetland monitoring. Performed aquatic field sampling, wetland classification, biological species identification, and aquatic laboratory analyses.

PRESENTATIONS & PUBLICATIONS

Colvin, Dave, 2025. "Challenges of Advancing the Best Available Science for Groundwater –Surface Water Conflict Resolution." Colorado State University - The Past and Future of Groundwater in the West Symposium. Fort Collins, CO.

Colvin, Dave, 2024. "Aurora Water's Radial Collector Well Providing RBF Solutions." American Groundwater Trust Colorado Groundwater Conference. Golden, CO.

Colvin, Dave, 2020. "Moving from Conflict to Collaboration: The Role of MAR in Mitigating Groundwater Pumping Impacts to Surface Water" 17th Biennial Symposium on Managed Aquifer Recharge. Tempe, AZ.

Colvin, Dave, 2020. "Drawing the Line in the Sand between Underground Water Storage and Augmentation Recharge." American Water Resources Association – Colorado Chapter & Colorado Groundwater Association Joint Annual Symposium. Denver, CO

Colvin, Dave, 2019. "Demonstrating Dominion and Control – Moving from Black Magic to Understandable Science." American Groundwater Trust Annual Colorado Groundwater Conference. Denver, CO.

Colvin, Dave, 2019. "Now We Know What We Don't Know: An ASR Regulatory Update". Colorado Groundwater Association September Meeting. Denver, CO.

Colvin, Dave, 2019. "The Evolution of Colorado Underground Water Storage Administration". American Water Resource Association / Colorado Groundwater Association 2019 Joint Annual Symposium. Denver, CO.

Colvin, Dave, 2018. "Technical Considerations for ASR Planning in Colorado's Front Range". American Groundwater Trust Annual Colorado Groundwater Conference. Denver, CO.

Colvin, Dave, 2018. "ASR Panel Discussion: The Revolution of Subsurface Water Storage". American Water Works Association ACE18 Conference. Las Vegas, Nevada.

Colvin, Dave, and Keester, Michael, 2017. "Applying Web-Based Information Management Tools to Increase Efficiency and Expand Opportunities for Groundwater Conservation Districts". Texas Association of Groundwater Districts Groundwater Summit. San Marcos, TX.

Colvin, Dave, and Pence, Rachel, 2017. "Using NMR and Hydrogeophysics to Evaluate ASR Feasibility in the Denver Basin". 2017 NGWA Conference on Hydrogeophysics and Deep Groundwater, Denver, CO. (https://ngwa.confex.com/ngwa/hdg2017/webprogram/Paper11286.html)

Colvin, Dave, and Justus, Heather, 2016. "Benefits of Directionally Drilled Alluvial Well Lateral Arms in the Town of Castle Rock". 2016 RMSAWWA/RMWEA Joint Annual Conference, Keystone, CO.

Colvin, Dave, and Furnans, Jordan, 2016. "Can/Should Texas learn from Colorado? A primer on groundwater-surface water interactions and regulation methods". 2016 Texas Water Conservation Association Spring meeting, Woodlands, TX. (http://www.slideshare.net/TWCA/twca-annual-convention-canshould-texas-learn-from-colorado-jordan-furnans-and-dave-colvin)

Colvin, Dave, 2015. "Methods for Confident Model Predictions and Integration". Colorado Water Congress 2015 Annual Conference; DARCA Workshop Series, "The Next Step: Modeling Colorado's Water Plan", Denver, CO.

Colvin, Dave, 2014. "Groundwater Challenges and Solutions for Colorado Watersheds." 2014 Colorado Sustaining Watersheds Conference, Avon, CO.

Colvin, Dave and Loopesko, William, 2014. "Advantages of Alluvial Aquifer Storage Alternatives for Managing Hydrologic Extremes and Future Water Supply Risks." 2014 Upper Colorado River Basin Water Forum, Grand Junction, CO.

Colvin, Dave, 2014. "Groundwater Solutions for Indirect Potable Reuse." 2014 Rocky Mountain Water Reuse Workshop, Golden, CO.

Colvin, Dave, Bauer, Jacob, and Noack, Tim, 2013. "Effective Tools and Project Planning for Riverbank Filtration Feasibility Investigation" Poster session at 2014 Texas Water, Dallas, TX. (http://s3.amazonaws.com/eventmobi-assets/events/txwater14/documents/person/1366969/201404_RBF_Feasibility_Poster_Final.pdf)

Colvin, Dave, and Bauer, Jacob, 2013. "Cost Effective Feasibility Investigation of Natural Subsurface Reuse Treatment Systems." Poster session at the 2013 National Water Reuse Symposium, Denver, CO.

Colvin, Dave, Bauer, Jacob, and Neupauer, Roseanna, 2013. "Riverbank Filtration Feasibility Modeling." MODFLOW and More 2013. Integrated Groundwater Modeling Center. Golden, CO.

Colvin, David C., 2012. "Comparison of One and Three Dimensional MODFLOW Subsidence Results." 2012 Groundwater Summit, National Groundwater Association, Westerville, OH.

Colvin, David C., 2012. "One Dimensional MODFLOW Modeling of Land Subsidence Due to Fluid withdrawal." GSA 2012 Cordilleran Section Meeting, Vol. 44, No. 3. Geological Society of America. Boulder, CO.

EXPERT TESTIMONY

Dave has provided expert testimony in trial or depositions in the following cases:

Salt River Project; Superior Court of the State of Arizona, Maricopa County, Gila River Adjudication, Contested Case No. W1-106, Subflow Zone Delineation Technical Report for the Remainder of the Verde River Watershed, August 2024.

Idaho Surface Water Coalition; Idaho Department of Water Resources Snake River Basin Moratorium, Administrative Hearing Regarding on the Consolidated Big Wood and Snake River Moratorium Matter, October 2023.

Idaho Surface Water Coalition; Idaho Department of Water Resources Docket No. CM-DC-2010-001, Hearing Regarding the Fifth Methodology Order, June 2023.

Idaho Surface Water Coalition; Idaho Department of Water Resources Docket No. AA-GWMA-2016-001, Order Designating the Eastern Snake Plain Aquifer Groundwater Management Area, February 2020.

Stewart No. 1 Ditch Company; Pitkin County Case No: 2014CV30084, Pitkin County Board of County Commissioners v. Brothers, et. al., September, 2015.

In-Play Golf, Inc; Weld County Case 12CV727, Helen Hawkins et. al. v. Vista Ridge Development Corporation et. al., August, 2015.

Rangen, Inc.; Idaho Department of Water Resources In the Matter of Application for Water Rights Permit No., 36-17011, February, 2015.

Rangen, Inc.; Idaho Department of Water Resources Case No. CM-DC-2011-004, Distribution of Water To Water Right Nos. 36-02551 and 36-07694, May, 2013.

EXPERT REPORTS

Dave has performed groundwater analysis, provided assistance in settlement negotiations, and authored or contributed to reports in the following cases.

Salt River Project; Superior Court of the State of Arizona, Maricopa County, Gila River Adjudication, Contested Case No. W1-106, Subflow Zone Delineation Technical Report for the Remainder of the Verde River Watershed, August 2024.

Idaho Surface Water Coalition; Idaho Department of Water Resources Snake River Basin Moratorium, Administrative Hearing Regarding on the Consolidated Big Wood and Snake River Moratorium Matter, October 2023

Idaho Surface Water Coalition; Idaho Department of Water Resources Docket No. CM-DC-2010-001, Hearing Regarding the Fifth Methodology Order, June 2023

Idaho Surface Water Coalition; Idaho Department of Water Resources Docket No. AA-GWMA-2016-001, Order Designating the Eastern Snake Plain Aquifer Groundwater Management Area, February 2020

Town of Erie; CO Division 1 Case Nos. 2019CW3063 and 2019CW3064, Application for Underground Water Rights and Plan for Augmentation, 2020.

Salt River Project; AZ Big Chino Cooperative Agreement #1, Evaluation of Big Chino Water Ranch impacts on Upper Verde Springs discharge, 2016 - ongoing.

Salt River Project; AZ Gila River Adjudication Contested Case No. W1-103, Groundwater adjudication and subflow depletion evaluation, 2017 – ongoing.

In-Play Golf, Inc; Weld County Case 12CV727, Helen Hawkins et. al. v. Vista Ridge Development Corporation et. al., August, 2015.

Stewart No. 1 Ditch Company; Pitkin County Case No: 2014CV30084, Pitkin County Board of County Commissioners v. Brothers, et. al., September, 2015.

Rangen, Inc.; In the Matter of Application for Permit No., 36-17011, February, 2015.

Rangen, Inc.; Idaho Department of Water Resources Case No. CM-DC-2011-004, Distribution of Water To Water Right Nos. 36-02551 and 36-07694, May, 2013.

Boulder County Parks and Open Space; CO Division 1 Case No. 2010CW320, Change of Use and Plan for Augmentation for Kenosha Ponds Open Space, 2013.

City of Aurora; CO Division 1 Case No. 2006CW104, Aurora's Prairie Waters Project, 2007.

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Eastern Region

ORIGINAL

Travis L. Thompson, ISB #6168
Sarah W. Higer, ISB #8012
BARKER ROSHOLT & SIMPSON LLP
163 Second Avenue West
P.O. Box 63
Twin Falls, Idaho 83303
Telephone: (208) 733-0700
Facsimile: (208) 735-2444

Attorneys for A&B Irrigation District, Burley Irrigation District, Milner Irrigation District, North Side Canal Company, and Twin Falls Canal Company

W. Kent Fletcher, ISB #2248
FLETCHER LAW OFFICE
P.O. Box 248
Burley, Idaho 83318
Telephone: (208) 678-3250
Facsimile: (208) 878-2548

Attorneys for American Falls Reservoir District #2 and Minidoka Irrigation District

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR TRANSFER NOS. 84488 AND 84490 IN THE NAME OF LCSC ENTERPRISES LLC	**THE SURFACE WATER COALITION'S DISCLOSURE OF EXPERT REPORT AND DECLARATION OF DAN TEMPLE**

TO: The Hearing Office of the Department and all parties and attorneys of record:

PLEASE TAKE NOTICE A&B IRRIGATION DISTRICT, BURLEY IRRIGATION DISTRICT, MILNER IRRIGATION DISTRICT, NORTH SIDE CANAL COMPANY, TWIN FALLS CANAL COMPANY, AMERICAN FALLS RESERVOIR DISTRICT #2, AND MINIDOKA IRRIGATION DISTRICT (hereinafter "Protestants" "Surface Water Coalition" or "SWC"), by and through their attorneys of record, BARKER ROSHOLT & SIMPSON LLP, and FLETCHER LAW OFFICE, hereby submits its expert report and supporting information pursuant to the Scheduling Order.

DATED this 16th day of July, 2021.

FLETCHER LAW OFFICE

_____ for
W. Kent Fletcher

Attorneys for American Falls Reservoir District #2 & Minidoka Irrigation District

BARKER ROSHOLT & SIMPSON LLP

_____
Travis L. Thompson
Sarah W. Higer

Attorneys for A&B Irrigation District, Burley Irrigation District, Milner Irrigation District, North Side Canal Company, and Twin Falls Canal Company

CONNECTING WATER TO LIFE

EXPERT REPORT ON LCSC TRANSFER APPLICATIONS NOS. 84488 AND 84490

Prepared for:
The Surface Water Coalition

July 16, 2021

1604FLE01-21

The technical material in this report was prepared by or under the supervision and direction of the undersigned, whose seal as a Professional Geologist is affixed below.



The following members of the LRE Water staff contributed to the preparation of this report.

David Colvin, PG - Principal-in-Charge
Jacob Bauer, PG – Senior Project Hydrogeologist
GIS Analyst, Tucker Fullmer

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SECTION 1: TRANSFER APPLICATION SUMMARIES

On October 13, 2020, LCSC Enterprises, LLC (LCSC) submitted transfer applications No. 84488[1] and No. 84490[2] to the Idaho Department of Water Resources (IDWR). This LRE Water expert report is in support of the Surface Water Coalition's protest of these applications.

The transfer applications were prepared by JCH Engineering and Consulting, PLLC (JCH), as a representative of LCSC. Combined, the two applications propose to move 1290 acre feet annually (AFA) from Bingham County to Power County.

1.1.1 Transfer Application No. 84488

Transfer application No. 84488 consists of a point of diversion (POD) change, POD addition, place of use (POU) change and update to a combined POU. The transfer application is for 0.46 cubic feet per second (CFS) or 186.4 acre-feet per annum (AFA). The Eastern Snake Plain Aquifer (ESPA) groundwater rights included in the application are transferring from part of Right No. 35-14041 (0.46 CFS/ 186.4 AF) and transferring to existing Rights No. 35-7740 (3.66 CFS/ 1,160.0 AFA) and 35-2824 (0.16 CFS/32.7 AFA). Existing POD/water measurement information system (WMIS) identification numbers include 600779 and 600735. The transfer to POU includes a total of 345.6 acres in sections 13, 18, 19, and 24 of Township 09S and Range 28E. The application proposes to cease irrigation of 46.6 acres at the existing 35-14041 POU to offset the increased use of water at the POU for 35-2824 and 35-7740. Water Right No. 35-14041 is under a 2007-2021 Conservation Reserve Program (CRP) contract. **Table 1** summarizes water rights included in this application.

[1] https://idwr.idaho.gov/apps/ExtSearch/RelatedDocsTransfers.asp?TransferNumber=84488

[2] https://idwr.idaho.gov/apps/ExtSearch/RelatedDocsTransfers.asp?TransferNumber=84490

Table 1 – Irrigation Groundwater Rights Included in Transfer Application No. 84488

Water Right No.	Priority Date	Use Period	Total Diversion Rate (CFS) / Volume (AFA)	Transfer Diversion Rate (CFS) / Volume (AFA)	POU Acreage and Location
35-14041	10/16/1974	04/01-11/01	3.18 / 1290	Transfer FROM: 0.46 / 186.4	322.5 total acres in T01S R32E, S12 Transfer 46.6 acres FROM
35-2824	8/28/1961	04/01-11/01	0.16 / 32.7	TO POD update under existing water right	Add 9 acres TO T09S, R 28E, S13
35-7740	8/15/1977	04/01-11/01	3.660 / 1160.0	TO POD update under existing water right under existing water right	Add 290 acres TO T09S, R28E, S13&14 and T09S, R29E, S18&19

1.1.2 Transfer Application No. 84490

Transfer Application No. 84490 includes a POD and POU change for a portion of irrigation groundwater right No. 35-14041. The POD change is for 2.72 CFS / 1,103.6 AFA transferred from an existing well in Section 12 of Township 01S, Range 32E to two new wells in Sections 19 and 20 of Township 09S, Range 29E. The application proposes a POU transfer of 275.9 acres from Section 12 in Township 01S, Range 32E to Sections 17, 18, 19, and 20 of Township 09S, Range 29E. Water Right No. 35-14041 is in a 2007-2021 CRP contract.

Table 2 summarizes water rights information for Transfer Application No 84490.

Table 2 – Irrigation Groundwater Rights Included in Transfer Application No. 84490

Water Right No.	Priority Date	Use Period	Total Diversion Rate (CFS) / Volume (AFA)	Transfer Diversion Rate (CFS) / Volume (AFA)	POU Acreage and Location
35-14041	10/16/1974	04/01-11/01	3.18 / 1290	Transfer 2.72 / 1,103.6 FROM	322.5 total acres in T01S R32E, S12
New	NA	NA	NA	Transfer 2.72/1,103.6 TO new POD	Transfer 275.9 acres TO T09S 29E, S17, 18, 19, & 20

SECTION 2: LCSC TRANSFER ANALYSIS RESULTS

IDWR has produced an Eastern Snake Plain Aquifer (ESPA) modeling tool for the analysis of impacts due to proposed groundwater transfers. The modeling intent is to allow applicants to evaluate potential transfers and ensure that they meet the criteria of Idaho Code §42-222, including the requirement which states that water right transfers must not injure other water rights. Statewide transfer policy and procedures are further detailed in IDWR's "Transfer Memo 24" (Peppersack 2009). Water right transfers within the ESPA have additional tools and procedures. The ESPA Model Transfer Spreadsheet (ETRAN) calculates the impacts of a transfer and a complementary Mitigation Analysis Spreadsheet evaluates the need for mitigation of a transfer's increased depletive impacts to springs or river reaches (IDWR 2016). The current release of ETRAN is version 3.3, which is utilizes response functions from version 2.1 of the Enhanced Snake Plain Aquifer Model or ESPAM (IDWR 2013). The Mitigation Analysis Spreadsheet compares the ETRAN calculated impacts to the criteria that, when exceeded, require transfer mitigation.

Table 3 – Transfer Mitigation Requirement Criteria (IDWR 2015)

Steady State Analysis	Transient State Analysis
1. Is the total increase in volume greater than 10% of the historical depletion volume? 2. Is the total increase in volume greater than 2 acre-feet/trimester? 3. Does the depletion in this reach make up more than 10% of the total depletion to the river? If the answer to all three questions is YES, then mitigation is required for this reach.	1. Is the total increase in volume greater than 10% of the historical depletion volume? 2. Is the total increase in volume greater than 2 acre-feet/trimester? If the answer to both questions is YES, then mitigation is required for this reach.

The LCSC transfer applications propose to move water rights from PODs/POUs in Bingham County over 50 miles to the southwest with PODs/POUs in Power County (Figure 1). The current POD is over 16 miles from the river and the new PODs are approximately 1/2 mile or less from the river. JCH proposes to combine the near Blackfoot to Neeley and Neeley to Minidoka reaches of the Snake River for the purposes of transfer impact analysis and claim that increased depletions in the Neeley to Minidoka reach of the river are offset by the increased reach gains of the Near Blackfoot to Neeley reach.

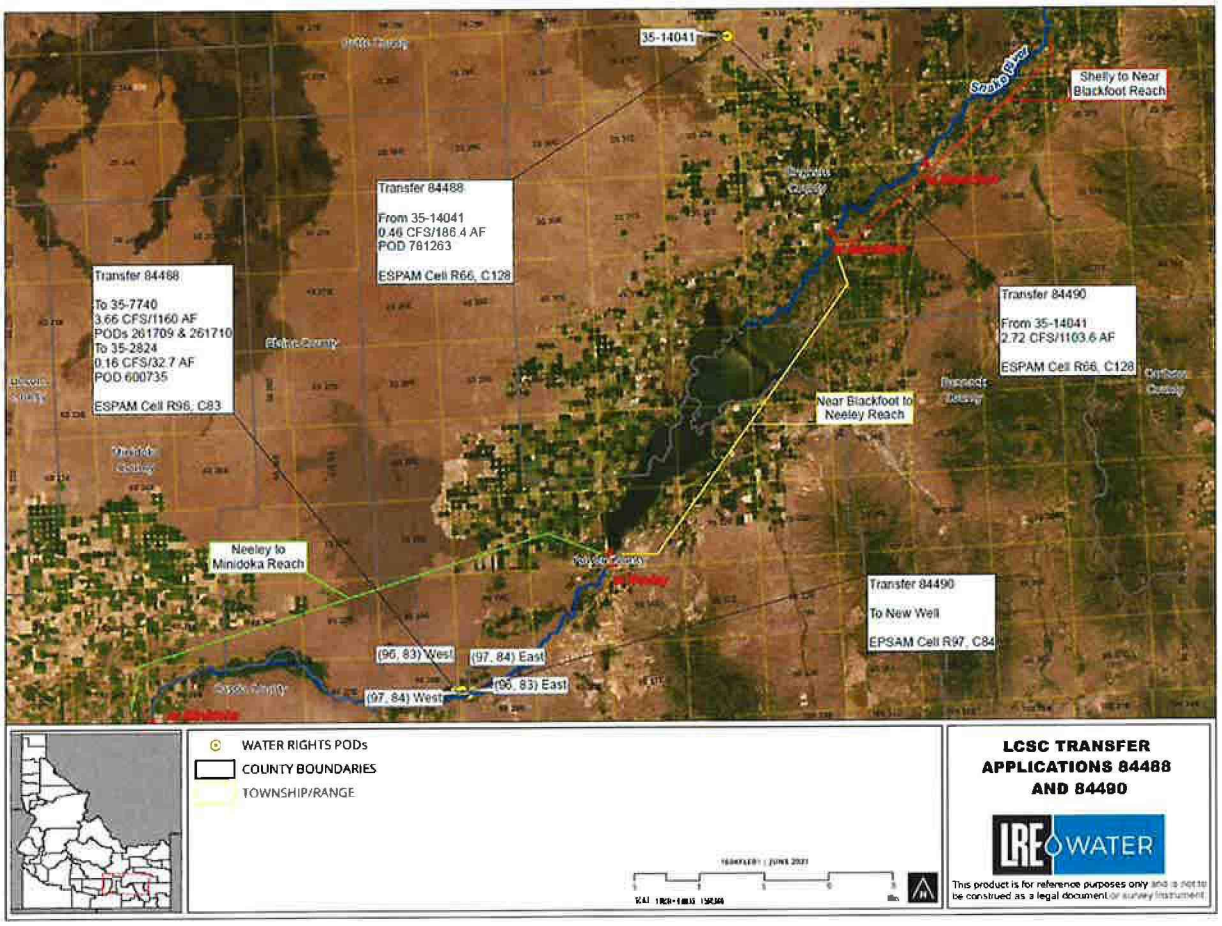


Figure 1 – Map of LCSC Transfers

JCH utilized ETRAN 3.2, an outdated version of the tool, to evaluate the impacts of the proposed transfers.

In the transfer applications, JCH states:

> *"ESPA impact evaluations using the IDWR Transfer Spreadsheet are attached showing that the increased depletions in the Neeley to Minidoka reach of the river are mitigated by the increased reach gains of the Near Blackfoot to Neeley reach accumulating in the American Falls Reservoir."*

To summarize their modeling analysis of the transfers, JCH provides screenshots of the ETRAN 3.2 input and an output graph modified to include the results of the non-standard combined reach impacts.

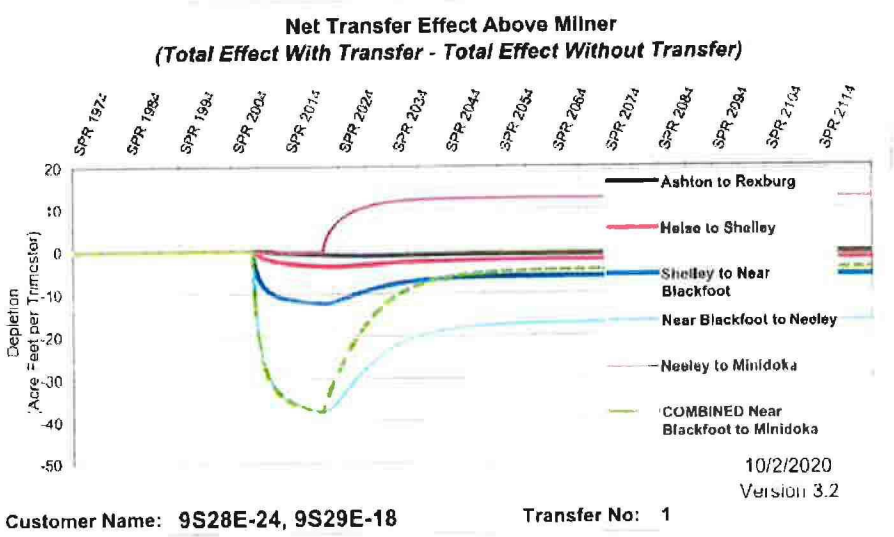


Figure 2 – JCH Modified ETRAN 3.2 Output for Transfer Application No. 84488

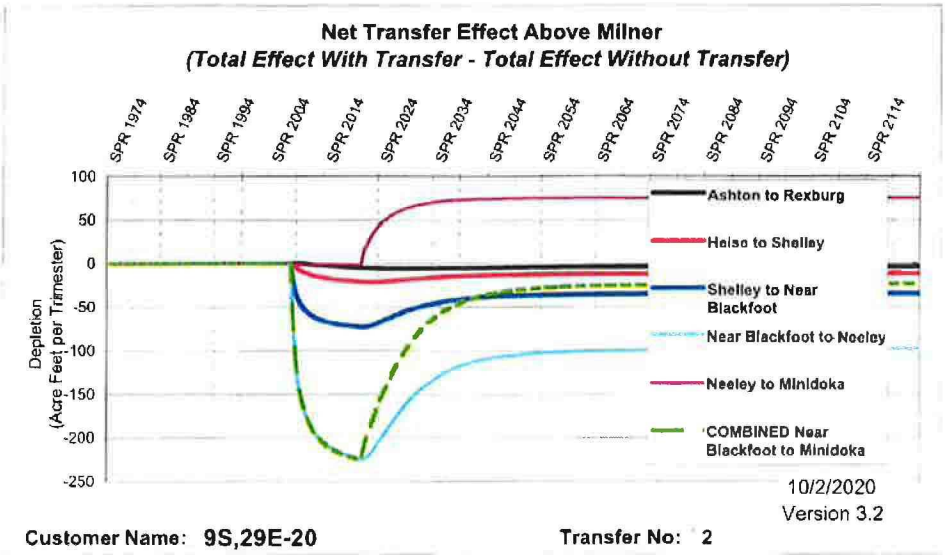


Figure 3 – JCH Modified ETRAN 3.2 Output for Transfer Application No. 84490

Figure 2 and Figure 3 show that the transfer depletion impacts for both applications exceed the transient analysis criteria for the Neeley to Minidoka reach. For both transfer applications, the depletive impacts on this reach are greater than 2 AF/trimester and greater than 10% of the pre-transfer depletion.

No steady state ETRAN results were provided in the applications. Furthermore, the Mitigation Analysis Spreadsheet results prescribed in the ETRAN modeling guidance (IDWR 2016) are not included in the transfer applications.

SECTION 3: LRE TRANSFER ANALYSIS RESULTS

LRE Water has evaluated the LCSC transfer applications using IDWR prescribed methodology and tools. We are also providing additional transfer analysis to elaborate on the nature of the depletive effects of the applications.

3.1 ETRAN AND MITIGATION ANALYSIS SPREADSHEET RESULTS

The ETRAN inputs included in the LCSC transfer applications match the transfer details except for the period of use associated with the water rights (April 1 through November 1). We repeated the LCSC analysis using the identical inputs. These results show that mitigation is required even when analyzed using IDWR'S prescribed methodology and procedures.

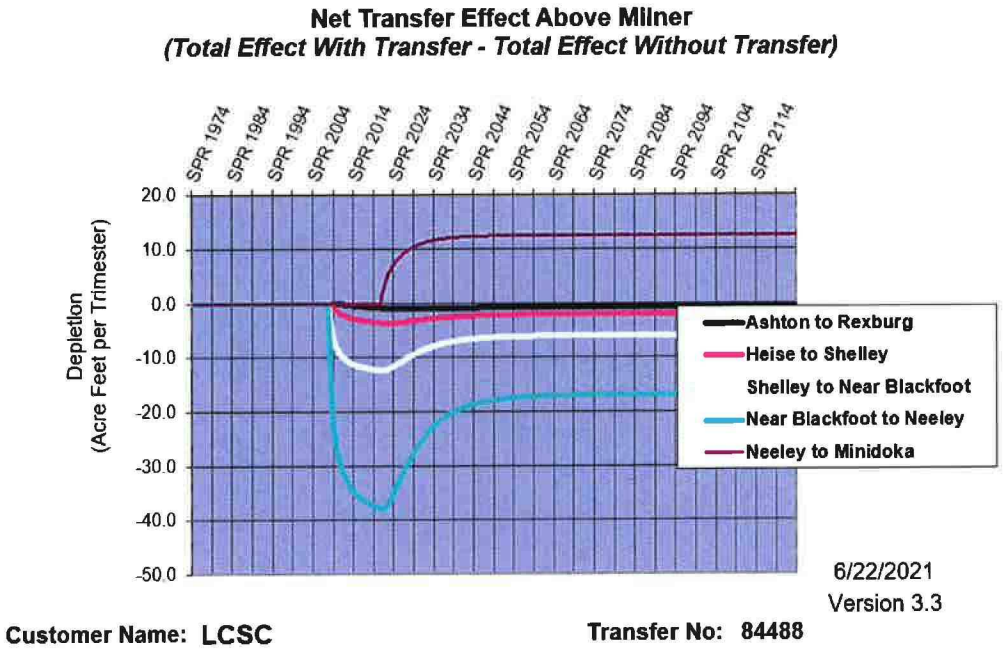


Figure 4 – LRE Analysis: ETRAN 3.3 Modeled Impacts of Transfer No. 84488 using ETRAN Version 3.3

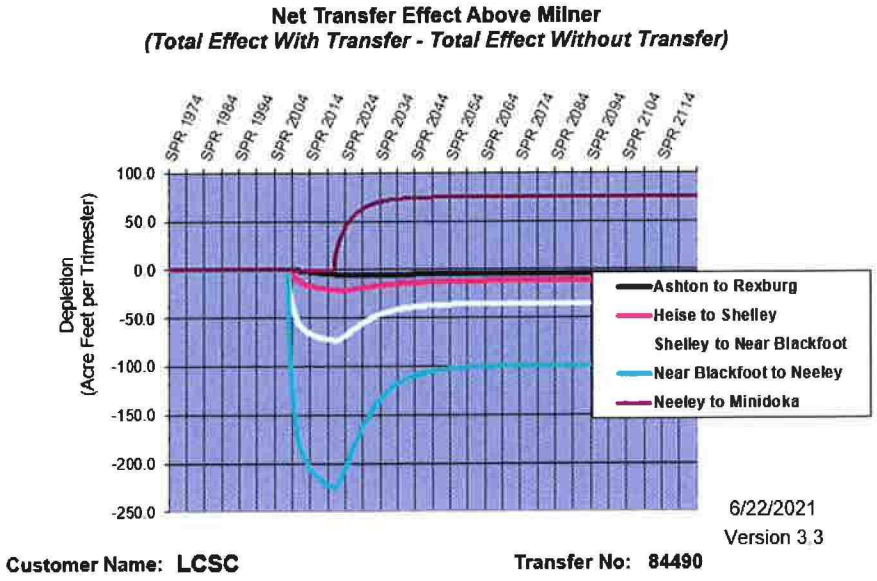


Figure 5 – LRE Analysis: ETRAN 3.3 Modeled Impacts of Transfer No. 84490 using ETRAN Version 3.3

Figure 4 and Figure 5 confirm the applicant's modeled impacts and show that the graphed transfer depletive impacts for both applications exceed the transient analysis criteria for the Neeley to Minidoka reach.

Following the transfer modeling analysis procedures, LRE Water also evaluated the need for transfer mitigation.

Table 4 – LRE Analysis: Mitigation Analysis Tool Results for Transfer No. 84488

		Impact by Reach (AF/Trimester)										
		Ashton to Rexburg	Heise to Shelley	Shelley to Nr Blckft	Nr Blckft To Neeley	Neeley to Minidoka	Dev. Wbl. To Buhl	Buhl to Kspr	Kspr	Kspr to Malad	Malad	Malad to Bancroft
		1.44	4.33	13.17	40.26	0.24	0.76	0.87	0.38	0.24	0.22	0.01
		0.81	2.41	7.26	23.53	12.74	4.44	5.00	2.22	1.40	1.28	0.08
		1.44	4.33	13.17	40.26	0.24	0.76	0.87	0.38	0.24	0.22	0.01
		0.81	2.41	7.26	23.53	12.74	4.44	5.00	2.22	1.40	1.28	0.08
Steady State Analysis	Mitigation Check 1 - >10% of Historical:	-43.5%	-44.4%	-44.9%	-41.6%	5221.7%	483.2%	477.5%	477.5%	477.4%	477.3%	477.2%
	Mitigation Check 2: > 2 AF/T:	-0.6	-1.9	-5.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1
	Mitigation Check 3 - >10% of Total:	1.3%	3.9%	11.9%	38.5%	20.8%	7.3%	8.2%	3.6%	2.3%	2.1%	0.1%
	Mitigation Required?:	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
	Mitigation Vol. Req'd (ac-ft):	-0.6	-1.9	-5.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1
Transient State Analysis	Mitigation Check 1 - >10% of Historical:	-43.5%	-44.4%	-44.9%	-41.6%	5221.7%	483.2%	477.5%	477.5%	477.4%	477.3%	477.2%
	Mitigation Check 2: > 2.01 AF/T:	-0.6	-1.9	-5.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1
	Mitigation Required?:	NO	NO	NO	NO	YES	YES	YES	NO	NO	NO	NO
	Mitigation Vol. Req'd (ac-ft):	-0.6	-1.9	-5.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1

Table 5 – LRE Analysis: Mitigation Analysis Tool Results for Transfer No. 84490

		Impact by Reach (AF/Trimester)										
		Ashton to Rexburg	Heise to Shelley	Shelley to Nr Blckft	Nr Blckft To Neeley	Neeley to Minidoka	Dev. Wbl. To Buhl	Buhl to Kspr	Kspr	Kspr to Malad	Malad	Malad to Bancroft
		8.52	25.64	78.02	238.49	1.42	4.51	5.13	2.28	1.44	1.31	0.08
		4.82	14.29	43.15	139.93	76.38	25.82	29.07	12.91	8.14	7.45	0.46
		8.52	25.64	78.02	238.49	1.42	4.51	5.13	2.28	1.44	1.31	0.08
		4.82	14.29	43.15	139.93	76.38	25.82	29.07	12.91	8.14	7.45	0.46
Steady State Analysis	Mitigation Check 1 - >10% of Historical:	-43.4%	-44.3%	-44.7%	-41.3%	5287.6%	472.5%	467.0%	466.9%	466.9%	466.8%	466.7%
	Mitigation Check 2: > 2 AF/T:	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
	Mitigation Check 3 - >10% of Total:	1.3%	3.9%	11.9%	38.6%	21.1%	7.1%	8.0%	3.6%	2.2%	2.1%	0.1%
	Mitigation Required?:	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
	Mitigation Vol. Req'd (ac-ft):	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
Transient State Analysis	Mitigation Check 1 - >10% of Historical:	-43.4%	-44.3%	-44.7%	-41.3%	5287.6%	472.5%	467.0%	466.9%	466.9%	466.8%	466.7%
	Mitigation Check 2: > 2.01 AF/T:	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
	Mitigation Required?:	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO
	Mitigation Vol. Req'd (ac-ft):	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4

Table 4 and Table 5 are the tabulated reach impact outputs from the Mitigation Analysis Spreadsheet. Highlighted cells in the output tables show where the depletive impacts exceed the steady state and transient mitigation criteria.

Using LCSC's input information with IDWR transfer analysis methodology and tools, LRE Water determined that transfer application No. 84488 and No. 84490 require mitigation of the Neeley to Minidoka reach because the depletive impacts exceed the steady state and transient mitigation criteria. Both applications also require mitigation of several spring reaches that exceed the transient mitigation criteria. Based upon the applications and information supplied to date in this case, LRE Water is not aware of any proposed mitigation that is being offered by the Applicant LCSC.

3.2 CUMULATIVE IMPACTS TRANSFER COMPARISON

While evaluating the details of the LCSC transfer applications it is helpful to compare them to other transfer applications that have been approved historically.

IDWR has recently updated their analysis of the cumulative effects of transfers on springs and river reaches (Sukow 2021). Their updated "Cumulative Transfer Memo" included several conclusions relevant to the LCSC transfer applications. IDWR concluded that cumulative impacts of 551 transfers approved after 2011 had quantifiable, but relatively small, impacts on river reaches above Milner, with some reaches showing a net gain while others showed a net loss. IDWR estimates that all 551 of the historically approved transfers result in a decrease of 318 AFY (0.4 CFS) in the Neeley to Minidoka reach. By comparison, the LCSC transfer applications require 262.5 AFY of mitigation to the Neeley to Minidoka reach, or over 80% of the total net depletive impacts from 551 historical transfers.

The estimated depletion rate of the LCSC transfer applications illustrates how they deviate from approved transfers evaluated in the IDWR cumulative transfer impacts analysis. Another unique (and important) aspect of these transfer applications is the distance between the historical and new PODs. The LCSC transfers propose to move the associated water rights over 50 miles. In their cumulative transfer impacts memorandum, IDWR states:

> *Most transfers involve relatively small amounts of water (Figure 5) or move points of diversion a relatively short distance (Figure 6). Figure 7 shows the cumulative volume of water transferred by the average distance between TO and FROM wells.* (Sukow 2021)

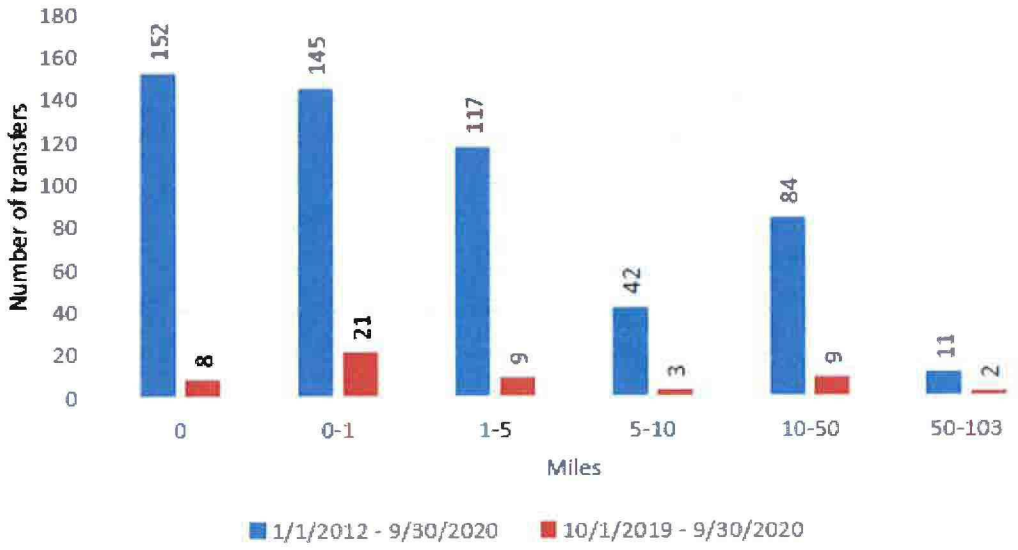


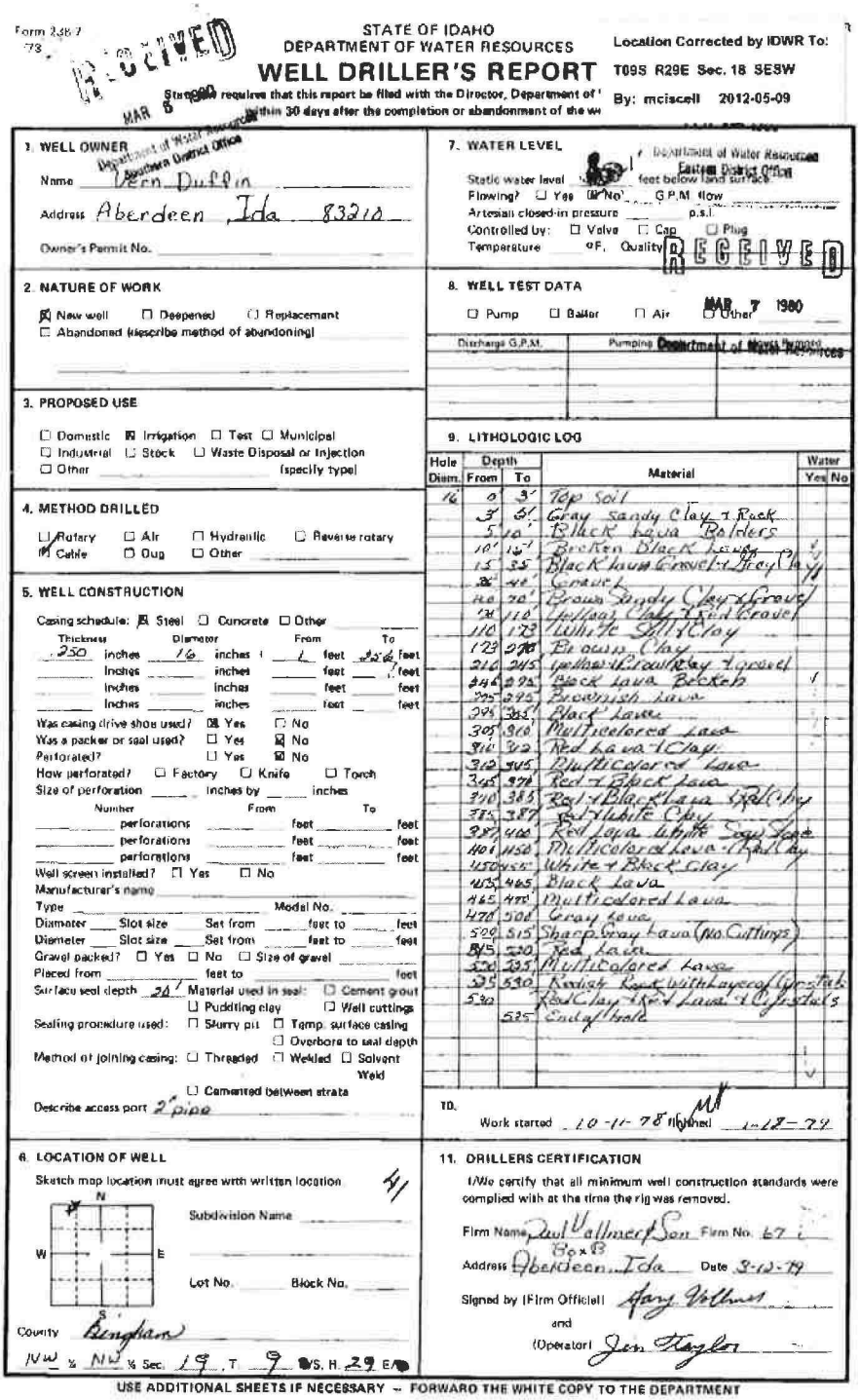
Figure 6 – Average Distance Between FROM and To Wells (Sukow 2021)

The LCSC transfer applications fall into the largest distance category plotted on Figure 6 (50-103 miles). At least 98% of the transfers IDWR evaluated in the cumulative impacts analysis were a shorter distance than the distance proposed by transfer application Nos. 84488 and 84490. At least 83% of the historical transfers were less than one-fifth of the distance of the LCSC applications.

3.3 PERCHED AQUIFER WELL IMPACTS

The location of existing and new wells LCSC is proposing to move the water rights to are in an area of the ESPA where there is a perched shallow aquifer overlying the deeper regional aquifer. Any wells completed in the perched shallow aquifer will have a better connection to the river than deeper wells, and will result in relatively faster depletions of a higher rate.

Logs for existing wells in the area of the proposed new wells report shallow aquifer materials separated from a deeper aquifer by clay materials. Figure 8 shows a lithologic log for Well ID 352874 located in Section 18 of Township 9S, Range 29E. Although the depth and thickness of the clay materials vary locally, Figure 8 is generally representative of the perched aquifer conditions.



Form 238-7
-73

RECEIVED
MAR 8

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well

Location Corrected by IDWR To:
T09S R29E Sec. 18 SESW
By: mciscell 2012-05-09

1. WELL OWNER
Department of Water Resources Southern District Office
Name Vern Duffin
Address Aberdeen, Ida. 83210
Owner's Permit No.

2. NATURE OF WORK
☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning)

3. PROPOSED USE
☐ Domestic ☒ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other (specify type)

4. METHOD DRILLED
☐ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☒ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION
Casing schedule: ☒ Steel ☐ Concrete ☐ Other

Thickness	Diameter	From	To
.250 inches	16 inches	1 feet	256 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation ____ inches by ____ inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☐ Yes ☐ No
Manufacturer's name
Type Model No.
Diameter Slot size Set from feet to feet
Diameter Slot size Set from feet to feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel
Placed from feet to feet
Surface seal depth 24' Material used in seal: ☐ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port 2" pipe

6. LOCATION OF WELL
Sketch map location must agree with written location
Subdivision Name
Lot No. Block No.
County Bingham
NW ¼ NW ¼ Sec. 19 T. 9 S. R. 29 E.

7. WATER LEVEL
Department of Water Resources Eastern District Office
Static water level feet below land surface
Flowing? ☐ Yes ☒ No G.P.M. flow
Artesian closed-in pressure p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature °F. Quality
RECEIVED

8. WELL TEST DATA
☐ Pump ☐ Bailer ☐ Air ☐ Other
MAR 7 1980
Department of Water Resources

Discharge G.P.M.	Pumping	

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
16	0	3'	Top Soil		
	3	5'	Gray Sandy Clay + Rock		
	5	10'	Black Lava Boulders		
	10'	15'	Broken Black Lava		
	15	35	Black Lava Gravel + Gray Clay		
	35	40'	Gravel		
	40	70'	Brown Sandy Clay + Gravel		
	70	110	Yellow Clay + Red Gravel		
	110	123	White Silt + Clay		
	123	210	Brown Clay		
	210	245	Yellow + Brown Clay + Gravel		
	245	295	Black Lava Broken		
	295	305	Brownish Lava		
	305	310	Black Lava		
	310	340	Multicolored Lava		
	340	345	Red Lava + Clay		
	345	370	Multicolored Lava		
	370	385	Red + Black Lava + Red Clay		
	385	387	Red + White Clay		
	387	406	Red Lava White Soft Lava		
	406	450	Multicolored Lava + Red Clay		
	450	455	White + Black Clay		
	455	465	Black Lava		
	465	470	Multicolored Lava		
	470	509	Gray Lava		
	509	515	Sharp Gray Lava (No Cuttings)		
	515	520	Red Lava		
	520	525	Multicolored Lava		
	525	530	Reddish Brown with Layers of Hard Lava		
	530		Red Clay + Red Lava + Occ. Hard Shells		
		535	End of Hole		

TD.
Work started 10-11-78 finished 1-18-79

11. DRILLERS CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name Paul Wallmer & Son Firm No. 67
Address Box B Aberdeen, Ida. Date 3-12-79
Signed by (Firm Official) Gary Wallmer
and
(Operator) Jim Taylor

USE ADDITIONAL SHEETS IF NECESSARY -- FORWARD THE WHITE COPY TO THE DEPARTMENT

Figure 7 – Well Log for Well ID 352874 Showing Perched Aquifer Materials Above 40 FT BGS

The Figure 8 lithologic log shows various clay deposits from approximately 40 to 210 FT BGS. These clays create a two-aquifer system locally by acting as a perching layer for shallower aquifer materials above, and a confining layer for aquifer materials below. The lithologic log also indicates that water was encountered from 10-40 FT BGS, and then again from 245 FT BGS to the total drilling depth of 535 FT BGS.

The vast majority of the transfer pumping (2.73 CFS) is proposed to be pumped from new wells cased to 39 feet (Harris 2021), producing water out of the perched aquifer in the area. Pumping from such wells in the shallow perched aquifer will cause relatively faster, higher magnitude depletions.

3.4 TRANSFER APPLICATION GLOVER ANALYSES

Transfer Nos. 84488 and 84490 would move the point of diversion, which is currently located 16.0 miles (84,666 FT) from the Snake River to four wells located downstream from the current diversion point. According to communication with the applicant, the new diversion points will either be four wells that average approximately 1800 FT away from the river ("Configuration A"), or two existing wells averaging 1800 FT away from the river and two wells approximately 180 FT from the river ("Configuration B") (Harris 2021).

ESPAM 2.1 has model limitations that make it inappropriate for analysis of the LCSC transfer applications. ESPAM 2.1 issues include calibration, near river grid discretization, storativity, transmissivity at the FROM well, riverbed conductance at the TO wells, and layering. Because ETRAN (versions 3.2 and 3.1) utilizes ESPAM 2.1 response functions, it is also inappropriate for evaluation of these transfer applications. LRE Water has prepared an analysis of the LCSC transfers that represents a more appropriate analysis of the LCSC transfer application impacts.

The purpose of this analysis is to determine whether: 1) there is a substantive difference in the temporal pattern of stream depletion due to groundwater pumping when comparing Configuration A to Configuration B, and 2) to estimate whether the depletive effects on the river pre-and post-transfer will be substantially different. This analysis focuses on the timing aspects of depletion at the closest river location caused by pumping from the transfers in isolation. Other aspects such as the depletion by reach are considered elsewhere in this report.

3.4.1 Calculation of Pumping Effects and Stream Depletions

The transfers propose to move approximately 1,290 AFA of pumping that originally occurred approximately 16.0 miles from the Snake River to four wells located substantially closer to the river (Configurations A and B). Table 6 presents information on these configurations. The two existing wells at the transfer-to location are located in the ESPAM

model row 96, column 83, and under both Configurations, will have 186.4 AFA of pumping. The potential new wells are located in ESPAM model cell row 97 and column 84 and will have 1103.6 AFA of pumping. Both of the cells where transfer-to wells are located contain the Snake River itself in the ESPAM 2.1 model. Table 6 presents the well distances for the two proposed configurations from the Snake River as well as the pumping. Aquifer width values are based on the approximate width of the aquifer between the ESPAM Version 2.1 model and the Snake River.

Table 6 - Well Distances, aquifer width values, Transmissivity and Storage Values, (i.e. "Glover Parameters")

Configuration	Well Locations	T (gpd/ft)	Sy (-)	Distance to River (ft)	Aquifer Width (ft)	Spring and Summer Trimester Pumping
A	Two Existing Wells in cell 96, 83	6,939,764	0.05	1,800	323,350	186.4 AFA or 23.3 AF per month for 8 months of pumping
	Two New Wells in Cell 97, 84	8,194,071	0.05	180	323,350	1,103 AFA or 137.875 AF per month for 8 months
B	Two Existing Wells in cell 96, 83	6,939,764	0.05	1,800	323,350	186.4 AFA or 23.3 AF per month for 8 months of pumping
	Two New Wells in Cell 97, 84	8,194,071	0.05	1,800	323,350	1,103 AFA or 137.875 AF per month for 8 months

Groundwater modeling is generally an appropriate tool for simulating stream depletion timing from wells far from the river, and is the most appropriate tool for conducting analyses where wells (transfer "from" and transfer "to" wells) are located more than a few grid cells from the river. Unfortunately, the grid size resolution of ESPAM 2.1 is insufficient to evaluate stream depletion timing from wells located very close to the river, such as the wells involved in the proposed LCSC transfers. The fact that the new proposed well locations are all located within the same grid cell, and that this grid cell contains the river poses particular difficulty for model simulation and unless revised, ESPAM 2.1 cannot properly account for the timing from the proposed new well locations.

ESPAM Model version 2.1 does not have the spatial resolution necessary to accurately estimate timing effects from this transfer. Other analysis methods other than ESPAM/ETRAN can be used to appropriately evaluate these transfers. Increasing the resolution of the ESPAM model near the Snake River, methods used to downscale the

model, or local models may provide acceptable methods to estimate timing effects from the proposed transfer.

As an additional approach to depletion timing evaluation that does not have grid-resolution challenges, we estimated transient effects from the proposed change using the Glover (1954) equation (or "Glover method"). The Glover method is an analytical expression for estimating stream depletion timing from pumping wells. The Glover equation expresses the total rate of streamflow depletion as a function of time according to the following equation (notation from Barlow and Leake, 2012):

$$Q_s = Q_w * erfc(z) \text{ where } z = \sqrt{d^2 S/(4Tt)} \text{ and:}$$

Qs=rate of stream depletion
Qw= well pumping rate
d= the distance to the stream
S = the storage coefficient, which is equal to specific yield in water table aquifers
T = the Transmissivity of the aquifer
t= the time being evaluated.

This equation calculates stream depletion within an idealized infinite, isotropic, and homogenous aquifer of constant transmissivity with a fully penetrating stream. The Glover method may be modified to calculate pumping effects of wells in an idealized isotropic, homogenous aquifer of constant transmissivity of limited extent parallel to the river using image well theory. Such an analysis is sometimes referred to as a "bounded" aquifer analysis, and this type of analysis is applicable to aquifers of limited width located adjacent to rivers, such as the Eastern Snake Plain Aquifer.

Two key elements of stream depletion timing analyses are shown by proportional relationships between the parameters. The first is that the time it takes for well pumping to affect the stream is proportional to the T/S ratio, or the "Hydraulic Diffusivity" of the aquifer. Increases in T result in quicker stream depletion, and decreases in Storage result in quicker stream depletion. The second relationship is that closer distances to the river result in quicker pumping effects, and further distances result in slower pumping effects.

Based on the relationship between distance and stream depletion timing, transferring water from a location over 16 miles from the river to new locations where the wells are is less than a half-mile from the river will result in a substantially different depletion timing pattern at the river.

3.4.2 Transfer Configuration Comparison

LRE considered the timing effects from the two proposed well location configurations shown in Table 6. LRE conducted this timing analysis using the Glover method and implemented through the Integrated Decision Support Systems Alluvial Water Accounting System or IDS-AWAS (CSU-IDS 2003). In this analysis we consider the effect of pumping the wells in a cyclical fashion over the spring and summer trimesters, with no pumping during the winter. We refer to this condition as "Oscillatory Steady-State" where pumping is cycled on and off. An even more accurate method would be to include actual monthly pumping amounts to match the irrigation demand schedule, but this analysis is sufficient for the intended purpose. Table 1 shows all of the input parameters to the Glover Equation used in this analysis (distance from river: x, aquifer width: w, and the T and S parameters). We derived the T and S values from the cells containing the wells in the ESPAM 2.1 model. Table 7 and Figure 8 present the results of this analysis including the pumping inputs, and simulated stream depletions from both well configurations.

Table 7 - Pre- and Post-transfer Pumping Effects

Oscillatory Steady-State Month	Pumping Input (AF/month)	Glover - Configuration A (AF/month)	Glover - Configuration B (AF/month)	ETRAN – Existing Well Locations (AF/month)	ETRAN - New well Locations[1]
Apr	161.25	158.72	151.06	110.0	106.3
May	161.25	160.4	157.93	110.0	106.3
Jun	161.25	160.65	158.97	110.0	106.3
Jul	161.25	160.76	159.47	110.0	106.3
Aug	161.25	160.84	159.75	119.6	107.7
Sep	161.25	160.88	159.95	119.6	107.7
Oct	161.25	160.91	160.08	119.6	107.7
Nov	161.25	160.94	160.19	119.6	107.7
Dec	0.00	2.79	11.54	91.9	103.9
Jan	0.00	1.07	4.48	91.9	103.9
Feb	0.00	0.79	3.29	91.9	103.9
Mar	0.00	0.65	2.7	91.9	103.9

Notes:
1: ESPAM 2.1 does not have sufficient spatial resolution to distinguish between the two well configurations.

For the purposes of this report, it was not necessary to conduct a detailed investigation of why the ETRAN results for the existing wells appear to show quicker stream depletion impacts on the river than the new well locations. However, this is not supported by the current understanding of the aquifer and supports the need for model improvements, such as the improvements made to ESPAM version 2.1 to create ESPAM 2.2.

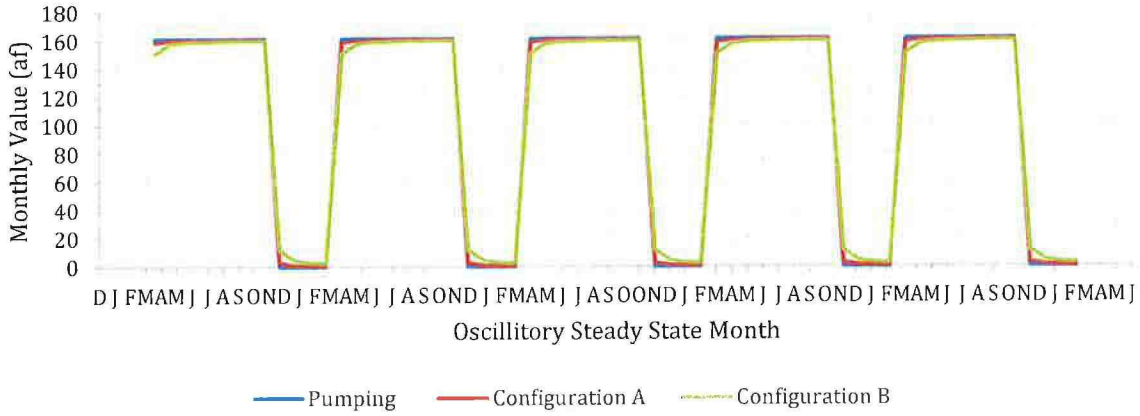


Figure 8 – Glover Analysis Depletion Estimates Comparing Configurations A and B

As shown on Figure 8, the two configurations result in depletive effects at the river that are very similar to the pumping inputs. This is a result of the very short time it takes for the wells to affect the river. Furthermore, the two configurations result in similar effects on the river, which is a function of the high Hydraulic Diffusivity of the aquifer, resulting in fast propagation of pumping effects to the river.

Because of the similarity of depletion estimates, we chose to use Configuration A for comparison to the FROM wells and for different versions of ESPAM. Figure 9 shows the Glover method depletion estimates for the TO and FROM wells using parameters derived from ESPAM 2.1. The TO well depletion estimates are nearly indistinguishable from the pumping pattern. The FROM well depletion estimates show a lagged timing of impacts at the river.

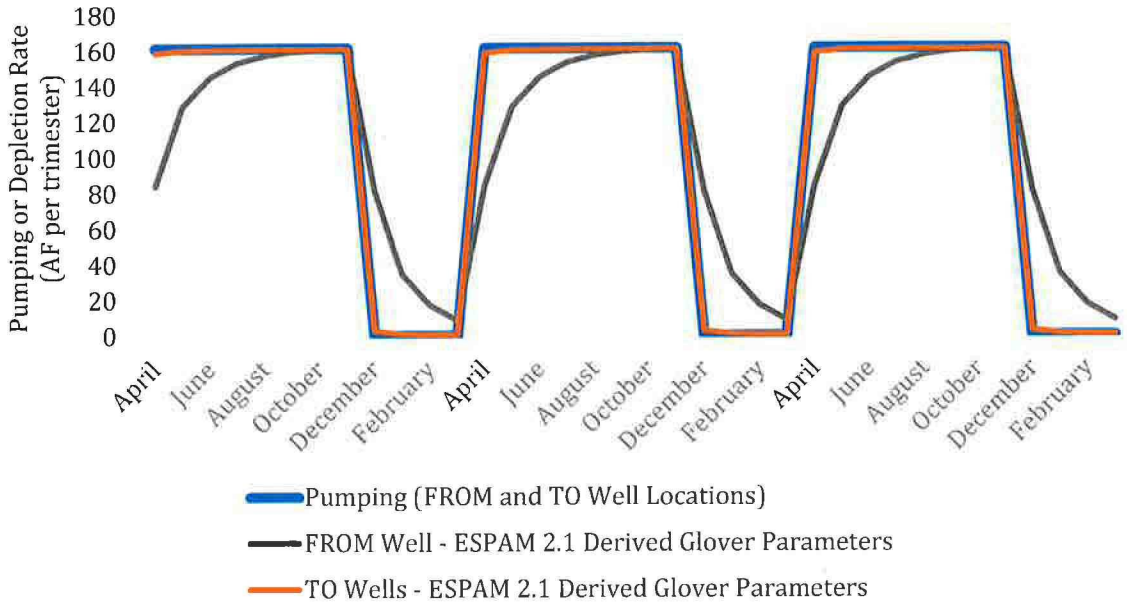


Figure 9 –FROM and TO Well Glover Method Depletion Estimates with ESPAM 2.1 Derived Parameters

An even more accurate depletion estimate comes from using the Glover method with inputs derived from ESPAM 2.2. As shown in Figure 10, the TO wells depletion estimate is again virtually indistinguishable from the pumping pattern. The FROM well depletion pattern shows a lagged timing that results in year-round depletions.

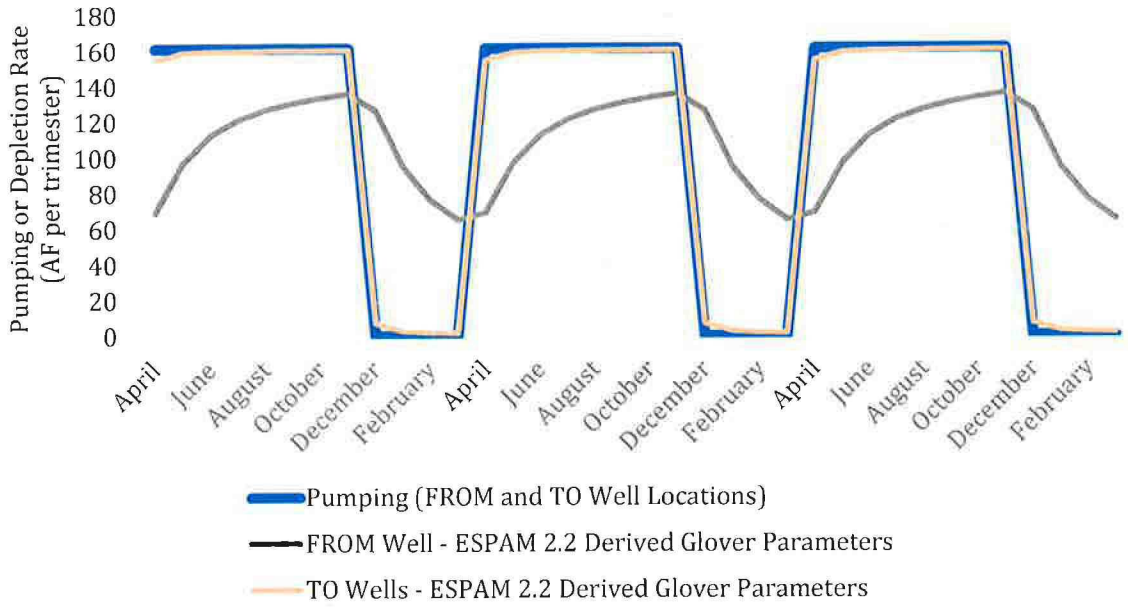


Figure 10 – FROM and TO Well Glover Method Depletion Estimates with ESPAM 2.2 Derived Parameters

SECTION 4: CONCLUSIONS AND SUMMARY OF OPINIONS

4.1 CONCLUSIONS

The LCSC transfer applications Nos. 84488 and 84490 propose to move water rights over 50 miles downstream, drastically changing the location of depletive impacts on the Snake River and associated water rights. The applications propose to move the POD from a well over 16 miles away from the river to shallow/perched well locations less than half of a mile from the river. Moving the PODs to locations so much closer to the river will significantly change the timing and magnitude of depletive impacts.

Even though the inputs and methodology are flawed, the LCSC transfer analysis results using the ETRAN 3.2 tool indicate that mitigation is necessary. The inputs and analysis methodology are flawed because LCSC did not use the associated water rights periods of use and the analysis methodology relies on ESPAM 2.1. LRE Water developed a more accurate analysis using the Glover method with parameters derived from ESPAM 2.2. This method is more appropriate and can be used to show significant depletion impacts as a result of the proposed transfers.

4.2 SUMMARY OF OPINIONS

Below is a numbered list summarizing my detailed opinions regarding LCSC transfer application Nos. 84488 and 84490. I based my opinions on the currently available information and reserve the right to change my opinions should new information become available.

1. The two transfer applications propose to move water rights over 50 miles from Bingham County to Power County from wells over 15 miles away from the river to wells approximately ¼ mile or less from the river.

2. The applicant proposes to combine the near Blackfoot to Neeley and Neeley to Minidoka reaches of the Snake River for the purposes of transfer impact analysis and claim that increased depletions in the Neeley to Minidoka reach of the river are offset by the increased reach gains of the Near Blackfoot to Neeley reach. This approach is inconsistent with IDWR transfer analysis procedures, will deplete water rights in the Neeley to Minidoka reach, and will generally decrease the water available to fulfill water rights downstream of Neeley.

3. While preparing the transfer applications on behalf of LCSC, JCH utilized ETRAN 3.2, an outdated version of the IDWR transfer evaluation tool, to evaluate the impacts of the proposed transfers.

4. The only transfer analysis results JCH provided in the applications were screenshots of the ETRAN 3.2 output graphs modified to include the transient results of the non-standard combined reach impacts.

5. The transfer analysis results included show that the transfer depletion impacts for both applications exceed the transient analysis criteria for the Neeley to Minidoka reach. For both transfer applications, the depletive impacts on this reach are greater than 2 AF/trimester and greater than 10% of the pre-transfer depletion.

6. The ETRAN inputs included in the LCSC transfer applications match the transfer details except for the period of use associated with the water rights (April 1 through November 1). We repeated the LCSC analysis using the exact same inputs to show that mitigation is required even when analyzed using IDWR-prescribed methodology and procedures.

7. The application materials were incomplete, did not follow standard transfer analysis procedures and were missing information prescribed in IDWR's ESPA transfer evaluation guidelines (IDWR 2016). The most critical missing information

are the results of steady state and transient transfer impact analysis and the results of the IDWR Mitigation Analysis Spreadsheet.

8. Using LCSC's input information with IDWR transfer analysis methodology and tools, LRE Water determined that transfer application No. 84488 and No. 84490 require mitigation of the Neeley to Minidoka reach because the depletive impacts exceed the steady state and transient mitigation criteria. Both applications also require mitigation of several spring reaches that exceed the transient mitigation criteria.

9. When compared to transfers IDWR evaluated in their Cumulative Transfer Impacts memorandum (Sukow 2021), the LCSC transfer applications are estimated to deplete the Neeley to Minidoka reach by 262.5 AFY, or over 80% of the total net depletive impacts from a comprehensive analysis of 551 historically approved transfers.

10. The LCSC transfer applications propose to transfer water a much greater distance than most of the historically approved transfers. At least 98% of the transfers IDWR evaluated in the cumulative impacts analysis were a shorter distance than the distance proposed by transfer application Nos. 84488 and 84490. At least 83% of the historical transfers were less than one-fifth the distance of the LCSC applications.

11. As proposed by LCSC, pumping transferred water rights from wells in the shallow perched aquifer will cause relatively faster, higher magnitude depletions than the depletions from this historical well.

12. The resolution of the ESPAM 2.1 is insufficient to evaluate stream depletion timing from wells located very close to the river, such as the wells involved in the proposed transfers. The fact that the new proposed well locations are all located within the same grid cell, and that this grid cell contains the river, poses particular difficulty for model simulation and unless some revisions are made, ESPAM 2.1 cannot properly account for the timing from the proposed new well locations.

13. ESPAM Model version 2.1 does not have the spatial resolution necessary to accurately estimate timing effects from this transfer. Other analysis methods other than ESPAM/ETRAN can be used to appropriately evaluate these transfers. Increasing the resolution of the ESPAM model near the Snake River, methods used to downscale the model, or local models may provide acceptable methods to estimate timing effects from the proposed transfer.

14. ESPAM 2.1 has model limitations that make it inappropriate for analysis of the LCSC transfer applications. ESPAM 2.1 issues include calibration, near river grid discretization, storativity, transmissivity at the FROM well, riverbed conductance at the TO wells, and layering. Because ETRAN (versions 3.2 and 3.1) utilizes ESPAM response functions, it is also inappropriate for evaluation of these transfer applications.

15. Based on the relationship between distance and stream depletion timing, transferring water from a location over 16 miles from the river to new locations where the wells are is less than a half-mile from the river will result in a substantially different depletion timing pattern at the river.
    The two configurations for wells at the transfer-to locations result in pumping effects at the river that are very similar to the pumping inputs. This is a result of the very short time it takes for the wells to affect the river. Furthermore, the two configurations result in similar effects on the river, which is a function of the high Hydraulic Diffusivity of the aquifer, resulting in fast propagation of pumping effects to the river.

16. The LCSC transfer applications Nos. 84488 and 84490 propose to move water rights over 50 miles downstream, drastically changing the location of depletive impacts on the Snake River and associated water rights. The applications propose to move the POD from a well over 16 miles away from the river to shallow/perched well locations less than half of a mile from the river. Moving the PODs to locations so much closer to the river will significantly change the timing and magnitude of depletive impacts.

17. Even though the inputs and methodology are flawed, the LCSC transfer analysis results using the ETRAN 3.2 tool indicate that mitigation is necessary. The inputs and analysis methodology are flawed because LCSC did not use the associated water rights periods of use and the analysis methodology relies on ESPAM 2.1. LRE Water developed a more accurate analysis using the Glover method with parameters derived from ESPAM 2.2. This method is more appropriate and can be used to show significant depletion impacts as a result of the proposed transfers.

SECTION 5: REFERENCES

Barlow, P.M., and Leake, S.A., 2012, Streamflow depletion by wells—Understanding and managing the effects of groundwater pumping on streamflow: U.S. Geological Survey Circular 1376, 84 p. (Also available at https://pubs.usgs.gov/circ/1376/).

CSU-IDS. 2003. "IDS AWAS - Alluvial Water Accounting System." http://www.ids.colostate.edu/projects.php?project=awas&breadcrumb=IDS+AWAS+-+Alluvial+Water+Accounting+System.

Harris, R. 2021. *Email RE: LCSC Transfers--Proposed Change in POD Locations Settlmenet Proposal.* June 11.

IDWR. 2013. "Enhanced Snake Plain Aquifer Model Version 2.1, Final Report."

IDWR. 2015. "Quick Guide to the ESPA Modeling Tools."

IDWR. 2016. "Use of the ESPA Model Transfer Spreadsheet (ETRAN) and Mitigation Analysis Spreadsheet for Water RIght Transfers in the Eastern Snake Plain Aquifer."

Peppersack, J. 2009. *Transfer Processing Policies and Procedures.* Administrator's Memorandum, IDWR.

Sukow, J. 2021. *Cumulative review of ESPA transfers between 2012 and 2020.* IDWR.

Appendix A - Curriculum Vitae for David C. Colvin

DAVE COLVIN, PG, PMP

Groundwater Team Leader | Senior Project Manager | Principal

PROFESSIONAL SUMMARY

Dave is a Principal Hydrogeologist and Senior Project Manager with over 24 years of experience in groundwater hydrology, water resources, and environmental sciences. He supervises teams of diverse subject matter experts and provides technical leadership to solve today's water resource challenges. Dave serves as the LRE Groundwater Team Leader responsible for managing staff, resources, projects and schedules for a group of hydrogeologists across the West, Midwest and Texas. His technical expertise subject areas include water supply development, groundwater governance & management, surface water/groundwater interaction, riverbank filtration (RBF), soil aquifer treatment (SAT), managed aquifer recharge (MAR), aquifer storage and recovery (ASR), aquifer characterization, groundwater modeling, and subsidence caused by groundwater pumping. He conducts and supervises hydrogeologic investigations involving project management, aquifer testing, 3-D geologic modeling, groundwater flow/transport modeling, uncertainty analysis, hydrogeophysics, water rights, expert testimony, environmental geology, and regulatory support.

EDUCATION

M.S. Environmental Science and Engineering, Colorado School of Mines, 2002

B.S. Geology, Syracuse University 1996

PROFESSIONAL REGISTRATION

Professional Geoscientist
- Arizona RG#68926
- Idaho #PGL-1453
- Texas #11440
- Wyoming #PG-3602
- Kansas #958

Project Management Professional (PMP) #1749472

EXPERIENCE

2010–Present: **LRE Water**, Denver

PROFESSIONAL ACTIVITIES

AWRA Colorado
- 2017/2018 Past President

Water Education Colorado
- 2012 Water Leaders Program

National Groundwater Association
- MAR Working Group Member

Colorado Groundwater Association

FEATURED PROGRAM & PROJECT EXPERIENCE

Surface Water Coalition, Idaho (2019-ongoing): Technical representative providing litigation support related to water management of the Eastern Snake Plain Aquifer. Provides protection of surface water flows and water rights from negative impacts due to groundwater pumping. Serves on the Eastern Snake Hydrologic Modeling Committee supporting MODFLOW modeling activities related to complex surface water/groundwater management and water rights administration. Also serves as the SWC representative on two technical working groups overseeing the implementation of a water rights injury mitigation agreement between the SWC and Idaho Ground Water Appropriators overseeing monitoring and implementation of over 240,000 acre feet of recharge annually.

Salt River Project - Gila River Basin Adjudication, Arizona Superior Court Case W1-103, San Pedro Basin, AZ (2018-ongoing): Hydrogeologist providing groundwater analysis and modeling supporting adjudication of water rights in the San Pedro Basin. Tasks include oversight of groundwater modeling, calibration and uncertainty analysis, and trial/litigation support. Provides protection of surface water flows, riparian habitat, and water rights from negative impacts due to groundwater pumping.

City of Aurora – Box Elder Basin Managed Aquifer Recharge (MAR) Feasibility Investigation; Adams County, CO (2018-ongoing): Project Manager and lead hydrogeologist investigating the feasibility of recharging and storing water in the Box Elder alluvial aquifer at the Aurora Center for Renewable Energy (ACRE). Tasks included hydrogeophysical surveys, exploratory drilling/test pits, and infiltration testing. The project identified recharge as a viable option for innovative storage opportunities and has moved into a pilot test planning phase. Current services include recharge source water characterization, water rights and permitting planning, water quality evaluation, groundwater modeling, and pilot system design.

Town of Erie – Water Supply Planning Support (2018-ongoing): Lead hydrogeologist and Project Manager providing groundwater support related to water supply planning. Services include aquifer characterization, water quality studies, horizontal directionally drilled well field design, ASR feasibility analysis, and water rights. Prepared Colorado Water Conservation Board and Division of Local Affairs grant applications to obtain project funding. The project will provide a 3,000 GPM expansion of the Town's water supplies.

City of Northglenn – ASR Feasibility Evaluation and Pilot Test Planning (2020 – ongoing): Lead hydrogeologist and Project Manager for feasibility investigation and pilot test system design services. Support includes feasibility data analysis, water quality evaluation, DWR and EPA UIC permitting, ASR system design and pilot test planning.

Salt River Project – Big Chino Cooperative Agreement #1 Groundwater Modeling and Field Data Collection Oversight; Prescott, AZ (2017-ongoing): Technical Advisor providing oversight of groundwater modeling activities and hydrogeologic field investigation supporting a cooperative agreement between stakeholders evaluating the impacts of groundwater development on critical springs in the Upper Verde River watershed.

City of Aurora – Horizontal Well Pilot Project; Weld County, CO (2019-2020): Project Manager for feasibility evaluation and planning of a pilot facility to test horizontal well options for the City's Prairie Waters System. Investigation targeted increasing yield while maximizing riverbank filtration water quality improvements. Investigation included hydrogeophysical surveys, exploratory drilling, aquifer testing, and groundwater modeling. Results included design of horizontal wells that maintain the existing system water quality while providing adaptable system operations that can increase yield during drought demands. Currently the Lead Hydrogeologist providing design phase services.

Town of Castle Rock – Groundwater Support; Douglas County, CO (2015-ongoing): Project Manager providing comprehensive groundwater support. Projects have included:

- *Denver Basin Well Drilling, Testing, and Aquifer Storage and Recovery (ASR)* – Support includes Denver Basin ASR planning/permitting, bidding services, contractor management, construction oversight, well/pump design, aquifer testing, and groundwater regulatory support.
- *Alluvial Well Field Expansion and Rehabilitation* – Project Manager for two projects aimed at improving yields in well fields affected by biofouling and performance issues. Oversaw construction and testing of six horizontal directional drilled (HDD) wells installed to increase yield, performance, and sustainability.

City of Aurora – Prairie Waters North Campus Master Plan; Adams and Weld Counties, CO (2017-2019): Lead hydrogeologist providing master planning services for approximately 20 MGD expansion of the Prairie Waters Project – North Campus over the next 20 years. Facility expansion included riverbank filtration well field, pipelines, and storage reservoirs. Led facilities operational planning, supported water resource planning, gap analysis, and capital improvements planning.

City of Greeley – ASR Feasibility Evaluation (2019-ongoing): Senior Technical Advisor for a project evaluating the feasibility of new and existing ASR projects in multiple bedrock aquifers. Includes evaluation of water quality, aquifer characteristics, well construction/testing, project planning, and regulatory support, including negotiating an EPA UIC Rule Authorization in less than two months.

Eagle River Water and Sanitation District and Upper Eagle Regional Water Authority – Groundwater Support; Eagle County, CO (2010-2019): Project Manager and lead Hydrogeologist for alluvial well field groundwater support. Projects have included:

- *GWUDI Evaluation* – Regulatory support, groundwater modeling and operational monitoring of alluvial well fields in support of CDPHE GWUDI evaluation
- *Lake Creek Well Field Planning* – Services included groundwater modeling, well drilling, aquifer testing, source water quality characterization, regulatory support for Eagle County 1041, CDPHE, and DWR permitting
- *Well field maintenance and rehabilitation support* – well rehabilitation in response to well issues including pump issues, casing holes, and water quality contamination

Dominion Water and Sanitation District – Groundwater Support; Douglas County, CO (2015-ongoing): Denver Basin groundwater supply planning services including water rights evaluation, water quality assessment, well field yield estimation and project planning. Technical support included documentation for County hearings, interactions with local water agencies, and groundwater sale transactions.

Denver Water – Aquifer Storage and Recovery (ASR) Pilot Project, City and County of Denver, CO (2016-2018): Groundwater technical and project management for ASR feasibility investigation. Provided Denver Basin aquifer characterization including exploratory borehole drilling, hydrogeophysical investigation (Nuclear Magnetic Resonance and conventional methods), and 3-D geologic modeling.

Colorado Water Conservation Board - HB16-1256 South Platte Storage Study; CO (2018): Lead hydrogeologist providing evaluation of underground water storage options for the Lower South Platte alluvial aquifer. Provided alluvial storage site evaluation, conceptual design, cost estimates, and comparison to surface storage options.

City of Steamboat Springs – Infiltration Gallery System Expansion; Routt County, CO (2018-ongoing): Project Manager for feasibility evaluation of alluvial groundwater supply expansion alternatives. Expansion options being considered include vertical and horizontal well options. Tasks included exploratory drilling, aquifer testing, groundwater modeling and conceptual expansion system design. Modeling was performed to optimize well siting to maximize yield, maintain water quality, and to minimize pipeline costs.

City of Aurora and Town of Castle Rock – Lost Creek Underground Storage Pilot Project; Lost Creek Designated Basin, CO (2017-2018): Project Manager for aquifer characterization and evaluation of recharge potential for underground water storage pilot project. Obtained grant funding and facilitated multiple stakeholder project planning and implementation. The project identified important field investigation methods and results for storage related aquifer characteristics previously overlooked in desktop studies.

Texas Water Development Board – Statewide Subsidence Risk Evaluation (2018): Technical advisor for risk evaluation of subsidence due to groundwater pumping in all Texas major and minor aquifers. The project used well lithology data with model predicted water level declines to create a statewide risk map and prioritized table. Recommended follow up actions for identified areas of risk. The project provided important subsidence risk information for statewide planning and local user considerations.

Village at Taos Ski Valley – Spring Water Supply Expansion; Taos County, NM (2018-ongoing): Senior Technical Advisor providing groundwater evaluation into the management, protection and expansion of spring water supplies.

City of Phoenix – ASR Tracer Test Design; Maricopa County, AZ (2017): Provided MT3D groundwater modeling to assist in aquifer characterization, travel time estimates, and the design of an ASR tracer injection test for feasibility. The testing was in support of the Northeast Phoenix Reclaimed Water Recharge and Recovery Study. The system is intended to create a potable water resource through Indirect Potable Reuse (IPR), provide additional non-potable supplies, and to mitigate land subsidence issues.

Groundwater Relief – Kutupalong Refugee Camp Groundwater Supplies; Cox's Bazaar, Bangladesh (2019): Volunteer hydrogeologist providing well testing and water quality support to field geologists. The project is developing emergency water supplies for nearly 1 million Rohingya refugees who have fled religious persecution in Myanamar.

City of San Angelo – Riverbank Filtration Feasibility Evaluation; Tom Green County, TX (2018): Provided feasibility evaluation, preliminary siting, design and costs for a potential riverbank filtration (RBF) well field near the Concho River. This information was used to evaluate RBF as an alternative for expansion of the City's water supply.

Tarrant Regional Water District – Cedar Creek Wetlands; Kaufman County, TX (2013): Project manager and lead Hydrogeologist for riverbank filtration feasibility investigation along the Trinity River. Project tasks include geotechnical, hydrogeologic, and surface geophysical surveys, groundwater modeling, and design, construction and testing of riverbank filtration pilot test sites.

Rangen, Inc. – Water Rights Support; Gooding County, ID (2010-2016): Expert witness providing testimony and trial support for a water rights hearing (IDWR Case No. CM-DC-2011-004) involving springs and complex surface

water/groundwater interaction of the Eastern Snake Plain Aquifer. Represented a fish hatchery reliant on spring flow that was being impacted by groundwater pumping. Served on the Eastern Snake Plain Hydrologic Modeling Committee supporting MODFLOW modeling activities in the Eastern Snake Plain of Idaho.

Overturf, McGath, and Hull, P.C. – Stewart No. 1 Ditch Company; Pitkin County, CO (2017): Expert witness support including expert and rebuttal reports, depositions, and settlement negotiations for a civil case involving alleged roadway water damage from ditch operations.

Fredrickson Law Offices – In-Play Golf; Weld County, CO (2017): Expert witness providing expert and rebuttal reports, depositions, and trial support for a civil case involving alleged water damages from golf course irrigation.

Boulder Valley School District – Douglass Elementary Non-Tributary Well Support; Boulder County, CO (2018): Project Manager for a non-tributary well application in the Boulder Complex Area of the Denver Basin Aquifers. Provided aquifer characterization and regulatory support leading to a non-tributary determination and permit approval.

Boulder County Parks and Recreation – Kenosha Ponds Groundwater Evaluation; Boulder County, CO (2016): Expert witness providing hydrogeology water rights support for a Boulder County Parks and Recreation augmentation pond. Technical support included expert report writing and trial exhibit preparation for the hydrologic characterization of a recharge pond between two streams where the pond bottom was below the water table.

City of Burkburnett, Texas – Alluvial Well Field Evaluation; Wichita County, TX (2016): Project Manager and groundwater lead for evaluation of underperforming well fields near the Red River. Wells ranged from 3-50 years old with a variety of issues causing low yields. Project tasks included well operational data integration, analysis, and development of alternatives to improve well yields.

Penrose Water District – Arkansas River Alluvial Well Field; Fremont County, CO (2016): Groundwater technical management for planning, design, and construction of an alluvial well field for diversion of Arkansas River water rights. Tasks included aquifer characterization, water rights support, groundwater modeling, contractor management, well drilling, construction and testing.

Salt River Project – New River Agua Fria Underground Storage Project; Phoenix, AZ (2013): Project involved optimization and in-channel expansion design for an existing recharge facility. Support included evaluation of operational data and adaptation of an existing MODFLOW model for operational optimization and feasibility testing.

City of San Marcos, Texas – Well Performance Investigation and Replacement Plan; Hays County, TX (2015): Project Manager and groundwater lead for investigation into reduced yield problems for a well in the Edwards Aquifer. Well construction and operational data were analyzed to test viability of rehabilitation or equipment replacement. Provided ultimate solution of siting a replacement well in a more productive aquifer area.

Oakwood Homes – Neighborhood Scale Dewatering Systems and Water Rights; CO (2016): Project Manager and groundwater lead for planning, design, and permitting of neighborhood scale dewatering systems. Managed project work including groundwater modeling, system design, data analysis, contractor coordination, DWR and CDPHE permitting, and water rights evaluations.

Winkler Services – Well Field Siting and Design; Wink County, Texas (2017): Technical advisor for well field siting in the Pecos Valley Alluvium and Upper Dockum Aquifer. Support included project planning, aquifer characterization, and geologic modeling.

Donala Water and Sanitation District – Reuse Evaluation; El Paso County, CO (2015): Preliminary feasibility investigation into riverbank filtration alternatives for indirect potable reuse. Evaluated hydrogeologic conditions for permitting, cost, and performance feasibility considerations.

Confidential Client; Groundwater Supply and Subsidence Analysis; AZ (2011): Development of regional MODFLOW models used to estimate well field yield and land subsidence due to groundwater pumping in Arizona. Work included statewide study of subsidence-related empirical relationships and prediction methods, aquifer characterization, 3-D geologic and groundwater flow modeling, automated model calibration and predictive uncertainty analysis using PEST, and numerical MODFLOW subsidence modeling.

City of Scottsbluff – Well Field Uranium Investigation and Monitoring; Scotts Bluff County, NE (2016): Technical advisor for a project aimed at reducing uranium concentrations in an alluvial groundwater supply. Provided aquifer characterization and uranium monitoring data analysis.

Confidential Client - Oilfield Produced Water Infiltration Modeling, San Louis Obispo County, CA (2010): Lead Hydrogeologist for the development of an engineering design MODFLOW-SURFACT model with the goal of infiltrating 13 acre-feet of water per day into the subsurface of a 200 acre alluvial site. Performed model calibration using PEST software in a parallel processing environment utilized 50 geologic conceptualizations for stochastic predictions of system performance.

CDPHE – Summitville Superfund Site; Summitville, CO (2008): Provided support for abandoned mine hydrology and geochemistry, field sampling, monitoring and mine facility inspection, and database support. The project goal was to monitor and minimize mine waste impacts on the Alamosa River.

Various Mines – Groundwater Modeling and Analysis; Basin and Range Province; NV (2010): Provided MODFLOW modeling and water balance studies in support of mine water management and regulatory reporting. Analyses included point flow surface water modeling to evaluate stream gain/loss; detailed water balance quantifications; well inventories and pumping estimates; groundwater underflow assessments.

Aurora Prairie Waters Project – North Campus; Weld County, CO (2008): Supported City of Aurora's Prairie Waters project near the South Platte River, CO. Acted as team liaison for multi-consultant, multi-disciplinary project team. Field investigation and construction tasks included field oversight of drilling, well construction, pump/motor installation, aquifer testing, system start up testing, well field yield optimization, and geotechnical investigations. Support also included the design, construction, and operation of alluvial recharge and riverbank filtration pilot test facilities. Developed and implemented pilot test procedures, including tracer studies to assess flow paths, travel times, and stream/aquifer interaction. *MODFLOW modeling support for the Prairie Waters Project included development of regional groundwater model for Colorado Division 1 case 2006CW104. Performed parallel processing model calibration using UCODE. Prepared expert and rebuttal reports, exhibits and materials used in settlement negotiations.*

Miron Construction - Laramie-Fox Hills Well; Hudson, Colorado (2008): Assisted in design and field engineering for the construction and testing of a 960-foot deep, large capacity, municipal/industrial, Laramie-Fox Hills water supply well at the Hudson Correctional Facility.

Perini/US Army Corps of Engineers – Groundwater System Design and Optimization; Baghdad, Iraq (2007): MODFLOW modeling support for the U.S. Agency for International Development in Baghdad, Iraq. Developed a numerical groundwater model for the optimization of water supply well locations and pumping operations. Main objectives were to maximize well yields while minimizing differential land subsidence across newly constructed East End Barracks.

Colorado Haiti Project (Volunteer Position); Petit Trou de Nippes, Haiti (2013): Technical advisor for aquifer development, management, and protection in a rural, developing area of Haiti.

Water For People Groundwater Management Project (Volunteer Position); San Pedro Sula, Honduras (2008): Technical advisor for development of a scope of work for a participatory groundwater management plan aimed at restoring and protecting an over utilized alluvial aquifer in a developing region.

ASARCO - California Gulch Superfund Site; Leadville, Colorado (2000-2005): Conducted environmental sampling for the Kids First Program to identify and address sources of lead exposure for children in residential areas. Provided statistical analysis and reporting for evaluation of program effectiveness. Designed sampling plan and performed soil sampling and analysis to delineate extent of metals contamination at the Arkansas Valley Smelter Operable Unit. Provided technical support for hydrogeological and geochemical characterization of the Apache Tailings site; and implemented the surface water and groundwater performance monitoring program to assess the effectiveness of the remedial action. Conducted synoptic surface water flow measurement and water quality sampling.

Asarco - Omaha Lead Site, Omaha, Nebraska (2003): Assisted in the development of program to identify sources of lead exposure for children in residential areas.

Mine Waste and Tailings Pile Sites, Various Locations (2000-2004): Performed hydrologic evaluation of remedial alternatives for repository evaluation using Hydrologic Evaluation of Landfill Performance (HELP) model.

Industrial Groundwater Contamination Sites, Various Locations (2000-2005): Performed groundwater modeling to assist design of groundwater extraction remediation wells using MODFLOW modeling code.

EPA - Vasquez Boulevard and Interstate 70 Superfund Site, Denver, Colorado (2002): Designed, directed, and performed environmental sampling for project intended to identify sources of lead and arsenic exposure for children in residential areas.

Hertz Rent-a-Car - Former Underground Storage Tank, Colorado Springs, Colorado (2002): Project Hydrogeologist and technical lead for the characterization, monitoring, and remediation of hydrocarbon contaminated soils and groundwater at a former underground storage tank site. Performed quarterly monitoring and reporting; developed and implemented an in-situ chemical oxidation remediation program.

R&R Super Service - Former Underground Storage Tank, Arvada, Colorado (2002): Project Manager and technical lead for the characterization and remediation of soils and groundwater contaminated by petroleum hydrocarbons at a former service station. Responsibilities included client and regulatory interaction; site characterization activities to delineate the nature and extent of contamination in soil and groundwater; modeling of vapor and mass extraction rates using VENT2D; respirometry testing to quantify biodegradation rates in vadose zone soils; startup testing; operating, maintaining, and monitoring of an air sparge/soil vapor extraction system.

City and County of Denver - Former Stapleton International Airport Remediation; Denver, Colorado (2000): Served as a hydrogeologist conducting field investigations to define nature and extent of hydrocarbon contamination and to determine remediation. Field tasks included lithologic logging with a hollow-stem auger and direct-push drilling rigs; soil, groundwater, and soil vapor testing, remediation system construction/operation/maintenance, data evaluation and reporting.

National Park Service – Mt. Rainier National Park, Longmire, Washington (1996-1997): Biologist and crew leader for aquatic ecosystem studies in Mt. Rainier National Park. Conducted field surveys in sub-alpine wetland monitoring. Performed aquatic field sampling, wetland classification, biological species identification, and aquatic laboratory analyses.

PRESENTATIONS & PUBLICATIONS

Colvin, Dave, 2020. "*Moving from Conflict to Collaboration: The Role of MAR in Mitigating Groundwater Pumping Impacts to Surface Water*" 17th Biennial Symposium on Managed Aquifer Recharge. Tempe, AZ.

Colvin, Dave, 2020. "*Drawing the Line in the Sand between Underground Water Storage and Augmentation Recharge.*" American Water Resources Association – Colorado Chapter & Colorado Groundwater Association Joint Annual Symposium. Denver, CO

Colvin, Dave, 2019. "*Demonstrating Dominion and Control – Moving from Black Magic to Understandable Science.*" American Groundwater Trust Annual Colorado Groundwater Conference. Denver, CO.

Colvin, Dave, 2019. "*Now We Know What We Don't Know: An ASR Regulatory Update*". Colorado Groundwater Association September Meeting. Denver, CO.

Colvin, Dave, 2019. "*The Evolution of Colorado Underground Water Storage Administration*". American Water Resource Association / Colorado Groundwater Association 2019 Joint Annual Symposium. Denver, CO.

Colvin, Dave, 2018. "*Technical Considerations for ASR Planning in Colorado's Front Range*". American Groundwater Trust Annual Colorado Groundwater Conference. Denver, CO.

Colvin, Dave, 2018. "*ASR Panel Discussion: The Revolution of Subsurface Water Storage*". American Water Works Association ACE18 Conference. Las Vegas, Nevada.

Colvin, Dave, and Keester, Michael, 2017. "*Applying Web-Based Information Management Tools to Increase Efficiency and Expand Opportunities for Groundwater Conservation Districts*". Texas Association of Groundwater Districts Groundwater Summit. San Marcos, TX.

Colvin, Dave, and Pence, Rachel, 2017. "*Using NMR and Hydrogeophysics to Evaluate ASR Feasibility in the Denver Basin*". 2017 NGWA Conference on Hydrogeophysics and Deep Groundwater, Denver, CO. (https://ngwa.confex.com/ngwa/hdg2017/webprogram/Paper11286.html)

Colvin, Dave, and Justus, Heather, 2016. "*Benefits of Directionally Drilled Alluvial Well Lateral Arms in the Town of Castle Rock*". 2016 RMSAWWA/RMWEA Joint Annual Conference, Keystone, CO.

Colvin, Dave, and Furnans, Jordan, 2016. "*Can/Should Texas learn from Colorado? A primer on groundwater-surface water interactions and regulation methods*". 2016 Texas Water Conservation Association Spring meeting, Woodlands, TX. (http://www.slideshare.net/TWCA/twca-annual-convention-canshould-texas-learn-from-colorado-jordan-furnans-and-dave-colvin)

Colvin, Dave, 2015. "*Methods for Confident Model Predictions and Integration*". Colorado Water Congress 2015 Annual Conference; DARCA Workshop Series, "The Next Step: Modeling Colorado's Water Plan", Denver, CO.

Colvin, Dave, 2014. "*Groundwater Challenges and Solutions for Colorado Watersheds.*" 2014 Colorado Sustaining Watersheds Conference, Avon, CO.

Colvin, Dave and Loopesko, William, 2014. "*Advantages of Alluvial Aquifer Storage Alternatives for Managing Hydrologic Extremes and Future Water Supply Risks.*" 2014 Upper Colorado River Basin Water Forum, Grand Junction, CO.
Colvin, Dave, 2014. "*Groundwater Solutions for Indirect Potable Reuse.*" 2014 Rocky Mountain Water Reuse Workshop, Golden, CO.

Colvin, Dave, Bauer, Jacob, and Noack, Tim, 2013. "*Effective Tools and Project Planning for Riverbank Filtration Feasibility Investigation*" Poster session at 2014 Texas Water, Dallas, TX. (http://s3.amazonaws.com/eventmobi-assets/events/txwater14/documents/person/1366969/201404_RBF_Feasibility_Poster_Final.pdf)

Colvin, Dave, and Bauer, Jacob, 2013. "*Cost Effective Feasibility Investigation of Natural Subsurface Reuse Treatment Systems.*" Poster session at the 2013 National Water Reuse Symposium, Denver, CO.

Colvin, Dave, and Neupauer, Roseanna, 2013. "*Riverbank Filtration Feasibility Modeling.*" MODFLOW and More 2013. Integrated Groundwater Modeling Center. Golden, CO.

Colvin, David C., 2012. "*Comparison of One and Three Dimensional MODFLOW Subsidence Results.*" 2012 Groundwater Summit, National Groundwater Association, Westerville, OH.

Colvin, David C., 2012. "*One Dimensional MODFLOW Modeling of Land Subsidence Due to Fluid withdrawal.*" GSA 2012 Cordilleran Section Meeting, Vol. 44, No. 3. Geological Society of America. Boulder, CO.

EXPERT TESTIMONY

Dave has provided expert testimony in trial or depositions in the following cases:

Idaho Surface Water Coalition; Idaho Department of Water Resources Docket No. AA-GWMA-2016-001, Order Designating the Eastern Snake Plain Aquifer Groundwater Management Area, February 2020

Stewart No. 1 Ditch Company; Pitkin County Case No: 2014CV30084, Pitkin County Board of County Commissioners v. Brothers, et. al., September, 2015.

In-Play Golf, Inc; Weld County Case 12CV727, Helen Hawkins et. al. v. Vista Ridge Development Corporation et. al., August, 2015.

Rangen, Inc.; In the Matter of Application for Water Rights Permit No., 36-17011, February, 2015.

Rangen, Inc.; Idaho Department of Water Resources Case No. CM-DC-2011-004, Distribution of Water To Water Right Nos. 36-02551 and 36-07694, May, 2013.

EXPERT REPORTS

Dave has performed groundwater analysis, provided assistance in settlement negotiations, and authored or contributed to reports in the following cases.

Idaho Surface Water Coalition; Idaho Department of Water Resources Docket No. AA-GWMA-2016-001, Order Designating the Eastern Snake Plain Aquifer Groundwater Management Area, February 2020

Salt River Project; AZ Big Chino Cooperative Agreement #1, Evaluation of Big Chino Water Ranch impacts on Upper Verde Springs discharge, 2016 - ongoing.

Salt River Project; AZ Gila River Adjudication Contested Case No. W1-103, Groundwater adjudication and subflow depletion evaluation, 2017 – ongoing.

In-Play Golf, Inc; Weld County Case 12CV727, Helen Hawkins et. al. v. Vista Ridge Development Corporation et. al., August, 2015.

Stewart No. 1 Ditch Company; Pitkin County Case No: 2014CV30084, Pitkin County Board of County Commissioners v. Brothers, et. al., September, 2015.

Rangen, Inc.; In the Matter of Application for Permit No., 36-17011, February, 2015.

Rangen, Inc.; Idaho Department of Water Resources Case No. CM-DC-2011-004, Distribution of Water To Water Right Nos. 36-02551 and 36-07694, May, 2013.

Boulder County Parks and Open Space; CO Division 1 Case No. 2010CW320, Change of Use and Plan for Augmentation for Kenosha Ponds Open Space, 2013.

City of Aurora; CO Division 1 Case No. 2006CW104, Aurora's Prairie Waters Project, 2007.

Travis L. Thompson, ISB #6168
Sarah W. Higer, ISB #8012
BARKER ROSHOLT & SIMPSON LLP
163 Second Avenue West
P.O. Box 63
Twin Falls, Idaho 83303-0063
Telephone: (208) 733-0700
Email: tlt@idahowaters.com
swh@idahowaters.com

Attorneys for A&B Irrigation District, Burley Irrigation District, Milner Irrigation District, North Side Canal Company, and Twin Falls Canal Company

W. Kent Fletcher, ISB #2248
FLETCHER LAW OFFICE
P.O. Box 248
Burley, Idaho 83318
Telephone: (208) 678-3250
Email: wkf@pmt.org

Attorneys for American Falls Reservoir District #2 and Minidoka Irrigation District

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR TRANSFER NOS. 84488 AND 84490 IN THE NAME OF LCSC ENTERPRISES LLC	)	**DECLARATION OF DAN TEMPLE**

I, Dan Temple, hereby declare and state as follows:

1. I am over the age of 18 and have knowledge of the attached documents pertinent to this matter, and make this declaration based upon personal knowledge and experience. I live at 175 W. 750 Lane N., Rupert Idaho 83350.

2. I recently retired from the general manager position at the A&B Irrigation District ("District"). I held that position from 1997-2021. I worked for the District for over 40 years, including in the electrical mechanical division and as a foreman.

3. As part of my duties with the District I became familiar with well drilling techniques, well deepening projects, reviewing and interpreting well logs, and groundwater supplies in the region. I am also familiar with all aspects of well construction, including casing, and how water enters a well and is available for pumping.

4. The A&B irrigation project was initiated by the Unites States Bureau of Reclamation (Reclamation) as the North Side Pumping Division of the Minidoka Project within Jerome and Minidoka Counties. A&B operates two divisions within the irrigation project, Units A and B. Landowners within Unit A receive surface water from a pumping plant ("Plant #1") on the Snake River. The water is pumped to a main canal and then distributed by various laterals and pipelines. Landowners within Unit B primarily receive groundwater from 180 wells. Certain lands in Unit B, approximately 3,500 acres, can receive surface water through conversion projects and the development of Plant #2. Together, approximately 650 landowners within the two units irrigate approximately 82,000 acres.

5. The District holds decreed surface water rights to the Snake River and groundwater rights to the Eastern Snake Plain Aquifer (ESPA). The District also holds storage water rights in American Falls Reservoir (46,826 acre-feet) and Palisades Reservoir (90,800 acre-feet).

7. Given my experience in the construction and deepening of groundwater wells and familiarity with the area's groundwater supplies, I was requested by the Surface Water Coalition to review the proposed transfers in this proceeding filed by LCSC.

8. I reviewed the following documents in preparing this declaration.

a. Application for Transfer No. 84488;

b. Application for Transfer No. 84490;

c. USGS / IDWR Monitoring Well Information & Data (Ex. A), and information supplied by LCSC's counsel Rob Harris related to existing irrigation wells;

d. Google Earth surface elevation information; and

e. Map of Proposed Wells; (Ex. B)

9. The water right subject to the proposed transfers, 35-14041, currently authorizes pumping from a well in Bingham County located northwest of Blackfoot, Idaho.

10. Transfer No. 84488 proposes to move the location of a part of water right 35-14041 and pump water from existing irrigation wells located in Section 24, Township 9S Range 28E and Section 18, Township 9S, Range 29E, Power County, Idaho.

11. Transfer No. 84490 proposes to move the location of the balance of water right 35-14041 and add two new groundwater wells adjacent to the Snake River in Sections 19 and 20, Township 9South, Range 29East, Power County, Idaho.

12. Based on my review of available information, including a review of Google Earth, the ground surface elevation for the two new proposed wells under Transfer No. 84490 is approximately 4,205 ft (Sec. 19) and 4,203 ft (Sec. 20). Evaluating area ground water levels from other monitoring wells I would expect the static water level at this location to be approximately eight (8) to ten (10) feet below the ground surface elevation.

13. Given the close proximity to the Snake River it is likely that groundwater at the proposed wells is influenced by surface water levels in the Snake River and the operation of Lake Walcott.

14. Even if these wells are constructed with casing down to 39 feet as required by IDWR, it is my opinion that pumping water at these locations would have an immediate impact on the Snake River.

15. In addition, casing the well does not ensure that water adjacent to the casing cannot enter the well. Water in the aquifer outside the casing can enter the well by surrounding pressure to push water back up into the well to the static level of the water located outside the well.

I declare under penalty of perjury under the laws of the State of Idaho that the foregoing is true and correct.

DATED this 16th day of July, 2021.

Dan Temple

CERTIFICATE OF SERVICE

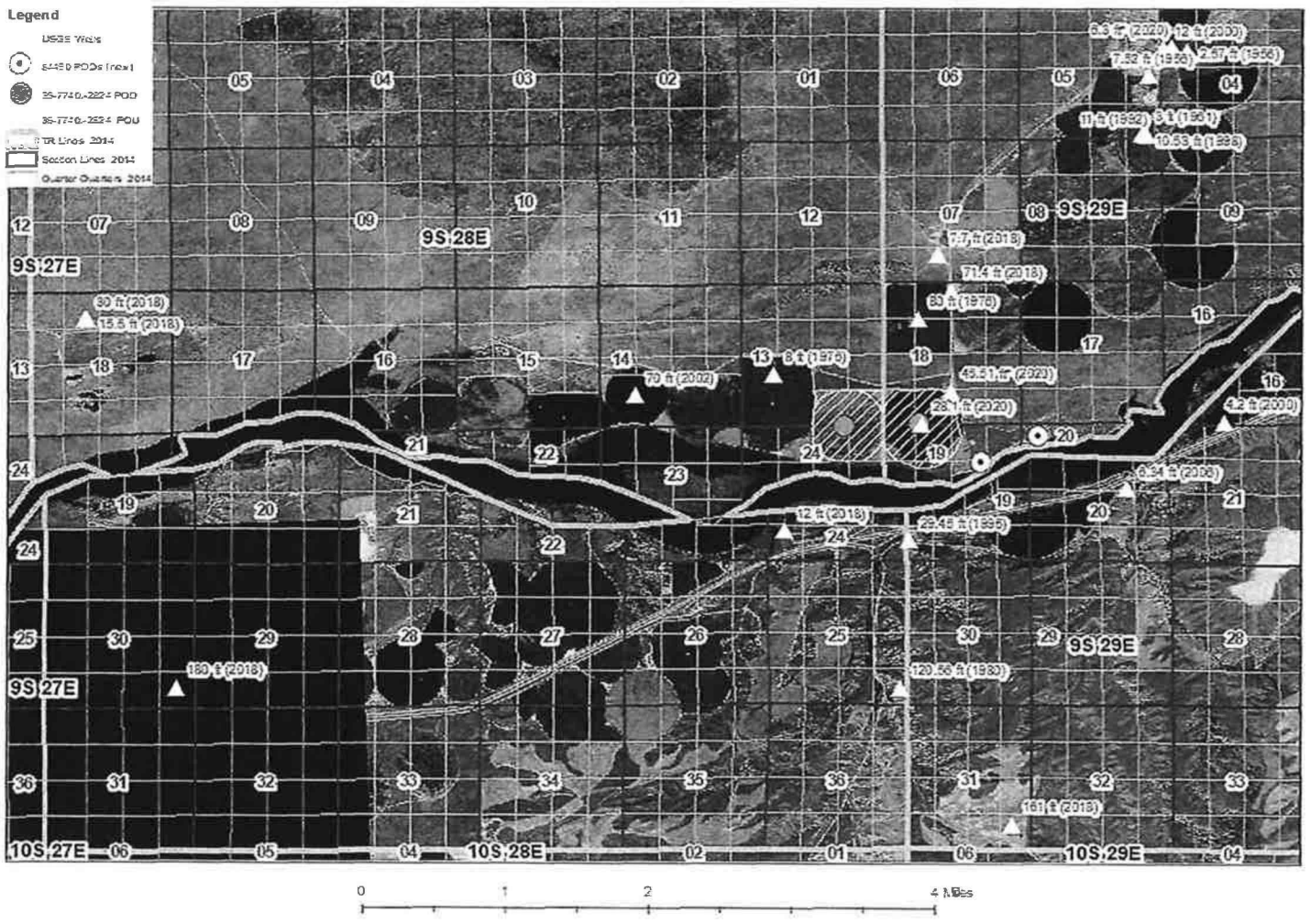
I certify that on July 16, 2021, I served true and correct copies of the foregoing *Declaration of Dan Temple* upon the following by the method indicated:

James Cefalo Idaho Department of Water Resources 900 North Skyline Drive, Suite A Idaho Falls, Idaho 83402-1718 james.cefalo@idwr.idaho.gov	__X__ U.S. Mail, Postage Prepaid _____ Hand Delivery _____ Overnight Mail _____ Facsimile __X__ Email
Robert L. Harris Holden, Kidwell, Hahn & Crapo, PLLC P.O. Box 50130 Idaho Falls, Idaho 83405 rharris@holdenlegal.com	_____ U.S. Mail, Postage Prepaid _____ Hand Delivery _____ Overnight Mail _____ Facsimile __X__ Email
LCSC Enterprises LLC 433 Las Colinas Blvd. E., Ste. 1290 Irving Texas 75039-5058 jasoncivil@alumni.nd.edu	_____ U.S. Mail, Postage Prepaid _____ Hand Delivery _____ Overnight Mail _____ Facsimile __X__ Email
Scott Pugrud Idaho Power Company P.O. Box 70 Boise, Idaho 83707 SPugrud2@idahopower.com	_____ U.S. Mail, Postage Prepaid _____ Hand Delivery _____ Overnight Mail _____ Facsimile __X__ Email
John K. Simpson Barker Rosholt & Simpson LLP 1010 Jefferson, Suite 102 P.O. Box 2139 Boise, Idaho 83701-2139 jks@idahowaters.com	_____ U.S. Mail, Postage Prepaid _____ Hand Delivery _____ Overnight Mail _____ Facsimile __X__ Email

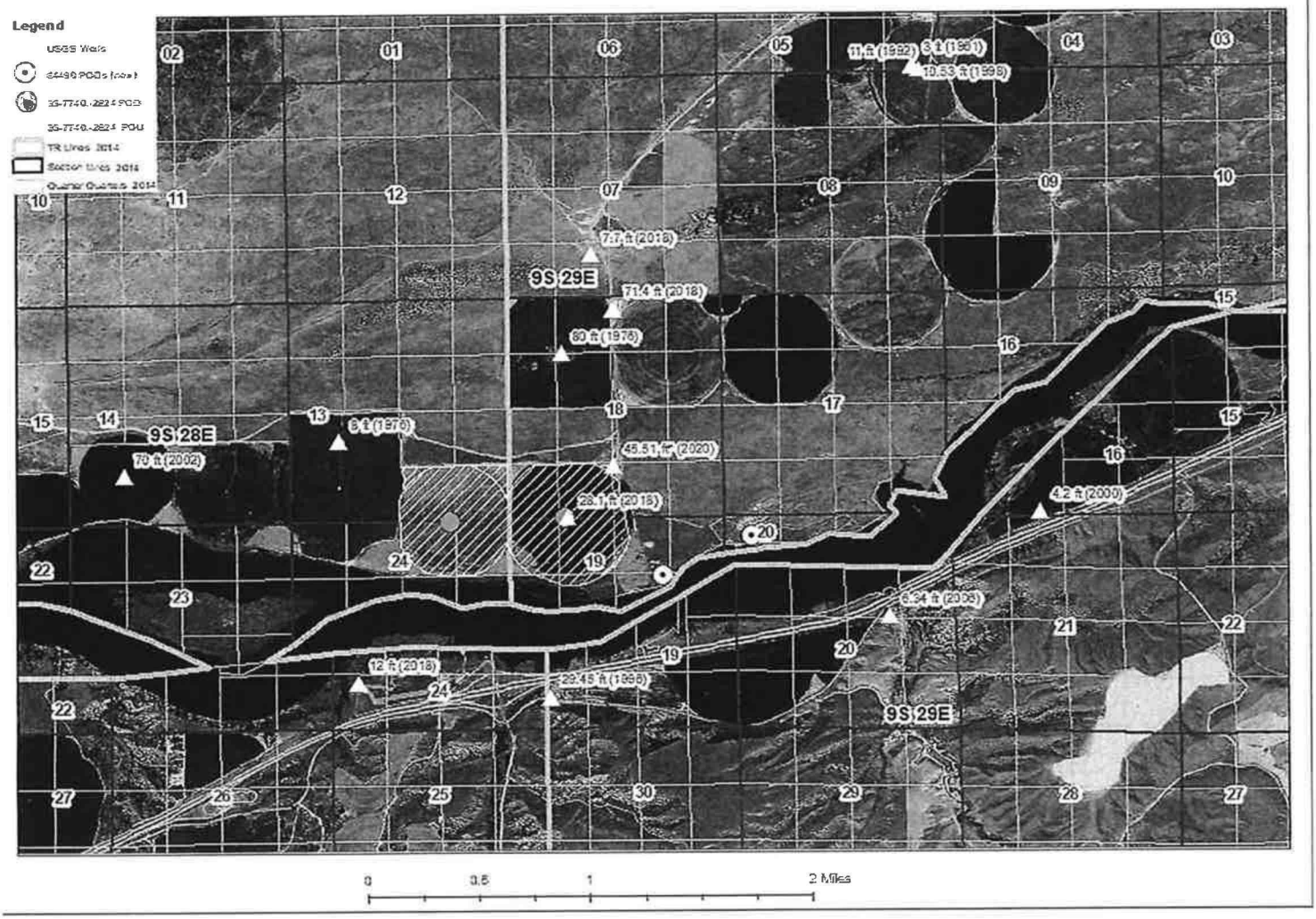
Sarah W. Higer

Exhibit
A

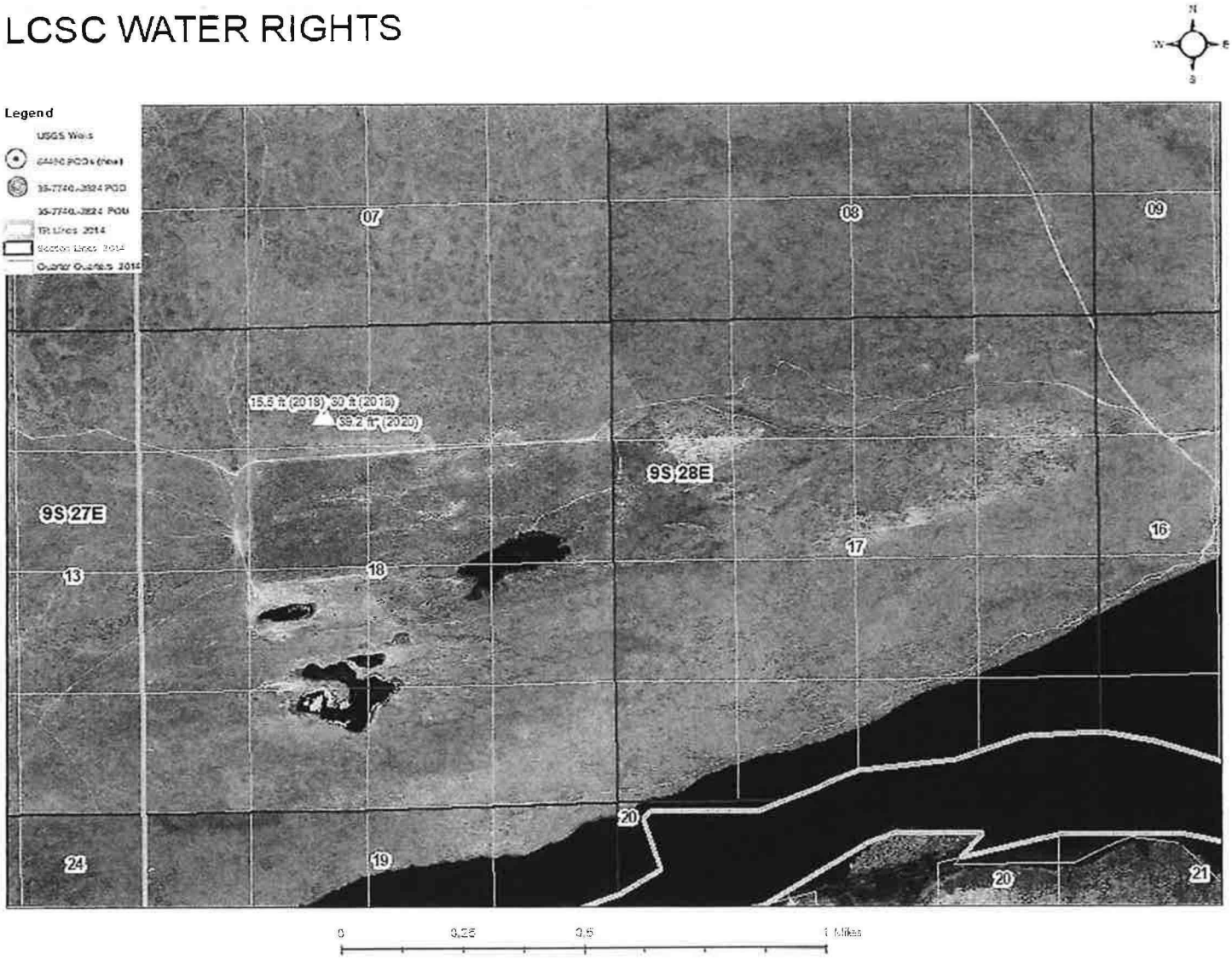
LCSC WATER RIGHTS

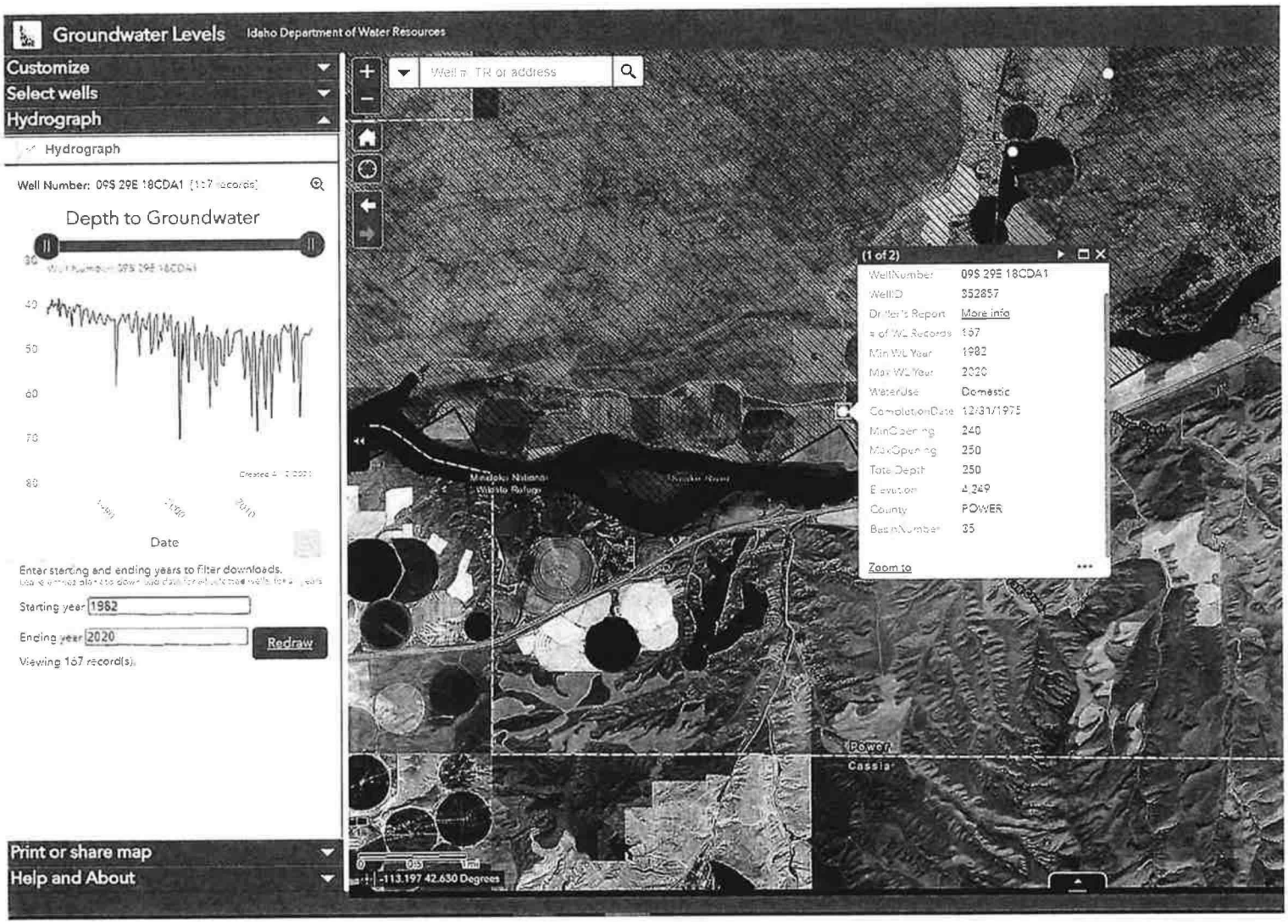


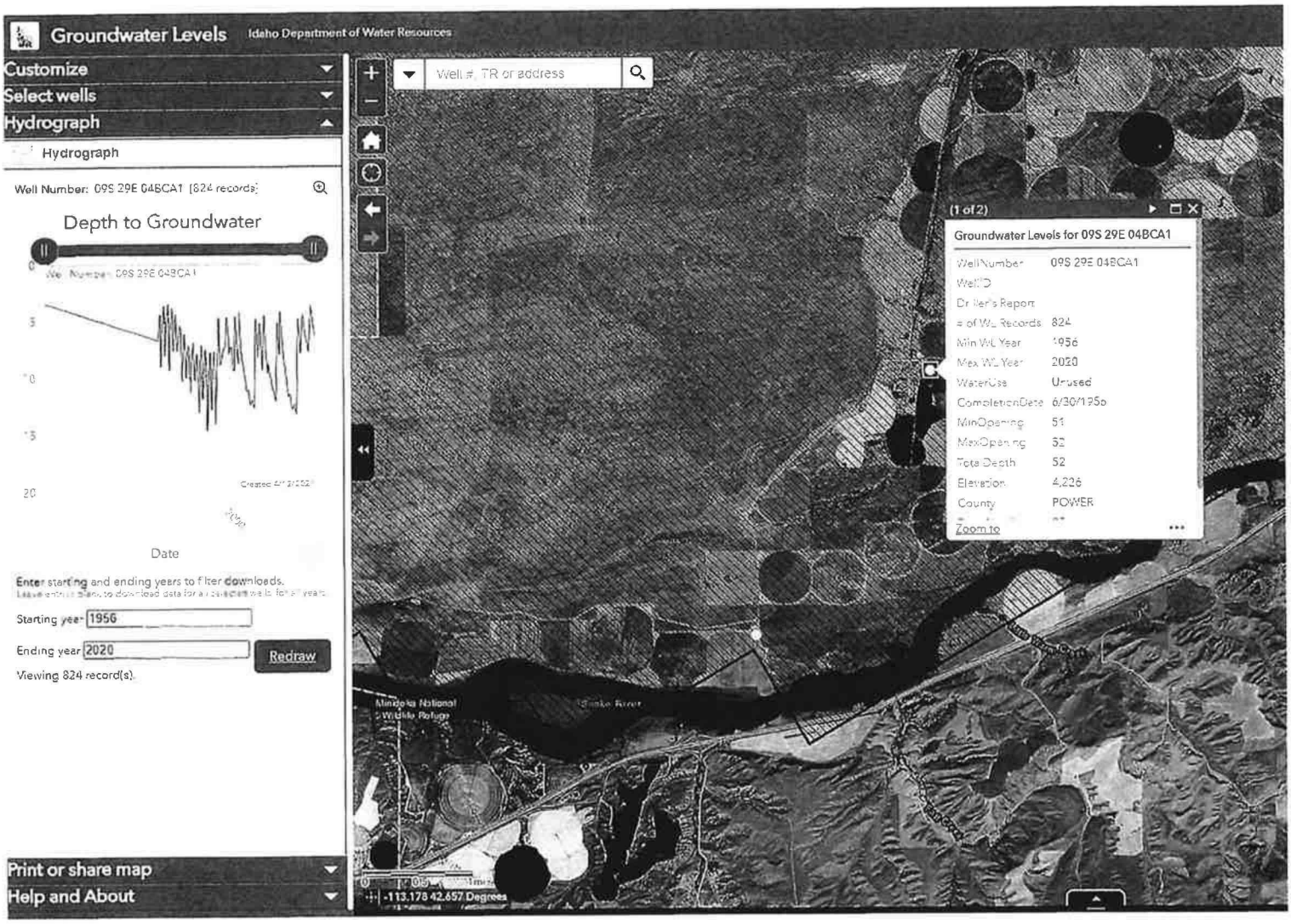
LCSC WATER RIGHTS

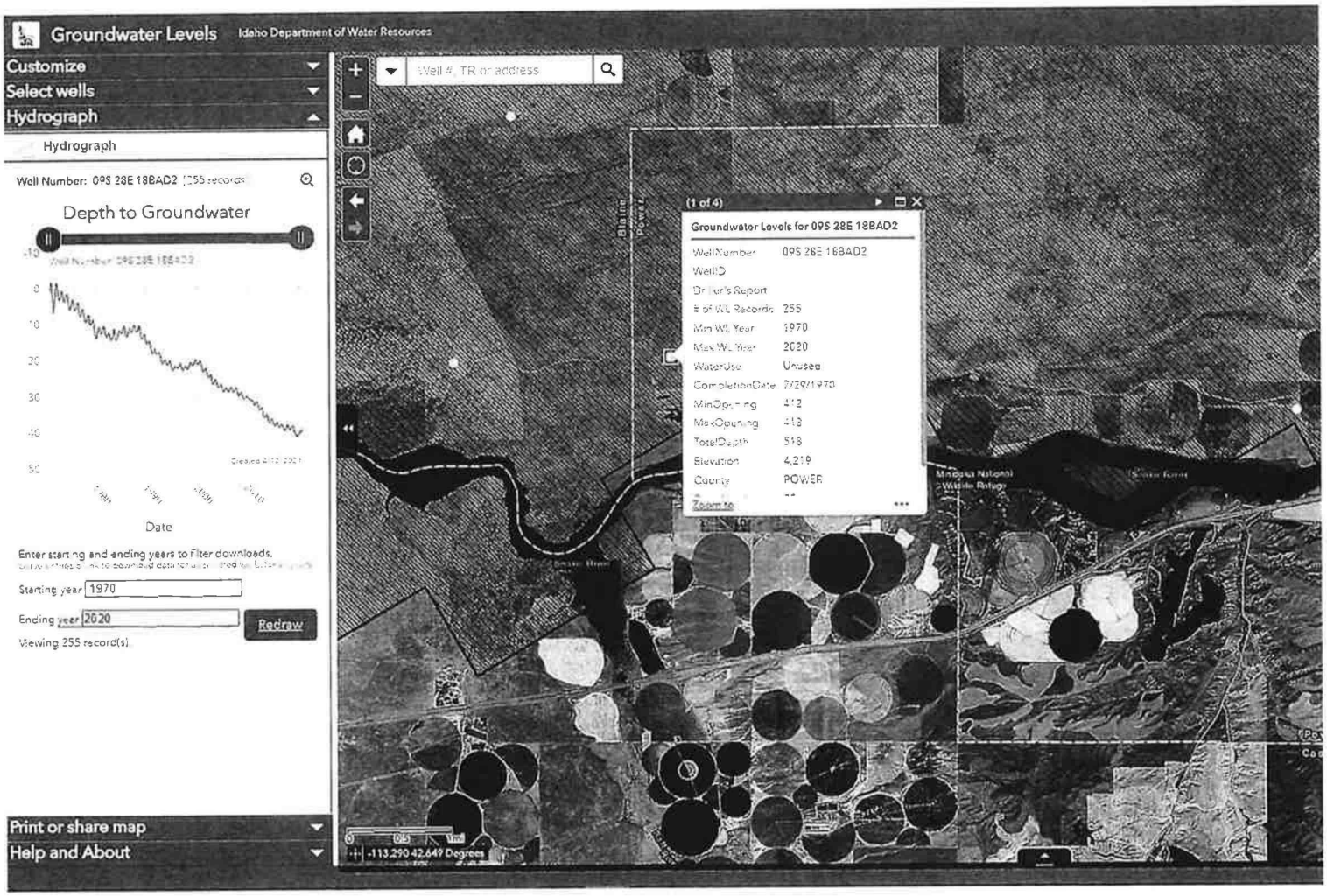


LCSC WATER RIGHTS




Groundwater Levels
Idaho Department of Water Resources
Customize
Select wells
Hydrograph
Hydrograph
Well Number: 09S 29E 18CDA1
Depth to Groundwater
Date
Enter starting and ending years to filter downloads.
Starting year 1982
Ending year 2020
Redraw
Viewing 167 record(s).
Print or share map
Help and About
Well #, TR or address
(1 of 2)
WellNumber 09S 29E 18CDA1
WellID 352857
Driller's Report More info
of WL Records 167
Min WL Year 1982
Max WL Year 2020
WaterUse Domestic
CompletionDate 12/31/1975
MinOpening 240
MaxOpening 250
TotalDepth 250
Elevation 4,249
County POWER
BasinNumber 35
Zoom to
Minidoka National Wildlife Refuge
Power
Cassia
-113.197 42.630 Degrees


Groundwater Levels
Idaho Department of Water Resources
Customize
Select wells
Hydrograph
Hydrograph
Well Number: 09S 29E 04BCA1 (824 records)
Depth to Groundwater
Date
Enter starting and ending years to filter downloads.
Starting year: 1956
Ending year: 2020
Redraw
Viewing 824 record(s).
Print or share map
Help and About
Well #, TR or address
(1 of 2)
Groundwater Levels for 09S 29E 04BCA1
WellNumber 09S 29E 04BCA1
WellID
Driller's Report
of WL Records 824
Min WL Year 1956
Max WL Year 2020
WaterUse Unused
CompletionDate 6/30/1956
MinOpening 51
MaxOpening 52
Total Depth 52
Elevation 4,226
County POWER
Zoom to
Minidoka National Wildlife Refuge
-113.178 42.657 Degrees


Groundwater Levels
Idaho Department of Water Resources
Customize
Select wells
Hydrograph
Hydrograph
Well Number: 09S 28E 18BAD2
Depth to Groundwater
Date
Enter starting and ending years to filter downloads.
Starting year 1970
Ending year 2020
Redraw
Viewing 255 record(s)
Print or share map
Help and About
Well #, TR or address
(1 of 4)
Groundwater Levels for 09S 28E 18BAD2
WellNumber 09S 28E 18BAD2
WellID
Driller's Report
of WL Records 255
Min WL Year 1970
Max WL Year 2020
WaterUse Unused
CompletionDate 7/29/1970
MinOpening 418
MaxOpening 418
TotalDepth 518
Elevation 4,219
County POWER
Zoom to
-113.290 42.649 Degrees

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: Idaho | GO

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Groundwater levels for Idaho

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Search Results -- 8 sites found

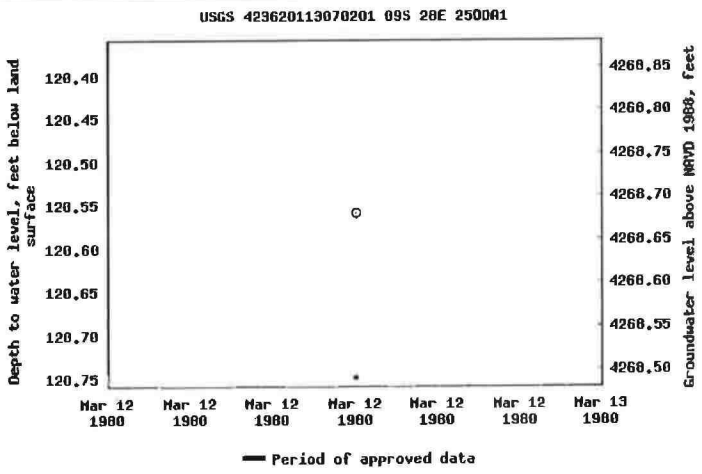
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Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 423620113070201 09S 28E 25DDA1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°36'19.68", Longitude 113°07'04.99" NAD83
Land-surface elevation 4,389.24 feet above NAVD88

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



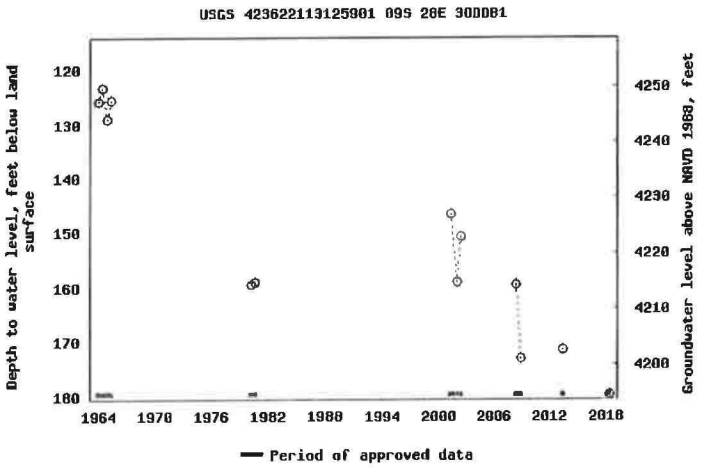
Breaks in the plot represent a gap of at least one year between field measurements.
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USGS 423622113125901 09S 28E 30DDB1

Cassia County, Idaho
Hydrologic Unit Code 17040210
Latitude 42°36'21.68", Longitude 113°13'02.00" NAD83
Land-surface elevation 4,373.67 feet above NAVD88
The depth of the well is 242 feet below land surface.
The depth of the hole is 242 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



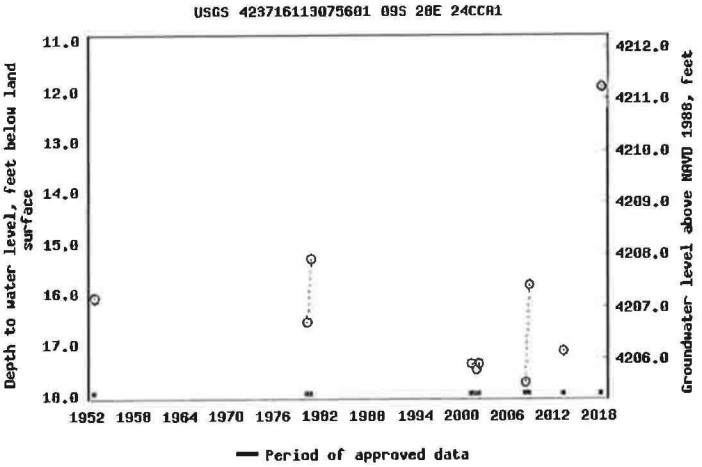
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USGS 423716113075601 09S 28E 24CCA1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°37'17.68", Longitude 113°08'00.99" NAD83
Land-surface elevation 4,223.22 feet above NAVD88
The depth of the well is 24.5 feet below land surface.
The depth of the hole is 24.5 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
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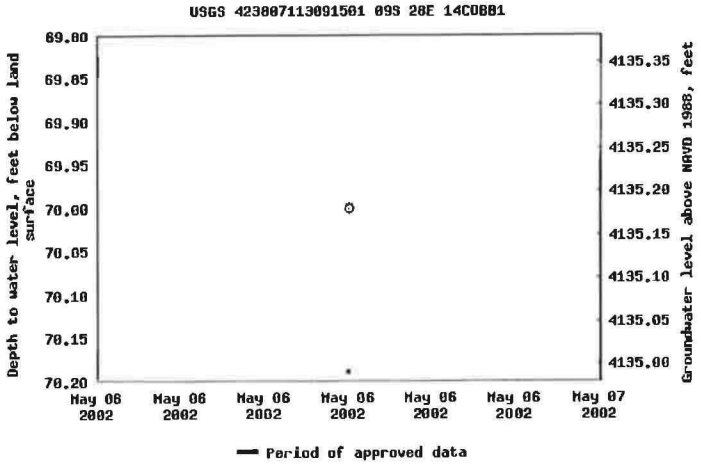
USGS 423807113091501 09S 28E 14CDBB1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°38'07.20", Longitude 113°09'14.60" NAD83
Land-surface elevation 4,205.18 feet above NAVD88

The depth of the well is 888 feet below land surface.
The depth of the hole is 888 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



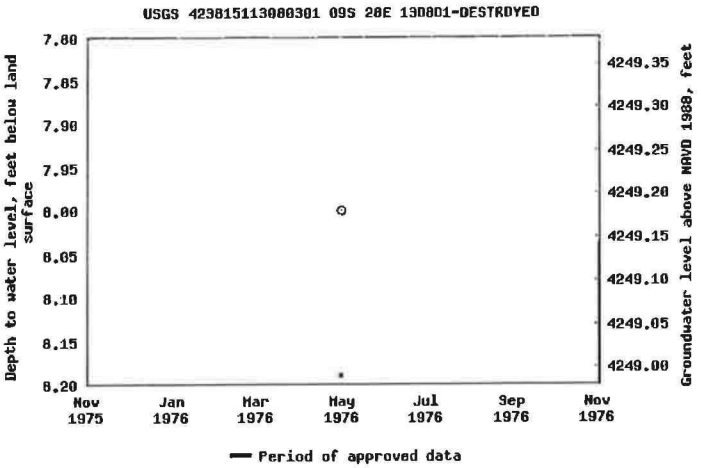
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USGS 423815113080301 09S 28E 13DBD1-DESTROYED

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°38'14.68", Longitude 113°08'06.00" NAD83
Land-surface elevation 4,257.18 feet above NAVD88
The depth of the well is 70 feet below land surface.
The depth of the hole is 70 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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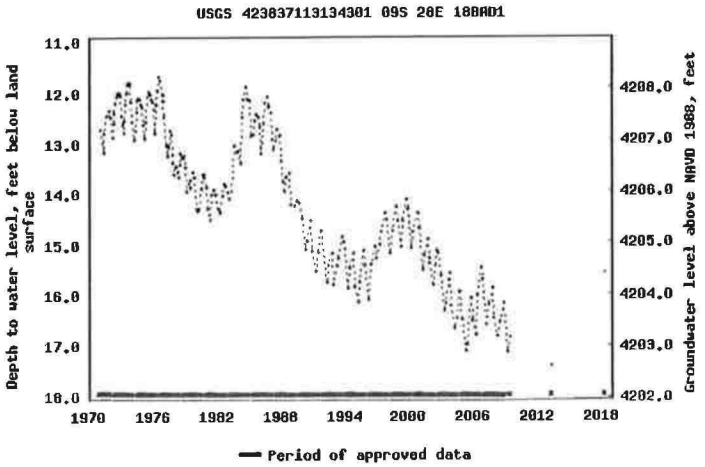
USGS 423837113134301 09S 28E 18BAD1

Power County, Idaho
Hydrologic Unit Code 17040209

Latitude 42°38'36.68", Longitude 113°13'45.00" NAD83
Land-surface elevation 4,219.96 feet above NAVD88
The depth of the well is 150 feet below land surface.
The depth of the hole is 150 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



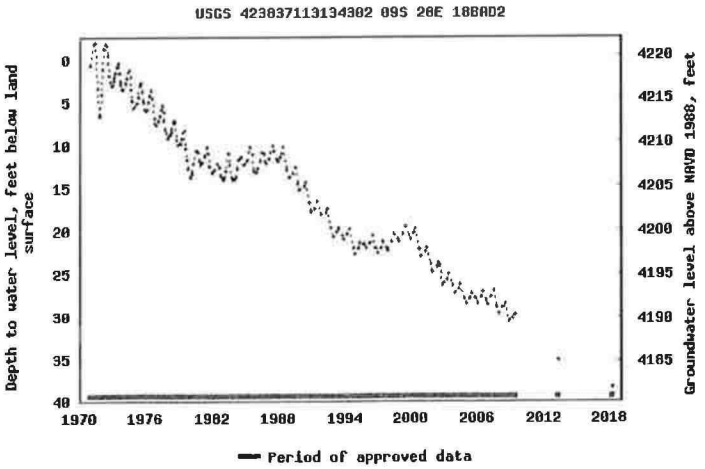
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USGS 423837113134302 09S 28E 18BAD2

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°38'36.68", Longitude 113°13'45.00" NAD83
Land-surface elevation 4,219.96 feet above NAVD88
The depth of the well is 505 feet below land surface.
The depth of the hole is 518 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



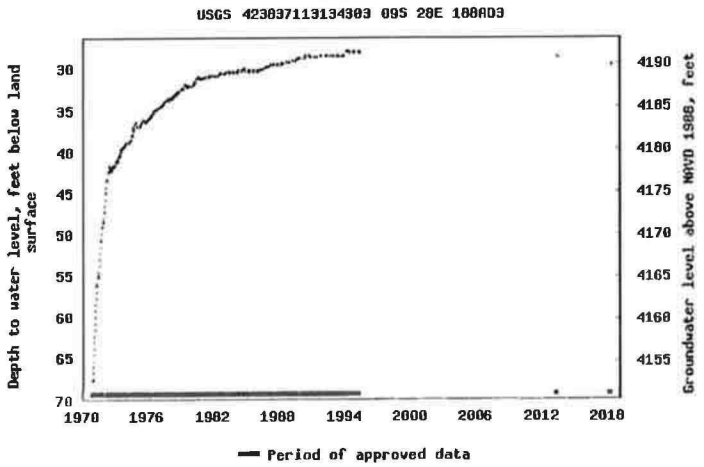
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USGS 423837113134303 09S 28E 18BAD3

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°38'36.68", Longitude 113°13'46.00" NAD83
Land-surface elevation 4,219.96 feet above NAVD88
The depth of the well is 1,013.70 feet below land surface.
The depth of the hole is 1,013.70 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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USA.gov

Title: Groundwater for Idaho: Water Levels
URL: https://nwis.waterdata.usgs.gov/id/nwis/gwlevels?

Page Contact Information: Idaho Water Data Maintainer
Page Last Modified: 2021-04-02 16:53:23 EDT
9.4 3.2 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: Idaho | GO

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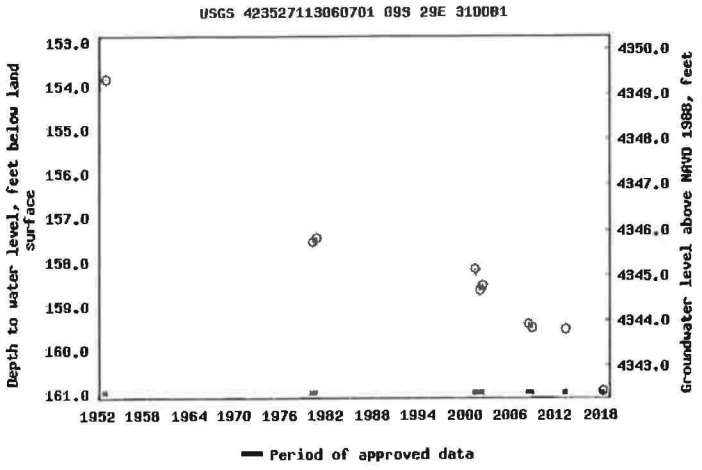
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Save file of selected sites to local disk for future upload

USGS 423527113060701 09S 29E 31DDB1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°35'29.69", Longitude 113°06'09.99" NAD83
Land-surface elevation 4,503.28 feet above NAVD88
The depth of the well is 175 feet below land surface.
The depth of the hole is 175 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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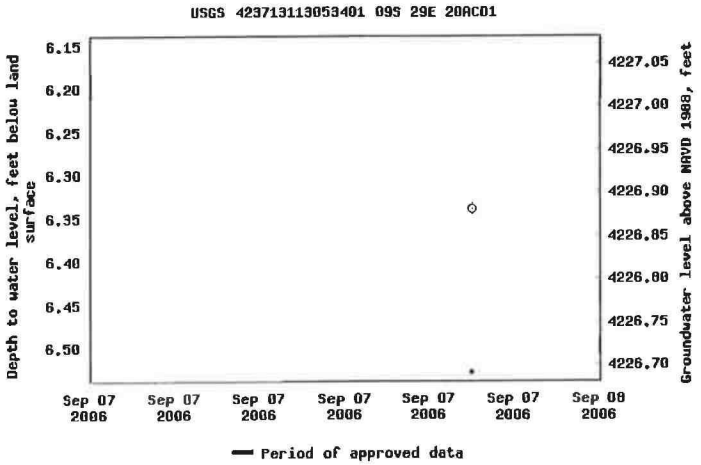
USGS 423713113053401 09S 29E 20ACD1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°37'31.70", Longitude 113°05'11.50" NAD83
Land-surface elevation 4,233.22 feet above NAVD88

The depth of the well is 40 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



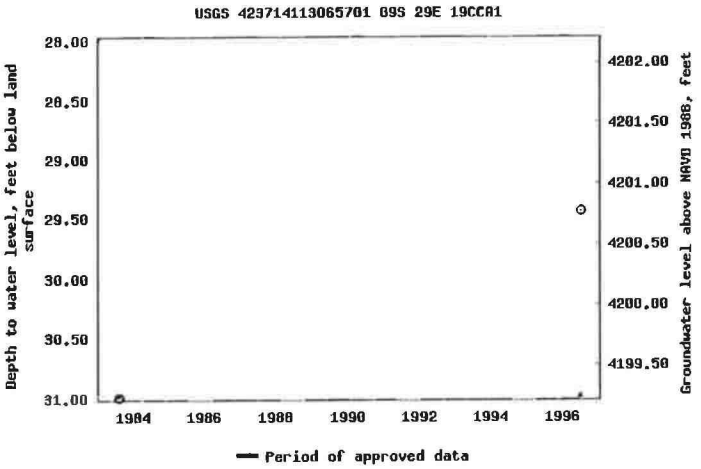
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USGS 423714113065701 09S 29E 19CCA1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°37'13.68", Longitude 113°06'59.99" NAD83
Land-surface elevation 4,230.21 feet above NAVD88
The depth of the well is 90 feet below land surface.
The depth of the hole is 90 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
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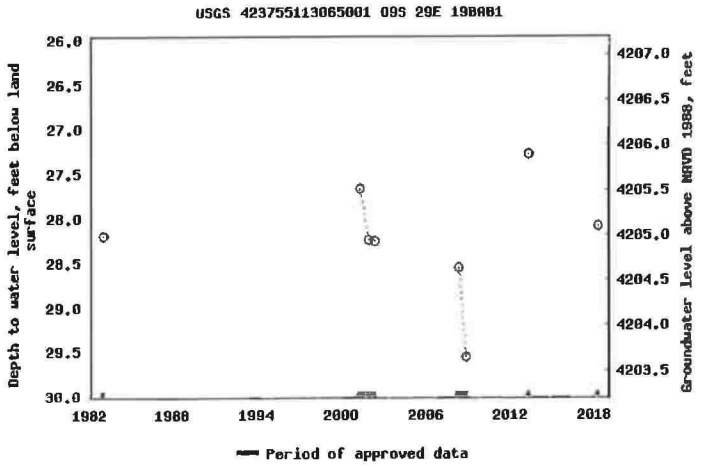
USGS 423755113065001 09S 29E 19BAB1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°37'56.00", Longitude 113°06'53.60" NAD83

Land-surface elevation 4,233.19 feet above NAVD88
The depth of the well is 535 feet below land surface.
The depth of the hole is 535 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



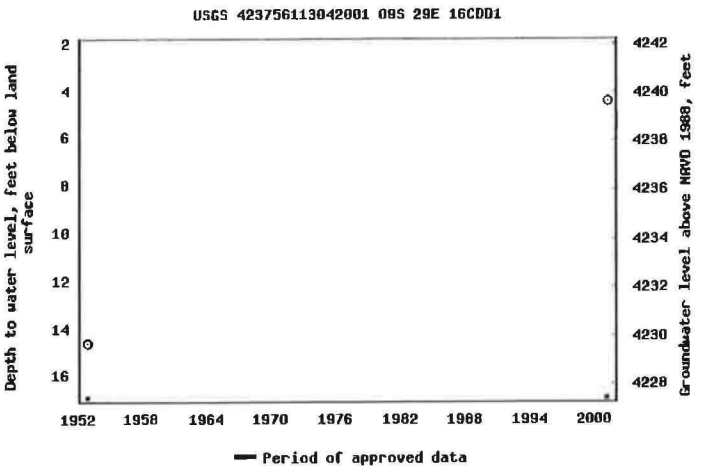
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USGS 423756113042001 09S 29E 16CDD1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°37'55.69", Longitude 113°04'22.99" NAD83
Land-surface elevation 4,244.23 feet above NAVD88
The depth of the well is 52 feet below land surface.
The depth of the hole is 60 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
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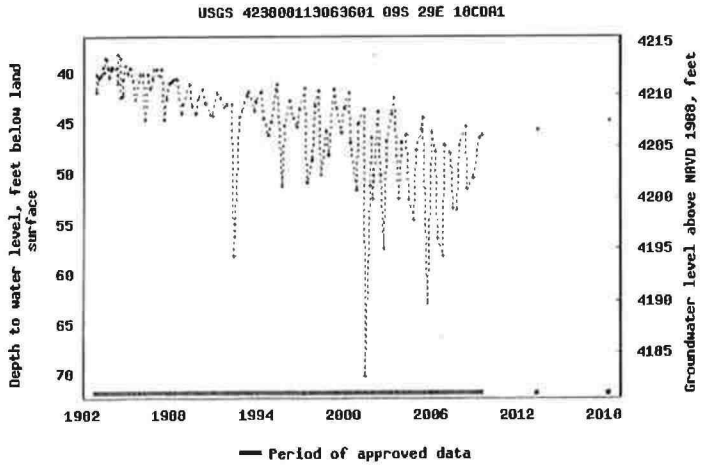
USGS 423808113063601 09S 29E 18CDA1

Power County, Idaho

Hydrologic Unit Code 17040209
Latitude 42°38'07.90", Longitude 113°06'39.00" NAD83
Land-surface elevation 4,252.52 feet above NAVD88
The depth of the well is 250 feet below land surface.
The depth of the hole is 250 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



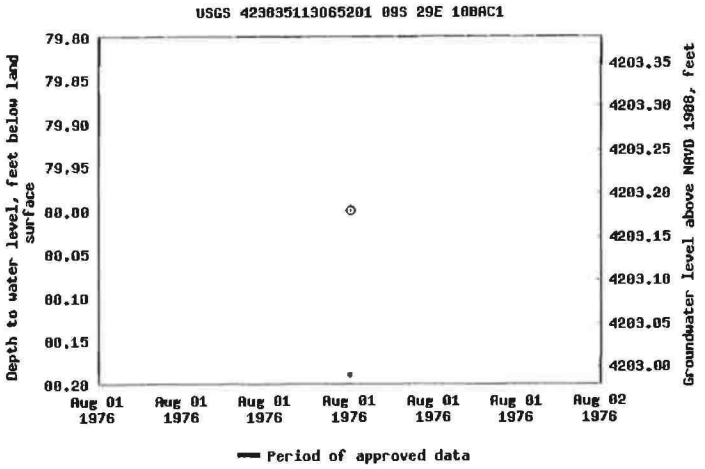
Breaks in the plot represent a gap of at least one year between field measurements.
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USGS 423835113065201 09S 29E 18BAC1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°38'34.69", Longitude 113°06'55.00" NAD83
Land-surface elevation 4,283.18 feet above NAVD88
The depth of the well is 420 feet below land surface.
The depth of the hole is 420 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



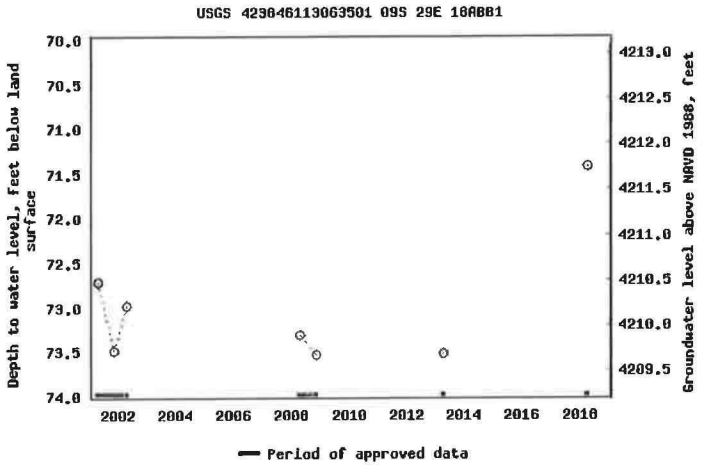
Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

USGS 423846113063501 09S 29E 18ABB1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°38'45.00", Longitude 113°06'38.30" NAD83
Land-surface elevation 4,283.18 feet above NAVD88

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



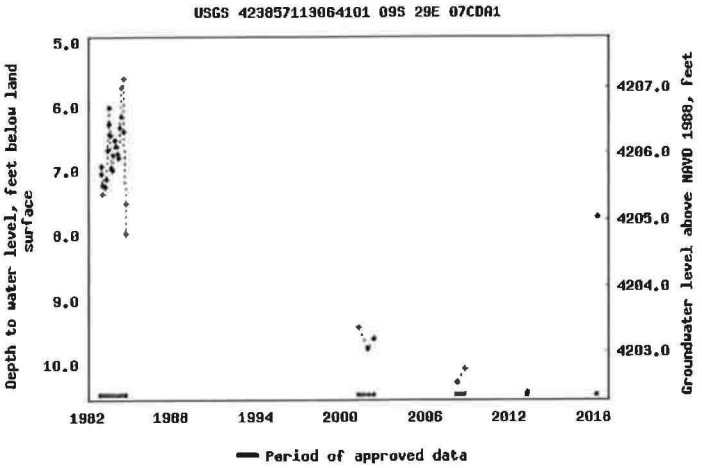
Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

USGS 423857113064101 09S 29E 07CDA1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°38'57.90", Longitude 113°06'45.10" NAD83
Land-surface elevation 4,212.76 feet above NAVD88
The depth of the well is 141 feet below land surface.
The depth of the hole is 148 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



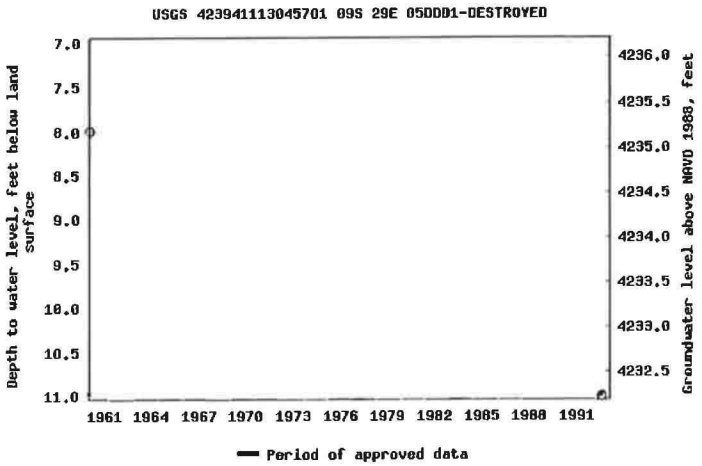
Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

USGS 423941113045701 09S 29E 05DDD1-DESTROYED

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°39'40.69", Longitude 113°04'59.99" NAD83
Land-surface elevation 4,243.20 feet above NAVD88
The depth of the well is 74 feet below land surface.
The depth of the hole is 74 feet below land surface.
This well is completed in the Snake River Group (110SKRV) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



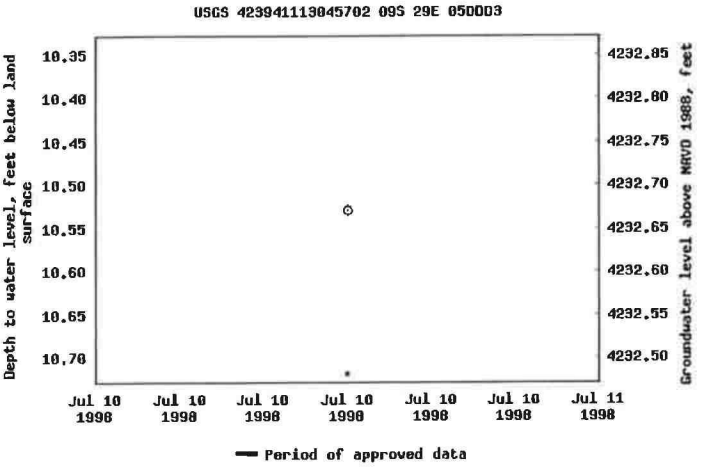
Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

USGS 423941113045702 09S 29E 05DDD3

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°39'41.10", Longitude 113°05'02.10" NAD83
Land-surface elevation 4,243.20 feet above NAVD88
The depth of the well is 100 feet below land surface.
The depth of the hole is 100 feet below land surface.
This well is completed in the Snake River Plain basaltic-rock aquifers (N600SKRVPV) national aquifer.
This well is completed in the Snake River Group (110SKRV) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.

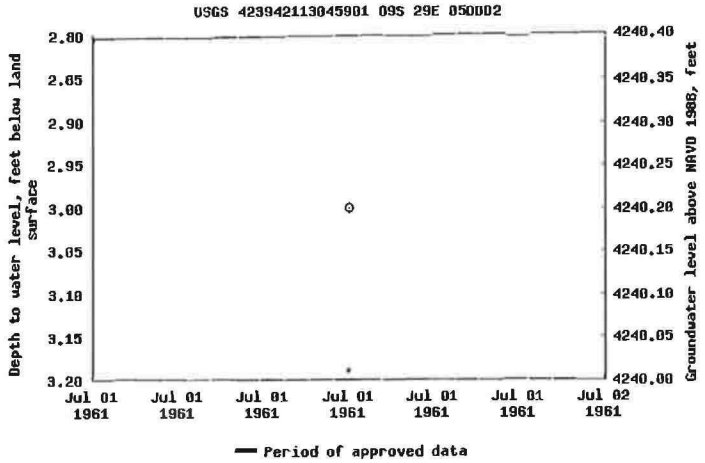
Download a presentation-quality graph

USGS 423942113045901 09S 29E 05DDD2

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°39'41.69", Longitude 113°05'02.00" NAD83
Land-surface elevation 4,243.20 feet above NAVD88
The depth of the well is 84.0 feet below land surface.
The depth of the hole is 84.0 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



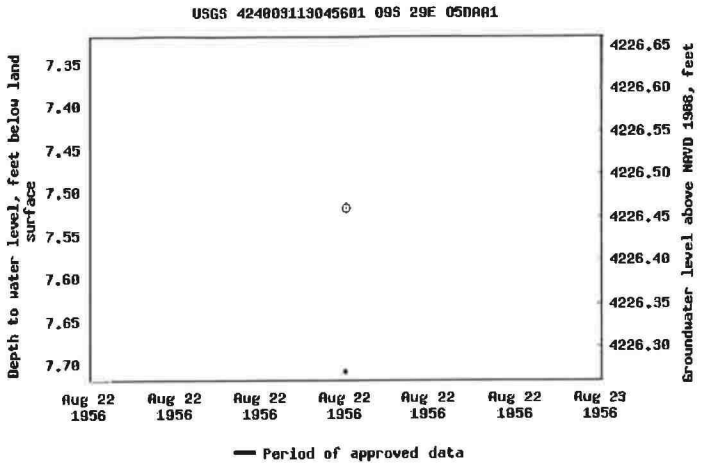
Breaks in the plot represent a gap of at least one year between field measurements.
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USGS 424003113045601 09S 29E 05DAA1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°40'02.69", Longitude 113°04'59.00" NAD83
Land-surface elevation 4,233.98 feet above NAVD88
The depth of the well is 50.0 feet below land surface.
The depth of the hole is 50.0 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



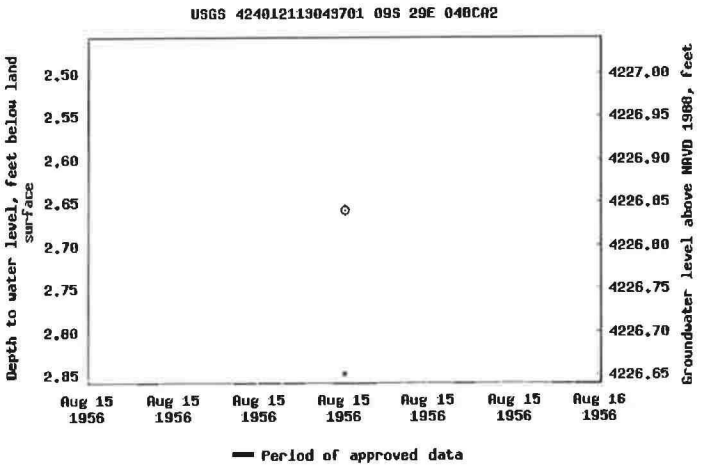
Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

USGS 424012113043701 09S 29E 04BCA2

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°40'11.69", Longitude 113°04'40.00" NAD83
Land-surface elevation 4,229.50 feet above NAVD88
The depth of the well is 100 feet below land surface.
The depth of the hole is 100 feet below land surface.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
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USGS 424013113043801 09S 29E 04BCA1

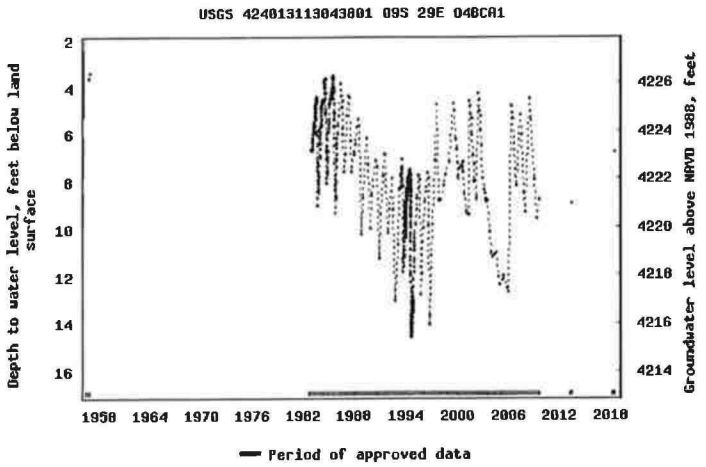
Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°40'13.09", Longitude 113°04'47.30" NAD83
Land-surface elevation 4,229.87 feet above NAVD88
The depth of the well is 52.56 feet below land surface.
The depth of the hole is 52.56 feet below land surface.

Output formats

Table of data
Tab-separated data

Graph of data

Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

USGS 424013113044901 09S 29E 04BCB1

Power County, Idaho
Hydrologic Unit Code 17040209
Latitude 42°40'12.69", Longitude 113°04'52.00" NAD83
Land-surface elevation 4,247.21 feet above NAVD88
The depth of the well is 20.0 feet below land surface.
The depth of the hole is 20.0 feet below land surface.

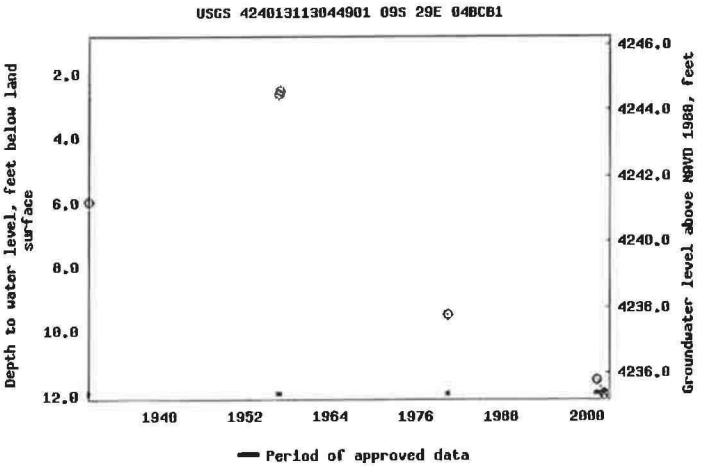
Output formats

Table of data

Tab-separated data

Graph of data

Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Page Contact Information: Idaho Water Data Maintainer
Page Last Modified: 2021-04-02 16:55:20 EDT
12.78 6.03 nadww01

USE TYPEWRITER OR BALL POINT PEN

State of Idaho
Department of Water Resources

WELL DRILLER'S REPORT

RECEIVED FEB 8 1978
Department of Water Resources
Eastern District Office

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER Ap 74100 Ap. Permit 74107

Name Vern Duffin

Address Aberdeen, Id.

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☒ Irrigation ☐ Test ☐ Other (specify type)

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

☒ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 16 inches Total depth 70 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	16 inches	+1 feet	20 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☐ Yes ☒ No

Perforated? ☒ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation _____ inches by _____ inches

Number		From		To	
440	perforations	22	feet	64	feet
_____	perforations	_____	feet	_____	feet
_____	perforations	_____	feet	_____	feet

Well screen installed? ☐ Yes ☒ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☒ No Size of gravel _____

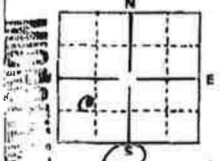
Placed from _____ feet to _____ feet

Surface seal depth 20 Material used in seal ☐ Cement grout ☒ Puddling clay ☐ Well cuttings

Seeding procedure used ☐ Slurry pit ☐ Temporary surface casing ☒ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____

Lot No. _____ Block No. _____

County Wilson

NW¼ SW¼ Sec. 13 T. 9 N/S, R. 28 E/W

7. WATER LEVEL

Static water level 8 feet below land surface

Flowing? ☐ Yes ☒ No G.P.M. flow _____

Temperature _____° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped

9. LITHOLOGIC LOG 104402

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	0	12	topsoil		X
	12	68	gravel	X	
	68	70	clay		

10.

Work started May 1976 finished May 1976

11. DRILLERS CERTIFICATION

Firm Name XXXXXXX Paul Vollmer & Son Firm No. 67

Address Aberdeen, Id. Date 2-1-78

Signed by (Firm Official) Paul Vollmer

and (Operator) Paul Vollmer

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE COPY TO THE DEPARTMENT

Form 238-7
73

RECEIVED
MAR 5 1980
Department of Water Resources
Southern District Office

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

Location Corrected by IDWR To:
T09S R29E Sec. 18 SESW
By: mciscell 2012-05-09

1. WELL OWNER
Name Vern Duffin
Address Aberdeen, Ida. 83210
Owner's Permit No. _____

2. NATURE OF WORK
☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE
☐ Domestic ☒ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED
☐ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☑ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION
Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

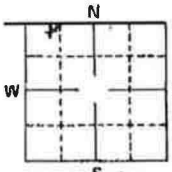
Thickness		Diameter		From		To	
.250	inches	16	inches +	1	feet	256	feet
	Inches		inches		feet		feet
	inches		inches		feet		feet
	inches		inches		feet		feet

Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

Number		From		To	
	perforations		feet		feet
	perforations		feet		feet
	perforations		feet		feet

Well screen installed? ☐ Yes ☐ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 20' Material used in seal: ☐ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port 2" pipe

6. LOCATION OF WELL
Sketch map location must agree with written location. 41



Subdivision Name _____
Lot No. _____ Block No. _____
County Bingham
NW ¼ NW ¼ Sec. 19, T. 9 S, R. 29 E

7. WATER LEVEL
Static water level 1 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Department of Water Resources Eastern District Office
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8. WELL TEST DATA
☐ Pump ☐ Bailer ☐ Air ☐ Other _____
MAR 7 1980
Department of Water Resources

Discharge G.P.M.	Pumping Level	Hours Pumped

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
16"	0	3'	Top Soil		
	3'	5'	Gray sandy Clay & Rock		
	5'	10'	Black Lava Boulders		
	10'	15'	Broken Black Lava	√	
	15	35'	Black lava Gravel & Gray Clay	√	
	35	40'	Gravel		
	40	70'	Brown Sandy Clay & Gravel		
	70'	110	Yellow Clay & Red Gravel		
	110	173	White Silt & Clay		
	173	210	Brown Clay		
	210	245	yellow & Brown Clay & gravel		
	245	275	Black lava Broken	√	
	275	295	Brownish lava	√	
	295	305	Black lava	√	
	305	310	Multicolored Lava	√	
	310	312	Red Lava & Clay	√	
	312	345	Multicolored Lava	√	
	345	370	Red & Black Lava		
	370	385	Red & Black Lava & Red Clay		
	385	387	Red White Clay		
	387	401	Red Lava White Soft Lava		
	401	450	Multicolored Lava & Red Clay		
	450	455	White & Black Clay		
	455	465	Black Lava		
	465	470	Multicolored Lava		
	470	500	Gray Lava		
	500	515	Sharp Gray Lava (No Cuttings)		
	515	530	Red Lava		
	530	535	Multicolored Lava		
	535	540	Reddish Rock with Aspecial Crystals		
	530		Red Clay & Red Lava & Crystals		
		535	End of Hole		

10.
Work started 10-11-78 finished 1-18-79

11. DRILLERS CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name Paul Vallmert Son Firm No. 67
Address Box B Aberdeen, Ida. Date 3-12-79
Signed by (Firm Official) Gary Vallmert
and
(Operator) Jim Taylor

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Form 238-7
/79

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of
within 30 days after the completion or abandonment of the w

Location Corrected by IDWR To:
T09S R29E Sec. 18 NWSWSE
By: mciscell 2012-08-28

1. WELL OWNER

Name Vern Duffin

Address Aberdeen, Ida 83210

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
250 inches	6 inches	+ 1 feet	Hard feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

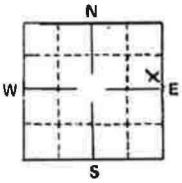
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

Number		From	To
_____	perforation	_____ feet	_____ feet
_____	perforations	_____ feet	_____ feet
_____	perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 150' Material used in seal: ☒ Cement grout
☒ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing
☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld
☐ Cemented between strata
Describe access port ~~2" pipe~~ Well cap

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____
County Power
1/4 NE 1/4 Sec. 22, T. 7 N/S, R. 31 E/W

7. WATER LEVEL

Static water level 85' feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____

8. WELL TEST DATA Good

☐ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	0	3'	Dirt		–
	3'	15'	Sand Semi Solid		–
	15'	98'	Sand Stone		
	98'	125'	Lava		
	125'	134'	Clay		
	134'	145'	Sandstone		
	145'	178'	Lava	✓	
	178'	250'	Sandstone	✓	

RECEIVED
FEB 22 1980
Department of Water Resources
Eastern District Office

MAR 5 1980
Department of Water Resources

10.

Work started 2-9-79 finished 2-12-79

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

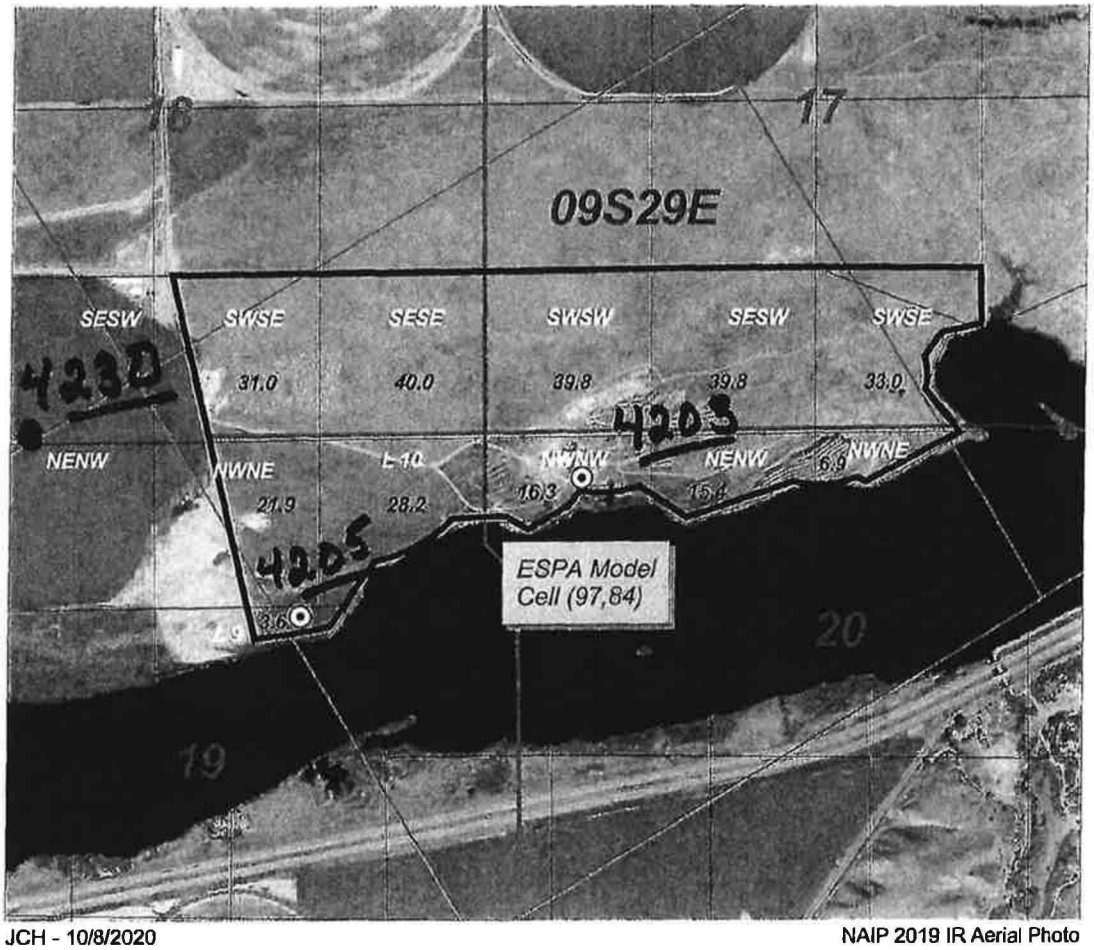
Firm Name Paul Wallmer & Son Firm No. 67
Address Box B Aberdeen, Ida. Date 3-12-79
Signed by (Firm Official) Gary Wallmer
and
(Operator) Gary Wallmer

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Exhibit
B

River elevation 4195

Google Earth elevations



JCH - 10/8/2020

NAIP 2019 IR Aerial Photo

0.25 0 0.25 0.5 Miles

⊙ New Well

New Place of Use: 275.9 ac.

N
W E
S

Township & Range
Sections
Power County 40's

ESPA Model Grid

Attachment #7a

Barker Rosholt
& Simpson LLP

Boise
1010 W. Jefferson St. Suite 102
Boise, Idaho 83702
p. 208.336.0700
f. 208.344.6034

Attorneys
Albert P. Barker
John K. Simpson
Travis L. Thompson
Scott A. Magnuson
of counsel
Sarah W. Higer
Michael A. Short
John A. Rosholt
(1937-2019)

Sarah W. Higer
EMAIL: swh@idahowaters.com
PHONE: 208.336.0700
WEB: idahowaters.com

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JUL 19 2021
Department of Water Resources
Eastern Region

July 16, 2021

Idaho Department of Water Resources
900 North Skyline Drive, Suite A
Idaho Falls, Idaho 83402-1718

Re: Application for Transfer Nos. 84488 and 84490 in the Name of LCSC Enterprises LLC

Dear Clerk:

Enclosed for filing, please find one original and one copy each of *The Surface Water Coalition's Disclosure of Expert Report and Declaration of Dan Temple* and *Notice of Service of Surface Water Coalition's Responses to LCSC Enterprises LLC First Set of Interrogatories* in the above referenced matter. Please return the copies with your file stamp in the enclosed postage prepaid envelope.

Please contact our office if you have any questions. Thank you for your assistance.

Very truly yours,

BARKER ROSHOLT & SIMPSON LLP

Laura E. Lowrey, Assistant to
Sarah W. Higer

/lel
Enclosures

RECEIVED
Sep 12, 2025
DEPARTMENT OF WATER RESOURCES

SWC Exhibit 203

WATER RIGHTS LIST

A & B Irrigation District

1-14	04/01/1939
1-10225	04/01/1984
1-10237	07/11/1968
1-10238	07/11/1968
1-10239	07/11/1968
1-10240	07/11/1968
1-10240	07/11/1968
1-10241	04/01/1978

American Falls Reservoir District #2

1-6	03/30/1921

Burley Irrigation District

1-7	04/01/1939
1-211B	03/26/1903
1-214B	08/06/1908

Milner Irrigation District

1-9A	07/08/1954
1-9B	07/12/1967
1-17	11/14/1916
1-2050	10/25/1939

Minidoka Irrigation District

1-8	04/01/1939

Twin Falls Canal Company

1-4	12/22/1915
1-10	04/01/1939
1-209	10/11/1900
1-10509	03/01/1905

North Side Canal Company

1-5	12/23/1915
1-16	08/06/1920
1-210B	10/11/1900
1-212	10/07/1905
1-213	06/16/1908
1-10488	03/17/1987

(USBR) American Falls Reservoir

1-2064	03/30/1964
1-10042	03/29/1921
1-10620	10/31/1965

(USBR) Jackson Lake Reservoir

1-4055	08/23/1906
1-10044	08/18/1910
1-10045	05/24/1913
1-10623	10/31/1956

(USBR) Palisades Reservoir

1-2068 A	07/28/1939
1-10043	07/28/1939
1-10621A	10/31/1965
1-10621B	10/31/1976

(USBR) Lake Walcott

1-219	12/14/1909
1-10622	10/31/1965

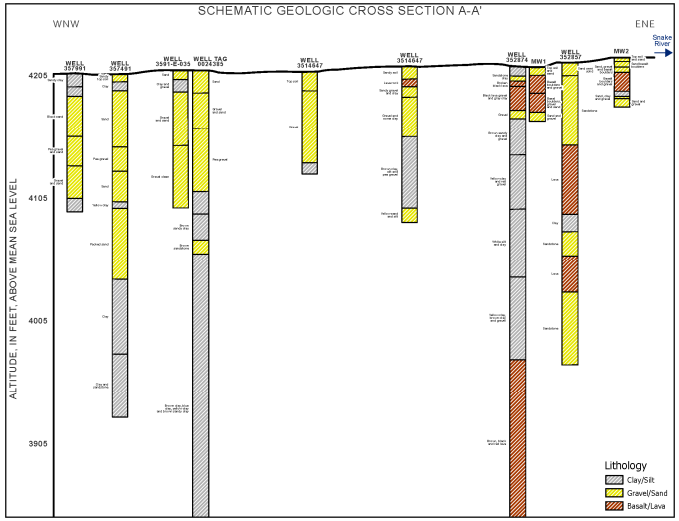
2025 SWC Rebuttal Report

- **Opinion 1** – The applications are incomplete because they do not follow IDWR guidance for transfer application procedures. The unique characteristics of the applications require an alternative procedure, which the applicant failed to provide.
- **Opinion 2** – The applicant has not recommended an acceptable alternative method for evaluating impacts or injury. LCSC has not clearly quantified the impact of the applications on Snake River reaches and has not shown or proven that there is no injury to existing water rights.
- **Opinion 3** – Due to the short distance between the proposed points of diversion (PODs) and the Snake River, and the complex hydrogeology in the areas of the proposed PODs, the Eastern Snake Plain Aquifer Model (ESPAM) and the ESPA Model Transfer Spreadsheet (ETRAN) are inappropriate for evaluating these transfers and the impact of flows on specific reaches of the Snake River.

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- LCSC included an erroneous ETRAN 3.2 analysis in 2021.
- No new ETRAN analysis was performed after the TO wells were moved in the 2025 update.
- The current version is ETRAN 3.4, which incorporates ESPAM 2.2, which was released in May of 2021.
- LCSC experts state that the ETRAN tool is inappropriate for analyzing this transfer. I agree. They did not demonstrate a better way to analyze the impact of the transfer and have not accurately quantified the impact.



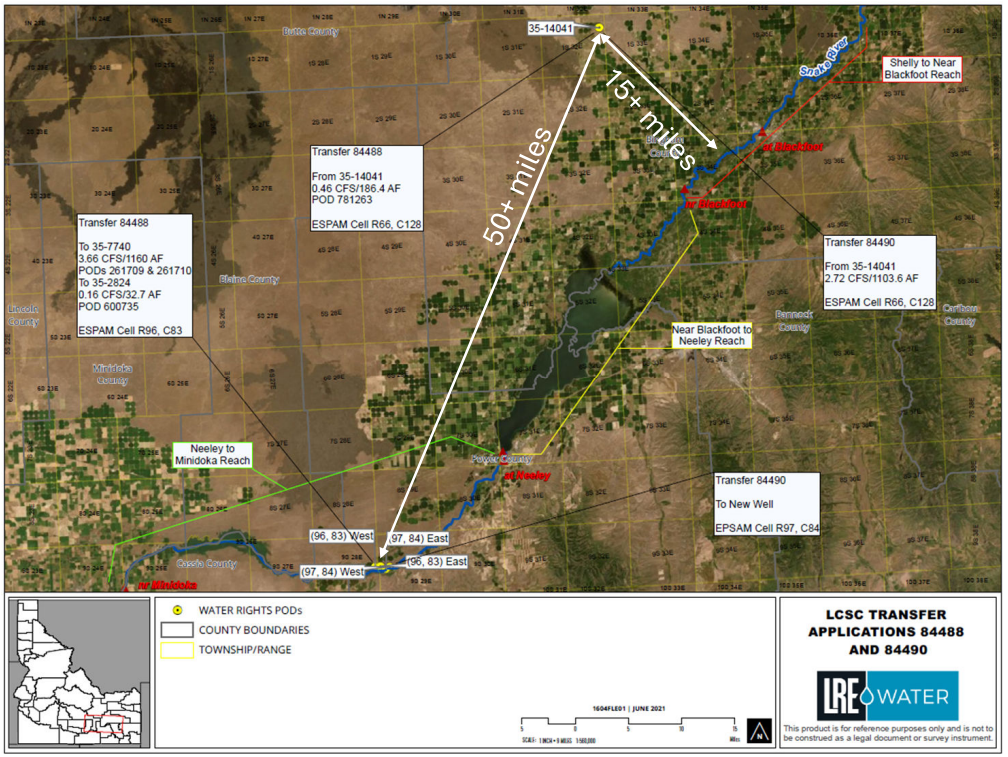
2025 SWC Rebuttal Report

Opinion 4 – The applicant's interpretation of ETRAN results inappropriately combines predicted impacts on the near Blackfoot to Neeley and Neeley to Minidoka reaches. This combined reach would cover over 73 miles of the Snake River.

- Transfer Processing Memo 31 (1/3/2025) states that this has been allowed:

Additional Considerations

In the past, the Department has allowed applicants to combine the Near Blackfoot to Neeley and Neeley to Minidoka reaches of the Snake River for purposes of evaluating ground water pumping impacts to those reaches of the river. Those reaches of the Snake River are administered as a single reach by the watermaster of Water District 1 for priority administration of Snake River water rights. In other words, gains in one reach offset losses in the other reach. Therefore, Department staff may continue this practice of accepting technical analyses where the Near Blackfoot to Neeley and Neeley to Minidoka reaches are combined.



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SWC Exhibit 204

2025 SWC Rebuttal Report

Opinion 7 – The ETRAN analysis presented includes incorrect inputs showing year-round pumping rather than the period of use associated with the water rights (April 1 – November 1).

- Water right 35-14041 authorizes 1103.6 AF annually with a period of use from 4/1 to 11/1.
- The ETRAN input should be 551.8 AF for the SPR and SUM rows of each year.

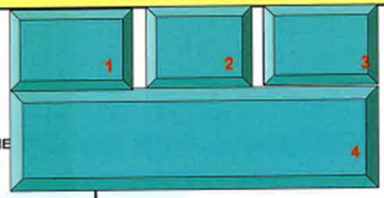
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ENHANCED GROUND-WATER RIGHTS TI

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ENTER STARTING DATE FOR SIMULATION. THEN P "UPDATE DATES" BU
YEAR 1974
SEASON SPRING

TRANSFER NO: 84490
TRANSFER NAME 9S,29E-17,18

ENTER CELL LOCATIONS:

	'TO' CELL	'FROM1' CELL	'FROM2' CELL	'FROM3' CEI
ROW	97	66		
COLUMN	84	128		

new well 35-14041 10/16/1974 1103.6

Total transfer: 1103.6

TRIMESTER OF ACTIVITY	TO WELL Projected Use AF/TRIMESTER	FROM1 WELL With Transfer AF/TRIMESTER	FROM1 WELL Without Transfer AF/TRIMESTER	FROM2 WELL With Transfer AF/TRIMESTER	FROM2 WELL Without Transfer AF/TRIMESTER	FROM3 WELL With Transfer AF/TRIMESTER	FROM3 WELL Without Transfer AF/TRIMESTER
SPR 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 1975	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SUM 1975	0.0	367.9	367.9	0.0	0.0	0.0	0.0
WIN 1975	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SPR 1976	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SPR 2007	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SUM 2007	0.0	367.9	367.9	0.0	0.0	0.0	0.0
WIN 2007	0.0	367.9	367.9	0.0	0.0	0.0	0.0
SPR 2008	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2008	0.0	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2008	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2009	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2021	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2021	0.0	0.0	367.9	0.0	0.0	0.0	0.0
WIN 2021	0.0	0.0	367.9	0.0	0.0	0.0	0.0
SPR 2022	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2022	367.5	0.0	367.5	0.0	0.0	0.0	0.0
WIN 2022	367.5	0.0	367.5	0.0	0.0	0.0	0.0
SPR 2023	367.5	0.0	367.5	0.0	0.0	0.0	0.0
SPR 2122	367.9	0.0	367.9	0.0	0.0	0.0	0.0
SUM 2122	367.5	0.0	367.5	0.0	0.0	0.0	0.0
WIN 2122	367.5	0.0	367.5	0.0	0.0	0.0	0.0
SPR 2123	367.5	0.0	367.5	0.0	0.0	0.0	0.0
SUM 2123	367.5	0.0	367.5	0.0	0.0	0.0	0.0
WIN 2123	367.5	0.0	367.5	0.0	0.0	0.0	0.0

2025 SWC Rebuttal Report

- **Opinion 8** – Utilizing the ESPAM and ETRAN versions proposed by Helms indicates mitigation is required in the Neeley to Minidoka reach and several spring reaches.

- The transfer applications did not include the IDWR Mitigation Analysis Tool results, shown here.

Table 4 – LRE Analysis: Mitigation Analysis Tool Results for Transfer No. 84488

		Impact by Reach (AF/Trimester)										
		Ashton to Rexburg	Heise to Shelley	Shelley to Nr Bickft	Nr Bickft To Neeley	Neeley to Minidoka	Dev. Wbl. To Buhl	Buhl to Kspr	Kspr	Kspr to Malad	Malad	Malad to Bancroft
	Pre-SS	1.44	4.33	13.17	40.26	0.24	0.76	0.87	0.38	0.24	0.22	0.01
	Post-SS	0.81	2.41	7.26	23.53	12.74	4.44	5.00	2.22	1.40	1.28	0.08
	Pre-TS	1.44	4.33	13.17	40.26	0.24	0.76	0.87	0.38	0.24	0.22	0.01
	Post-TS	0.81	2.41	7.26	23.53	12.74	4.44	5.00	2.22	1.40	1.28	0.08
Steady State Analysis	Mitigation Check 1 - >10% of Historical:	-43.5%	-44.4%	-44.9%	-41.6%	5221.7%	483.2%	477.5%	477.5%	477.4%	477.3%	477.2%
	Mitigation Check 2: > 2 AF/T:	-0.6	-1.9	-6.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1
	Mitigation Check 3 - >10% of Total:	1.3%	3.9%	11.9%	38.5%	20.8%	7.3%	8.2%	3.6%	2.3%	2.1%	0.1%
	Mitigation Required?:	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
	Mitigation Vol. Req'd (ac-ft):	-0.6	-1.9	-6.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1
Transient State Analysis	Mitigation Check 1 - >10% of Historical:	-43.5%	-44.4%	-44.9%	-41.6%	5221.7%	483.2%	477.5%	477.5%	477.4%	477.3%	477.2%
	Mitigation Check 2: > 2.01 AF/T:	-0.6	-1.9	-6.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1
	Mitigation Required?:	NO	NO	NO	NO	YES	YES	YES	NO	NO	NO	NO
	Mitigation Vol. Req'd (ac-ft):	-0.6	-1.9	-6.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1

Table 5 – LRE Analysis: Mitigation Analysis Tool Results for Transfer No. 84490

		Impact by Reach (AF/Trimester)										
		Ashton to Rexburg	Heise to Shelley	Shelley to Nr Bickft	Nr Bickft To Neeley	Neeley to Minidoka	Dev. Wbl. To Buhl	Buhl to Kspr	Kspr	Kspr to Malad	Malad	Malad to Bancroft
	Pre-SS	8.82	25.64	78.02	238.49	1.42	4.51	5.13	2.28	1.44	1.31	0.08
	Post-SS	4.82	14.29	43.15	139.93	76.38	25.82	29.07	12.91	8.14	7.45	0.46
	Pre-TS	8.82	25.64	78.02	238.49	1.42	4.51	5.13	2.28	1.44	1.31	0.08
	Post-TS	4.82	14.29	43.15	139.93	76.38	25.82	29.07	12.91	8.14	7.45	0.46
Steady State Analysis	Mitigation Check 1 - >10% of Historical:	-43.4%	-44.3%	-44.7%	-41.3%	5287.6%	472.5%	467.0%	466.9%	466.9%	466.8%	466.7%
	Mitigation Check 2: > 2 AF/T:	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
	Mitigation Check 3 - >10% of Total:	1.3%	3.9%	11.9%	38.6%	21.1%	7.1%	8.0%	3.6%	2.2%	2.1%	0.1%
	Mitigation Required?:	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
	Mitigation Vol. Req'd (ac-ft):	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
Transient State Analysis	Mitigation Check 1 - >10% of Historical:	-43.4%	-44.3%	-44.7%	-41.3%	5287.6%	472.5%	467.0%	466.9%	466.9%	466.8%	466.7%
	Mitigation Check 2: > 2.01 AF/T:	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
	Mitigation Required?:	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO
	Mitigation Vol. Req'd (ac-ft):	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4

Table 4 and Table 5 are the tabulated reach impact outputs from the Mitigation Analysis Spreadsheet. Highlighted cells in the output tables show where the depletive impacts exceed the steady state and transient mitigation criteria.

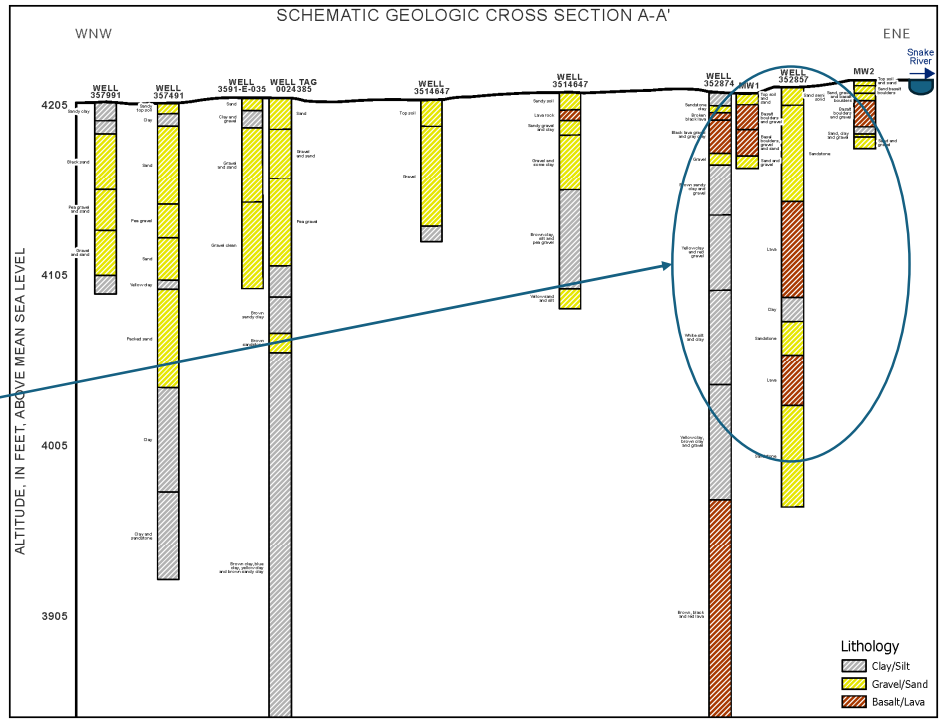
Using LCSC's input information with IDWR transfer analysis methodology and tools, LRE Water determined that transfer application No. 84488 and No. 84490 require mitigation of the Neeley to Minidoka reach because the depletive impacts exceed the steady state and transient mitigation criteria. Both applications also require mitigation of several spring reaches that exceed the transient mitigation criteria.

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2025 SWC Rebuttal Report

- **Opinion 9** – Neither CREP pumping reductions nor reservoir operations are approved mitigation plans. Reservoir operations do not justify combining reaches
- **Opinion 10** – Geologic evidence does not support the theory that a laterally continuous impermeable layer vertically separates Snake River impacts from pumping proposed PODs.

- Lithology logs do not show a consistent clay/silt layer in the area of the transfer TO wells and the Snake River.
- Well log 352857 includes only a short interval of clay.

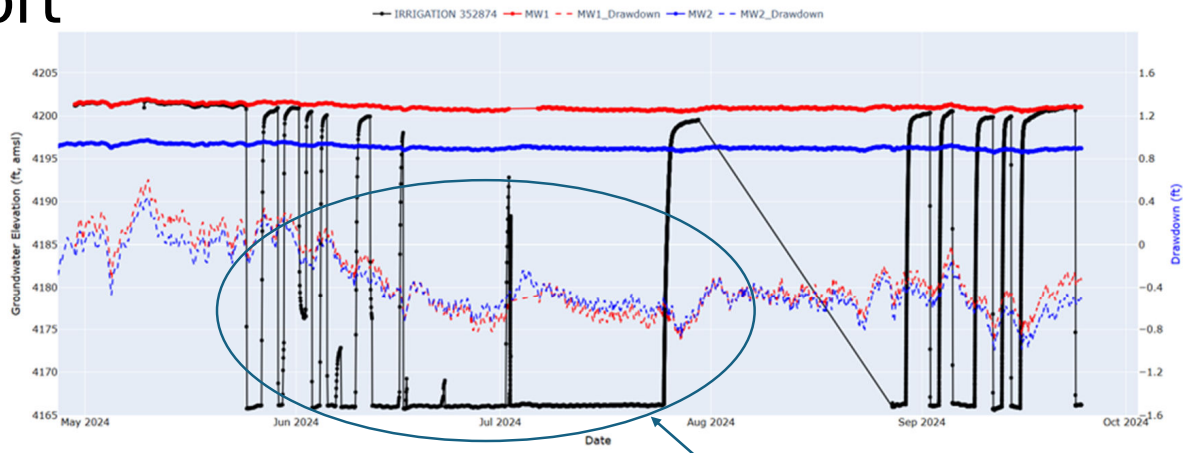


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2025 SWC Rebuttal Report

- **Opinion 11** – Water level data presented by Clearwater do not clearly demonstrate that the shallow monitoring wells were unaffected by pumping of the deep irrigation Well 352874. The water level data does not clearly demonstrate that pumping from the proposed PODs will be disconnected from the Snake River. The water levels in the irrigation well and the shallow wells move in tandem indicating the different depth intervals are connected.



MW1 and MW2 drawdown curve (dashed lines) correspond to the right axis.

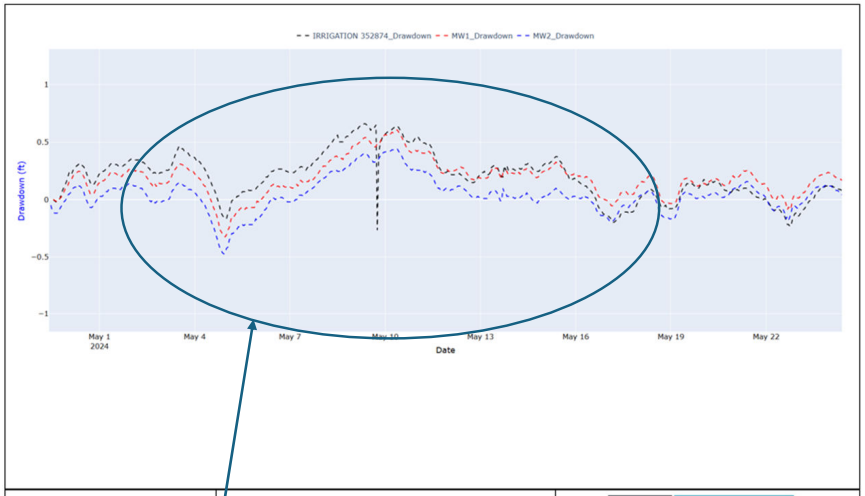
- Black line at lower elevations indicates deep well pumping.
- Red/blue shows possible drawdown affect in shallow monitoring wells MW-1 & MW-2.

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2025 SWC Rebuttal Report

- **Opinion 11** – Water level data presented by Clearwater do not clearly demonstrate that the shallow monitoring wells were unaffected by pumping of the deep irrigation Well 352874. The water level data does not clearly demonstrate that pumping from the proposed PODs will be disconnected from the Snake River. The water levels in the irrigation well and the shallow wells move in tandem indicating the different depth intervals are connected.



DATE: 5/30/2025

AUTHOR: SS

CHECKED BY: JB

Figure 5
Pre-Pumping Drawdown Data from Well 352874, MW-1, MW-2

LRE WATER
CONNECTING WATER TO LIFE
1221 Auraria Parkway, Denver, CO 80204

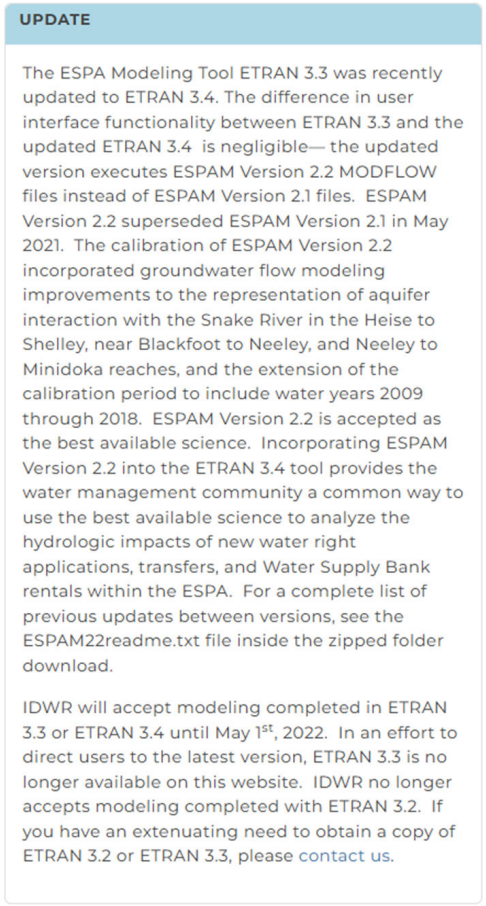
- Non-pumping water level data show similar trends in deep well (black) and shallow wells (red & blue).
- This indicates that shallow and deep aquifer systems are interconnected.

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2025 SWC Rebuttal Report

- **Opinion 12** – If LCSC is required to use ESPAM and ETRAN tools to evaluate the impacts of these transfers, the most recent versions should be used (ESPAM 2.2 and ETRAN 3.4).



UPDATE

The ESPA Modeling Tool ETRAN 3.3 was recently updated to ETRAN 3.4. The difference in user interface functionality between ETRAN 3.3 and the updated ETRAN 3.4 is negligible— the updated version executes ESPAM Version 2.2 MODFLOW files instead of ESPAM Version 2.1 files. ESPAM Version 2.2 superseded ESPAM Version 2.1 in May 2021. The calibration of ESPAM Version 2.2 incorporated groundwater flow modeling improvements to the representation of aquifer interaction with the Snake River in the Heise to Shelley, near Blackfoot to Neeley, and Neeley to Minidoka reaches, and the extension of the calibration period to include water years 2009 through 2018. ESPAM Version 2.2 is accepted as the best available science. Incorporating ESPAM Version 2.2 into the ETRAN 3.4 tool provides the water management community a common way to use the best available science to analyze the hydrologic impacts of new water right applications, transfers, and Water Supply Bank rentals within the ESPA. For a complete list of previous updates between versions, see the ESPAM22readme.txt file inside the zipped folder download.

IDWR will accept modeling completed in ETRAN 3.3 or ETRAN 3.4 until May 1st, 2022. In an effort to direct users to the latest version, ETRAN 3.3 is no longer available on this website. IDWR no longer accepts modeling completed with ETRAN 3.2. If you have an extenuating need to obtain a copy of ETRAN 3.2 or ETRAN 3.3, please contact us.

https://idwr.idaho.gov/water-rights/transfers/resources/

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Clearwater 4/30/25 Modeling Report

- Clearwater claimed that Table 1 demonstrates that older versions of ESPAM and ETRAN are more appropriate for analyzing these transfer applications.
- The table provided is illegible.

Table 1. Comparison of ESPAM2.2 to ETRAN V3.4 results.

	Above Minidoka					Below Minidoka						
ESPAM2.2 -Base Case: Existing Conditions	Ashton-Rexburg	Heise-Shelley	Shelly-Nr Blackfoot	Nr. Blackfoot-Neeley	Neeley-Minidoka	Dev. Wbl.-Buhl	Buhl-Kspr	Kspr	Kspr-Malad	Malad	Malad -Bancroft	
River Loss (ft^3/day)	42,231,360.00	64,740,070.00	64,310,700.00	3,067,671.00	1,148,008.00	23,783,820.00	18,829,690.00	53,492,630.00	8,436,079.00	0.00	29,684,270.00	River Gain (ft^3/day)
River Gain(ft^3/day)	13,755,910.00	19,856,740.00	1,439,213.00	161,181,580.00	6,672,897.00	62,924,910.00	102,825,300.00	90,464,410.00	3,667,694.00	86,527,620.00	5,721,527.00	Springs Outflow (ft^3/day)
Net River Gain-Existing (ft^3/day)	-28,475,450.00	-44,883,330.00	-62,871,487.00	158,493,827.00	5,524,889.00	85,808,730.00	121,654,890.00	143,957,040.00	12,103,773.00	86,527,620.00	35,405,797.00	Net River/Spring Gain (ft^3/day)
Net River Gain-Exisiting (acre-ft/trimester)	**-79,541.42**	**-125,374.10**	**-175,621.02**	**442,726.09**	**15,432.86**	**239,692.39**	**339,822.66**	**402,120.00**	**33,809.87**	**241,700.49**	**98,900.19**	**Net River/spring Gain (acre-ft/trimester)**
Effect of Pumping at Existing Water Rignt Location												
River Loss (ft^3/day)	42,228,500.00	64,736,310.00	64,286,310.00	3,094,759.00	1,147,854.00	23,784,020.00	18,829,750.00	53,492,750.00	8,436,125.00	0.00	29,684,320.00	River Gain (ft^3/day)
River Gain(ft^3/day)	13,756,370.00	19,856,330.00	1,441,667.00	161,679,600.00	6,674,211.00	62,926,040.00	102,826,300.00	90,465,040.00	3,667,817.00	86,528,190.00	5,721,543.00	Springs Outflow (ft^3/day)
Net River Gain (ft^3/day)	-28,472,230.00	-44,877,980.00	-62,844,703.00	158,584,841.00	5,526,357.00	85,810,060.00	121,655,950.00	143,957,790.00	12,103,942.00	86,528,190.00	35,405,863.00	Net River/Spring Gain (ft^3/day)
Induced Reach Depletion (ft^3/day)	3,220.00	5,350.00	26,784.00	91,014.00	1,298.00	1,330.00	1,060.00	750.00	169.00	540.00	66.00	
ETRAN3.4 Simulated Reach Depletion (acre-ft/trimester))	**8.9677**	**14.9753**	**74.8723**	**254.3389**	**3.5376**	**3.8937**	**2.9943**	**1.3644**	**1.2739**	**1.4557**	**0.1922**	
ESPAM2.2 Simualted Reach Depletion (acre-ft/trimester)	**8.9645**	**14.9443**	**74.8166**	**254.2324**	**3.5419**	**3.7151**	**2.9609**	**2.0950**	**0.4721**	**1.5084**	**0.1844**	
Prediction error	**-0.04%**	**0.21%**	**0.07%**	**0.04%**	**-0.12%**	**-4.58%**	**1.13%**	**-34.87%**	**169.85%**	**-3.49%**	**4.24%**	
Effect of Pumping at Transfer Target Location												
River Loss (ft^3/day)	42,231,360.00	64,740,810.00	64,315,626.00	3,098,604.00	1,172,543.00	23,783,250.00	18,829,520.00	53,492,280.00	8,435,960.00	0.00	29,684,320.00	River Gain (ft^3/day)
River Gain(ft^3/day)	13,755,750.00	19,856,390.00	1,438,763.00	161,468,100.00	6,608,691.00	62,921,660.00	102,822,300.00	90,462,610.00	3,667,347.00	86,526,130.00	5,721,479.00	Springs Outflow (ft^3/day)
Net River Gain (ft^3/day)	-28,476,230.00	-44,884,420.00	-62,876,857.00	158,469,496.00	5,436,148.00	85,804,910.00	121,661,820.00	143,954,890.00	12,103,297.00	86,526,130.00	35,405,599.00	Net River/Spring Gain (ft^3/day)
Iduced Reach Depletion (ft^3/day)	780.00	1,090.00	5,370.00	24,331.00	88,741.00	3,820.00	3,070.00	2,150.30	476.00	1,490.00	198.00	
ETRAN3.4 Simulated Reach Depletion (acre-ft/trimester))	**1.6767**	**2.7332**	**14.6206**	**66.6834**	**250.9883**	**10.3011**	**8.3067**	**3.7740**	**3.5037**	**3.9603**	**0.5219**	
ESPAM2.2 Simualted Reach Depletion (acre-ft/trimester)	**2.1788**	**3.0447**	**15.0002**	**67.9646**	**247.8832**	**10.6705**	**8.5755**	**6.0057**	**1.3296**	**4.1621**	**0.5531**	
Prediction error	**-23.04%**	**-10.23%**	**-2.48%**	**-1.89%**	**1.25%**	**-3.46%**	**-3.11%**	**-37.16%**	**163.51%**	**-4.85%**	**-5.64%**	
Net Transfer Effect												
River Loss (ft^3/day)	42,229,290.00	64,737,010.00	64,291,220.00	3,095,692.00	1,172,270.00	23,783,450.00	18,829,580.00	53,492,490.00	8,435,995.00	0.00	29,684,170.00	River Gain (ft^3/day)
River Gain(ft^3/day)	13,756,440.00	19,856,030.00	1,441,190.00	161,656,100.00	6,609,796.00	62,922,770.00	102,823,300.00	90,463,230.00	3,667,467.00	86,526,660.00	5,721,496.00	Springs Outflow (ft^3/day)
Net River Gain after transfer (ft^3/day)	-28,472,850.00	-44,879,980.00	-62,850,070.00	158,560,408.00	5,437,526.00	85,806,220.00	121,652,880.00	143,955,630.00	12,103,462.00	86,526,660.00	35,405,666.00	Net River/Spring Gain (ft^3/day)
Transfer-Induced Net Change of Reach Depletion (ft^3/day)	-2,600.00	-4,350.00	-21,427.00	-66,581.00	87,493.00	2,510.00	2,010.00	1,410.30	311.00	960.00	131.90	
ETRAN3.4 Simulated Net Change of Reach Depletion (acre-ft/trimester))	**-7.3110**	**-12.2421**	**-60.2437**	**-187.6555**	**247.4507**	**6.6074**	**5.3144**	**2.4096**	**2.2298**	**2.5046**	**0.3297**	
ESPAM2.2 Simualted Net Change of Reach Depletion (acre-ft/trimester)	**-7.2627**	**-12.1510**	**-59.8528**	**-185.9829**	**244.3971**	**7.0113**	**5.6146**	**3.9386**	**0.8687**	**2.6816**	**0.3659**	
Prediction error	**0.67%**	**0.75%**	**0.65%**	**0.90%**	**1.25%**	**-5.76%**	**-5.35%**	**-38.82%**	**156.67%**	**-6.60%**	**-9.90%**	

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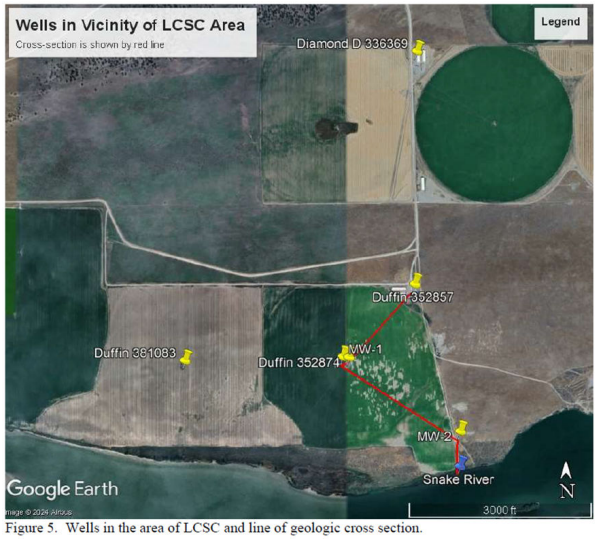


Figure 5. Wells in the area of LCSC and line of geologic cross section.

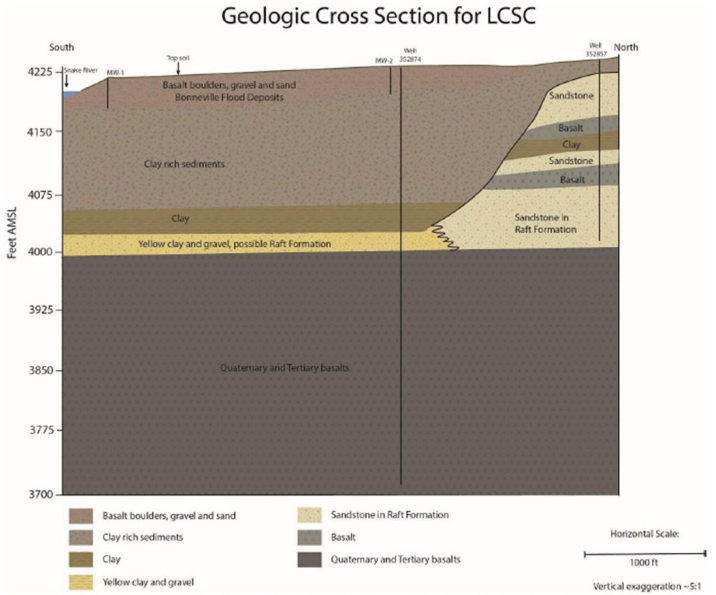


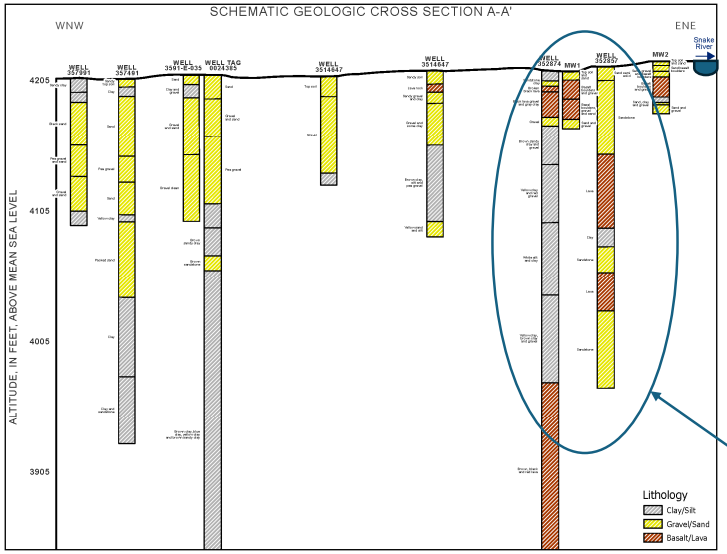
Figure 6. Geologic cross-section from the southeast at Snake River trending northwest to Well 352457.

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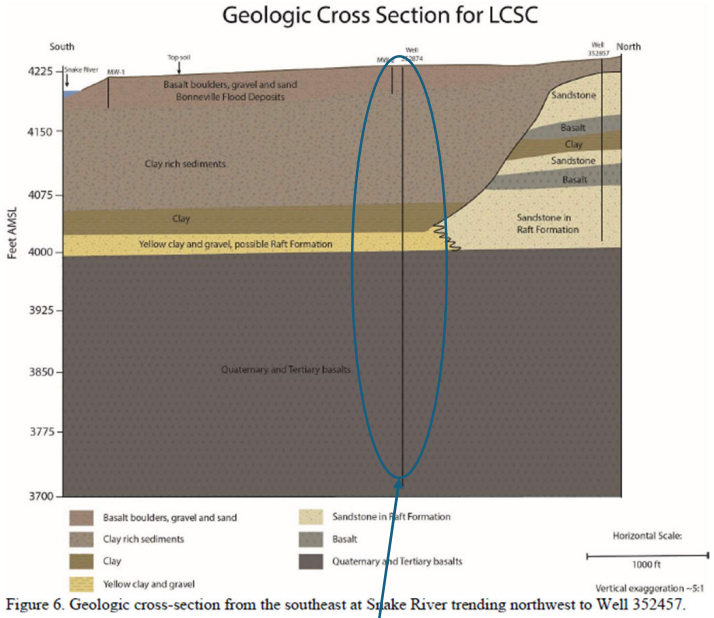


Figure 6. Geologic cross-section from the southeast at Snake River trending northwest to Well 352457.

- Clearwater uses one well's lithology to theorize that there is a laterally consistent clay layer between the project site and the Snake River.
- Other logs in the area show more variability.

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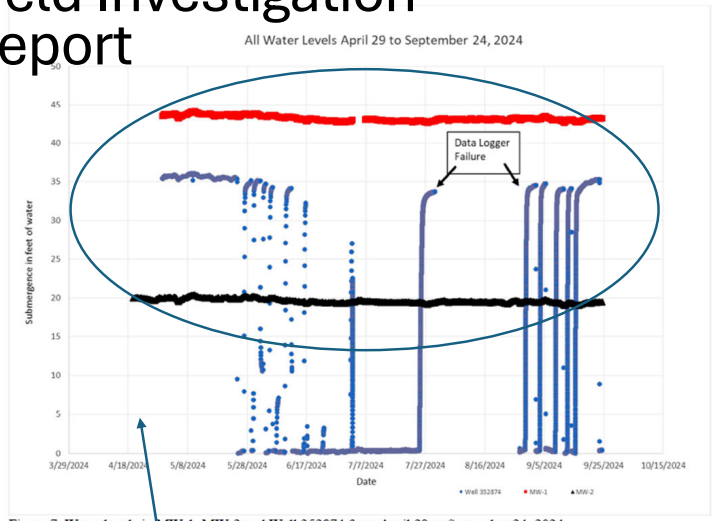
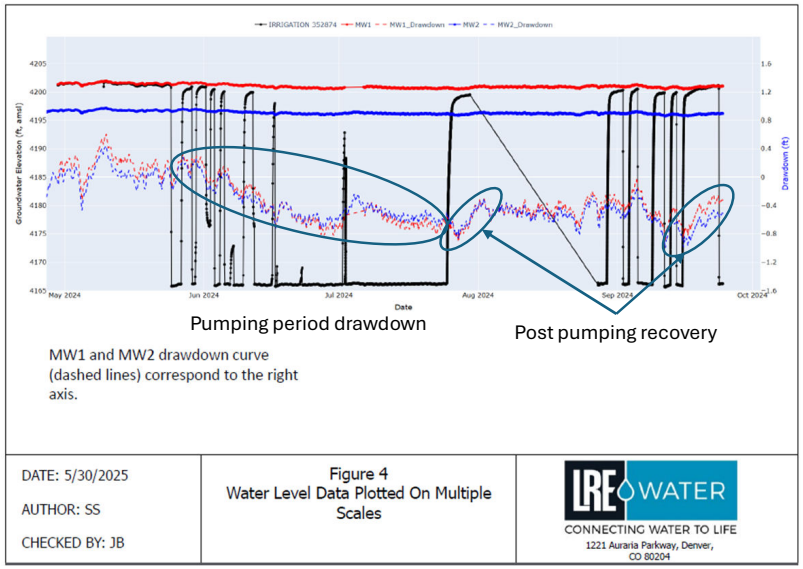


Figure 7. Water levels in MW-1, MW-2 and Well 352874 from April 29 to September 24, 2024.



DATE: 5/30/2025 AUTHOR: SS CHECKED BY: JB	Figure 4 Water Level Data Plotted On Multiple Scales	LRE WATER CONNECTING WATER TO LIFE 1221 Auraria Parkway, Denver, CO 80204

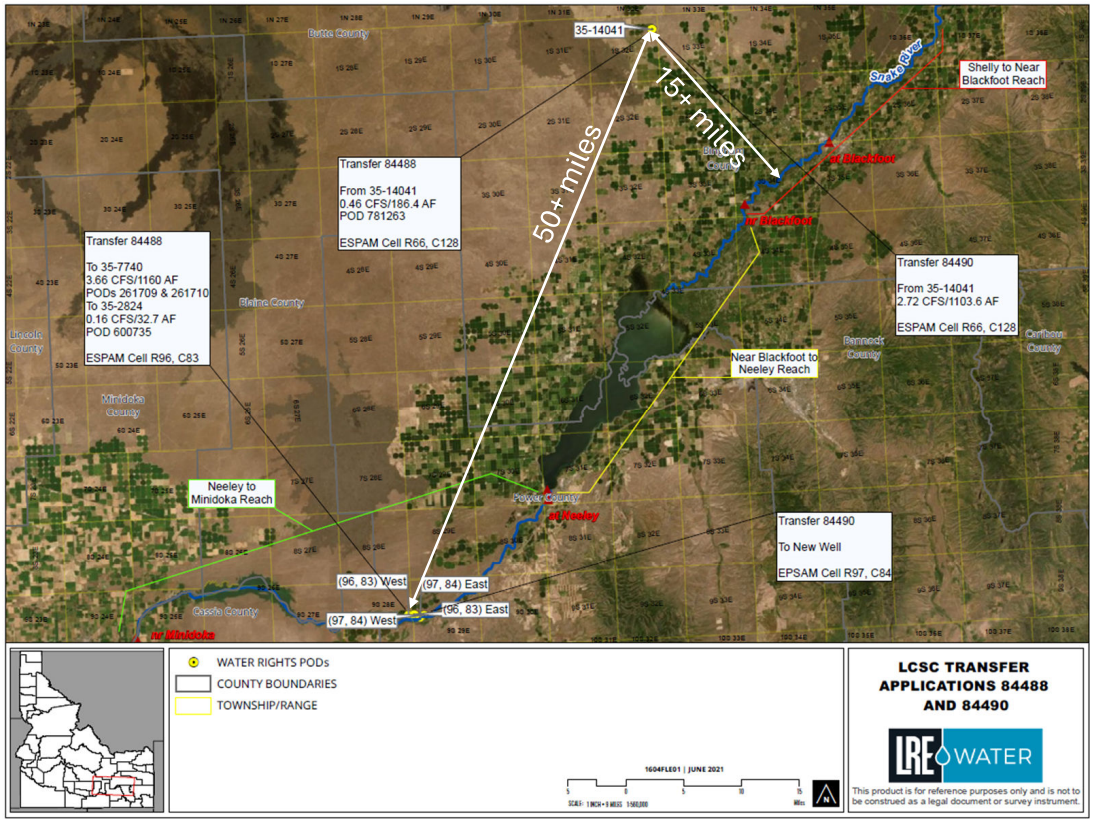
- Clearwater plotted water level data on a y-axis scale that makes it difficult to see changes.
- When plotted on a smaller scale, shallow monitoring well water level data shows water level decline during the pumping period and recovery after pumping stops.

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2021 SWC Expert Report

- Opinion 1 - The two transfer applications propose to move water rights over 50 miles from Bingham County to Power County from wells over 15 miles away from the river to wells approximately ¼ mile or less from the river.



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2021 SWC Expert Report

- Opinion 5 - The transfer analysis results included show that the transfer depletion impacts for both applications exceed the transient analysis criteria for the Neeley to Minidoka reach. For both transfer applications, the depletive impacts on this reach are greater than 2 AF/trimester and greater than 10% of the pre-transfer depletion.
- Opinion 7 - The application materials were incomplete, did not follow standard transfer analysis procedures and were missing information prescribed in IDWR's ESPA transfer evaluation guidelines (IDWR 2016). The most critical missing information are the results of steady state and transient transfer impact analysis and the results of the IDWR Mitigation Analysis Spreadsheet.

Table 4 – LRE Analysis: Mitigation Analysis Tool Results for Transfer No. 84488

Impact by Reach (AF/Trimester)		Ashton to Rexburg	Heise to Shelley	Shelley to Nr Bickft	Nr Bickft To Neeley	Neeley to Minidoka	Dev. Wbl. To Buhl	Buhl to Kspr	Kspr	Kspr to Malad	Malad	Malad to Bancroft
	Pre-SS	1.44	4.33	13.17	40.26	0.24	0.76	0.87	0.38	0.24	0.22	0.01
	Post-SS	0.81	2.41	7.26	23.53	12.74	4.44	5.00	2.22	1.40	1.28	0.08
	Pre-TS	1.44	4.33	13.17	40.26	0.24	0.76	0.87	0.38	0.24	0.22	0.01
	Post-TS	0.81	2.41	7.26	23.53	12.74	4.44	5.00	2.22	1.40	1.28	0.08
Steady State Analysis	Mitigation Check 1 - >10% of Historical:	-43.5%	-44.4%	-44.9%	-41.6%	5221.7%	483.2%	477.5%	477.5%	477.4%	477.3%	477.2%
	Mitigation Check 2: > 2 AF/T:	-0.6	-1.9	-5.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1
	Mitigation Check 3 - >10% of Total:	1.3%	3.9%	11.9%	38.5%	20.8%	7.3%	8.2%	3.6%	2.3%	2.1%	0.1%
	Mitigation Required?:	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
	Mitigation Vol. Req'd (ac-ft):	-0.6	-1.9	-5.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1
Transient State Analysis	Mitigation Check 1 - >10% of Historical:	-43.5%	-44.4%	-44.9%	-41.6%	5221.7%	483.2%	477.5%	477.5%	477.4%	477.3%	477.2%
	Mitigation Check 2: > 2.01 AF/T:	-0.6	-1.9	-5.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1
	Mitigation Required?:	NO	NO	NO	NO	YES	YES	YES	NO	NO	NO	NO
	Mitigation Vol. Req'd (ac-ft):	-0.6	-1.9	-5.9	-16.7	12.5	3.7	4.1	1.8	1.2	1.1	0.1

Table 5 – LRE Analysis: Mitigation Analysis Tool Results for Transfer No. 84490

Impact by Reach (AF/Trimester)		Ashton to Rexburg	Heise to Shelley	Shelley to Nr Bickft	Nr Bickft To Neeley	Neeley to Minidoka	Dev. Wbl. To Buhl	Buhl to Kspr	Kspr	Kspr to Malad	Malad	Malad to Bancroft
	Pre-SS	8.52	25.64	78.02	238.49	1.42	4.51	5.13	2.28	1.44	1.31	0.08
	Post-SS	4.82	14.29	43.15	139.93	76.38	25.82	29.07	12.91	8.14	7.45	0.46
	Pre-TS	8.52	25.64	78.02	238.49	1.42	4.51	5.13	2.28	1.44	1.31	0.08
	Post-TS	4.82	14.29	43.15	139.93	76.38	25.82	29.07	12.91	8.14	7.45	0.46
Steady State Analysis	Mitigation Check 1 - >10% of Historical:	-43.4%	-44.3%	-44.7%	-41.3%	5287.6%	472.5%	467.0%	466.9%	466.9%	466.8%	466.7%
	Mitigation Check 2: > 2 AF/T:	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
	Mitigation Check 3 - >10% of Total:	1.3%	3.9%	11.9%	38.6%	21.1%	7.1%	8.0%	3.6%	2.2%	2.1%	0.1%
	Mitigation Required?:	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
	Mitigation Vol. Req'd (ac-ft):	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
Transient State Analysis	Mitigation Check 1 - >10% of Historical:	-43.4%	-44.3%	-44.7%	-41.3%	5287.6%	472.5%	467.0%	466.9%	466.9%	466.8%	466.7%
	Mitigation Check 2: > 2.01 AF/T:	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4
	Mitigation Required?:	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO
	Mitigation Vol. Req'd (ac-ft):	-3.7	-11.4	-34.9	-98.6	75.0	21.3	23.9	10.6	6.7	6.1	0.4

Table 4 and Table 5 are the tabulated reach impact outputs from the Mitigation Analysis Spreadsheet. Highlighted cells in the output tables show where the depletive impacts exceed the steady state and transient mitigation criteria.

Using LCSC's input information with IDWR transfer analysis methodology and tools, LRE Water determined that transfer application No. 84488 and No. 84490 require mitigation of the Neeley to Minidoka reach because the depletive impacts exceed the steady state and transient mitigation criteria. Both applications also require mitigation of several spring reaches that exceed the transient mitigation criteria. Based upon the applications and

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2021 SWC Expert Report

- Opinion 9 - When compared to transfers IDWR evaluated in their Cumulative Transfer Impacts memorandum (Sukow 2021), the LCSC transfer applications are estimated to deplete the Neeley to Minidoka reach by 262.5 AFY, or over 80% of the total net depletive impacts from a comprehensive analysis of 551 historically approved transfers.

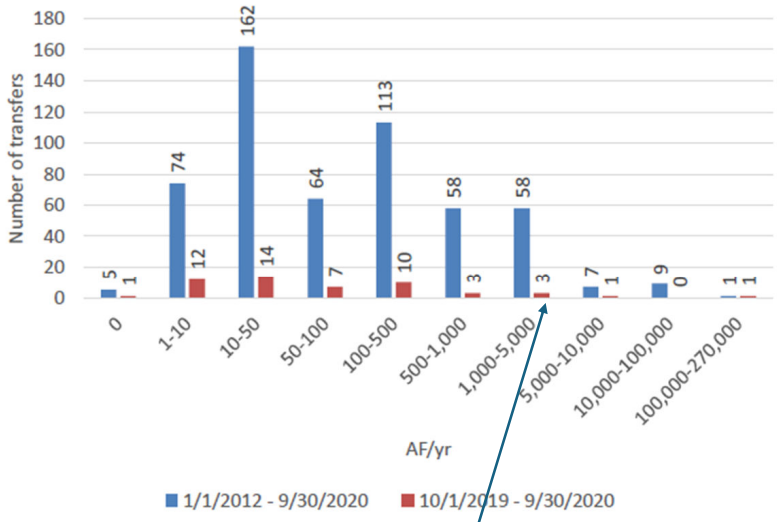


Figure 5. Transfer pumping volume

- LCSC proposed transfers 1,103 AF/yr
- IDWR estimates that all 551 of the historically approved transfers result in a decrease of 318 AFY (0.4 CFS) in the Neeley to Minidoka reach.
- By comparison, the LCSC transfer applications require 262.5 AFY of mitigation to the Neeley to Minidoka reach, or over 80% of the total net depletive impacts from 551 historical transfers.

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- Opinion 10
  - The LCSC transfer applications propose to transfer water a much greater distance than most of the historically approved transfers. At least 98% of the transfers IDWR evaluated in the cumulative impacts analysis were a shorter distance than the distance proposed by transfer application Nos. 84488 and 84490.
  - At least 83% of the historical transfers were less than one-fifth the distance of the LCSC applications.

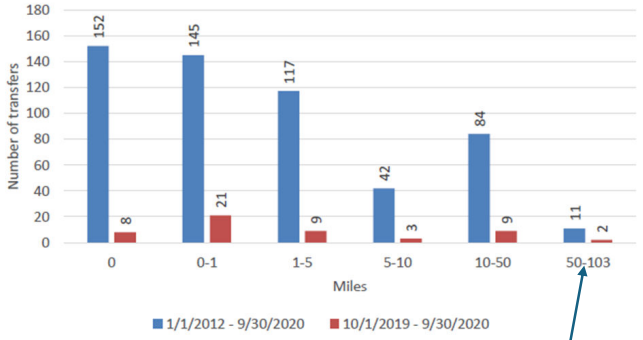


Figure 6. Average distance between TO and FROM wells

- LCSC proposes to transfer water rights 50+ miles

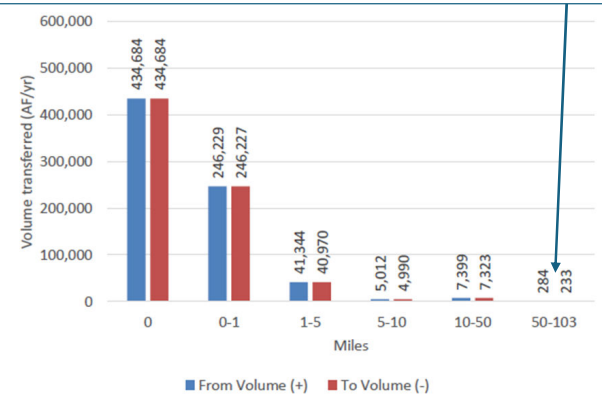


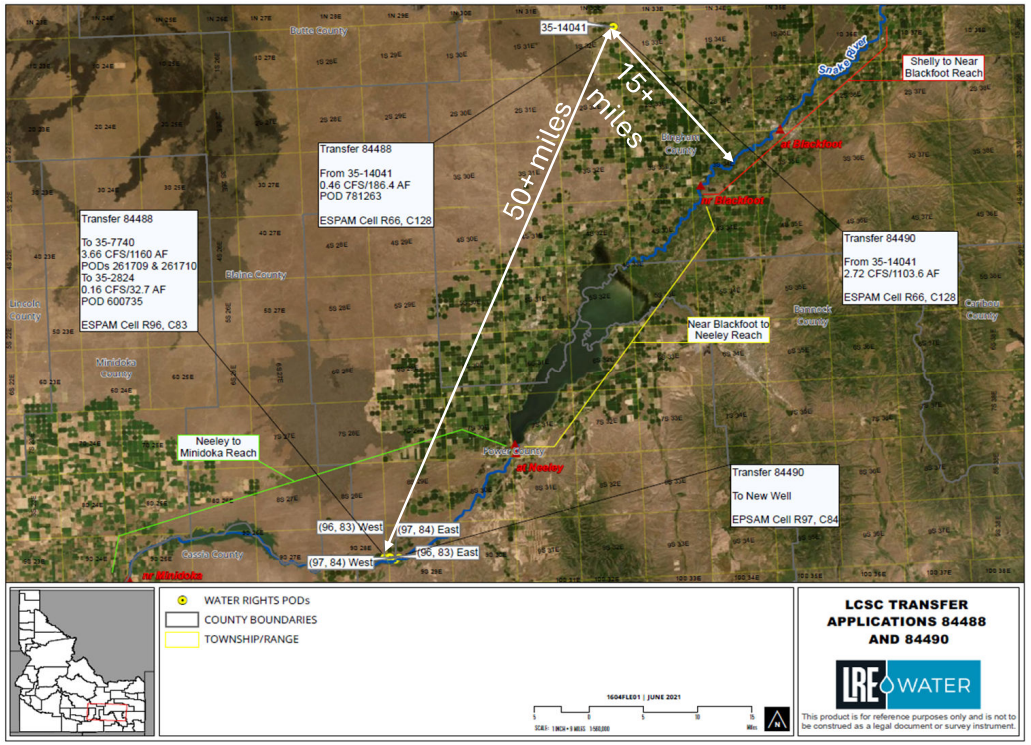
Figure 7. Cumulative volume transferred by distance transferred (1/1/2012 – 9/30/2020)

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2021 SWC Expert Report

- Opinion 15
  - Based on the relationship between distance and stream depletion timing, transferring water from a location over 16 miles from the river to new locations where the wells are is less than a half-mile from the river will result in a substantially different depletion timing pattern at the river.
  - The two configurations for wells at the transfer-to locations result in pumping effects at the river that are very similar to the pumping inputs. This is a result of the very short time it takes for the wells to affect the river. Furthermore, the two configurations result in similar effects on the river, which is a function of the high Hydraulic Diffusivity of the aquifer, resulting in fast propagation of pumping effects to the river.

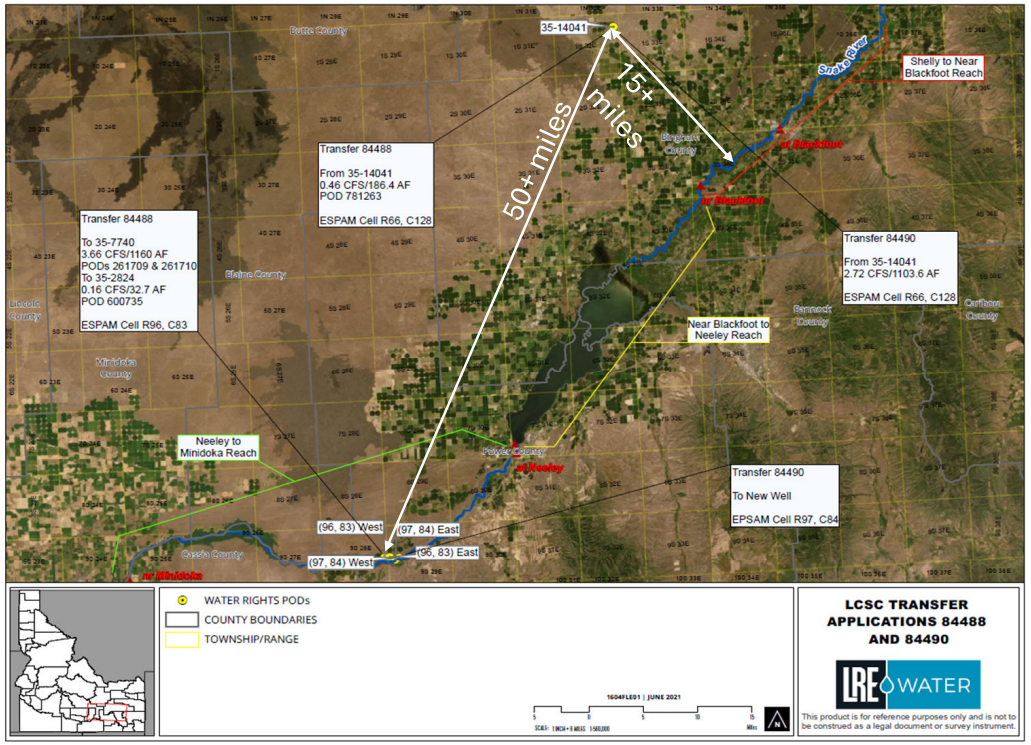


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2021 SWC Expert Report

- Opinion 16 - The LCSC transfer applications Nos. 84488 and 84490 propose to move water rights over 50 miles downstream, drastically changing the location of depletive impacts on the Snake River and associated water rights. The applications propose to move the POD from a well over 16 miles away from the river to shallow/perched well locations less than half of a mile from the river. Moving the PODs to locations so much closer to the river will significantly change the timing and magnitude of depletive impacts.



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