

RECEIVED

Feb 17, 2026

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

**DECLARATION OF
HAI HUANG, P.H.D.**

I, Hai Huang, state that the following is made on my personal knowledge, and that I would so testify in open court if called upon to do so.

1. I am over the age of eighteen (18) and am competent to testify to the matters contained herein.
2. I am a principal ground water modeler with Clearwater Geosciences, LLP. I was engaged by LCSC Enterprises, LLC ("LCSC") to assist them in the above-entitled matter.
3. I testified on behalf of LCSC during the contested case hearing on transfer applications 84488 and 84490, held on December 18-19, 2025. I provided my educational and work background at that hearing.
4. I was the primary author of an expert report accepted as Exhibit 13 at the hearing, which is entitled "*Expert Report on Modeling Analysis Associated with LCSC Enterprises LLC Transfer Applications*" (hereinafter simply "Exhibit 13").

5. I have reviewed the *Amended Preliminary Order Denying Applications* dated February 2, 2026, issued in the above-entitled matter (the “*Preliminary Order*”).
6. The hearing officer determined the following in the *Preliminary Order*:

Fairness demands that an applicant be allowed to rely on the data and tools that were available at the time an application is filed without being required to revise an analysis filed with an application if new data becomes available or tools change. Conducting a technical analysis of anticipated depletions to the Snake River can be expensive, especially if an applicant hires an attorney or consultant to perform the analysis. In the realm of hydrology, very few things are static. Every day, additional data is collected through stream gages and measuring devices. Every day, aquifer levels fluctuate. If applicants were required to constantly incorporate new data into their technical analyses while their applications are pending before the Department, some applicants would be caught in a never-ending loop of amended technical reports. For this reason, the Department should not require an applicant to revise its Transfer Tool analysis when the Department adopts an updated version of the ESPA model. The Department often establishes a grace period where it accepts applications using the superseded version of ETRAN for a few months after a newer version is released. *See* Ex. 23 (describing a grace period for the transition from ETRAN 3.3 to ETRAN 3.4). A grace period recognizes that applicants, or their representatives, may have already invested significant time and resources in preparing analyses under the superseded tool.

Preliminary Order at 7.

7. Based upon our analysis and comparison of ETRAN3.2/ESPAM2.1 and ETRAN3.4/ESPAM2.2, we concluded that ETRAN3.2/ESPAM2.1 was the best available science as set forth here:

6. The calibrated Riverbed Conductance of the Near Neeley to Minidoka Reach is **1625.975 ft²/day in ESPAM2.1** (IDWR, 2013) and **5965.499 ft²/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 R² values.

Exhibit 13, p. 16.

8. In my expert opinion, because ETRAN3.2/ESPAM2.1 is the best available science for purposes of these transfers, Exhibit 13 further concludes that the transfers should be approved under the applicable IDWR processing standards and mitigation thresholds, as summarized in Exhibit 13:

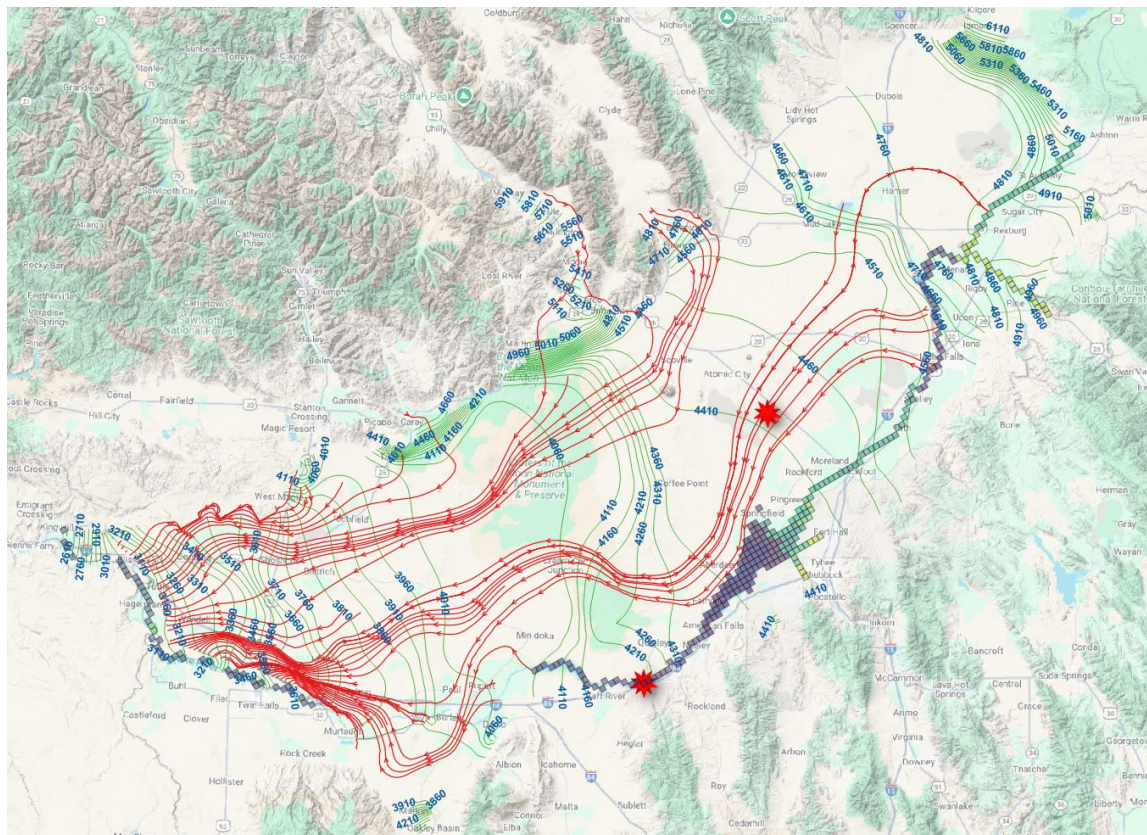
10. Use of ESPAM2.1 for analysis of the transfer applications demonstrates that the transfer applications are below Snake River reach impact limits for approval of permanent water right transfers in the ESPA based on IDWR transfer application policies and procedures under each of three “mitigation checks” 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.

9. I maintain these opinions and all other opinions set forth in Exhibit 13.
10. As I previously opined, the best available science for purposes of analyzing the transfers is ETRAN3.4/ESPAM 2.1, including the applicable mitigation thresholds under applicable IDWR processing standards. This includes analysis of any pumping impacts modeled to appear below Milner. This is because—consistent with the holding of the hearing officer—“The experts for LCSC and the Coalition agree that the ESPAM and ETRAN can be used to accurately estimate the depletion impacts to the Snake River caused by diverting ground water from a well located several miles from the river.” *Preliminary Order* at 10.

11. Notwithstanding the above opinions and holdings, as I understand the *Preliminary Order*, the hearing officer denied the transfers based on the following findings and conclusions:

- a. “Depletion is a zero-sum exercise.” *Preliminary Order* at 15.
 - b. “All the water to be pumped from the proposed points of diversion at the Walcott property must be represented as a depletion to the modeled reaches of the Snake River. Stated differently, the total depletions to all reaches of the Snake River must add up to the total volume of water to be diverted at the proposed points of diversion.” *Id.*
 - c. “Therefore, the hearing officer cannot simply ignore the 87 acre-feet per trimester of depletion associated with the N-M Reach.” *Id.*
 - d. “The evidence provided by LCSC creates substantial doubt that the 87 acre-feet per trimester should be counted as a depletion to the N-M Reach. Because the deeper aquifer (the proposed source of water) is disconnected from the Snake River at the Walcott property and that disconnection likely continues to Milner, it is logical to infer that much of the 87 acre-feet will appear as depletions to the Snake River reaches below Milner.” *Id.*
 - e. “If anything, the evidence suggests that the depletions predicted for the N-M Reach may propagate downstream, increasing the depletions in Snake River reaches below Milner. As noted above, the modeled anticipated depletions for some of the reaches below Milner are already very close to the mitigation threshold limits. Increasing the depletions below Milner by even a small amount will cause the applications to exceed the mitigation thresholds for certain reaches below Milner.” *Id.*
 - f. “LCSC has not satisfied its burden of proof to show that the proposed changes will not exceed the mitigation thresholds in reaches below Milner. This is because LCSC has not provided a reliable analysis of how diversions at the proposed points of diversion will translate to depletion impacts to the Snake River.” *Id.*
 - g. “Because the ETRAN results are not reliable, and LCSC did not provide any substitute analysis of how pumping from the proposed points of diversion will propagate to the Snake River, LCSC has not satisfied its burden of proof to demonstrate that the changes proposed in Application 84488 and 84490 will not injure existing water rights.” *Id.* at 16.
12. While I maintain my above opinion—that between the two transfer tool versions, the best available science for purposes of analyzing the transfers is ETRAN3.2/ESPAM 2.1, including the applicable mitigation thresholds under applicable IDWR processing standards—I considered additional information considering the hearing officer’s decision contained in the *Preliminary Order*.

13. I did not offer an analysis of the issue of below Milner impacts because it was not an issue raised by the protestants or, to my knowledge, IDWR.
14. There is additional analysis that can be provided to address the hearing officer's conclusions. However, given the short time frame to ask for reconsideration, I provide the following additional information for consideration by the hearing offer.
15. I used reverse-particle tracking to show the source of water for downstream springs/reaches below Milner Dam. The figure below shows the simulation results. The red-colored flowlines are showing that the source water of downstream springs/reaches mainly comes from upstream Snake River leakages, flows from tributary basins (e.g., Big Lost and Little Lost). The location of the “from well” and “to well” locations are depicted with a red star. Aerial recharges due to precipitation/irrigation on the Eastern Snake Plain Aquifer would also contribute to, but would not be showing in reverse-particle tracking simulations. There is very little contribution of groundwater flow from the Neeley-Minidoka area to the downstream reaches and springs:



16. This explains why our previous ETRAN/ESPAM predictions indicate very little impact of transfer on the downstream reaches/springs below Minidoka and that ESPAM is still a good tool for regional-scale impact analysis.

I certify (or declare) under penalty of perjury pursuant to the law of the State of Idaho that the foregoing is true and correct. Idaho Code § 9-1406; Idaho Rule of Civil Procedure 2.7.

February 17, 2026

Date



Hai Huang

CERTIFICATE OF SERVICE

I hereby certify that on this 17th day of February, 2026, 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: DECLARATION OF HAI HUANG, P.H.D.

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.