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DEPARTMENT OF
WATER RESOURCES

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Attorneys for IMH Boise Cimarron, LLC

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR
TRANSFER NO. 85639 IN THE NAME OF
IMH BOISE CIMARRON, LLC

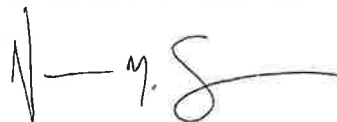
IMH BOISE CIMARRON, LLC'S
NOTICE OF SERVICE OF EXPERT
REBUTTAL REPORTS

IMH Boise Cimarron, LLC, ("IMH") by and through its counsel of record, Parsons Behle & Latimer, pursuant to the *Scheduling Order* dated August 25, 2023, hereby notifies the Department that it served upon the parties to this matter via electronic service the following expert rebuttal reports, which are attached hereto for the purpose of disclosing the reports to the Department:

1. *Rebuttal of Expert Reports in Support of Beranna Dairy LLC Protests of Water Rights Transfer* produced by Jeffrey L. Moffett, Ph.D., of Triple Point Strategic Consulting, dated January 2024. A copy of Dr. Moffett's report is attached hereto as **Exhibit A**; and
2. *Expert Witness Report in Rebuttal to Idaho Water Engineering Report on Application for Transfer No. 85639* produced by HDR, dated January 5, 2024. A copy of HDR's report is attached hereto as **Exhibit B**.

DATED this 5th day of January, 2024.

PARSONS BEHLE & LATIMER



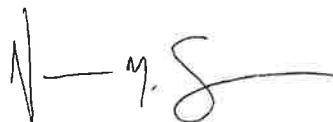
Norman M. Semanko; Garrett M. Kitamura
Attorneys for IMH Boise Cimarron, LLC

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 5th day of January, 2024, a true and correct copy of the foregoing document was e-filed through the Idaho Department of Water Resources e-filing system, and that I served a true and correct copy of the foregoing by delivering the same to each of the following individuals by the method indicated below, addressed as follows:

Daniel V. Steenson S. Bryce Farris SAWTOOTH LAW OFFICES P. O. Box 7985 Boise, ID 83707 <i>Attorneys for Protestants</i>	☐ U.S. Mail ☐ Facsimile: ☐ Hand Delivery ☐ Overnight Delivery ☒ Email: dan@sawtoothlaw.com; bryce@sawtoothlaw.com
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DATED this 5th day of January, 2024.



Norman M. Semanko

EXHIBIT “A”

**Rebuttal of Expert Reports in Support of Beranna
Dairy LLC Protests of Water Rights Transfer**

Canyon County, Idaho

January 2024

Triple Point Strategic Consulting



**Rebuttal of Expert Reports in Support of Beranna Dairy LLC Protests of Water
Right Transfer
Canyon County, Idaho**

**Submitted to:
IMH Boise Cimarron, LLC
1808 Aston Ave, Suite 220
Carlsbad, California 92008**

**Prepared by:
Triple Point Strategic Consulting
PO Box 985
Crested Butte, Colorado 81224**

January 2024

Purpose

IMH Boise Cimarron, LLC (IMH) proposes to convert primary groundwater from agriculture irrigation to domestic use for the Cimarron Ridge Subdivision proposed southwest of Lake Lowell in Canyon County, Idaho. IMH filed an application on December 20, 2021, to transfer a portion of water right 63-3298 from irrigation to domestic use. Beranna Dairy LLC (Beranna) and Western Farms Inc are protesting this transfer (IMH Boise Cimarron, LLC 2021).

The purpose of this report is to rebut the opinions and arguments stated in the opposing expert's reports from economic and resource data analysis perspectives. This report is not an exhaustive literature review and does not represent basic academic research. More in-depth research could be conducted with existing data and more data could be collected to understand the proposed changes in greater detail. This report summarizes the most relevant studies on water supply and demand in Canyon County and presents some of the best land use and economic data.

Overview

A primary question is whether the proposed change in water use would significantly affect the agricultural base of the local area. Given "agricultural base" is not specifically defined, this rebuttal report and other reports analyze the potential impacts that would result from the proposed water transfer in terms of land use, water use, employment, economic output, and social factors. This rebuttal report considers land use, water use, employment, and economic output in responding to arguments made in expert reports on behalf of Beranna.

Two of the Beranna reports contend that this transfer would set off a chain reaction leading to the demise of Canyon County's agricultural economy. This rebuttal report considers historical data that does not support this claim. Further, there is the question of whether Idaho Code § 42-222 pertains to the incremental changes likely to result from the transfer in question or whether a possible series of subsequent ramifications should be taken into consideration, even if unlikely.

Idaho Water Engineering Expert Report

Idaho Water Engineering LLC (IWE) has written a technical report dated December 7, 2023, in support of Beranna's protest (IWE 2023). The report investigates hydrology, geology, land use, and water use.

Land Use Changes

The IWE report references land use coverage data from the Idaho Department of Water Resources (IDWR) stating that 2015 is the most recent data available. Thus, IWE analyzes changes from 2000 to 2015. We do not question the integrity of this data. IWE points out increases in irrigated land in proximity to Beranna during this time frame. This raises the question of the net change in irrigation in recent years and how that may be affecting the agricultural base of the local area. In other words, do newly irrigated parcels "offset" parcels no longer irrigated?

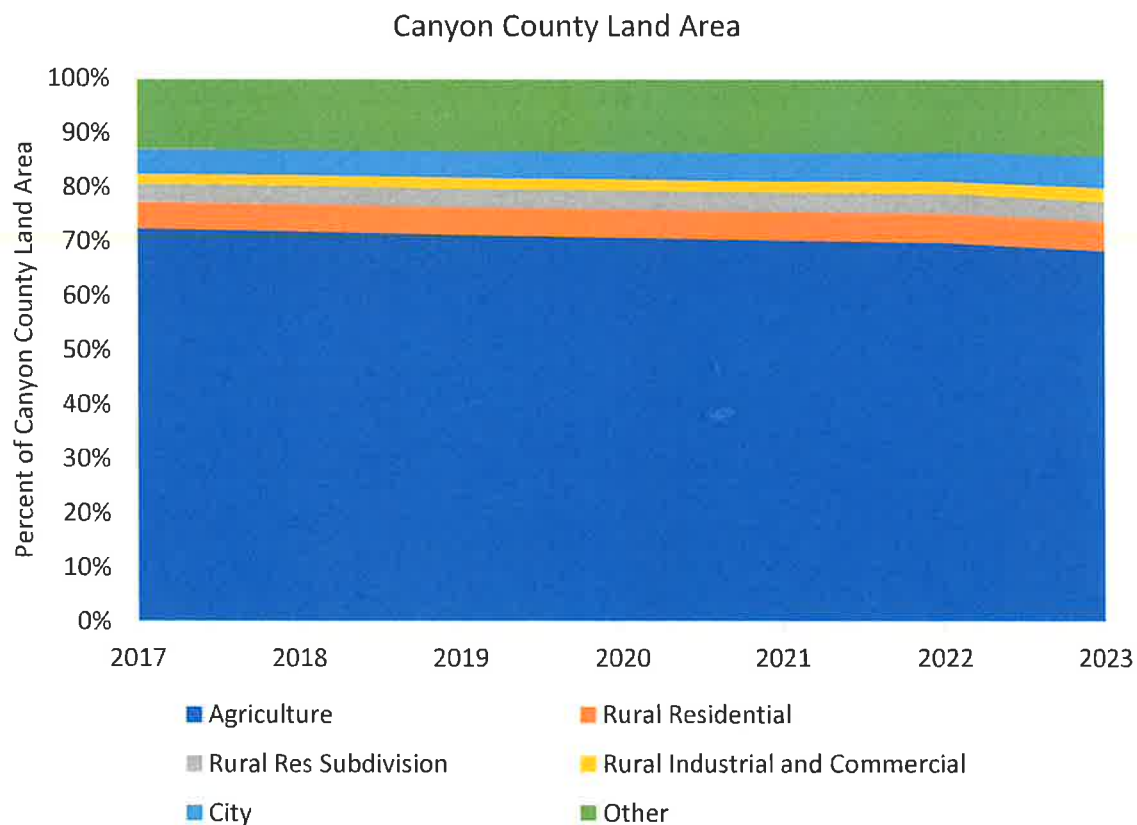
IWE Figures 3 and 4 describe past, present, and future land use changes in the Canyon County region surrounding Cimarron Ridge. IWE Figure 3 is described as a prediction; however, the forecast horizon is not clear. Is this a 2011 prediction of 2022? The map appears to show land use at a given point in time, but the point in time is uncertain. The irrigation status is marked as 2015 and the date on the map is 11/26/23.

The map appears to predict the residential development of the IMH property. There appears to be a 3-mile circle with Beranna at the center point, but this is not described and the significance is unknown.

IWE Figure 4 also requires clarification. The map shows subdivisions developed prior to 2011; however, for the subdivisions developed post-2011 the end of the development period is unknown, though is presumably 2015. The report mentions plats currently being processed by the County for future development, but that category does not appear in the legend. Further, were these properties being processed as of 2015 (if that is the end year) or are they current as of 2023? The section concludes, "development is occurring in the area," although the time frame is unknown.

Given residential development has occurred in the local area, we can compare land use data to agricultural output data over time.

As an alternative to IDWR data for studying land use, data from the County Assessor's Office is available through 2023. Figure 1 shows the distribution of Canyon County acres by land use category from 2017 to 2023. Although agricultural land was reduced from 72 to 68 percent, the two rural residential categories only increased a percentage point from 8 to 9 percent. Rural industrial and commercial, city, and other categories each increased by 1 percentage point over the six-year period as well.



Source: Canyon County Assessor.

Figure 1. Canyon County Land Use Distribution by Category, 2017 to 2023

Further data analysis should consider annual land use changes at the parcel level to provide a specific characterization of land use changes over time in Canyon County.

Water Supply Issues

The IWE report is ambiguous regarding water supply south of Lake Lowell. The first paragraph is unclear, effectively stating that groundwater levels may be declining, stabilizing, or improving, and that more data is needed.

The second paragraph states that approval of pending supplemental groundwater applications south of Lake Lowell could potentially impact Beranna's available groundwater supply. This may be true, but we fail to see the connection with how the IMH proposed transfer would impact the agricultural base of the local area. The last sentence of the paragraph seems to suggest that there might be an insufficient water supply for the proposed transfer if new applications are approved. This may be true as well, but we offer these counterpoints:

- Existing water right 63-3298 was previously approved and the water is already being used.
- If supplemental applications were not pending, presumably IWE would draw a different conclusion.
- The IMH transfer will likely reduce the use of groundwater in the local area, presumably to the benefit of Beranna.

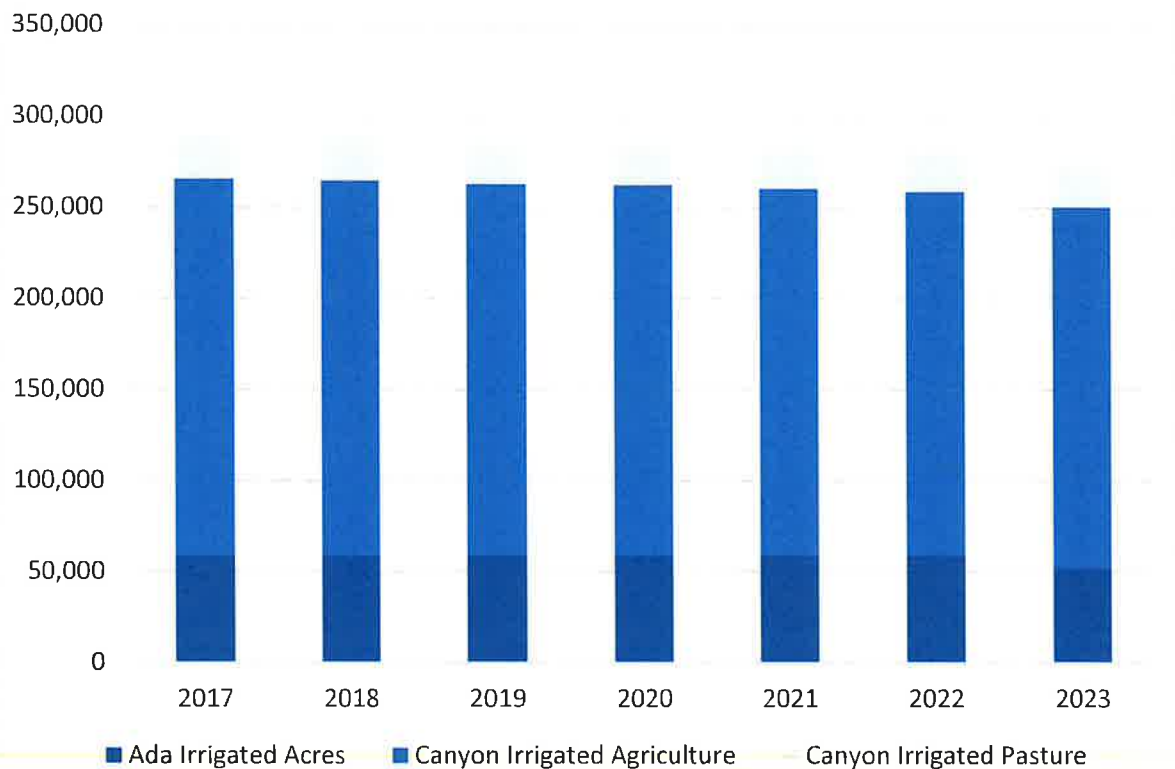
Impacts on Lower Boise Valley Drain Discharge with Elimination of Gravity Irrigation

The third paragraph in the Water Supply Issues section cites a finding that it has been "estimated that 100 percent conversion from gravity to sprinkler irrigation in the Boise Basin would significantly reduce discharge for 4 major drains." Again, this may be true, but we fail to see the connection to the proposed transfer. Gravity irrigation has not been used since at least 2008. McIntyre installed pivots in 2008/2009 and those pivots were removed in the winter of 2018/2019. McIntyre is currently using wheel lines to irrigate the property.

Treasure Valley Growth

The IWE report describes the decline of return flows from drains and explains there are a number of reasons for the reduced drain discharge. The authors suggest "rapid land use changes" in the Treasure Valley are a major contributor to the reduction in drainage flows. County assessor data does not support their claim. Figure 2 shows the number of irrigated acres in Ada and Canyon Counties over time from 2017 through 2023 (USDA 2017) (Ada County Assessor's Office 2024). Although there has been some decline in the number of irrigated acres over this period, this data does not support the opinion that there has been a "rapid" change in land use. Thus, other reasons are more likely to explain drain discharge reductions.

Treasure Valley Irrigated Acres 2017 to 2023

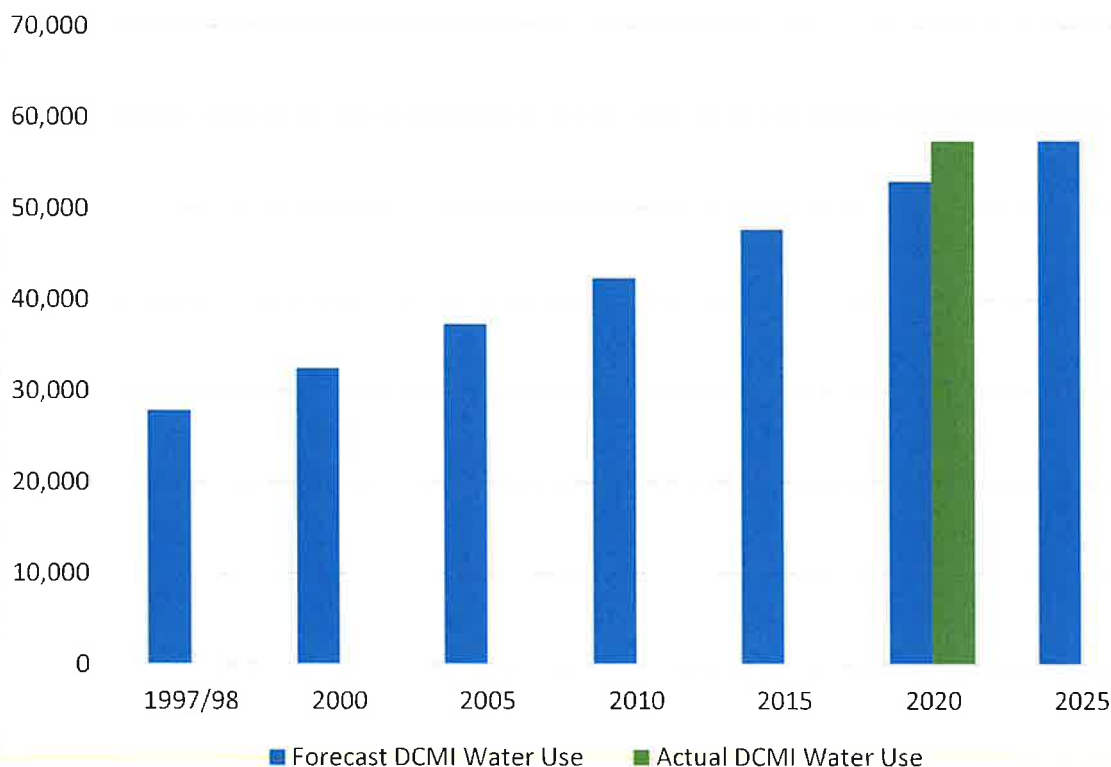


Sources: Ada and Canyon County Assessors.

Figure 2. Irrigated Acres in Canyon and Ada Counties, 2017 to 2023

Treasure Valley water use has been studied previously by Cook et al. (2001), WRIME (2010), and SPF Water Engineering (SPF) (2016). Cook et al. (2001) forecasted domestic, commercial, municipal, and industrial (DCMI) water use in Canyon and Ada Counties through 2025. For Canyon County, water use was forecasted to increase at a declining growth rate that averaged approximately 2.4 percent over the forecast horizon, reaching 53,000 acre-feet per year (AFY) by 2020 and 57,445 AFY by 2025. These forecasts are remarkably close to the non-agricultural water use estimate of 57,418 AFY for Canyon County in 2019 (using the IMPLAN and U.S. Environmentally-Extended Input-Output (USEEIO) approach adopted by Triple Point Strategic Consulting (TPSC) (2023). Figure 3 shows a comparison of the 2001 forecast to a current estimate.

A 2001 Forecast of Canyon County's DCMI Water Use

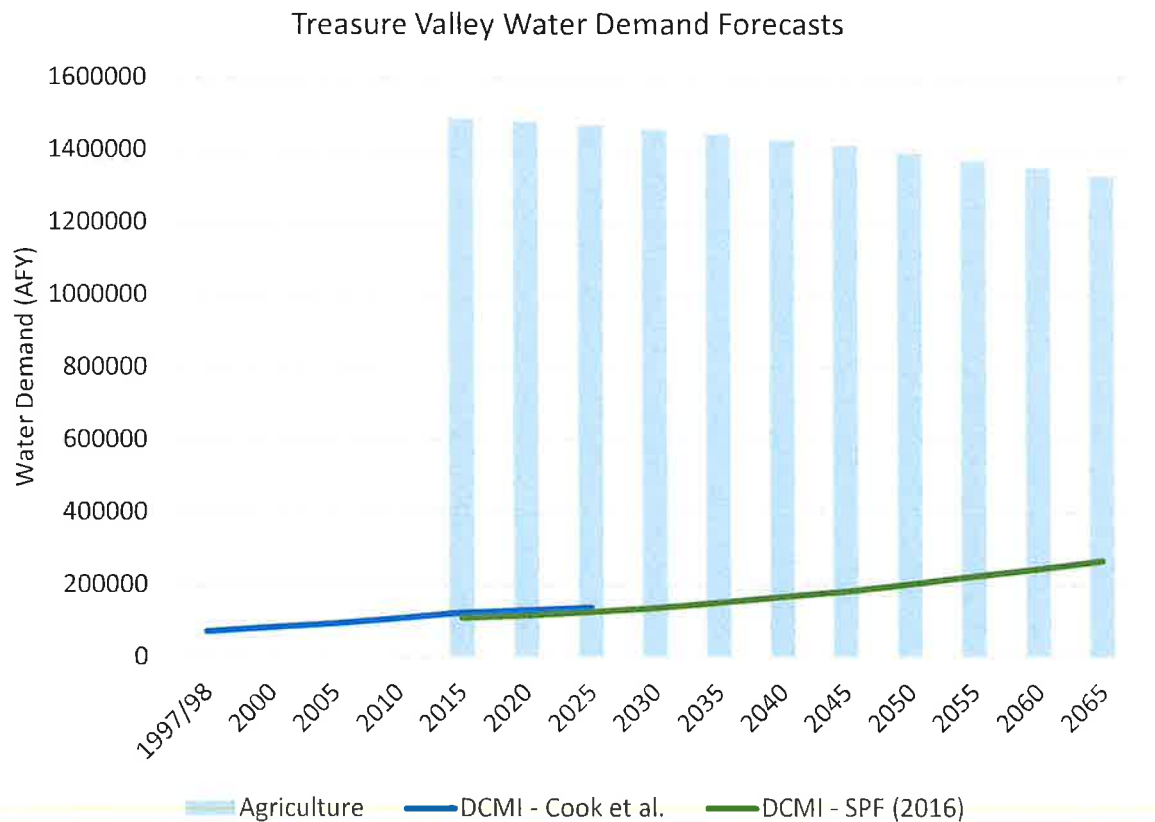


Sources: Cook et al., IMPLAN, USEEIO, TPSC.

Figure 3. Canyon County DCMI Water Demand Forecasts

From 2010 to 2020, WRIME (2010) forecasted Treasure Valley DCMI water use to increase at an annual average growth rate of approximately 3.4 percent. In comparison, Canyon County DCMI use grew at approximately 2.4 percent over this period. While a higher growth rate in Ada County would explain this difference, it is also possible that the WRIME forecast, though reasonable, is skewed high. If this is the case, the WRIME (2010) forecast for the Treasure Valley shows a gradual conversion from agricultural water use to DCMI water use as the region develops, though the actual rate of change may be more gradual than their 2010 forecast.

In 2016, SPF conducted a detailed analysis of Treasure Valley DCMI water use and a forecast to 2065. Their forecast is consistent with Cook et al. (2001) where the forecast periods overlap and the 2019 point estimate (TPSC 2023). These forecasts are shown in Figure 4 along with a rough projection of agricultural water use included for perspective. Agricultural use is assumed to decline by the amount DCMI increases in each 5-year forecast period.



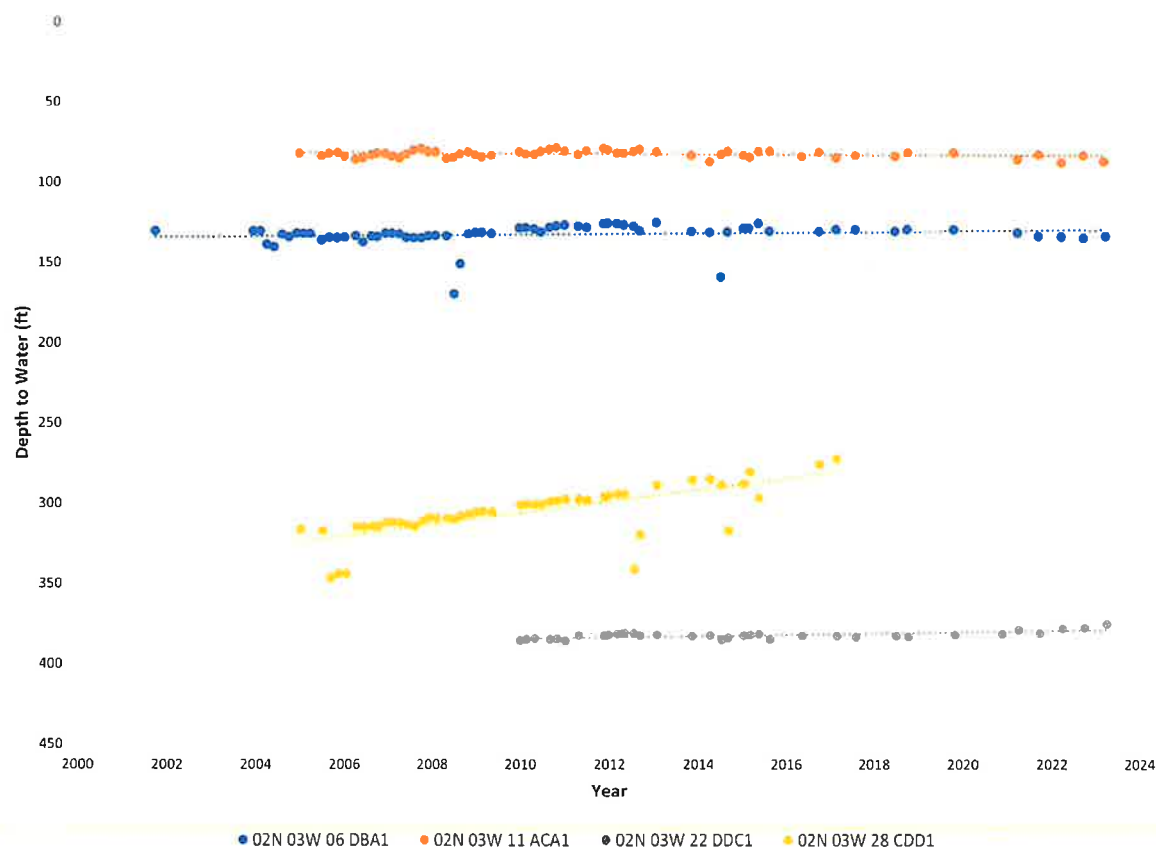
Sources: Cook et al., WRIME, SPF, TPSC.

Figure 4. Treasure Valley Water Demand Forecasts

IWE Report Conclusions

In its conclusion, the IWE report observes a lack of data and points out that “it is not possible to determine if ground water trends have occurred in the past or occurring currently.” In contrast, the report also states that groundwater levels are declining. We question this finding since the authors do not appear to have data to support it, nor is it geography specified.

In an expert report conducted on behalf of IMH, Scott King presents data from four water-level monitoring wells surrounding Beranna and the IMH property (Figure 5). This well data demonstrates that groundwater levels have remained stable in this area and that the current quantity of groundwater diversion in the area is not negatively affecting aquifer storage (HDR 2023).



Source: HDR.

Figure 5. Treasure Valley Water Demand Forecasts

Actual land and water use data, along with water demand forecasts for the region, do not support the notion of “rapid changes.” The future sustainability of the shallow and deep aquifers in the region and the drain flow declines are serious concerns. Solutions are more likely to be found in the agricultural sector, which uses most of the water.

Actual land and water use data, along with water demand forecasts for the region, do not support the notion of “rapid changes.”

Economic Impacts of Agricultural Land Conversions in Canyon County, Idaho

Professors Philip Watson and Jason Winfree from the University of Idaho have written a technical report dated November 30, 2023, in support of Beranna’s protest (Watson and Winfree 2023). The report investigates the economic impacts of the proposed transfer. Their report relies on the IMPLAN Input-Output Model and associated government data. This is the same system TPSC used for our initial expert report. Watson and Winfree base their report on the conversion of 164 acres, which is consistent with water right 63-3298 and is similar to the 171.52 acres referenced in the Farm Service FSA-578.

Canyon County Agricultural Economy

Watson and Winfree cite IMPLAN data showing Canyon County's plant agriculture output was \$373 million in 2021 and animal agriculture was \$346 million. Since completion of their report, IMPLAN's 2022 data has been released and these figures have increased to \$428 and \$483 million, respectively, indicating Canyon County's agricultural economy is growing at a significant rate. TPSC agrees that when food processing and the agricultural supply chain is considered, the effective size of the agricultural economy becomes much larger. Watson and Winfree state a figure of \$880 million, though it is not clear if this is inclusive of the animal and plant agriculture or in addition to it. Regardless, in 2022 all of the food manufacturing industries reported by IMPLAN (64–103) totaled \$2.4 billion of economic output. Support activities for agriculture and forestry totaled another \$62 million. Including the direct agricultural industries brings the total size of Canyon County's agricultural economy to \$3.4 billion or 15 percent of the county's \$21.8 billion economy.

The Watson and Winfree report states 202,479 acres were harvested in 2021 according to the U.S. Department of Agriculture's (USDA's) National Agricultural Statistical Service (NASS). According to the Canyon County assessor, there were 201,742 irrigated acres in 2021.

Initial Direct Impact

Watson and Winfree estimate the transfer would result in a loss of \$302,000 of direct economic output. TPSC (2023) estimated \$405,000. The difference may be the result of using different "data years" and the customization introduced by Watson and Winfree. Both results are very credible.

Initial Indirect and Induced Impacts

Watson and Winfree are correct to point out that the loss of direct output will also have indirect and induced impacts, which they found to be 73 percent of the direct output (or \$220,000). Further, they estimate an employment impact of 5.1 jobs. Additional analysis conducted for this report finds a total of \$183,600 of indirect and induced impacts in addition to the \$405,000 of direct impacts previously estimated and a loss of 5.9 jobs.

Future Impacts

Watson and Winfree suggest that the proposed transfer would increase the likelihood of subsequent transition of agricultural land in the surrounding area setting off a "domino effect" at 100 acre intervals. Their citations are reasonable, but there is no indication of what the new likelihood would be nor the timing of a transition, which is best described by the data from recent history provided in this report.

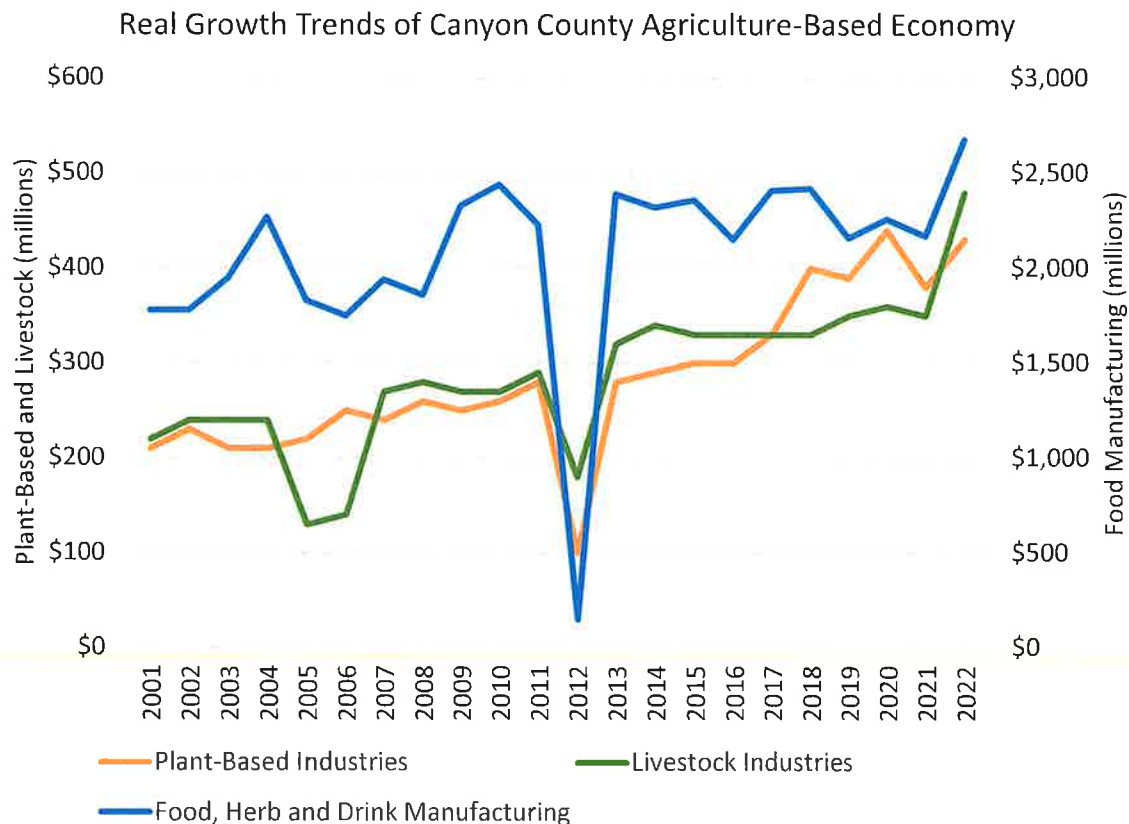
Data presented earlier in this report indicates some conversion is occurring at modest annual rates. Canyon County assessor data shows an average annual reduction of agricultural land of 3,029 acres per year or 1.2 percent annual from 2017. Converting 171.52 acres is the equivalent of 5.7 percent of the annual average of 1.2 percent.

More importantly, additional land conversions resulting from this transfer is a tenuous nexus at best, may not be applicable, and if upheld may preclude any future transfers.

"Stemming From" Impacts

Watson and Winfree describe "stemming from" effects and suggest that the conversion of 164 acres and the loss of \$302,000 of direct output would lead to the closure of a dairy (\$16.4 million impact) and that, in turn, would lead to the closer of the county's largest dairy processor (\$320 million impact).

These causal linkages are extremely uncertain and unlikely. The economic data in Figure 6 shows the real growth of the county's direct agricultural and processing industries. In 2022, the livestock and processing sectors each recorded the most output ever and plant-based agriculture posted its second-best year ever.



Source: IMPLAN.

Figure 6. Real Growth of Canyon County's Overall Agricultural Economy, millions in 2022 dollars

Net Benefits

As a residential neighborhood, the Cimarron Ridge subdivision would expand the county's economy and tax base. Watson and Winfree do not analyze these impacts. TPSC (2023) estimated the incremental demand for agricultural products. IMPLAN is commonly used to estimate the economic impacts of a change in household income, for example the jobs that would be created if a new factory is built in a community. In this case, Cimarron Ridge would, over time, support an estimated \$28,732,800 of incremental household income. Initially, some county residents would relocate, leaving their homes vacant and in the longer term 240 additional households would be able to live in the county.

Structuring this incremental household spending as a household income event in IMPLAN induces an additional \$20.2 million in economic activity and 127 new jobs (Table 1).

Table 1. Economic Impacts to Canyon County Resulting from Cimarron Ridge Household Income Spending, 2024 dollars

Type Impact	Labor Income	Intermediate Expenditures	Other Property Income	Taxes on Production	Total Output
Induced	\$5,409,143	\$8,879,629	\$4,672,246	\$1,228,426	\$20,189,444
Total	\$5,409,143	\$8,879,629	\$4,672,246	\$1,228,426	\$20,189,444

Further, the incremental tax revenue impact is estimated to be \$2.9 million (Table 2). Local officials could consider allocating some of the incremental tax revenue to water use efficiency and land productivity programs.

Table 2. Annual Tax Revenue Impacts Resulting from Cimarron Ridge Household Income Spending, 2024 dollars

Impact Type	Sub-County	Special Districts	County	State	Federal	Total Tax
Induced	\$208,472	\$164,142	\$119,181	\$970,180	\$1,403,373	\$2,865,349
Total Impact	\$208,472	\$164,142	\$119,181	\$970,180	\$1,403,373	\$2,865,349

Treasure Valley Planning Idaho

The expert report submitted by Keri Smith adopts a very broad definition of “agricultural base” that extends to social and community development issues (Smith 2023). From TPSC’s experience, these can be mitigated with proper planning and modeling various scenarios in advance of development. Smith also points to the “inevitable expansion” or chain reaction of land use conversion that would occur if the proposed water transfer is approved. As mentioned in the rebuttal of Watson and Winfree’s report above, land use and economic data do not support this theory. The Smith report also raises the question of geographic areas, which is not clearly defined in Idaho Code § 42-222. Is “local area” the neighboring properties, a larger neighborhood, Canyon County, or the Treasure Valley? The data presented in this report does not support the notion of “rapid change” at any level, though clarification on geography would help focus the discussion.

Change in Water Use

The expert reports supporting Beranna’s protest all imply incremental or additional water use. However, this would not be the case, not by right and not likely by demand. In fact, as mentioned previously, the proposed transfer would likely lower the demand for water used by the IMH property.

Water Right Change

Part 1A.3. of the transfer application explains the following:

The water right chosen for transfer is 63-3298. A total of 0.52 cubic feet per second (cfs) (233 gallons per minute [gpm]), 26 acres, and 82.2 irrigation consumptive AFY will be transferred to domestic use to satisfy the annual domestic needs and peak-hour demand for the 240 homes. Season of use will be changed to year-round.

The remainder of water right 63-3298 consists of 2.76 cfs and 621 AFY for irrigation of 138 acres that, along with permit 63-34320, will sufficiently serve the development's anticipated irrigation needs using separate wells and pressurized system.

Therefore, IMH would not have the right to use more water as a result of the transfer.

Water Use Change

In regard to actual water use before and after the proposed transfer, estimates indicate less water will be used as a result of the transfer.

The IMH property has water rights for 214 acres. For this analysis, we assume all 171.52 acres have been irrigated. Irrigation requirement data provided by HDR, Inc. finds the average irrigation requirement in southern Canyon County to be 3.6 AFY. Based on this average, the Property is currently using or has a total irrigation requirement of 617.47 AFY of groundwater.

According to an SPF memo dated April 10, 2019, the annual domestic water use by 240 homes would be 81 AFY, assuming 300 gallons per home per day. In addition to domestic use, water would be used for landscape irrigation. According to an SPF memo dated September 17, 2021, the annual irrigation demand is estimated to be 3.0 acre-feet per acre on 145 acres, for a total of 430 AFY. Fire flow use is estimated to be minimal in comparison at 1 AFY.

The sum amount of water by these uses is 512 AFY, which would be 105 acre-feet less than the 617 AFY currently used for farming the Property.

Efficiency

Water right 63-3298 authorizes the diversion of 3.28 cfs and 738 AFY for primary irrigation of 164 acres, or 0.45 percent of Canyon County. Some of the concerns expressed by the experts writing on behalf of Beranna could be much more effectively addressed by improving water productivity across the region, see Marston et al. (2020) for example. As previously mentioned, a portion of the incremental tax revenue from developing Cimarron Ridge could be used to fund water productivity improvement programs.

Conclusion

The opinions expressed by the expert reports presented on behalf of Beranna's protest suggest the water transfer proposed by IMH would set off a chain reaction of land conversion and lead to an exponential decline of the county's agricultural economy amidst "rapid change" already occurring. Indeed, some land conversion has occurred and concerns over water supply sustainability are well founded. However, the data collected over time and presented in this rebuttal report quantifies the actual changes that have occurred and suggest trends going forward.

More than two-thirds of Canyon County is irrigated for agriculture and over the past six years there has been a 4 percentage point decline in the irrigated acreage, while all other categories have increased very modestly. The county's overall agricultural production and food processing economy has increased in real terms from \$2.2 billion in 2001 to \$3.6 billion in 2022. The actual change in water use that would occur as a result of the proposed transfer would be a reduction of 105 AFY. In addition to increasing economic activity and the tax base, Cimarron Ridge would create or support 127 jobs.

About Triple Point Strategic Consulting LLC

Triple Point specializes in developing custom economic and financial models. We deliver results for our clients with high-value and accurate information as demonstrated by our many repeat clients. Triple Point is active across the western United States and Canada, modeling for scenario planning, financial forecasting, permitting and approvals, optimal resource allocation, and improved decision-making. Economic impact studies are conducted using the IMPLAN model. In 2013, Jeff Moffett founded Triple Point Strategic Consulting to provide marketing, strategic planning, and economic analysis services. Focus areas are renewable energy, affordable housing, health assessments, sustainable tourism, and economic development. Jeff earned his M.S. in Econometrics and Ph.D. in Applied Statistics at the University of Washington, Seattle.

Recent Housing and Socioeconomic Projects

- Socioeconomic Assessment and Housing Market Analysis of Buena Vista, CO, 2020
- Socioeconomic Assessment and Housing Market Analysis of South Chaffee County, CO, 2020
- Economic Impact and Socioeconomic Analysis of the Former Bennett Freeze Area, AZ, 2020
- Socioeconomic Assessment and Housing Market Analysis of Lake County, CO, 2021
- Socioeconomic Assessment and Housing Market Analysis of City of Gunnison, CO, 2021
- Socioeconomic Assessment and Housing Market Analysis of City of Montrose, CO, 2021
- Socioeconomic Assessment and Housing Market Analysis of Buena Vista, CO, 2021
- Financial Proforma Scenario Planning, Valley Housing Fund, Crested Butte, CO 2022
- Socioeconomic Assessment and Housing Market Analysis of City of Gunnison, CO, 2022
- Region 10 Housing Meta-Analysis, western CO, 2022
- Housing Needs Assessment for the City of Cortez, CO, 2023
- Workforce Housing Innovation Study, West Mountain Regional Housing Coalition, CO, 2023
- Socioeconomic Assessment and Housing Market Analysis of Lake County, CO, 2023
- Water Resource and Economic Development Study, South Fork Boise River Diversion Project, current
- Market Assessment and Demand Study of Remington Ranch, Gypsum, CO, current
- Financial Modeling for Aspen School District, Aspen, CO, ongoing, March 2022 to ongoing

Recent Economic Analysis, Market Feasibility Assessments, and Business Development Projects

- North Fork EMS, 2017–2018 mill levy campaign strategist, measure passed by landslide
- Gunnison County Library District, 2019 mill levy campaign
- Delta County Library District, 2019 mill levy campaign
- Economic modeling, forecasting, and scenario planning for South Tahoe Events Center
- Scenario Planning of Land Management in San Luis Obispo County, CA 2019–2020
- Market and Environmental Feasibility Study of OHV Park, Yolo County, CA January 2020–2021
- Socioeconomic Assessment and Health Analysis of Delta County, CO, 2020
- Economic Impact and Socioeconomic Analysis of the Former Bennett Freeze Area, Navajo Nation, 2020
- Economic Impact Assessment of \$500M hospitality development, Sacramento County, CA 2021
- Economic Analysis of the Navajo Thaw Regional Recovery Plan Water Projects, Navajo Nation, 2021
- Proforma financial modeling, Gunnison County Library District, 2021
- Build-out and Economic Development Forecast for North Village, Mt. Crested Butte, CO 2021
- Economic and Fiscal Analysis of Large Res/Comm Development in Garfield County, CO 2022

- Socioeconomic and Behavioral Health Needs Assessment of Gunnison County, CO, 2021–2022
- Economic Impact of Adaptive Sports Center, Mt. Crested Butte, CO, Spring 2022, Spring 2023
- Proforma Budget Model for the Proposed Incorporation of Keystone, Summit County, CO 2022
- Economic Model for Lake Tahoe/Truckee Destination Management Roadmap, current
- Fiscal Analysis, multiple western destinations, Vail Resorts, 2022
- Fiscal Analysis for San Francisco Peninsula DMO, CA, 2022, 2023
- Market Modeling for the State of Nevada Department of Tourism, 2023
- Market and Destination Feasibility Study of Mendocino County, CA, 2023
- Business Development and Scenario Planning, Lake Tahoe Visitor Authority, CA, 2023
- Fiscal Analysis for Visit Del Mar, Del Mar, CA, 2023
- Economic Modeling for Strategic Planning for Mendocino County, CA, 2023, current

Economic Impact of Utility-Scale Renewable Energy Projects

- Economic Impact of Industrial Scale Solar Facility in Nebraska, January 2020, confidential
- Economic Impact of Shiprock Solar Facility, 2020
- Economic Impact of Industrial Scale Solar Facilities in San Luis Obispo County, California, 2020,
- Economic Impact and Fiscal Analysis of Battle Born Solar Facility in Clark County, NV, 2020
- Economic Impact of Industrial Scale Solar Facility in New Mexico, May 2021
- Economic Impact and Fiscal Analysis of Industrial Scale Solar Facility in Lincoln County, Nebraska, July 2021
- Socioeconomic Analysis of the Painted Desert Solar Project, Arizona, 2022
- Economic Impact of Beatty Energy Center, Nye County, NV, 2022
- Economic Impact of Sawtooth Energy Center, Nye County, NV, 2022
- Economic Impact and Fiscal Analysis of Hesperus Solar Facility, La Plata County, CO, 2022
- Economic Impact and Fiscal Analysis of Utility-Scale Solar Facility, Clark County, NV, 2022,
- Economic Impact of Utility-Scale Solar Facility, Nye County, NV, 2022
- Economic Impact and Fiscal Analysis of Basin Solar Facility, Pahrump, NV, 2022
- Economic Impact of Libra Solar Facility, Mineral and Lyon Counties, NV, 2022-23
- Economic Impact of Golden Currant Solar Facility, Clark County, NV, 2023
- Economic Impact of GridLiance Core Upgrades Transmission, Nye County, NV, 2023
- Economic Impact of Stagecoach Wind Facility, White Pine County, NV, current
- Economic Impacts of two utility-scale solar facilities in New Mexico, current
- Economic Impact of Solar Facility in Imperial County, CA, 2023 – 2024, current
- Economic Impacts of a utility-scale solar and wind project in Arizona, pending for 2024
- Economic Impact of GridLiance Beatty Upgrades, Nye County, NV, pending for 2024
- Economic Impact of Pantheon Solar Facility, White Pine County, NV, pending

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<https://adacounty.id.gov/assessor/dashboard/>.
- Cook, Z., S. Urban, M. Maupin, R. Pratt, and J. Church. 2001. *Domestic, Commercial, Municipal and Industrial Water Demand Assessment and Forecast in Ada and Canyon Counties, Idaho*. IDWR.
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- IMH Boise Cimarron, LLC. 2021. "State of Idaho Department of Water Resources Minimum Requirements Checklist." August 3.
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EXHIBIT “B”



Expert Witness Report in
Rebuttal to Idaho Water
Engineering Report on
Application for Transfer
No. 85639

IMH Boise Cimmaron, LLC

Project: 10346993

Canyon County, Idaho
January 5, 2024





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1 Background

IMH Boise Cimmaron, LLC's (IMH; Applicant) Application for Transfer No. 85639 (the Application) proposes to change a portion of decreed ground water right 63-3298 from irrigation to domestic use for the Cimarron Ridge Subdivision located south of Caldwell in Canyon County, Idaho. Beranna Dairy and Western Farms, Inc. protested the Application

The Application is supported by two reports. HDR prepared *Expert Witness Report in Support of Application for Transfer No. 85639*, dated December 7, 2023 (HDR, 2023). Triple Point Strategic Consulting prepared the *Estimating the Effect of Cimarron Ridge on the Agricultural Base of Canyon County* report, dated December 2023.

Protestants submitted *Beranna Dairy's Expert Witness Disclosure*, dated December 8, 2023. This disclosure includes reports from Idaho Water Engineering (IWE), University of Idaho professors Phillip Watson, Ph.D., and Jason Winfree, Ph.D., and Treasure Valley Planning Idaho.

This report provides rebuttal to protestants' expert witness report prepared by IWE.

2 Idaho Water Engineering Report

2.1 IDWR Program Monitoring Wells

IWE claimed "Unfortunately, there are no IDWR program wells in the vicinity of Breanna (sic) and IMH that are being monitored for ground water levels in the **deeper Idaho Group aquifers**." (emphasis added). HDR identified four Idaho Department of Water Resources (IDWR) program monitoring wells in the vicinity of the Application and Beranna Dairy, two of which appear to be completed in the deeper Idaho Group (HDR, 2023).

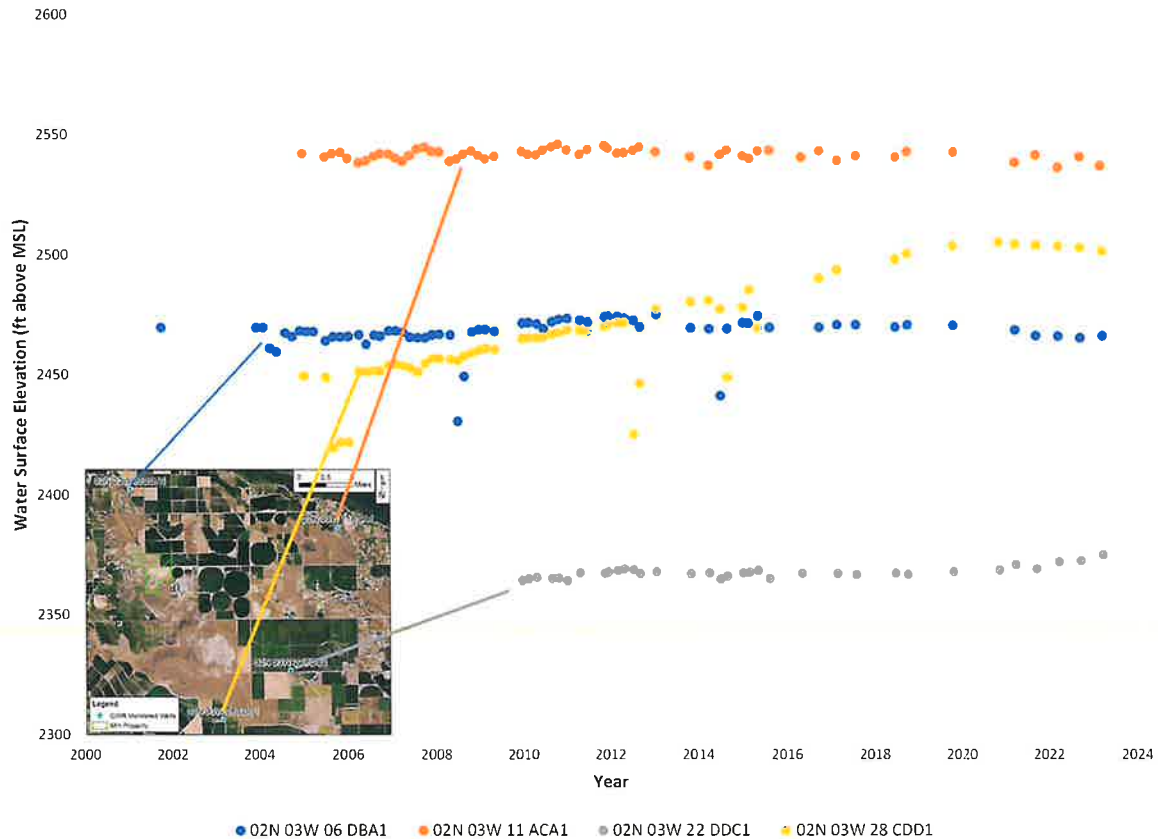
Well 02N 03W 22 DDC1, located approximately 3 miles southeast of the Applicant's property, is completed with perforations from 400 to 580 feet in what the Well Driller's Report largely describes as gray and blue clays with sand layers that appear to be in the deeper Idaho Group. This well was gravel packed from 0 to 580 feet, so there may be co-mingling of waters between aquifer groups. Water levels in this well have been stable for more than 20 years.

Well 02N 03W 28 CDD1, located approximately 3 miles south-southeast of the Applicant's property, does not have an identified well driller's report. IDWR's Groundwater Data Portal indicates this well has a depth of 485 feet, but does not identify completion intervals. Constructed in the same 40-acre tract as 02N 03W 28 CDD1 is another well at 02N 03W 28 SESW, for owner Craig Castagneto in 2002. The Well Driller's Report for Castagneto's well indicates a depth of 625 feet is in the gray clays consistent with the deeper Idaho Group. Water levels in the 02N 03W 28 CDD1 well have increased by approximately 50 feet from 2005 to 2020, and since 2021 have declined approximately 4 feet.

Figure 3 in HDR's *Expert Witness Report in Support of Application for Transfer No. 85639* plotted groundwater levels from the four identified IDWR Groundwater Data Portal wells near the IMH property. After further review, HDR identified that a portion of data from well 02N 03W 28 CDD1 was omitted. Figure 1 below provides the full record of all four wells with water levels presented as water surface elevations above sea level.

The two wells located southeast of IMH and Beranna Dairy, 02N 03W 28 CDD1 and 02N 03W 22 DDC1, appear to be completed in the deeper Idaho Group and both exhibit long-term stable or increasing water levels.

Figure 1. Groundwater Level Data and Trends



2.2 Water Supply Issues

IWE indicated that applications for new groundwater permits are on hold in the area south of Lake Lowell. While there are several very large applications for permit that are not being processed due to unresolved protests, IDWR has recently approved the following permits in the area south of Lake Lowell.

- Permit 63-35199 authorizes appropriation of 1.72 cubic feet per second (cfs) of groundwater for domestic use and irrigation of 84 acres. IDWR received the application for permit on February 18, 2022, and approved the permit on April 26, 2022.
- Permit 63-35051 authorizes appropriation of groundwater, including 0.28 cfs for irrigation of 14 acres, 0.45 cfs for domestic use in 101 homes, and 3.34 cfs for fire protection. IDWR received the application for permit on April 22, 2021, and approved the permit on September 24, 2021.

- Permit 63-34858 authorizes appropriation of groundwater, including 0.1 cfs for commercial and 0.04 cfs for fire protection. IDWR received the application for permit on January 27, 2020, and approved the permit on June 4, 2020.
- Permit 63-34320 authorizes appropriation of 1 cfs of groundwater for irrigation of 50 acres on the IMH property, the same property associated with the Application implicated by this report. IDWR received the application for permit on November 10, 2016, which the Boise Project Board of Control subsequently protested. Beranna Dairy did not protest the application. The protest was resolved with Boise Project Board of Control and IDWR approved the permit on June 9, 2020.

IWE states that new groundwater uses could reduce supplies for Beranna Dairy. HDR concurs on this point; however, the Application does not propose any additional groundwater use. On the contrary, 26 acres irrigated with groundwater are removed from production to balance the new domestic use. There is no increase in diversion rate, annual diversion volume, or annual consumptive volume.

IWE contends, "Given that the proposed Transfer includes changing a portion of the irrigation beneficial use to year-round residential and additional 50 acres of irrigation with Permit 63-34320, **it appears quite possible that IDWR would consider this an enlargement.**" (emphasis added). As described in *Expert Witness Report in Support of Application for Transfer No. 85639*, the unchanged portion of water right 63-3298 is 138 acres, and the anticipated irrigated area associated with the Cimarron Ridge development is 145 acres. Permit 63-34320, described above, authorizes 50 acres of new groundwater irrigation. Beranna Dairy did not protest Permit 63-34320 and IDWR approved that permit in 2020. Developing this permit is not an enlargement of water right 63-3298. Based on the difference between 145 planned irrigated acres and 138 acres provided by the unchanged portion of water right 63-3298, only about 7 acres of Permit 63-34320 are expected to be developed ($145-138=7$). Nevertheless, if Permit 63-34320 was fully developed, the Application does not enlarge water right 63-3298. HDR disagrees that IDWR would consider this an enlargement.

2.3 Potential Impacts to Ground Water Levels Due to Changes in Pumping Schedules

IWE implies that changing pumping schedule from the irrigation season to year-round would impact the groundwater levels in existing wells. There may be an impact to groundwater levels, and this expected impact would be positive for groundwater levels at Beranna Dairy's wells. Currently during the irrigation season, when water is pumped from the IMH irrigation wells at a higher diversion rate over a shorter period of time, a deep and broad cone of depression likely interferes with water levels in the Beranna Dairy wells. Reducing the pumped quantity from the IMH irrigation wells due to the reduction of 26 irrigated acres is expected to yield less potential interference with Beranna Dairy wells. Subsequently moving the 26 equivalent acres of diversion volume a distance away from Beranna's wells reduces the stress on the aquifer at Beranna. Diverting less during the irrigation season, when Beranna is pumping for irrigation use, should also benefit Beranna. *Expert Witness Report in Support of Application for Transfer No. 85639* provided further discussion on anticipated well interference and identified a calculated an approximate 1-foot benefit to water levels at Beranna and Western Farms.

IWE contends, "To determine the impacts, the applicant would need to monitor water levels for a year or two before any change in pumping patterns, and then monitor water levels during a long term well pumping test of the new wells." *Expert Witness Report in Support of Application for Transfer No. 85639* provided results of a Theis analysis of water level changes anticipated due to the changes proposed by the Application. The Theis methodology is a long-accepted approach to approximating expected changes to water level conditions resulting from aquifer stresses. It is unrealistic to require long-term monitoring on an application for transfer where net water use is not increased, and where the change in pumping stresses is expected to benefit water levels at Beranna and Western Farms.

2.4 Additional Information Needed and Questions

IWE posed nine questions for additional information.

1. Information on well design.

The preliminary plans for anticipated domestic wells are 8-inch diameter completed in sediments below 300 feet. A test well is proposed to identify aquifer layers with acceptable productivity and water quality. Final well plans will be prepared after test well construction and analysis.

2. Separate monitoring well.

IMH does not plan nor propose to construct a separate monitoring well. HDR typically includes sounding tubes for water level access on every public water system/community well design. Some are also equipped with transducers. A separate monitoring well is not required.

3. Well sequencing.

The wells will be operated as lead and backup. New community systems are required to have at least one redundant source as a backup to failure of a primary supply as required by IDAPA 58.01.08.501.17. Each well will have sufficient capacity to meet demands, but the wells will not be operated in tandem.

4. Source for annual domestic use need described in Transfer Part 1A.3.

As described in Expert Witness Report in Support of Application for Transfer No. 85639, the annual domestic demand for 240 homes is based on 300 gallons per day per home based on IDAPA 58.01.03.007.08 for a 4-bedroom home.

5. Measurements of production or water levels on IMH wells, or power records to provide annual withdrawal information.

HDR does not have measurements of production or water levels on IMH wells, nor power records. HDR obtained Farm Service Agency (FSA) crop records documenting alfalfa as the sole crop grown on the farm during years 2008, 2009, 2010, and 2014. This information is suitable to meet IDWR's requirements on documenting water use for water right applications for transfer proposing a change in nature of use.

6. What is proposed for water level and production monitoring for all IMH's irrigation and community wells?

As described above, anticipated plans for the new domestic wells to be equipped with sounding tubes for water level access. Domestic wells will be equipped with flowmeters as required by the Idaho Department of Environmental Quality (IDEQ). The Application does not propose any increase in diversion rate or volume of the changed water right. IDWR does not generally require water level measurement and production reporting in this area. If required by IDWR, water levels and production data will be measured and reported.

7. What volume and pumping rates will be required to satisfy the community supply needs by month?

The community supply is based on peak hour demands of 0.51 cfs and annual average daily demands of 300 gallons per day (gpd) per home. Based on 300 gpd per home, the average monthly volume is projected at 6.72 acre-feet (af). As the community system will not supply outdoor irrigation uses, monthly peak hour and volume demands are expected to be relatively steady with little month-to-month fluctuation.

8. What information can be provided to document that conversion from irrigated agriculture to residential lawns and gardens are similar in consumptive use?

This information is not required by IDWR to process the Application. The unchanged portion of the water right remains defined as irrigation use, and the right holder is allowed to change crop types under an irrigation use. There is no requirement to demonstrate consumptive uses are similar between historic and future irrigation use. Regardless, the University of Idaho's ET_{Idaho} 2017¹ website for the nearby Deer Flat Dam climate station can be queried to demonstrate precipitation deficit irrigation consumptive uses between alfalfa and turf grass are similar.

9. The Transfer Application includes a Preliminary Plan map that shows streets and lots on the south side of the property which was historically non-irrigated. Are these homes and lands to be serviced using the IMH Water Right 63-3298 or Permit 63-34320? If so, what is the calculated irrigated acreage and consumptive use?

The areas described on the south side of the property are within the authorized places of use for water right 63-3298 and Permit 63-34320; therefore, either or both the right or permit may be used on this land. As described above, the anticipated irrigated area associated with the Cimarron Ridge development is 145 acres. However, the owner is not precluded from developing all 50 acres associated with Permit 63-34320. ET_{Idaho} 2017 provides average precipitation-deficit irrigation crop demands of 982 millimeters per year (mm/yr) for turf grass.

2.5 IWE Conclusions

IWE makes the following conclusions:

"The proposed development would be the first large-scale residential development in the area." IWE's report did not provide an analysis of other surrounding residential

¹ <http://data.kimberly.uidaho.edu/ETIdaho/>

developments. IWE's Figure 4 depicts subdivisions to the northwest and east of Beranna.

"The impacts to the aquifers are unknown and unpredictable because of the current limitation of data." This is inaccurate. HDR used available information from existing nearby wells and other available information on aquifer characteristics to prepare a Theis analysis for approximating anticipated impacts to nearby wells.

"There are a lot of wells in the Beranna and IMH area, but there are very limited ground water level data for these wells. Thus, it is not possible to determine if ground water trends have occurred in the past or occurring currently. Going forward, ground water level data need to be collected at multiple existing wells, and at all new wells." The IDWR Groundwater Data Portal presents water level information in wells within 1.5 to 3.5 miles surrounding the IMH property. It is possible to identify water level trends, and none of these monitored wells demonstrates a significant declining trend.

"Because the proposed IMH Transfer is in an area that has historically been of concern due to declining ground water levels ... there is a reasonable possibility that approving the IMH Transfer could negatively impact the Beranna Dairy wells..." The Application does not enlarge the quantity of water allowed for use under the changed water right. HDR has demonstrated that the change is expected to yield improved water levels at the Beranna and Western Farms' wells.

"Due to rapidly changing land use...IWE concludes that the proposed Transfer requires heightened scrutiny in order to ensure that the proposed IMH transfer and development does not cause injury to Beranna or Western Farms." IDWR is aware of the issues of land use changes, declining drain flows, outstanding applications, and available hydrogeologic data in this area. HDR trusts IDWR, bound by its statutory obligations, provided sufficient scrutiny in review of the Application. HDR has demonstrated the Application does not enlarge the changed water right and is not expected to injure existing water rights.

"Relative to the questions concerning potential enlargement...IWE could not adequately analyze the potential because the information presented in the Application is insufficient. However, based on the information available...the IMH Transfer could result in enlargement."

The transfer application provided sufficient information to demonstrate no enlargement. Subsequently, the HDR *Expert Witness Report in Support of Application for Transfer No. 85639 (2023)*, supplemented with this rebuttal report, provides additional analysis of the Application to further demonstrate enlargement and/or injury will not result from the proposed change.

Hersley, Jean

From: Kimberly Aulenbacher <KAulenbacher@parsonsbehle.com>
Sent: Friday, January 5, 2024 1:39 PM
To: 'Daniel Steenson'; Bryce Farris; IDWR File
Cc: Norman M. Semanko; Garrett M. Kitamura; Janelle Finrock
Subject: Transfer No. 85639 IMH Boise Cimarron / Notice of Service of Rebuttal Expert Reports
Attachments: IMH's Notice of Service of Rebuttal Expert Reports.pdf

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Good afternoon:

Attached for e-filing with IDWR and e-service on counsel, please find our client's Notice of Service of Expert Rebuttal Reports regarding the above-referenced case. If you have any questions or problems opening the attachment, please let us know. IDWR Clerk, please confirm receipt of the attached document for filing.

Thank you, and I hope you have a nice rest of your day. Kimberly



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