BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR	)	
TRANSFER NO. 79384 IN THE NAME OF	)	**FINAL ORDER**
THOMAS AND DOROTHY LENO	)	**DENYING TRANSFER**

On May 20, 2014, Thomas Leno ("Leno") filed Application for Transfer No. 79384 with the Idaho Department of Water Resources ("Department").[1] The Department published notice of the application beginning on July 3, 2014. Protests were filed by Richard Parrott, Jimmie L. Conder, Michael and Jana Humphries, William D. Hamby, Eric Parrott, Lois M. Rice, Leslie Ellsworth (for herself and 9 other individuals), Pam Ritter, Ed Smith, Victoria Henson, Scott Houtz, Delea Miller (Andrew), Jeanie McCreary, Barbara and Lynn Stephens, Margaret Winsryg and Leroy Elliott, Elizabeth (Betty) Slifer, and Martin F. Hackard.

A pre-hearing conference was conducted on November 19, 2014. The parties were unable to resolve the issues of protest during the conference and requested that a hearing be held to decide the contested case.

On January 20, 2015, Cedar Ridge Dairy, LLC ("Cedar Ridge") filed a motion to intervene in support of the application. The motion to intervene was granted on March 5, 2015, based on the fact that Cedar Ridge was represented by the same attorney as Leno and agreed to rely on the evidence presented by Leno.

On March 18 and 19, 2015, Department hearing officer James Cefalo conducted an administrative hearing on in Twin Falls, Idaho. Attorney Travis Thompson represented Leno and Cedar Ridge. Attorney David Coleman represented Margaret Winsryg and Leroy Elliot. The hearing was held in conjunction with hearings for Application for Transfer Nos. 79357, 79380 and 79466.

On June 1, 2015, hearing officer James Cefalo issue a *Preliminary Order Denying Transfer Application* 79384 ("Preliminary Order").

Applicant Leno and Intervenor Cedar Ridge jointly filed timely exceptions to the Preliminary Order ("Exceptions Brief").

SUPPORT DATA
IN FILE # 47-17589

[1] Application for Transfer 79384 proposes to move a portion of water right 47-17589 from property near the Idaho-Nevada border to farm ground near Berger, Idaho. Thomas and Dorothy Leno are the current owners of record for water right 47-17589. The application for transfer was submitted in the name of Thomas and Dorothy Leno but was signed only by Tom Leno. Evidence at the hearing established that Dorothy Leno passed away in August of 2011.

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On June 25, 2015, the Department received *Petitioners Objection to Applicants Exceptions to Change the Ruling Made by Hearing Officer May 29, 2015*, signed by a number of the protestants.

On June 26, 2015, the Department received a document titled *Protestant Response* submitted by Richard Parrott.

STATEMENT OF EXCEPTIONS

The following is a restatement of the exceptions submitted by Leno and Cedar Ridge:

A. Leno and Cedar Ridge assert that the hearing officer applied an incorrect value for hydraulic conductivity to calculate modeled drawdown in wells near the proposed point of diversion. This general exception was stated by Leno and Cedar Ridge as three individual exceptions:

1. The Hearing Officer erred in failing to adopt the aquifer hydraulic conductivity value of 55 feet/day as published in a regional groundwater model report developed by the Idaho Water Resource Research Institute (IWRRI) and calculated by Brockway Engineering.

2. The Hearing Officer erred in failing to adopt a more conservative aquifer hydraulic conductivity value of 15.3 feet/day as calculated by Brockway Engineering based upon a review of area well logs.

3. The Hearing Officer erred in adopting a hydraulic conductivity value of 1.0 feet/day for the aquifer based upon a single pump test at a single well.

B. Leno and Cedar Ridge assert that the hearing officer should have established a reasonable pumping level prior to determining injury to nearby wells. This general exception was stated by Leno and Cedar Ridge as three individual exceptions:

1. The Hearing Officer erred by not using a "reasonable groundwater pumping level" standard to determine whether or not the transfer would injure existing water rights.

2. The Hearing Officer erred by using an "unreasonable drawdown" standard to evaluate whether or not the transfer would injure existing water rights.

3. The Hearing Officer erred in finding a groundwater level drawdown of 9 feet over 30 years to be "unreasonable" despite no impact on Protestant McCreary's domestic well.

ANALYSIS OF EXCEPTIONS

Value for Hydraulic Conductivity to Calculate Modeled Drawdown in Wells Near the Proposed Point of Diversion

Hydraulic conductivity is important in determining potential injury to wells near the proposed point of diversion. Hydraulic conductivity is a measure of the ease with which water can move through pore spaces or fractures of an aquifer. If the hydraulic conductivity value is high, easier transmittal of water toward a pumping well results in less drawdown in the pumping well, and consequently, less drawdown in nearby wells affected by the pumping well's cone of depression. Conversely, if the hydraulic conductivity value is low, the slow transmittal of water toward a pumping well results in a higher drawdown in the pumping well because the pumping well must draw from a greater vertical column in the well to derive the same amount of water. The larger cone of depression in a well completed in material with a low hydraulic conductivity will cause greater drawdowns in nearby wells.

Brockway originally analyzed impacts to nearby wells by using a Winflow model that a hydraulic conductivity value of 55 feet/day. Finding of Fact ¶¶ 21-23; Conclusion of Law ¶ 5.[2] This value was taken from a regional ground water model produced by Cosgrove, et al. in the late 1990s. Finding of Fact ¶ 23. Regional estimates of conductivity do not necessarily reflect the actual conductivity at a specific point in the aquifer. The hydraulic conductivity value for the model represents hydraulic conductivity over the entire modeled area, even though the aquifer is not homogeneous and varies throughout the modeled area.

Brockway subsequently conducted a pump test for the well proposed as the new point of diversion. The pump test resulted in a drawdown of 200 feet. Finding of Fact ¶ 25. A drawdown of 200 feet in the test pumped well suggests the hydraulic conductivity is much less than 55 feet/day. See Brockway Report, page 26, Table 2. Brockway calculated a hydraulic conductivity value of 1.0 feet/day from the data gathered from the pump test for the well proposed as the new point of diversion. Id. Brockway argued against using the data from the pump test to establish hydraulic conductivity, testifying that (1) the well was not pump tested to establish a value for hydraulic conductivity; (2) the pump test did not establish that the well could produce the water sought to be diverted as proposed by the application for transfer; and (3) another pump test would have to be conducted to determine the yield from the well. Finding of Fact ¶ 26. The Director concludes from Brockway's testimony that another pump test would be required to calculate an individual hydraulic conductivity value for the well.

After the pump test, Brockway recognized that the value of hydraulic conductivity of 55 feet/day may be excessive and prepared a second Winflow model to estimate drawdown impacts at the protestants' wells. Finding of Fact ¶ 27. In this revised model, Brockway estimated a value of hydraulic conductivity by extracting data from ten well driller reports, sometimes referred to as well logs, for wells in the vicinity of the proposed point of diversion. Finding of Fact ¶ 28; Conclusion of Law ¶ 8. Brockway derived the hydraulic conductivity value from two

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[2] The hearing officer combined the analysis and conclusion of laws sections into one section titled "Analysis/Conclusions of Law." For purposes of this order, the section will be referred to simply as "Conclusions of Law."

sources of data on the drillers' reports. Drillers normally pump the well to determine yield (flow rate) and also measure ground water level drawdown. These pumping tests are normally short term and do not usually represent full drawdown or total ground water yield.

One of the ten wells whose well logs Brockway extracted data from to derive the value of hydraulic conductivity was significantly different that the other nine wells. Conclusion of Law ¶¶ 9-12. The unique well is located near a canal and was constructed at a shallower depth. The hydraulic conductivity computed with values from the well log for the unique well is 10 to 100 times higher than the individual values of hydraulic conductivity for the other nine wells. Despite this disparity, Brockway averaged the ten individual values, and estimated the hydraulic conductivity at 15.3 feet/day.

The Director rejects Leno's and Cedar Ridges' argument that the hearing officer erred in failing to adopt the aquifer hydraulic conductivity value of 55 feet/day. Brockway's second modeling attempt to estimate drawdown impacts at the protestants' well using well logs is an implicit recognition that the first attempt using the regional hydraulic conductivity value of 55 feet/day is not supportable. Brockway's second attempt used a value for hydraulic conductivity that was much lower than 55 feet/day. The hydraulic conductivity value of 55 feet/day taken from the regional ground water model represents the hydraulic conductivity over a larger modeled area, even though the aquifer is not homogeneous and varies throughout the modeled area. Brockway's second approach and the information from the pump test establish that the hydraulic conductivity in the area of well is much lower and support rejection of the 55 feet/day hydraulic conductivity value.

The Director also rejects Leno and Cedar Ridges' argument that the hearing officer erred in failing to adopt the aquifer hydraulic conductivity value of 15.3 feet/day as calculated by Brockway Engineering based upon a review of area well logs. Brockway derived the hydraulic conductivity value of 15.3 feet/day through an analysis of well driller reports for ten wells located within five miles of the proposed point of diversion. However, as described above, one of the wells was significantly different from the others as it was shallow, near a canal and had an overly high hydraulic conductivity. Brockway's averaging of the unique well with the individual values from the other nine well drillers' reports resulted in a value for hydraulic conductivity that was too high. Moreover, pumping tests for well driller reports are normally short term and do not usually represent full drawdown or total ground water yield. Even the applicant's expert acknowledged that the hydraulic conductivity at the proposed well is likely less than the hydraulic conductivity values used in the Winflow models. The Director agrees with the hearing officer that a hydraulic conductivity value of 15.3 feet/day is not "conservative" and affirms the hearing officer's rejection of the 15.3 feet/day hydraulic conductivity value.

The hearing officer adopted a 1.0 feet/day hydraulic conductivity value based on the pump test from the proposed well. Finding of Fact ¶ 28; Conclusion of Law ¶¶ 12, 16. While this value is likely closer to the true hydraulic conductivity value for the well than 55 feet/day or 15.3 feet/day, the Director agrees with Leno and Cedar Ridge that the hearing officer erred in adopting a hydraulic conductivity value of 1.0 feet/day for the aquifer based upon the abbreviated pump test at the well proposed as a point of diversion. However, rejection of the hearing officer's conclusion does not result in approval of the application.

Hydraulic conductivity values derived from a local pump test may have limited value when determining long distance drawdown impacts. A hydraulic conductivity value derived from a single well can be used to determine local impacts. Another pump test would have to be conducted for the well proposed as the new point of diversion to establish the value for hydraulic conductivity for the proposed well.

Given the inaccuracy of hydraulic conductivity values proposed by Brockway, and Brockway's own statements that the information relied on by the hearing officer from his own pump test should not establish the hydraulic conductivity, the applicant did not present sufficient evidence to establish that pumping from the new well would not injure nearby water rights. The applicant bore the burden of proof to establish that other water rights would not be injured and the applicant failed to meet this burden.

Establishment of a Reasonable Ground Water Pumping Level

Leno and Cedar Ridge argue the hearing officer "failed to determine whether the projected impact on area domestic wells would force those users to pump from an unreasonable groundwater pumping level." *Exception Brief* at 10. This argument improperly flips the burden of proof in this proceeding from the applicant to the hearing officer. Where a reasonable ground water pumping level has not been established, and the question of injury must be addressed by the hearing officer, the hearing officer should not be required to determine a reasonable pumping level as a prerequisite to considering the application. The Director agrees with the hearing officer that the reasonableness of projected drawdowns in neighboring wells resulting from a proposed transfer must be evaluated on a case-by-case basis.

For the applicant to carry his burden of proof, he must initially establish the ground water level drawdowns that will likely result in the wells of the holders of other water rights from pumping at the location of the proposed well. In this case, the applicant did not carry his burden of proof. While the Director will not impose the entire burden of proof on the applicant to establish reasonable pumping levels, the applicant cannot expect the hearing officer to establish a reasonable pumping level in a contested case hearing without the applicant accurately establishing the anticipated ground water level drawdowns and presenting evidence within the knowledge of or reasonably discoverable by the applicant that helps the hearing officer determine what lowered water levels resulting from pumping impacts would be reasonable.

Because the applicant did not present reliable evidence establishing the ground water drawdowns in wells of holders of other water rights and because there is little evidence to help the hearing officer determine what pumping water levels would be reasonable, the Director rejects Leno and Cedar Ridges' reasonable pumping level exceptions.

Miscellaneous Corrections

The Preliminary Order Denying Transfer stated the following about the relationship between ground water at the location of the existing point of diversion ("from well") and the proposed point of diversion ("to well"):

> Ground water at the existing point of diversion for water right 47-17589 flows south into Nevada toward Shoshone Creek, a tributary of Salmon Falls Creek. Bonnichsen Rebuttal Report, page 3; C. Brockway Testimony. "[T]here is absolutely no reason to believe that water from the [existing point of diversion] . . . would travel underground northward to become part of the groundwater system in the Berger area." Bonnichsen Report, page 5.

The Director interpreted this language to establish that the direction of the ground water gradient is south, and that there is "no reason to believe" that ground water traveling in a southerly direction would **ever** "travel underground northward to become part of the groundwater system in the Berger area." Finding of fact no. 32 confirms the Director's interpretation:

> "Shoshone Creek joins Salmon Falls Creek about 3.7 miles south of the Idaho-Nevada border." Bonnichsen Rebuttal Report, page 2. Ground water and surface water in this area leaves the valley as surface water in Salmon Falls Creek near Jackpot, Nevada. Bonnichsen Report. "[T]here does not appear to be any sort of subterranean rock sequence through which groundwater readily could flow out of the basin [near] Jackpot [Nevada] and into the Salmon Tract area to the north." Bonnichsen Report, page 5

Cefalo relied on the Bonnichsen report for the above finding of fact. Brockway's expert report generally conflicts with Cefalo's finding. Brockway states:

> The general interpretation of the all (sic) referenced published reports indicate (sic) ground water recharge occurs in northern Nevada and in the Jackpot area and southern Idaho in Twin Falls County and that the aquifer flows northward towards the Snake River. Brockway Report, page 10
>
> In a rebuttal report, Brockway states the following:
>
> Based on the published reports and the data that is available, we believe that ground water flows north out of Nevada and into southern Idaho. The ground water flows northward past Rogerson and Hollister to provide ground water to the Castleford, Buhl, and Filer areas. Brockway Rebuttal Report, Page 11

Because Bonnichsen discussed the specific hydrogeology of Shoshone Creek and Salmon Falls Creek, and Brockway only generally described the hydrogeology, the Director understands why the hearing office would rely on Bonnichsen's hydrogeologic analysis. However, the protestants also employed Duwayne Kimball, another expert witness, who wrote a rebuttal report. In the Kimball rebuttal report, Kimball states:

> My general interpretation of the information provided in the reports is that the groundwater contours will generally have a tendency to follow the natural ground elevation contours. This means the groundwater in the Mule Creek drainage will travel to the south into Nevada and will eventually loop its way back into Idaho following the ground elevation decline. The groundwater at that point of re-entry

> into Idaho will then flow in a general north direction as Brockway's expert report has indicated. Kimball Rebuttal Report page 4

In addition, the Director must consider a general provision in the Snake River Basin Adjudication recognizing that ground water in Basin 47 is hydraulically connected. The hearing officer discusses the SRBA determination in finding of fact no 16:

> The existing point of diversion and proposed point of diversion are located within Administrative Basin 47 ("Basin 47"). On February 6, 2014, the SRBA Court issued General Provisions for Basin 47. Ex. 4. The document included the following statement: "Except as otherwise specified above [nothing is specified], all other water rights within Basin 47 will be administered as connected sources of water in the Snake River Basin in accordance with the prior appropriation doctrine as established by Idaho law." *Id.*

After considering all of the evidence, the Director concludes the weight of the evidence supports a finding that the groundwater between the original Leno point of diversion and the proposed point of diversion is hydraulically connected.

Because the Director finds that the ground water at the existing point of diversion and the ground water at the proposed point of diversion are hydraulically connected, this order need not discuss the seepage of surface water stored in Salmon Falls Creek Reservoir into the groundwater, losses from irrigation canals, or losses from application of water for irrigation of growing crops. These findings will be eliminated from the final order.

By eliminating these findings, the Director repudiates the hearing officer's previous reasoning in determining hydraulic connection. If the applicant for transfer discontinues diverting ground water at the point of diversion from which water is sought to be transferred, and the ground water that would have been diverted expresses itself as surface water, the water loses its character as ground water. If the surface water is diverted by a surface water right holder for irrigation, a significant portion of the surface water will be consumed by the irrigated crops. Some of the surface water will be lost to evaporation or seepage. The portion of the losses of ground water changed to surface water and applied for irrigation that seep into the ground water would increase the ground water supply by the fraction of the total attributable to seepage loss.

An applicant for ground water transfer cannot rely on the seepage from irrigation of crops with surface water to establish hydraulic connection and compensation for depletions of ground water at a new point of ground water diversion near the surface water irrigation location. This is because the losses from surface water irrigation are incidental to the beneficial use of the surface water. The surface water user is not obligated to continue the same efficiency of water delivery and use. The surface water right holder diverting and using surface water might eliminate most if not all losses in his water use, resulting in little or no indirect hydraulic conductivity.

After carefully considering the evidence in the administrative record, the Department finds, concludes, and orders as follows:

FINDINGS OF FACT

1. Application for Transfer 79384 proposes to move a portion (41.6 acres, 0.49 cfs and 124.8 acre-feet) of water right 47-17589 from property near the Idaho-Nevada border to farm ground near Berger, Idaho. Ex. 5. Thomas and Dorothy Leno are the current owners of record for water right 47-17589. Ex. 3. Thomas Leno ("Leno") signed the application.

2. Dorothy Leno passed away in August 2011. *See* Attachments to Application 79384. Leno's attorney, Travis Thompson, provided an order from the Idaho Fifth Judicial District Court settling the estate of Dorothy Leno and confirming that the entire estate was distributed to Leno.

3. In July 2014, Leno sold the property at the existing place of use for water right 47-17589 to Y-3 II (an Idaho general partnership), but reserved the portion of water right 47-17589 associated with transfer applications 79357, 79380 and 79384. *See* Attachments to Application 79384.

4. Application 79384 included a Contract of Agreement between Cedar Ridge and Leno stating that Cedar Ridge agreed to purchase 41.6 acres of water right 47-17589 from Leno. Ex. 1, page 3. The agreement states that ownership of the split portion of the water right would not be changed until after the proposed transfer is approved. *Id.*

5. The proposed place of use and point of diversion are on property owned by Henry C. Hafliger Jr. ("Hafliger") and L&S Land Holdings, LLC. *See* Attachments to Application 79384. Hafliger is a manager of Cedar Ridge. *Id.* L&S Land Holdings, LLC provided a letter consenting to the proposed changes. *Id.*

6. On May 16, 2014, Leno and Cedar Ridge signed a Water Right Purchase and Sale Agreement for a portion (1.10 cfs, 279.6 afa, 93.2 acres) of water right 47-17589. See Attachment to Application 79384. The portion of water right 47-17589 being sold to Cedar Ridge was divided into three parts, which are the water rights involved in Applications for Transfer 79357, 79380 and 79384. *Id.*

7. On June 1, 2010, a partial decree was issued for water right 47-7106 in the Snake River Basin Adjudication ("SRBA"). Ex. 3. Water right 47-7106 bore a priority date of December 25, 1970, authorized the diversion of 1.85 cfs and an annual diversion volume of 465 acre-feet for the irrigation of 155 acres. *Id.*

8. In three previous transfers approved by the Department (77406, 77669 and 78127), portions of water right 47-7106 were moved to other locations. Brockway Report, App. C. Water right 47-7106 was split into four parts as a result of the previous transfers. The portion of water right 47-7106 remaining at the original place of use was assigned water right number 47-17589.

9. An analysis was provided with the three previous transfers, which calculated the number of acres irrigated with ground water at the original place of use for water right 47-7106. Brockway Report, pages 3-6; *Historical Water Use Analysis on Parent Water Right 47-7106* (Attachment to Application 79384). That analysis shows that 145.7 acres of the 155 acres described in water right 47-7106 were primarily irrigated with ground water. *Id.* The 41.6 acres proposed to be moved in the pending application are part of the 145.7 acres considered primary ground water acres. *Id.*

10. As it currently exists, water right 47-17589 authorizes the diversion of 1.21 cfs and an annual diversion volume of 307.5 acre-feet for the irrigation of 102.5 acres.

11. The existing place of use for water right 47-17589 is located in Sections 20 and 29, T16S, R16E. The existing point of diversion is located in Section 20, T16S, R16E.

12. The existing place of use for water right 47-17589 is also irrigated with surface water rights 47-2118, 47-2048, 47-14285 and 47-7287 from Mule Creek. Ex. 6. Leno proposes to abandon or relinquish the portions of the Mule Creek rights associated with the 41.6 acres proposed to be transferred. *See* Attachments to Application 79384. Leno has demonstrated continued ownership of the portions of water rights 47-2118, 47-2048, 47-14285 and 47-7287 that are proposed to be relinquished if Application 79384 is approved. *Id.*

13. The proposed place of use is currently irrigated with surface water shares from the Salmon River Canal Company. Visser Testimony. The portion of water right 47-17589 proposed to be transferred would be used as a primary ground water right at the proposed place of use and the canal company shares would be moved to some other property. Ex. 1; Visser Testimony.

14. The proposed point of diversion is an existing ground water well that is currently used for domestic and stockwater purposes. Visser Testimony. The well is approximately 550 feet deep, has an 8-inch casing, and can be easily converted for irrigation use. Sullivan Testimony; Visser Testimony. The proposed point of diversion is located in the SWSW of Section 8, T11S, R16E, approximately 32 miles north of the existing point of diversion for water right 47-17589. Ex. 5.

15. Cedar Ridge proposes to divert ground water from the proposed point of diversion into a small holding pond in the SWSW of Section 8, T11S, R16E, where it will be comingled with surface water from Salmon River Canal Company and waste water from nearby dairies. Visser Testimony; Ex. 2. Cedar Ridge will pump water from the pond for irrigation at the proposed place of use. *Id.*

16. The existing point of diversion and proposed point of diversion are located within Administrative Basin 47 ("Basin 47"). On February 6, 2014, the SRBA Court issued General Provisions for Basin 47. Ex. 4. The document included the following statement: "Except as otherwise specified above [nothing is specified], all other water rights within Basin 47 will be administered as connected sources of water in the Snake River Basin in accordance with the prior appropriation doctrine as established by Idaho law." *Id.*

17. The protestants in this contested case divert ground water from the local aquifer for domestic and stockwater purposes. Protestant Jeanie McCreary's domestic well is located the closest to the proposed point of diversion, about 528 feet to the southeast of the proposed well. Brockway Report, pages 20-22. Protestants Jeanie McCreary, Delea Miller, Margaret Winsryg, Martin Hackard, Scott Houtz, Richard Parrott, Eric Parrott, Pam Ritter and Lois Rice/Victoria Henson pump from domestic wells located less than one mile from the proposed well. *Id.*

18. The term "Salmon Tract" refers to an area south of Twin Falls that lies within the service area for the Salmon River Canal Company. Berger, Idaho is located in the north central part of the Salmon Tract.

19. The productive aquifer in the Berger area is primarily comprised of basalt. Bonnichsen Report, page 1; Bonnichsen Rebuttal Report, pages 3-4. Most of the domestic, irrigation and stockwater wells in the area divert water from the basalt or the intercalated sedimentary layers. Kimball Rebuttal Report, page 3. The basalt aquifer in the Berger area is underlain by geologic formations that do not readily transmit water. *Id.* Hydraulic conductivity and transmissivity values can vary greatly throughout the Salmon Tract aquifer. C. Brockway Testimony.

20. "[T]he elevation of the bottom of the basalt zone in the Berger area may vary locally by several hundred feet." Bonnichsen Report, page 3. "[T]he bottom of the basalt zone represents the bottom of the aquifer from which sustained water volumes can be obtained." *Id.* at 4. Wells logs in the record suggest that the saturated zone of the aquifer is between 100 and 250 feet thick in the Berger area. *Id.*

21. Cedar Ridge hired Brockway Engineering, PLLC ("Brockway") to evaluate the effects of diverting ground water as proposed in Application 79384. Brockway prepared two Winflow models to estimate the drawdown impacts resulting from pumping 124.8 acre-feet from the proposed well during the irrigation season. The Winflow models relied on the Theis equation to estimate drawdown and evaluate impacts after 20 years of pumping. Exs. 14-17; Sullivan Testimony.

22. The first Brockway model incorporated the following assumed aquifer parameters:

Ground water gradient: 50 feet/mile
Saturated thickness: 435 feet (265 feet to 700 feet below land surface)
Hydraulic conductivity: 55 feet/day
Storativity: 0.12

Brockway Report, page 19.

23. The conductivity and storativity values used by Brockway were taken from a regional evaluation of the Salmon Tract aquifer completed by Cosgrove, et al. in the late 1990s. Brockway Report, pages 19 and 31.

24. The first Brockway model predicted a drawdown of 0.7 feet at the McCreary well, located 528 feet from the proposed point of diversion.

25. Brockway conducted a pump test on the proposed well on October 7th and 8th, 2014. Ex. 8. During the test, between 120 and 170 gallons per minute were pumped from the well over an 18-hour period. *Id.* The maximum measured drawdown in the proposed well during the pump test was about 200 feet. *Id.*

26. Brockway asserts that the pump test conducted on the proposed well was not intended to obtain the characteristics of the local aquifer or to measure impacts to nearby wells. Brockway Rebuttal Report, pages 5-6. Rather, the pump test was performed for the sole purpose of determining the yield of the proposed well. *Id.* The pump test was not adequate to show whether the well can produce 0.49 cfs (220 gpm). Sullivan Testimony. A second pump test is likely needed to confirm the actual yield of the well. *Id.*

27. Due to the large drawdown in the well during the pump test, Brockway decided to prepare a second Winflow model to estimate the drawdown impacts at the protestants' wells. C. Brockway Testimony; Brockway Report, pages 26-28. In the second model, Brockway reduced the assumed hydraulic conductivity value to 15.3 feet/day. *Id.*

28. Brockway derived the hydraulic conductivity value of 15.3 feet/day through an analysis of well driller reports for ten wells located within five miles of the proposed point of diversion. Brockway Report, pages 26-28. The average hydraulic conductivity calculated for the ten wells is 15.3 feet/day. The median hydraulic conductivity for the ten wells is 0.9 feet/day. *Id.* Brockway chose to use a conductivity value of 15.3 feet per day even though the estimated hydraulic conductivity for the proposed well was calculated to be only 1.0 feet/day. *Id.*

29. The second Brockway model predicted a drawdown of about 2 feet at the McCreary well.

30. Some of the protestants, including Jeanie McCreary, testified that their domestic wells are unable to produce a reliable amount of water for common household uses. Testimony of Henson, McCreary, Ritter, Stephens and Winsryg. Some of these supply problems may be caused by inefficiencies of the individual domestic wells. However, the similarity in the reports of the protestants living near the proposed well raise a concern that local conductivity may be less than reported rates for the regional aquifer.

31. Ground water at the existing point of diversion for water right 47-17589 flows south into Nevada toward Shoshone Creek, a tributary of Salmon Falls Creek. Bonnichsen Rebuttal Report, page 3; C. Brockway Testimony. "[T]here is absolutely no reason to believe that water from the [existing point of diversion] . . . would travel underground northward to become part of the groundwater system in the Berger area." Bonnichsen Report, page 5.

32. "Shoshone Creek joins Salmon Falls Creek about 3.7 miles south of the Idaho-Nevada border." Bonnichsen Rebuttal Report, page 2.

33. "[G]round water in the Mule Creek drainage will travel to the south into Nevada and will eventually loop its way back into Idaho following the ground elevation decline. The

groundwater at that point of re-entry into Idaho will then flow in a general north direction as Brockway's expert report has indicated." Kimball Rebuttal Report, page 4.

34. Ground water at the Leno well is hydraulically connected to ground water at the proposed point of diversion.

35. Ground water levels in the area of the proposed point of diversion are stable. Squires Testimony. Monitoring wells in the area do not show a significant decline in aquifer levels over the last 35 years. Brockway Report, pages 12-15. The static water level in the Ritter well (located one mile east of the proposed well) was measured at 240 feet below land surface in 1982 and 217 feet below land surface in 2009. Ritter Testimony. The static water level in the Hackard well (located one mile east of the proposed well) was measured at 290 feet below land surface in 2002 and 290 feet below land surface in 2014. Hackard Testimony.

ANALYSIS / CONCLUSIONS OF LAW

1. Idaho Code § 42-222 sets forth the criteria used to evaluate transfer applications:

> 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 change does not constitute an enlargement in use of the original right, the change is consistent with the conservation of water resources within the state of Idaho and is in the local public interest as defined in section 42-202B, Idaho Code, the change will not adversely affect the local economy of the watershed or local area within which the source of water for the proposed use originates, in the case where the place of use is outside of the watershed or local area where the source of water originates, and the new use is a beneficial use, which in the case of a municipal provider shall be satisfied if the water right is necessary to serve reasonably anticipated future needs as provided in this chapter.

2. The applicant bears the burden of proof for all of the factors listed in Section 42-222.

Injury to Other Water Rights

3. Injury between ground water users is governed by Idaho Code § 42-226, which states: "Prior appropriators of underground water shall be protected in the maintenance of reasonable ground water pumping levels as may be established by the director of the department of water resources . . ."

4. Reasonable pumping levels have not been established in Basin 47. Therefore, the reasonableness of projected drawdown in neighboring wells resulting from a proposed transfer will be evaluated on a case-by-case basis.

5. A regional analysis of the Salmon Tract aquifer estimated the hydraulic conductivity of the aquifer to be 55 feet/day. Brockway Report, page 19. Regional estimates of conductivity do

not necessarily reflect the actual conductivity at a specific point in the aquifer. C. Brockway Testimony. There can be significant local variation depending on the homogeneity of the aquifer substrate. The hydraulic conductivity of the aquifer near the proposed well is much less than the hydraulic conductivity of the regional aquifer.

6. Brockway predicts that the drawdown to neighboring wells caused by pumping 124.8 acre-feet from the proposed well will be less than 2 feet. Brockway makes this prediction based on the results of a Winflow model incorporating a hydraulic conductivity value of 15.3 feet/day.

7. Brockway asserts that using a hydraulic conductivity value of 15.3 feet/day is "very conservative" when compared to the published conductivity values for the Salmon Falls Tract. Brockway Report, page 26. However, the evidence in the administrative record shows that assuming a hydraulic conductivity value of 15.3 feet/day is not conservative.

8. Brockway derived the hydraulic conductivity value of 15.3 feet/day from an analysis of short-term pump tests conducted on ten wells in the area. Brockway Report, page 26. As part of its analysis, Brockway chose to include a domestic well located in the SESE of Section 32, T10S, R16E ("Well #7"). *Id.*

9. Well #7 is located within 200 feet of the TFCC High Line Canal. *See* Ex. 12. It is very different from the other wells used in the analysis. The driller's report states that Well #7 is only 250 feet deep. Brockway Report, page 26. All of the other wells used in Brockway's analysis are at least 340 feet deep. *Id.* Further, the static water level in Well #7 is only 188 feet below land surface, which is over 200 feet closer to the surface than the static water level in wells located near the proposed point of diversion. *Id.*

10. Greg Sullivan from Brockway Engineering stated that he did not even consider the influence of canal seepage on Well #7 when performing his analysis. Sullivan Testimony. Brockway acknowledges that proximity to the TFCC canals can influence local aquifer levels. In fact, in its aquifer stability analysis, Brockway chose to exclude USGS well 10S15E-26DDA1 (which is located about ¼ mile from the High Line Canal) because of "its close proximity and hydraulic interaction with the TFCC canal system." Brockway Report, pages 12-13, 22.

11. The calculated hydraulic conductivity for Well #7 was 108 feet/day. Brockway Report, page 26. The other nine wells used in the analysis had calculated hydraulic conductivity values of less than 30 feet/day. *Id.* In fact, six of the ten wells used in the Brockway analysis had calculated hydraulic conductivity values of 1.0 feet/day or less. *See id.*

12. If Well #7 were excluded from the analysis, the average calculated hydraulic conductivity of the nine remaining wells would be 5.0 feet per day. *See* Brockway Report, page 26. It is important to note that the calculated hydraulic conductivity for the proposed well is only 1.0 feet/day. *See id.* Lower hydraulic conductivity will lead to greater drawdown in the proposed well and the nearby domestic wells. Sullivan Testimony.

13. The difference in a hydraulic conductivity value of 15.3 feet/day and a value of 1.0 feet/day is not inconsequential. As part of his rebuttal report, DuWayne Kimball, an expert witness

for protestant Richard Parrott, prepared a simplified model comparing the expected drawdown in a well pumping from an aquifer having a hydraulic conductivity of 15.3 feet/day and from an aquifer having a hydraulic conductivity of 0.9 feet/day. Kimball Rebuttal Report, page 7.

14. For his model, Kimball assumed a pumping rate of 140 gpm and a storativity coefficient of 0.12. Kimball Rebuttal Report, Appendix. After 24 hours, the expected drawdown in a well pumping from an aquifer with a hydraulic conductivity of 15.3 feet/day would be about 5 feet. *Id.* After 24 hours, the expected drawdown in a well pumping from an aquifer with a hydraulic conductivity of 0.9 feet/day would be about 90 feet. *Id.*

15. During the pump test performed by Brockway, the drawdown in the proposed well was more than 180 feet after about 18 hours of pumping. *See* Ex. 8. Sullivan acknowledged that the hydraulic conductivity at the proposed well is likely less than the hydraulic conductivity values used in the Winflow models. Sullivan Testimony.

16. Sullivan testified that it would not be appropriate to use the hydraulic conductivity value estimated for a single location (in this case, at the proposed point of diversion) to determine the drawdown impacts at wells located 3 or 4 miles away. Sullivan's statement is correct. A regional conductivity value would be more appropriate in estimating impacts over long distances. However, it would have been appropriate to use the local hydraulic conductivity value to determine drawdown impacts to a domestic well located just 500 feet from the proposed well.

17. The well driller reports collected and presented by Brockway support using a lower hydraulic conductivity value when estimating the drawdown impacts to local wells. For example, a domestic well in the NENW of Section 17, T11S, R16E (located within ¼ mile of the proposed well) shows a drawdown of 90 feet in the pumping well after only pumping 20 gallons per minute (0.04 cfs). Brockway Report, page 26. Application 79384 proposes diverting ten times that amount (220 gpm or 0.49 cfs).

18. Given the inaccuracy of hydraulic conductivity values proposed by Brockway, and his own statements that the information relied on by the hearing officer from his own pump test could not establish the hydraulic conductivity, the applicant did not present sufficient evidence to establish that pumping from the new well would not injure nearby water rights. The applicant bore the burden of proof to establish that other water rights would not be injured. The applicant did not satisfy his burden of proof.

19. Because the applicant did not present evidence establishing the ground water drawdowns in wells of holders of other water rights and because there is little evidence establishing what pumping water levels would be reasonable, the Department cannot establish a reasonable pumping level in this particular case.

Other Injury Issues Raised by Protestants

20. The protestants raised a concern about the effect of pumping from the proposed well if a large percentage of water users in the area were to convert from flood irrigation to sprinkler irrigation. *See* Kimball Water Budget. A transfer applicant does not bear the burden of addressing changes to the regional aquifer (which may occur irrespective of approval or denial of a transfer).

Idaho Code § 42-222 only requires an applicant to address injury to other water rights in the context of current hydrologic conditions.

21. The protestants argued that there is not sufficient water available at the proposed point of diversion to satisfy a diversion rate of 0.49 cfs. Testimony of Squires (arguing that the specific capacity derived from the October 2014 pump test on the proposed well suggests that Cedar Ridge will draw down to the bottom of the basalt aquifer before being able to pump 0.49 cfs.) Mr. Sullivan acknowledged that the proposed well may not be able to produce 0.49 cfs. Sullivan Testimony.

22. Sufficiency of water supply is not an element of review under Idaho Code § 42-222. Applicants proposing to change the point of diversion for ground water rights run the risk of not being able to find sufficient water at the proposed point of diversion.

Connectivity of Ground Water in Basin 47

23. A significant amount of testimony was presented at the hearing addressing the question of whether ground water at the existing point of diversion is hydraulically connected to the ground water at the proposed point of diversion.

24. Although the evidence is conflicting, the weight of the evidence establishes that ground water at the Leno well is hydraulically connected to the ground water underlying the location of the proposed point of diversion. Brockway and Bonnichsen agree that ground water at the existing point of diversion flows south into Nevada. Brockway and Kimball agree that the direction of ground water underflow generally follows the stream topography.

25. Brockway and Kimball both conclude there is a hydraulic connection between the existing point of diversion and the proposed point of diversion. In addition, the Department should rely on the general provision from the SRBA Court and treat ground water in Basin 47 as a hydraulically connected source.

Enlargement of Water Rights

26. Leno sufficiently demonstrated that approval of this transfer will not result in the enlargement of the split portion of water right 47-17589. If the transfer were approved, the water right would be limited to 0.49 cfs, 124.8 acre-feet and 41.6 acres of irrigation.

Conservation of Water Resources

27. Leno satisfied his burden of proof regarding conservation of water resources. Application 79384 proposes to irrigate using pivots and sprinklers, a conservative use of water. There is no evidence in the record that the proposed water use would be inconsistent with the conservation of water resources in the state of Idaho.

Local Public Interest

28. The local public interest analysis under Section 42-222 is meant to be separate and distinct from the injury analysis. Local public interest is defined as "the interests that the people in the area directly affected by a proposed water use have in the effects of such use on the public water resource." Idaho Code § 42-202B(3).

29. There is no evidence in the record that the changes proposed in Application 79384 are not in the local public interest.

Summary

30. Leno did not satisfy his burden of proof for the review criteria set forth in Idaho Code § 42-222. Specifically, Leno did not sufficiently demonstrate that the proposed change will not result in injury to other water rights. Therefore, Application for Transfer 79384 should be denied.

ORDER

IT IS HEREBY ORDERED that Application for Transfer No. 79384 in the name of Thomas and Dorothy Leno is DENIED.

Dated this 13th day of October, 2015.

Gary Spackman
Director

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 14th day of October, 2015, true and correct copies of the documents described below were served by placing a copy of the same with the United States Postal Service, postage prepaid and properly addressed, certified with return receipt requested, to the following:

Documents Served: Final Order Denying Transfer (79384)
Explanatory Information to Accompany a Final Order

Jimmie L. Conder
3623 N 2000 E
Filer ID 83328

Michael & Jana Humphries
2382 E 3300 North
Twin Falls ID 83301

William D. Hamby
2399 E 3300 N
Twin Falls ID 83301

Eric Parrott
2152 E 3300 N
Twin Falls ID 83301

Lois M. Rice
PO Box 200
Filer ID 83328-0200

Leslie Ellsworth
PO Box 5023
Twin Falls ID 83303-5023

Pam Ritter
3283 N 2300 E
Twin Falls ID 83301

Ed Smith
PO Box 6015
Twin Falls ID 83303-6015

Shadow & Bonnie Seaman
1940 E 3700 N
Filer ID 83328

Jeanie McCreary
2217 E 3300 N
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Barbara & Lynn Stephens
PO Box 2118
Twin Falls ID 83303-2118

Margaret Winsryg & Leroy Elliott
David Coleman
PO Box 525
Twin Falls ID 83303-0525

Elizabeth Slifer
3779 N 2250 E
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Martin F. Hackard
3289 N 2300 E
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2239 E 3300 N
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3295 N 2300 E
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Scott Houtz
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Richard Parrott
1389 E 4400 N
Buhl ID 83316

Barker Rosholt & Simpson
Travis L Thompson
195 River Vista Place, Ste 204
Twin Falls ID 83301-3027

for Deborah Gibson
Administrative Assistant

Courtesy copies sent via Regular Mail to:

Thomas Leno
4236 N 1900 E
Buhl ID 83316

Four Sister Dairy LLC
PO Box 105
Twin Falls ID 83303-0105

Greg Sullivan
Brockway Engineering PLLC
2016 N. Washington St., Ste 4
Twin Falls ID 83301

EXPLANATORY INFORMATION TO ACCOMPANY A FINAL ORDER

(Required by Rule of Procedure 740.02)

The accompanying order is a "**Final Order**" issued by the department pursuant to section 67-5246 or 67-5247, Idaho Code.

Section 67-5246 provides as follows:

(1) If the presiding officer is the agency head, the presiding officer shall issue a final order.

(2) If the presiding officer issued a recommended order, the agency head shall issue a final order following review of that recommended order.

(3) If the presiding officer issued a preliminary order, that order becomes a final order unless it is reviewed as required in section 67-5245, Idaho Code. If the preliminary order is reviewed, the agency head shall issue a final order.

(4) Unless otherwise provided by statute or rule, any party may file a petition for reconsideration of any order issued by the agency head within fourteen (14) days of the service date of that order. The agency head shall issue a written order disposing of the petition. The petition is deemed denied if the agency head does not dispose of it within twenty-one (21) days after the filing of the petition.

(5) Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:

(a) The petition for reconsideration is disposed of; or
(b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

(6) A party may not be required to comply with a final order unless the party has been served with or has actual knowledge of the order. If the order is mailed to the last known address of a party, the service is deemed to be sufficient.

(7) A non-party shall not be required to comply with a final order unless the agency has made the order available for public inspection or the nonparty has actual knowledge of the order.

(8) The provisions of this section do not preclude an agency from taking immediate action to protect the public interest in accordance with the provisions of section 67-5247, Idaho Code.

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a final order within fourteen (14) days of the service date of this order as shown on the certificate of service. **Note: the petition must be received by the Department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See section 67-5246(4) Idaho Code.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, any party aggrieved by a final order or orders previously issued in a matter before the department may appeal the final order and all previously issued orders in the matter to district court by filing a petition in the district court of the county in which:

i. A hearing was held,
ii. The final agency action was taken,
iii. The party seeking review of the order resides, or
iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days: a) of the service date of the final order, b) the service date of an order denying petition for reconsideration, or c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration, whichever is later. See section 67-5273, Idaho Code. The filing of an appeal to district court does not in itself stay the effectiveness or enforcement of the order under appeal.