

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

IN THE MATTER OF APPLICATIONS FOR)	SECOND AMENDED PRELIMINARY
PERMIT NOS. 63-34079 AND 63-34080)	ORDER APPROVING APPLICATIONS
IN THE NAME OF CHRIS EMMERT)	FOR PERMIT
_____)	

BACKGROUND

On May 8, 2015, Chris Emmert ("Emmert") filed Applications for Permit Nos. 63-34079 and 63-34080 ("Applications") with the Idaho Department of Water Resources ("Department"). The Applications seek supplemental supplies of ground water to irrigate farmland in Canyon County approximately five miles southeast of Lake Lowell.

The Department published notice of the Applications as required by Idaho Code § 42-203A. The Boise Project Board of Control ("Boise Project") protested the Applications on October 22, 2015. In the protests, the Boise Project stated:

Protestant is concerned about the cumulative effects that groundwater withdrawals in the Lake Lowell vicinity may have[,] adversely affecting its senior water rights in Lake Lowell, and therefore submits this Protest. Further, the location and proposed depth of the applicant's well will most likely directly withdraw water from Lake Lowell.

On April 6, 2017, the Department conducted a hearing on the Applications. Attorney John Marshall ("Marshall") of John Marshall Law PLLC represented Emmert. Attorney Shelley Davis ("Davis") of Barker, Rosholt & Simpson LLP represented the Boise Project. Emmert, Christian Petrich ("Petrich"), and Terry Scanlan ("Scanlan") testified in support of the Applications. Robert D. Schmidt ("Schmidt") and Tim Page ("Page") testified against the Applications.

On April 24, 2017, the Department received the *Applicant's Closing Arguments* and *Boise Project Board of Control's Post-Hearing Closing Argument*.

On June 19, 2017, the Hearing Officer issued a *Preliminary Order Approving Applications for Permit* pursuant to Rule 730 of the Department's Rules of Procedure (IDAPA 37.01.01). On June 30, 2017, the Department received the *Boise Project Board of Control's Petition for Reconsideration of Preliminary Order Approving Applications for Permit*. On July 14, 2017, the Department received the *Applicant's Opposition to Reconsideration*.

On July 14, 2017, the Cities of Meridian, Caldwell, Nampa, Eagle, Boise, and Kuna and Suez Water Idaho Inc. ("Municipal Providers") submitted the *Municipal Providers' Petition to Intervene*. On July 19, 2017, the Boise Project filed a memorandum in opposition to the

Municipal Providers' petition to intervene. On July 21, 2017, the Department issued an order denying the Municipal Providers' petition to intervene. That same day, the Department issued an *Order Granting Petition for Reconsideration; Amended Preliminary Order Rejecting Applications for Permit* ("Amended Order").

On August 3, 2017, the Department received the *Applicant's Exceptions to Amended Preliminary Order*. On August 4, 2017, the Department received the *Municipal Providers' Second Petition to Intervene* ("Second Petition to Intervene") and the *Municipal Providers' Brief on Exceptions to the Director*. On August 14, 2017, the Boise Project filed a *Memorandum in Opposition to Second Petition to Intervene*, a *Motion to Strike and Memorandum in Support*, and *Boise Project Board of Control's Response to Applicant's Exceptions to Amended Preliminary Order*.

On October 27, 2017, the Director issued an *Order Denying Petition to Intervene; Order Affirming Preliminary Order Rejecting Applications for Permit* ("Order on Exceptions"). The Director denied the Second Petition to Intervene. *Order on Exceptions* at 10. The Director also concluded the hearing officer's determination that Emmert's proposed ground water pumping will reduce the quantity of water under existing water rights is supported by substantial evidence, that Emmert must mitigate for seepage his proposed ground water pumping will induce from Lake Lowell, and that Emmert has not submitted an adequate plan to mitigate losses of water to the Boise Project. *Id.* at 4-11. Because Emmert did not satisfy his burden to demonstrate his proposed mitigation will offset losses of water to the Boise Project, the Director determined the hearing officer properly rejected the Applications and affirmed the Amended Order. *Id.* at 11-12.

On November 13, 2017, Emmert filed the *Applicant's Petition for Reconsideration*. On November 27, 2017, the Boise Project filed *Boise Project Board of Control's Memorandum in Opposition to Applicant's Petition for Reconsideration*.

On December 1, 2017, the Director issued an *Order on Reconsideration Remanding Matter to Hearing Officer* ("Remand Order") with the following instructions:

IT IS HEREBY ORDERED that this matter is REMANDED to the hearing officer for an evidentiary hearing and further factual development of the record only as to the issue of Emmert's proposal or proposals to mitigate injury to the Boise Project's senior water rights established in the Amended Order. If Emmert does not satisfy his burden to demonstrate his proposed mitigation will offset losses of water to the Boise Project, the Applications may be denied. Following the hearing, the hearing officer shall issue an amended preliminary order including additional analysis regarding Emmert's proposed mitigation and either approving or denying the Applications.

Remand Order at 4.

On March 8, 2018, the Department conducted a hearing to further develop the record regarding Emmert's mitigation proposals. Marshall represented Emmert. Davis represented the

Boise Project. Scanlan testified in support of the Applications. Page testified against the Applications.

SECOND AMENDED PRELIMINARY ORDER APPROVING APPLICATIONS FOR PERMIT

After considering the record, including the additional evidence and testimony offered at the hearing on March 8, 2018, the Hearing Officer issues a *Second Amended Preliminary Order Approving Applications for Permit*.

FINDINGS OF FACT

Emmert's Farming Practices

1. Emmert farms about 800 acres of land in southern Canyon County in Idaho. Of the 800 acres of land, Emmert owns about 400 acres. Emmert grows specialty seed crops such as onion seed and carrot seed. Such seed crops are dependent on a sufficient supply of water throughout the irrigation season. Because seed crops are planted at shallow depths to ensure proper germination, Emmert may need irrigation water early in the irrigation season to ensure sufficient soil moisture near the ground surface. During the growing season, Emmert needs sufficient irrigation water to overcome the precipitation deficit for his crops. Finally, seed crops require irrigation water late in the irrigation season so that each plant will produce a quality seed that germinates when planted. Without sufficient irrigation water early and late in the irrigation season, Emmert's seed crops could fail. Testimony of Emmert.
2. Emmert's seed crops require approximately 4.0 acre-feet ("AF") of water per irrigated acre each year. Exhibit 1; Testimony of Scanlan.
3. Emmert currently relies mostly on surface water provided by the Boise-Kuna Irrigation District via the Boise Project for his irrigation supply. However, Emmert does not receive the same quantity of surface water each year. Emmert's annual allotment is usually in the range of 2.5 AF per acre to 3.5 AF per acre. Testimony of Emmert; Testimony of Page. From 2010 through 2016, the Boise Project supplied Emmert a high of 4.00 AF per acre in 2012 and a low of 2.59 AF per acre in 2013. Exhibit 109. When Emmert exceeds the Boise Project's maximum allowance of 3.75 AF per acre in a given year, he pays substantially more for the amount of water in excess of 3.75 AF per acre. Testimony of Emmert; Testimony of Page.
4. To compensate for the difference between the water needs of his crops and his annual allotment, Emmert employs various strategies. On those lands where Emmert has supplemental ground water rights, he mixes ground water with surface water early in the irrigation season until his annual surface water allotment is firmed up, then he irrigates exclusively with surface water for as long as he can. In some years, Emmert idles some farmland so he can concentrate the available water on the rest of his land. In other years, Emmert pays extra to rent water through the Water District 63 Rental Pool. Finally, Emmert sometimes pays extra to exceed the Boise Project's maximum allowance of 3.75 AF per acre.

When Emmert employs these methods to compensate for the water needs of his crops, they have a negative financial impact on his business operations. Testimony of Emmert.

5. Emmert signs contracts in February or March each year to deliver seed crops at the end of the year. Emmert must often sign contracts before knowing how much surface water will be available to him for irrigation that year. Testimony of Emmert.

The Applications

6. Application No. 63-34079 proposes the diversion of 1.9 cfs of ground water from a well in the SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 35, Township 2 North, Range 1 East, B.M., for supplemental irrigation of 95 acres of land in the NE $\frac{1}{4}$, Section 35, Township 2 North, Range 1 East, B.M. The proposed well would be approximately 225 feet deep.
7. Application No. 63-34080 proposes the diversion of 1.46 cfs of ground water from a well in the SW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 1, Township 1 North, Range 2 West, B.M., for supplemental irrigation of 73 acres of land in the NW $\frac{1}{4}$, Section 1, Township 1 North, Range 2 West, B.M. The proposed well would be approximately 225 feet deep.
8. Emmert would need to divert 668 AF of ground water to provide 4.0 AF per acre to his entire proposed place of use for the two Applications. However, Emmert stated in each Application that its purpose is "to supplement" the available surface water supply. In most years, Emmert would divert between 24 AF and 133 AF for Application 63-34079 and between 18 AF and 102 AF for Application 63-34080 to ensure he has a water supply at the times and in the quantities necessary to complete his seed crops. The total likely diversion for the two Applications combined is between 42 AF and 235 AF annually. Exhibit 1; Testimony of Scanlan; Testimony of Petrich.

The Boise Project

9. The Boise Project is the operations and maintenance entity supplying irrigation water from the Boise River and reservoirs on the Boise River to land in five irrigation districts: Big Bend, Boise-Kuna, Wilder, Nampa-Meridian, and New York. To serve approximately 47,000 to 50,000 acres within four of those irrigation districts, the Boise Project diverts water from the Boise River at Diversion Dam and conveys it via the New York Canal to Lake Lowell, an off-stream reservoir in Canyon County, and redistributes the water from Lake Lowell to irrigated farmland through an extensive canal network. Testimony of Page; Testimony of Schmidt; Exhibit 110.
10. Since the 1960s the average quantity of water in Lake Lowell has declined. Exhibit 105. The decline may be attributable to several factors, including declining Boise River flows resulting from a declining average annual snowpack, increased seepage from Lake Lowell itself, and the impacts of ground water pumping. Testimony of Page.
11. The Boise Project loses water in its delivery system due to seepage from unlined canals. Testimony of Schmidt; Testimony of Page. Emmert and the Boise Project stipulated at the

March 8, 2018, hearing that the conveyance loss from the Boise River to Lake Lowell is 50%.

The Aquifer

12. The geology of southern Canyon County, south and southeast of Lake Lowell, consists of interbedded sedimentary and basalt layers. Exhibit 1; Exhibit 4. The primary sources of ground water are within the sedimentary layers, with clay layers separating water bearing zones and impeding the vertical movement of ground water. Exhibit 1; Exhibit 4; Testimony of Petrich.
13. Some ground water drawdowns were observed in the area south of Lake Lowell prior to 2004. Exhibit 106, page 32; Testimony of Petrich. Since 2004, those drawdowns have proven to be more localized and less regional than previously thought, and ground water levels have stabilized in the local areas previously showing drawdowns. Testimony of Petrich.
14. In the vicinity of Emmert's proposed points of diversion, ground water is recharged from flood irrigation practices and seepage from irrigation canals and laterals. Exhibit 1.
15. Emmert owns two wells in the SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 35, Township 2 North, Range 2 West, B.M., which is roughly midway between the points of diversion proposed in the Applications. Exhibit 1. Both wells have maintained static water levels at 90 feet below ground surface for many years. Testimony of Emmert. Other wells near the proposed points of diversion for the Applications generally show stable or rising ground water levels. Exhibit 1.
16. Petrich's analysis shows a significant number of productive wells within 0.5 miles of each of Emmert's proposed points of diversion. Exhibit 1.

Impacts of the Applications on Lake Lowell

17. Lake Lowell is in direct contact with the underlying aquifer. Exhibit 1; Exhibit 110.
18. Petrich modeled the impacts of Emmert's proposed ground water pumping on Lake Lowell using the Treasure Valley ground water flow model ("TVHP model"), which employs "three-dimensional, finite difference, USGS MODFLOW code . . . to simulate ground water flow on a regional (basin) scale." Exhibit 106 at 9. The TVHP model was calibrated to steady-state hydraulic conditions. Exhibit 1; Exhibit 106; Testimony of Petrich. The purpose of the TVHP model is "to simulate possible changes in recharge and the potential effects of regional increases in groundwater withdrawals." Exhibit 1 at 19. The TVHP model's predictions are likely to be more accurate on a regional scale than a local scale. Exhibit 106 at 16; Testimony of Petrich.
19. Using the TVHP model, Petrich simulated the impact of Emmert's proposed ground water withdrawals on Lake Lowell under steady-state conditions. Exhibit 1. Petrich's report states

that regardless of the quantity of water Emmert pumps, the annual discharge of ground water into Lake Lowell will decrease by 1.3% of the volume pumped, or 3.0 AF. Also regardless of the volume pumped, discharges from Lake Lowell into the ground water will increase by 1.3% of the volume pumped, or 3.1 AF. Exhibit 1; Testimony of Scanlan. According to Petrich's analysis, if Emmert were to pump the maximum predicted volume for the Applications of 235 AF annually, the volume of water in Lake Lowell would decrease by 6.1 AF. Exhibit 1.

20. Schmidt also modeled the impacts of Emmert's proposed ground water pumping on Lake Lowell under steady-state conditions. Schmidt employed the Dry Lake Area analytic element method model, a two-dimensional modeling technique. Exhibit 112; Exhibit 110. Schmidt's report states that regardless of the quantity of water Emmert pumps, the annual discharge of ground water into Lake Lowell will decrease by 1.34% of the volume pumped, or 3.15 AF. Also regardless of the volume pumped, discharges from Lake Lowell into the ground water will increase by 0.74% of the volume pumped, or 1.73 AF. Exhibit 110. According to Schmidt's analysis, if Emmert were to pump the maximum predicted volume for the Applications of 235 AF annually, the volume of water in Lake Lowell would decrease by 4.89 AF. Exhibit 110.

Impacts of the Applications on Canal Seepage

21. If portions of the Boise Project canals running into and from Lake Lowell were in direct contact with the underlying aquifer, as asserted by Schmidt's ground water modeling, Emmert's proposed ground water pumping would likely increase seepage from the canals. Testimony of Schmidt. In the early 1960s, ground water levels in the vicinity of some of the canals ranged from zero to 50 feet below ground surface, suggesting a direct connection between the canals and ground water at some locations. Testimony of Schmidt. Schmidt's two-dimensional modeling shows that portions of the Boise Project's canals are in direct contact with the regional aquifer. Exhibit 110; Testimony of Schmidt. Schmidt's analysis of canal seepage losses from 1967 to 1997 seems to show increased canal seepage corresponding to increases in authorized ground water pumping south of Lake Lowell after 1977. Exhibit 110 at 15; Testimony of Schmidt. However, 1997 was twenty years ago. Scanlan has professional experience evaluating hydraulic gradients for well design and construction projects south of Lake Lowell over an ongoing 30-year career as a professional geologist. Testimony of Scanlan. In Scanlan's experience, he has not found static water levels close enough to the ground surface to suggest a hydraulic connection between the regional aquifer south of Lake Lowell and the canals. Testimony of Scanlan. Moreover, when Scanlan conducted recent on-site evaluations during the non-irrigation season, he found the canal reaches identified by Schmidt as connected to the aquifer to be dry. Scanlan also found the canal reaches to be dry during the non-irrigation season in a review of aerial imagery. If the canals were in direct connection with the aquifer, ground water seeping into them would cause them to flow even during the non-irrigation season when water is not being diverted into them. Therefore, because the canals are dry, they are not in direct contact with the aquifer. Testimony of Scanlan. The weight of Scanlan's career-long and recent observations compared to Schmidt's modeling make it more likely than not that the regional

aquifer south of Lake Lowell is not in hydraulic connection with the canals for any meaningful length of distance or time.

22. The likelihood that the canals are not in direct contact with the aquifer is further supported by the geology of the area. The clay layers interbedded with the water-bearing layers of basalt and sand will impede the vertical development of cones of depression caused by pumping ground water. Thus, pumping ground water from depth is not likely to impact the water flowing in canals directly. Testimony of Petrich.

Impacts of the Applications on Existing Ground Water Rights

23. Petrich found ten water right points of diversion within 0.5 miles of the proposed point of diversion for Application 63-34079. Petrich conducted a Theis analysis using reasonable assumptions for Emmert's pumping rate, aquifer transmissivity, and aquifer storativity. The Theis analysis predicts a maximum drawdown of 2.4 feet at a distance of 0.25 miles and 2.0 feet at a distance of 0.5 miles. Exhibit 1.
24. Petrich found eight water right points of diversion within 0.5 miles of the proposed point of diversion for Application 63-34080. Petrich conducted a Theis analysis using reasonable assumptions for Emmert's pumping rate, aquifer transmissivity, and aquifer storativity. The Theis analysis predicts a maximum drawdown of 1.8 feet at a distance of 0.25 miles and 1.5 feet at a distance of 0.5 miles. Exhibit 1.

Emmert's Amended Mitigation Proposal

25. At the March 8, 2018, hearing, Emmert initially presented seven mitigation options, some with multiple sub-options ("Mitigation Options"). Exhibit 7; Testimony of Scanlan. However, during the course of the proceedings, Emmert amended and clarified his mitigation proposal as follows, as stated by Marshall:

The specific proposal that Mr. Emmert is making in terms of mitigation is to supply 7 AF annually to the New York Canal at the Diversion Dam, and to do that by either one of three methods – renting storage water through the rental pool, renting a natural flow right through the Water [Supply] Bank, or using a share purchase transaction that would eventually accomplish the same purpose.

The proposal that we're putting forward would be that in the event the rentals were not available in a given year, which would be secured before the irrigation season, that the mitigation would not then be available, and Mr. Emmert would not use his supplemental wells in a given year.

Emmert's amended mitigation proposal ("Amended Mitigation Proposal") corresponds to options 4 (rental pool rental), 5 (Water Supply Bank rental), and 6 (share purchase transaction) of Emmert's Mitigation Options.

26. In response to Emmert's Amended Mitigation Proposal, the Boise Project stipulated as follows, as stated by Davis:

Alternative no. 6 as provided amongst the suite of options for consideration today, if the testimony establishes that the water rights are sufficiently early in time in order to provide sufficient water to mitigate for 3.1 acre-feet, including the 50% conveyance loss that will be required to be taken into consideration, it is established on the record today that that will be a sufficient mitigation proposal in order to satisfy the Boise Project Board of Control for mitigation purposes.

The Boise Project Board of Control continues to believe that mitigation proposals that rely upon Water District 63 Rental Pool, or Water [Supply] Bank rental are not sufficiently permanent in order to meet the requirements of mitigation standard set forth by the Department of Water Resources, continue to stipulate that the option to purchase shares through the South Boise Water Company or some other similar entity that will provide 7 AF of water to the head of the New York Canal in every year is a viable option and could be stipulated moving forward by the Boise Project Board of Control.

27. The Hearing Officer summarized the Emmert and Boise Project stipulations as follows, without objection:

The parties are in concurrence that acquisition of a private right such as a South Boise Water Company right and taking the necessary steps, which may require an application for transfer of water right to change that so it can be diverted at the New York Canal and delivered into the New York Canal to the tune of 7 AF would be acceptable and that the applicant would like the Department to also consider allowing that 7 AF to come from either the Water District 63 Rental Pool or the Water Supply Bank and that the Boise Project Board of Control has concerns about allowing that 7 AF to come from the Water District 63 Rental Pool or the Water Supply Bank.

28. The Hearing Officer asked Emmert and the Boise Project whether it would be appropriate to authorize a mitigation plan that requires another approval process, such as an application for transfer, while the authorized development period for the Applications is ongoing. The Boise Project offered the following, as stated by Davis:

I would think that depending on what comes out of this hearing – what order is eventually [inaudible]-- can you stay the processing of the permits while the purchase plays out? Or, and once that process is concluded and if it's not protested, if the transfer takes place and it's not protested, it could be a fairly straightforward and short-term issue and not something that drags this out.

Emmert concurred, as stated by Marshall:

If you've got a five-year permit development period that's running, meanwhile you have a process that's a separate administrative process that's running, how do those two line up? Shelly's, Miss Davis's proposal is probably the best we can do there, which is simply to stipulate to stay that process if necessary.

29. The Water District 63 rental pool makes storage water available to water users in the Boise River drainage through annual rentals. Testimony of Scanlan; Testimony of Page. There is no guarantee that water will be available for rental from the Water District 63 rental pool each year. Testimony of Page. However, it is more likely than not that some rental pool water is available each year. Testimony of Scanlan; Exhibit 6.
30. The Idaho Water Resource Board operates the Water Supply Bank, which makes natural flow water rights available for rent. Testimony of Scanlan. Boise River water rights are sometimes available for rent from the Water Supply Bank, but there is no guarantee of availability from year to year. Testimony of Scanlan.
31. Some canal companies with water rights authorizing diversion from the Boise River have shares available for purchase and allow portions of their water rights to be transferred for mitigation use. Testimony of Scanlan. For example, South Boise Water Company currently has shares available for purchase and transfer. Testimony of Scanlan.
32. The New York Canal, the Boise Project's conveyance from the Boise River to Lake Lowell, has windows of time each irrigation season during which it could convey 7 AF of additional water over and above the current requirements of its member irrigation districts. Testimony of Page.
33. Of the 7 AF of water Emmert proposes for mitigation, the proportional share for Application 63-34079 is 4.0 AF based on 133 of 235 AF, and the proportional share for Application 63-34080 is 3.0 AF based on 102 of 235 AF.

APPLICABLE RULES AND STATUTES

1. Idaho Code § 42-203A(5) directs the Department to evaluate certain criteria in connection with each application for permit to appropriate water:

In all applications whether protested or not protested, where the proposed use is such (a) that it will reduce the quantity of water under existing water rights, or (b) that the water supply itself is insufficient for the purpose for which it is sought to be appropriated, or (c) where it appears to the satisfaction of the director that such application is not made in good faith, is made for delay or speculative purposes, or (d) that the applicant has not sufficient financial resources with which to complete the work involved therein, or (e) that it will conflict with the local public interest as defined in section 42-202B, Idaho Code, or (f) that it is contrary to conservation of water resources within the state of Idaho, or (g) that it will 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; the director of the department of water resources may reject such application and refuse issuance of a permit therefor, or may partially approve and grant a permit for a smaller quantity of water than applied for, or may grant a permit upon conditions.

2. Rule 45 of the Department's Water Appropriation Rules (IDAPA 37.03.08) further interprets the review criteria established in Idaho Code § 42-203A(5).
3. Idaho Code § 42-202B(3) defines local public interest 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."
4. Pursuant to Rule 40.04.c of the Department's Water Appropriation Rules, the applicant bears the ultimate burden of persuasion regarding all the factors set forth in Idaho Code § 42-203A(5).

CONCLUSIONS OF LAW

Potential to Reduce the Quantity of Water Available to Existing Water Right Holders -- Idaho Code § 42-203A(5)(a)

1. Rule 45.01.a of the Water Appropriation Rules (IDAPA 37.03.08.045.01.a) establishes four criteria for evaluating whether a proposed use will reduce the quantity of water under existing water rights:
 - i. The amount of water available under an existing water right will be reduced below the amount recorded by permit, license, decree or valid claim or the historical amount beneficially used by the water right holder under such recorded rights, whichever is less.
 - ii. The holder of an existing water right will be forced to an unreasonable effort or expense to divert his existing water right. Protection of existing groundwater rights are subject to reasonable pumping level provisions of Section 42-226, Idaho Code.
 - iii. The quality of the water available to the holder of an existing water right is made unusable for the purposes of the existing user's right, and the water cannot be restored to usable quality without unreasonable effort or expense.
 - iv. An application that would otherwise be denied because of injury to another water right may be approved upon conditions which will mitigate losses of water to the holder of an existing water right, as determined by the Director.
2. Regarding the criteria in Rule 45.01.a.i, testimony by Scanlan and Petrich refutes the Boise Project's allegation that Emmert's proposed ground water pumping would deplete the Boise

Project's water supply by causing increased seepage from the canals the Boise Project uses to distribute water.

3. Still addressing the criteria in Rule 45.01.a.i, the reduction of water stored in Lake Lowell can be divided into two categories: ground water flowing into Lake Lowell and surface water seeping from Lake Lowell. As for ground water flowing into Lake Lowell, the Boise Project's water rights authorize the storage of surface water, not ground water, in Lake Lowell. To fail the criteria established in Rule 45.01.a.i, a proposed appropriation must reduce the amount of water available "under such recorded rights." Because, the Boise Project does not have a water right for the storage of ground water in Lake Lowell, it is not entitled to the benefit of ground water flowing into Lake Lowell. Therefore, the reduction of groundwater inflow into Lake Lowell that would result from Emmert's proposed appropriations, as predicted by both Petrich and Schmidt, would not reduce the amount of surface water available to the Boise Project under its existing water rights.

As for the increased seepage of surface water stored in Lake Lowell, the modeling efforts of both Petrich and Schmidt show that Emmert's proposed ground water diversions would cause the seepage volumes to increase. Between Petrich and Schmidt, Emmert's witness, Petrich, modeled the larger volume, 3.1 AF. Because the Boise Project does not have a sufficient supply of surface water to meet all the needs of the irrigators it supplies every year, as explained in Emmert's own testimony, Emmert's proposed ground water diversions will reduce the amount of water to the Boise Project under its existing water rights below the amount historically beneficially used by the Boise Project. Emmert argues the increased seepage from Lake Lowell that would be caused by the proposed ground water diversions is "an immeasurable impact on the lake, an impact that cannot be said to reduce the quantity of water available to existing rights." *Applicant's Closing Arguments* at 7. While the amount of increased seepage from Lake Lowell may be small, it is nevertheless real, quantifiable, and injurious to the Boise Project.¹

4. Regarding the criterion in Rule 45.01.a.ii, Emmert demonstrated his proposed ground water diversions will reduce the water level in the nearby wells serving as points of diversion for existing water rights by only a few feet, which is not enough to induce an unreasonable effort or expense to divert water or to exceed a reasonable pumping level for existing ground water users.
5. Regarding the criterion in Rule 45.01.a.iii, there is no evidence in the record to suggest the irrigation water uses proposed in the Applications will affect the quality of water necessary to satisfy existing water rights.
6. Rule 45.01.a.iv allows Emmert to meet his burden of persuasion for reducing the quantity of water available to existing water right holders by establishing that he will "mitigate losses of water to the" Boise Project. Emmert proposes to mitigate by renting or purchasing 7 AF of

¹ The Department has been consistent in its view that small impacts are injurious. See Final Order and Order Denying Exceptions, In the Matter of Application for Transfer No. 73969 in the Name of Robert Rohe, at 6 ("While the depletion of flow is small, it is still real and determinable. Moreover, simply because the injury to a water source is small, doesn't mean the injury should not be mitigated for."). See also, Final Order, In the Matter of Application for Transfer No. 5174 in the Name of Dennis M. Baker and No. 5175 in the Name of Huf-n-Puf Trust, at 1 ("Even if the maximum instantaneous depletion would not exceed 0.02 cfs and could not be measured using conventional methods, the hearing officer correctly concluded that such depletion would be 'real'").

water and making it available for use by the Boise Project each year. The quantity of 7 AF is intended to offset Emmert's maximum likely impact on Lake Lowell of 1.3% of 235 AF (3.1 AF), as predicted by Petrich, and to overcome 50% conveyance losses in the New York Canal.

Emmert's proposal raises two questions. First, is the proposed mitigation quantity of 7 AF sufficient to mitigate for the seepage Emmert's proposed ground water pumping will induce from Lake Lowell? Second, can Emmert overcome the Boise Project's concerns that a supply of mitigation water will not be available when it is needed, especially if Emmert seeks to rely on the Water District 63 rental pool or the Water Supply Bank?

The answer to the first question is that the Boise Project and Emmert stipulated that 7 AF of water diverted from the Boise River would be sufficient to overcome 50% loss in the New York Canal and still deliver 3.1 AF of water to Lake Lowell for use by the Boise Project's member irrigation districts. Moreover, Page testified that there is sufficient capacity in the New York Canal to deliver 7 AF of water to Lake Lowell each year.

Regarding the second question, Emmert's proposal to mitigate losses of water to the Boise Project by renting water is acceptable because Emmert can get by without a supplemental ground water supply when the mitigation supply is not available. When a water use that must be mitigated cannot go without water, short-term or unreliable mitigation supplies are generally not practical. For example, a subdivision should not employ an unreliable source of mitigation water because the residents cannot be without water for daily life, and their landscaping cannot go without irrigation water because it will die and be expensive to replace. Emmert's circumstances, however, are different from a subdivision's because his proposal is for supplemental use of ground water rather than for a primary, indispensable supply of water. Emmert testified that his farming business has survived for years without the proposed supplemental ground water supply. The lack of ground water might affect the quality and value of Emmert's crops, but in any given year Emmert could produce some crops without supplemental ground water. Water is available from the Water District 63 rental pool more often than not, making it likely that Emmert will be able to meet his mitigation obligation during the five-year development period for a permit and into the future. And because he can operate without the supplemental ground water when necessary, Emmert stipulated that, if mitigation water is not available to rent during a specific year, which Emmert will know prior to each irrigation season, he will not divert water from the proposed supplemental irrigation wells during that year. Furthermore, Idaho law offers enforcement options and penalties as disincentives for Emmert to divert and use ground water without implementing the required mitigation.² Therefore, rentals of storage water from the Water District 63 rental pool, which would have to be arranged annually and would be subject to availability, and rentals of natural flow water rights from the Water Supply Bank, which are also relatively short-term and subject to availability, are satisfactory for Emmert's proposal.³

² See Idaho Code §§ 42-311, 42-350, 42-351, and 42-1701B.

³ The Boise Project expressed concern that approving the Applications based on an imperfectly reliable supply of mitigation water would set a precedent for other pending applications which may have similar impacts to the supply of water historically available to the Boise Project. Pursuant to the Water Appropriation Rules (IDAPA 37.03.08), each application must be evaluated on its own individual circumstances and merits. The evaluation of Emmert's Applications does not necessarily establish a precedent for other applications.

Emmert's proposal to purchase shares of an existing water right and transfer it to the necessary mitigation use would also be sufficient. Because Emmert may rent mitigation water until he has completed a transfer, if he so chooses, there is no reason to stay approval of the Applications.

Sufficiency of the Water Supply -- Idaho Code § 42-203A(5)(b)

7. Rule 45.01.b of the Water Appropriation Rules establishes:

[T]he water supply will be determined to be insufficient for the proposed use if water is not available for an adequate time interval in quantities sufficient to make the project economically feasible (direct benefits to applicant must exceed direct costs to applicant), unless there are noneconomic factors that justify application approval.

8. Ground water exists in the sedimentary layers in the vicinity of the points of diversion proposed in the applications. Moreover, the ground water levels in the vicinity of the proposed points of diversion are generally stable or increasing. The ground water is available in sufficient quantity to provide a supplemental irrigation benefit to Emmert in excess of his costs over time.
9. Emmert has met his burden of persuasion regarding the sufficiency of the water supply for the proposed use.

Application is Made in Good Faith and not for Delay or Speculative Purposes -- Idaho Code § 42-203A(5)(c)

10. Rules 45.01.c of the Water Appropriation Rules (IDAPA 37.07.03.045.01.c) establishes three criteria for determining whether an application was made in good faith:
- i. The applicant shall have legal access to the property necessary to construct and operate the proposed project, has the authority to exercise eminent domain authority to obtain such access, or in the instance of a project diverting water from or conveying water across land in state or federal ownership, has filed all applications for a right-of-way. Approval of applications involving Desert Land Entry or Carey Act filings will not be issued until the United States Department of Interior, Bureau of Land Management has issued a notice classifying the lands suitable for entry; and
 - ii. The applicant is in the process of obtaining other permits needed to construct and operate the project; and
 - iii. There are no obvious impediments that prevent the successful completion of the project.
-

11. The Boise Project is not disputing the good faith nature of Emmert's Applications.
12. Because Emmert owns the land at the proposed point of diversion and place of use, he has the required access necessary to construct and operate the proposed project.
13. Except for drilling permits issued pursuant to Idaho Code § 42-235, there is no evidence in the record that Emmert needs other permits to construct and operate the proposed project. Drilling permits are customarily sought after a water right applicant has secured a permit to appropriate ground water.
14. There are no obvious impediments to prevent the successful completion of the project.
15. Emmert has met his burden of persuasion for an application made in good faith.

Sufficiency of the Applicant's Financial Resources -- Idaho Code § 42-203A(5)(d)

16. Rule 45.01.d.i of the Water Appropriation Rules establishes the relevant criterion for determining whether the applicant has sufficient financial resources to complete the project:

An applicant will be found to have sufficient financial resources upon a showing that it is reasonably probable that funding is or will be available for project construction or upon a financial commitment letter acceptable to the Director.

17. The Boise Project is not disputing the sufficiency of Emmert's financial resources.
18. Emmert owns about 400 acres of farmland and has operated a successful agricultural business enterprise on his land and leased land for many decades.
19. Emmert has met his burden of persuasion regarding his financial ability to complete the project.

Local Public Interest -- Idaho Code § 42-203A(5)(e)

20. Idaho Code § 42-202B(3) defines "local public interest" as "the interests that the people in the area directly affected by a proposed water use have in the effects of such water use on the public water resource." The current definition of local public interest was adopted in 2003 and supersedes the evaluation criteria set forth in Rule 45.01.e of the Water Appropriation Rules (IDAPA 37.03.08.045.01.e), which dates from 1993.
21. It is in the public interest to authorize a new water use that would add value to crops grown in Idaho without reducing the quantity of water historically used for beneficial purposes by holders of senior water rights.
22. Emmert has met his burden of persuasion for the local public interest.

Conservation of Water Resources in Idaho -- Idaho Code § 42-203A(5)(f)

23. In 1990 the Idaho legislature implemented the conservation of water resources requirement for water appropriations. The Department's Application Processing Memorandum No. 48, which addressed the requirement, states:

The term "conservation" is not defined in the legislative intent or in the amendment. . . . Due to lack of stated legislative intent, the department will apply the criterion in terms of efficiency as is generally suggested by the term.

The requirement has been interpreted by the Department to require standards of water use efficiency so that the proposed beneficial use is accomplished while preserving as much water as possible for other benefits.

24. In southern Canyon County, the Department typically authorizes up to 4.5 AF per acre for irrigation, based on the needs of the most water consumptive crop for the area and a reasonable irrigation efficiency. Emmert grows high-value seed crops with less than 4.5 AF per acre.
25. Emmert proposes to conserve ground water resources by using only the amount needed to supplement his regular surface water supply.
26. Emmert has met his burden of persuasion regarding the conservation of water resources standard.

Effects on the Local Economy -- Idaho Code § 42-203A(5)(g)

27. This criterion applies only to "out-of-basin" appropriations. It does not apply in this case.

ORDER

IT IS HEREBY ORDERED that Application for Permit No. 63-34079 is **APPROVED** subject to the following conditions:

1. Proof of application of water to beneficial use shall be submitted on or before April 1, 2023.
2. Subject to all prior rights.
3. The right holder shall submit proof of beneficial use by the due date stated in condition no. 1 but no sooner than November 1, 2022.
4. Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which the permit holder had no control.

5. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
6. The right holder shall make full beneficial use of all surface water available to the right holder for irrigation of lands within the authorized place of use for this right. The right holder may divert ground water under this right to irrigate land with appurtenant surface water rights when the surface water supply is not reasonably sufficient to irrigate the place of use for this water right, the annual surface water allotment is not yet known, the Boise Project Board of Control's annual maximum surface water allowance must be exceeded, or the surface water supply is not available due to drought, curtailment by priority, or the seasonal startup and shutoff or maintenance schedule for canal company deliveries. The right holder shall not divert ground water for irrigation purposes under this right if use of the surface water supply is intentionally discontinued or reduced (for example abandoned, forfeited, sold, disallowed by court decree, or leased to the Water Supply Bank), or is not deliverable due to non-payment of annual assessments, without an approved transfer pursuant to Section 42-222, Idaho Code, or other Department approval.
7. This right when combined with all other rights shall provide no more than 4.5 afa per acre at the field headgate for irrigation of the place of use.
8. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor exceed a combined annual maximum diversion volume of 427.5 AF at the field headgate for the place of use.
9. The total volume of water diverted pursuant to this right shall not exceed 133 AF each irrigation season.
10. The right holder shall maintain a totalizing measuring device of a type approved by the Department as a part of the diverting works.
11. During each irrigation season prior to submitting proof of beneficial use, the right holder shall record the volume of water diverted for irrigation purposes each week. The right holder shall maintain the diversion records for at least ten years and shall make them available to the Department upon request.
12. Pursuant to Idaho Code § 42-701, the right holder shall annually report the quantity of water diverted pursuant to this right and shall report other pertinent hydrologic system information, as required by the Department.
13. The right holder shall mitigate for the depletion of water stored in Lake Lowell that will occur as a result of the ground water diversions authorized by this right. Prior to March 1 each year, the right holder shall make 4.0 AF of water available to the Boise Project Board of Control for diversion from the Boise River at the New York Canal for use within its member irrigation districts. The required supply of mitigation water may be rented from the Water District 63 Rental Pool or the Water Supply Bank, or it may result from the permanent transfer of a water right or portion of a water right. The right holder may arrange for the

necessary mitigation water supply in multiple year increments. Each time the right holder enters into a new rental or other arrangement for the required mitigation water supply, the right holder shall give a copy of the agreement to the Boise Project Board of Control within seven days of the execution of the agreement. If the right holder does not comply with the mitigation requirement for any irrigation season, the right holder shall not divert water pursuant to this water right during that irrigation season.

14. When submitting proof of beneficial use for this right, the right holder shall attach copies of the weekly diversion volume records for the entire development period and copies of the rentals or other agreements for the required mitigation water supply for the entire development period.
15. The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit.
16. Failure of the right holder to comply with any condition of approval is cause for the Director to cancel this permit.

IT IS FURTHER HEREBY ORDERED Application for Permit No. 63-34080 is **APPROVED** subject to the following conditions:

1. Proof of application of water to beneficial use shall be submitted on or before April 1, 2023.
2. Subject to all prior rights.
3. The right holder shall submit proof of beneficial use by the due date stated in condition no. 1 but no sooner than November 1, 2022.
4. Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which the permit holder had no control.
5. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
6. The right holder shall make full beneficial use of all surface water available to the right holder for irrigation of lands within the authorized place of use for this right. The right holder may divert ground water under this right to irrigate land with appurtenant surface water rights when the surface water supply is not reasonably sufficient to irrigate the place of use for this water right, the annual surface water allotment is not yet known, the Boise Project Board of Control's annual maximum surface water allowance must be exceeded, or the surface water supply is not available due to drought, curtailment by priority, or the

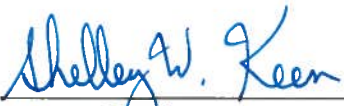
seasonal startup and shutoff or maintenance schedule for irrigation entity deliveries. The right holder shall not divert ground water for irrigation purposes under this right if use of the surface water supply is intentionally discontinued or reduced (for example abandoned, forfeited, sold, disallowed by court decree, or leased to the Water Supply Bank), or is not deliverable due to non-payment of annual assessments, without an approved transfer pursuant to Section 42-222, Idaho Code, or other Department approval.

7. This right when combined with all other rights shall provide no more than 4.5 afa per acre at the field headgate for irrigation of the place of use.
8. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor exceed a combined annual maximum diversion volume of 328.5 AF at the field headgate for the place of use.
9. The total volume of water diverted pursuant to this right shall not exceed 102 AF each irrigation season.
10. The right holder shall maintain a totalizing measuring device of a type approved by the Department as a part of the diverting works.
11. During each irrigation season prior to submitting proof of beneficial use, the right holder shall record the volume of water diverted for irrigation purposes each week. The right holder shall maintain the diversion records for at least ten years and shall make them available to the Department upon request.
12. Pursuant to Idaho Code § 42-701, the right holder shall annually report the quantity of water diverted pursuant to this right and shall report other pertinent hydrologic system information, as required by the Department.
13. The right holder shall mitigate for the depletion of water stored in Lake Lowell that will occur as a result of the ground water diversions authorized by this right. Prior to March 1 each year, the right holder shall make 3.0 AF of water available to the Boise Project Board of Control for diversion from the Boise River at the New York Canal for use within its member irrigation districts. The required supply of mitigation water may be rented from the Water District 63 Rental Pool or the Water Supply Bank, or it may result from the permanent transfer of a water right or portion of a water right. The right holder may arrange for the necessary mitigation water supply in multiple year increments. Each time the right holder enters into a new rental or other arrangement for the required mitigation water supply, the right holder shall give a copy of the agreement to the Boise Project Board of Control within seven days of the execution of the agreement. If the right holder does not comply with the mitigation requirement for any irrigation season, the right holder shall not divert water pursuant to this water right during that irrigation season.
14. When submitting proof of beneficial use for this right, the right holder shall attach copies of the weekly diversion volume records for the entire development period and copies of the

rentals or other agreements for the required mitigation water supply for the entire development period.

15. The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit.
16. Failure of the right holder to comply with any condition of approval is cause for the Director to cancel this permit.

Dated this 3rd day of April 2018.



Shelley W. Keen
Hearing Officer

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 4th day of April 2018, I caused to be served a true and correct copy of the foregoing document by U.S. mail, postage pre-paid, and by electronic-mail to the following:

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