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DEPARTMENT OF
WATER RESOURCES

Idaho Water Engineering, LLC

Moss Farms Application for Transfer No. 84784 Protestants' Expert Report

November 7, 2023



Certification

I hereby certify that this report was prepared under my direction and that it meets the standards of acceptable engineering practice.



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Moss Farms Application for Transfer No. 84784 Protestants' Expert Report

On Page 2 of Application for Transfer No. 84784, the applicant states in part: "Applicant proposes to purchase and relocate the Big Lost River and ground water rights to his property about 1 mile north of the existing place of use."

This application should be denied due to the following:

1. The water rights have been lost due to forfeiture.
2. Relocation of the surface water point of diversion would injure surface water rights.
3. Relocation of the ground water point of diversion might injure ground water rights.

Further explanation is provided below.

1.0 Water Rights Proposed to be Moved from the Present Place of Use Have Been Forfeited

The water rights at the location from which they are proposed to be moved by this transfer application have been forfeited.

Water Right Application for Transfer No. 84784 depicts the present place of use of the 33.5 acres from which the water rights are proposed to be moved as follows:

Figure 2. Map of Northern Split POU

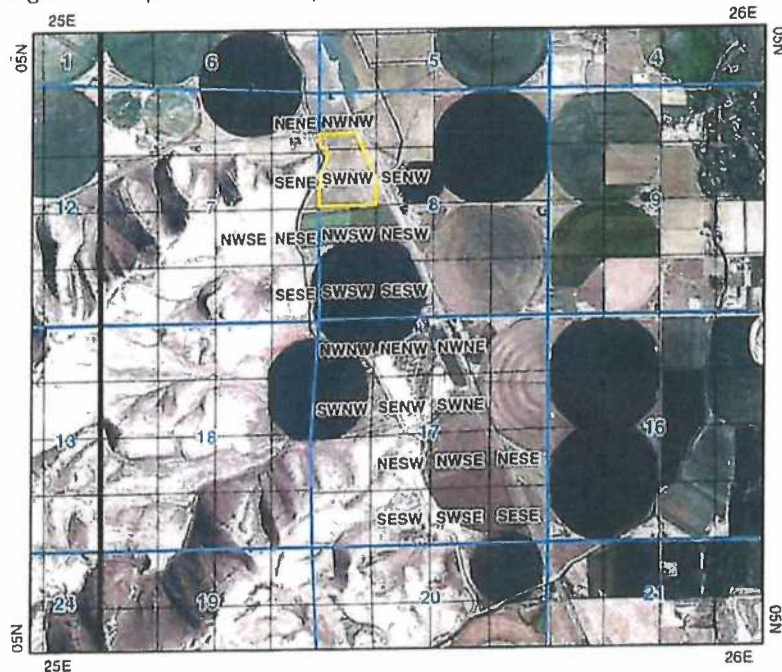


Figure 1. Map from Application for Transfer No. 84784

The application states as follows:

Existing Locations: Historical Use and Defense to Forfeiture

The water rights were decreed in 2002 to Phillip Scott and Sandra Scott for irrigation of up to 588 acres, including the currently described place of use and additional acres south of it. The Scotts obtained the original un-split property (herein referred to as the Original property) in 1997. See Figure 1. The southern portion of the water right, including the land on which the wells are located, was split from the Original to Grant B. Smith and Arlene C. Smith, Trustees of the Grant and Arlene Smith Family Trust dated July 16, 2003 in 2005. The northern portion, as shown in Figure 2, which includes the existing authorized POU, remained in the ownership of the Scotts (which was later conveyed to Sunroc Holdings LLC).

The Ground Water points of diversion are located on the southern split of the Original property and are not owned by the water right holder, nor does the water right holder have any written permissions or easements to use the wells. Access to use the wells was withheld in 2005.

Legislative guidance in this matter is provided in Section 42-222(2-5), Idaho Code, as follows:

42-222. CHANGE IN POINT OF DIVERSION, PLACE OF USE, PERIOD OF USE, OR NATURE OF USE OF WATER UNDER ESTABLISHED RIGHTS – FORFEITURE AND EXTENSION – APPEALS.

(2) All rights to the use of water acquired under this chapter or otherwise shall be lost and forfeited by a failure for the term of five (5) years to apply it to the beneficial use for which it was appropriated and when any right to the use of water shall be lost through nonuse or forfeiture such rights to such water shall revert to the state and be again subject to appropriation under this chapter; except that any right to the use of water shall not be lost through forfeiture by the failure to apply the water to beneficial use under certain circumstances as specified in section 42-223, Idaho Code. The party asserting that a water right has been forfeited has the burden of proving the forfeiture by clear and convincing evidence.

(3) Upon proper showing before the director of the department of water resources of good and sufficient reason for nonapplication to beneficial use of such water for such term of five (5) years, the director of the department of water resources is hereby authorized to grant an extension of time extending the time for forfeiture of title for nonuse thereof, to such waters for a period of not to exceed five (5) additional years.

(4) Application for an extension shall be made before the end of the five (5) year period upon forms to be furnished by the department of water resources and shall fully describe the right on which an extension of time to resume the use is requested and the reasons for such nonuse and shall be accompanied by the statutory filing fee; provided that water rights protected from forfeiture under the provisions of section 42-223, Idaho Code, are exempt from this requirement.

(a) Upon the receipt of such application it shall be the duty of the director of the department of water resources to examine the same and to provide notice of the application for an extension in the same manner as applications under section 42-203A, Idaho Code. The notice shall fully describe the right, the extension which is requested and the reason for such nonuse and shall state that any person desiring to object to the requested extension may submit a protest, accompanied by the statutory filing fee as provided in section 42-221, Idaho Code, to the

director of the department of water resources within ten (10) days of the last date of publication.

(b) Upon receipt of a protest it shall be the duty of the director of the department of water resources to investigate and conduct a hearing thereon as in this chapter provided.

(c) The director of the department of water resources shall find from the evidence presented in any hearing, or from information available to the department, the reasons for such nonuse of water and where it appears to the satisfaction of the director of the department of water resources that other rights will not be impaired by granting an extension of time within which to resume the use of the water and good cause appearing for such nonuse, he may grant one (1) extension of five (5) years within which to resume such use.

(d) In his approval of the application for an extension of time under this section the director of the department of water resources shall set the date when the use of water is to be resumed. Sixty (60) days before such date the director of the department of water resources shall forward to the applicant at his address of record a notice by certified mail setting forth the date on which the use of water is to be resumed and a form for reporting the resumption of the use of the water right. If the use of the water has not been resumed and report thereon made on or before the date set for resumption of use such right shall revert to the state and again be subject to appropriation, as provided in this section.

(e) In the event the director of the department of water resources determines that a proposed extension of time within which to resume use of a water right shall not be approved as provided in this section, he shall deny same and forward notice of such action to the applicant by certified mail, which decision shall be subject to judicial review as hereafter provided.

(5) Any person or persons feeling themselves aggrieved by the determination of the department of water resources in approving or rejecting an application to change the point of diversion, place, period of use or nature of use of water under an established right or an application for an extension of time within which to resume the use of water as provided in this section, may, if a protest was filed and a hearing held thereon, seek judicial review pursuant to section 42-1701A(4), Idaho Code. If no protest was filed and no hearing held, the applicant may request a hearing pursuant to section 42-1701A(3), Idaho Code, for the purpose of contesting the action of the director and may seek judicial review of the final order of the director following the hearing pursuant to section 42-1701A(4), Idaho Code.

The following photographs of Moss Farms' place of use show sagebrush growing on its land, including the picture below:



Figure 2. Sagebrush growing on land from which water rights are proposed to be transferred.

Aerial imagery through the years substantiates the absence of irrigation of this property, dating back to 1992, as depicted in Figures 3 through 10.

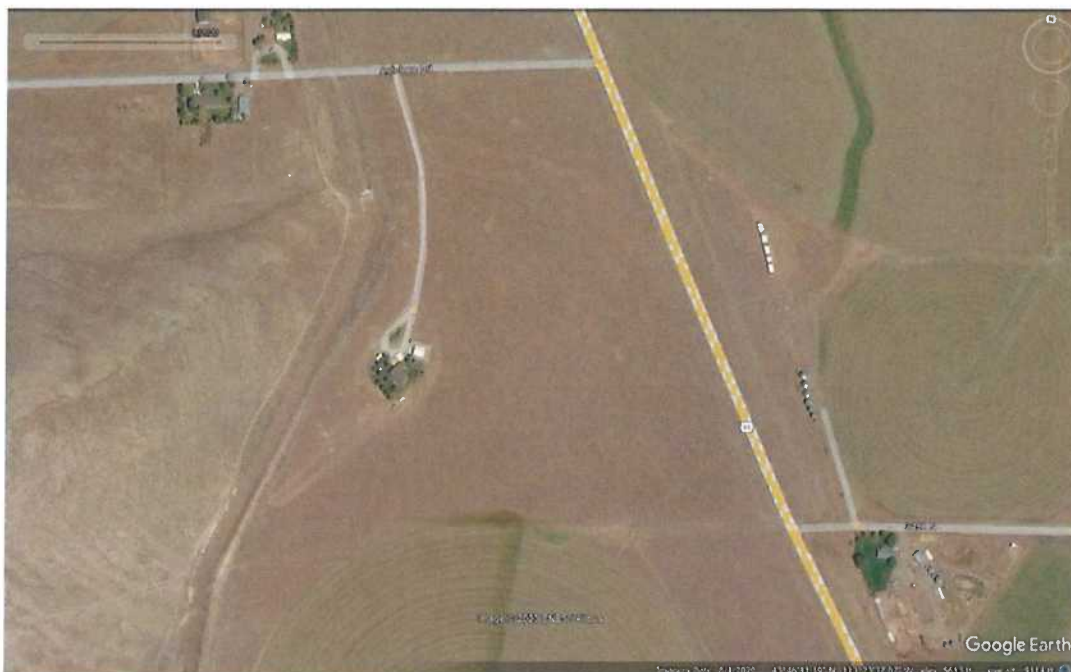


Figure 3. Google Earth Depiction of this land using imagery dated 8/4/2020.

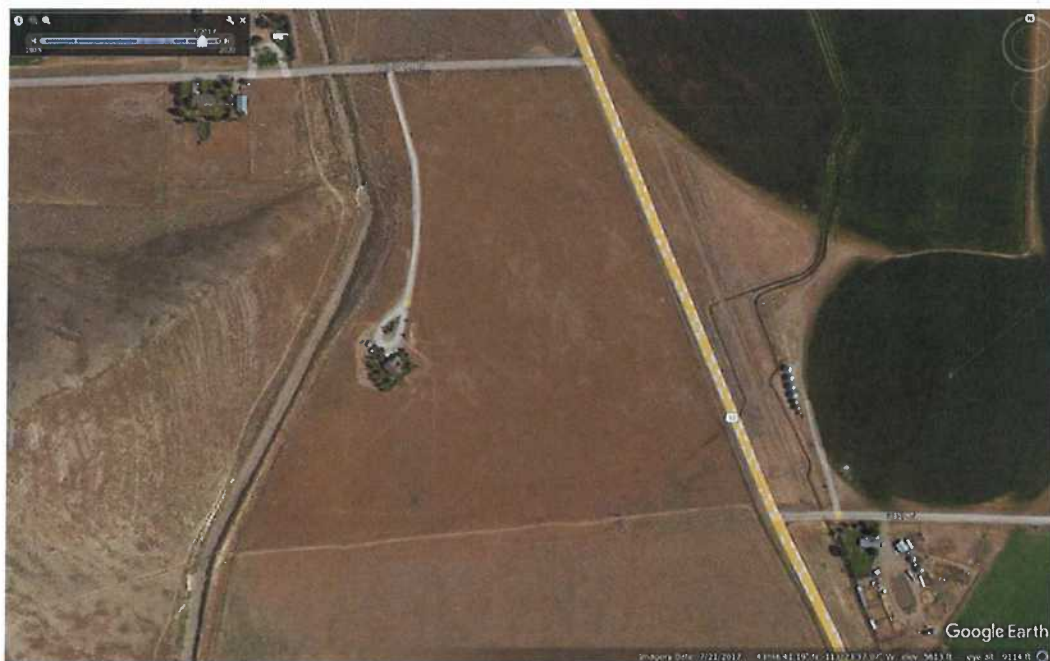


Figure 4. Google Earth Depiction of this land using imagery dated 7/21/2017.

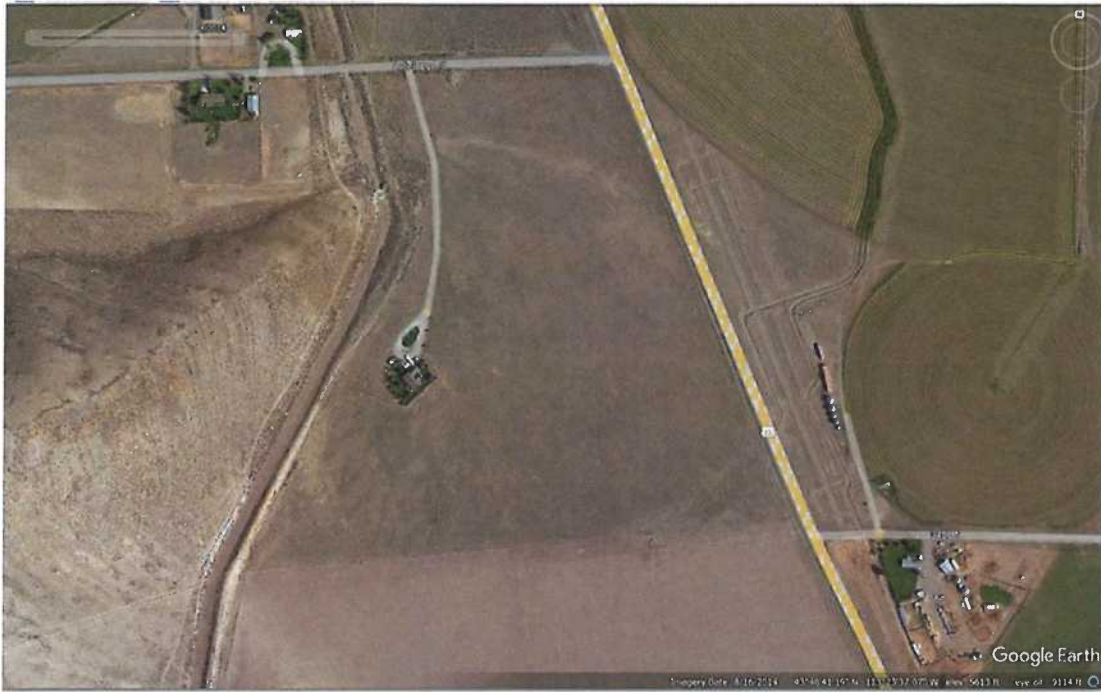


Figure 5. Google Earth Depiction of this land using imagery dated 8/16/2014.

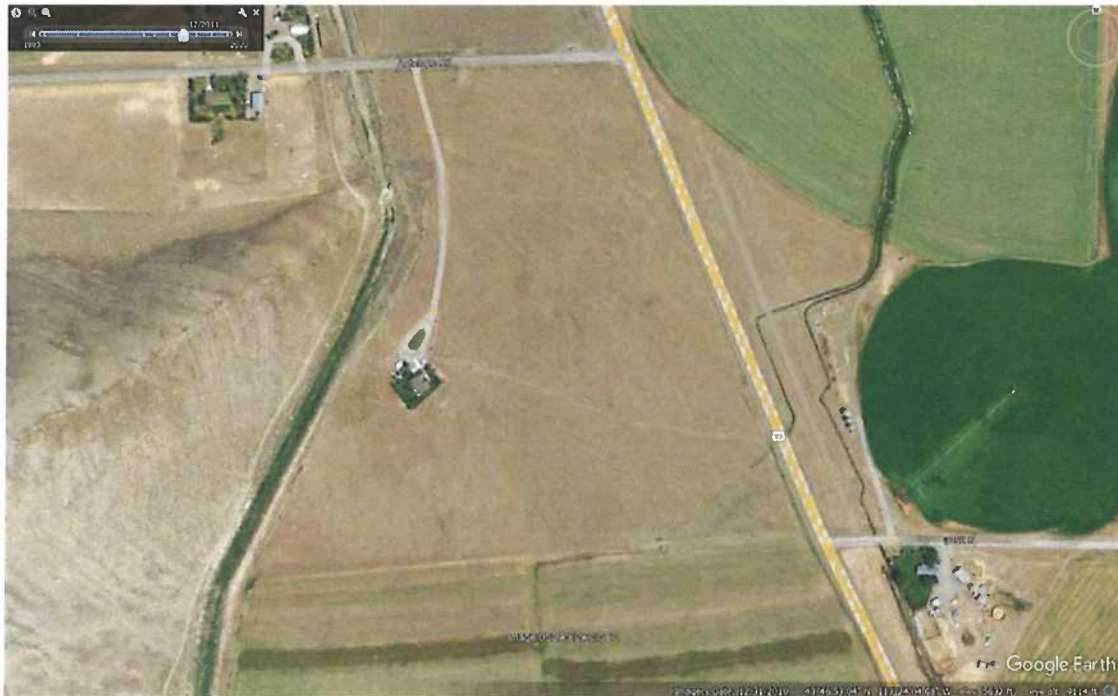


Figure 6. Google Earth Depiction of this land using imagery dated 12/31/2010.

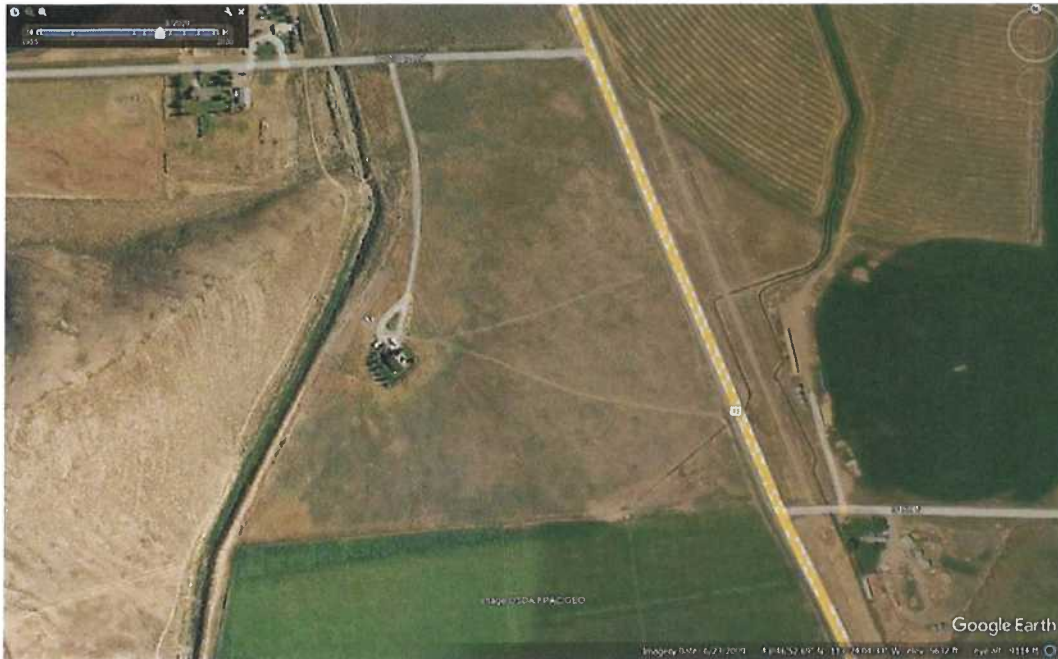


Figure 7. Google Earth Depiction of this land using imagery dated 6/23/2009.



Figure 8. Google Earth Depiction of this land using imagery dated 6/22/2006.

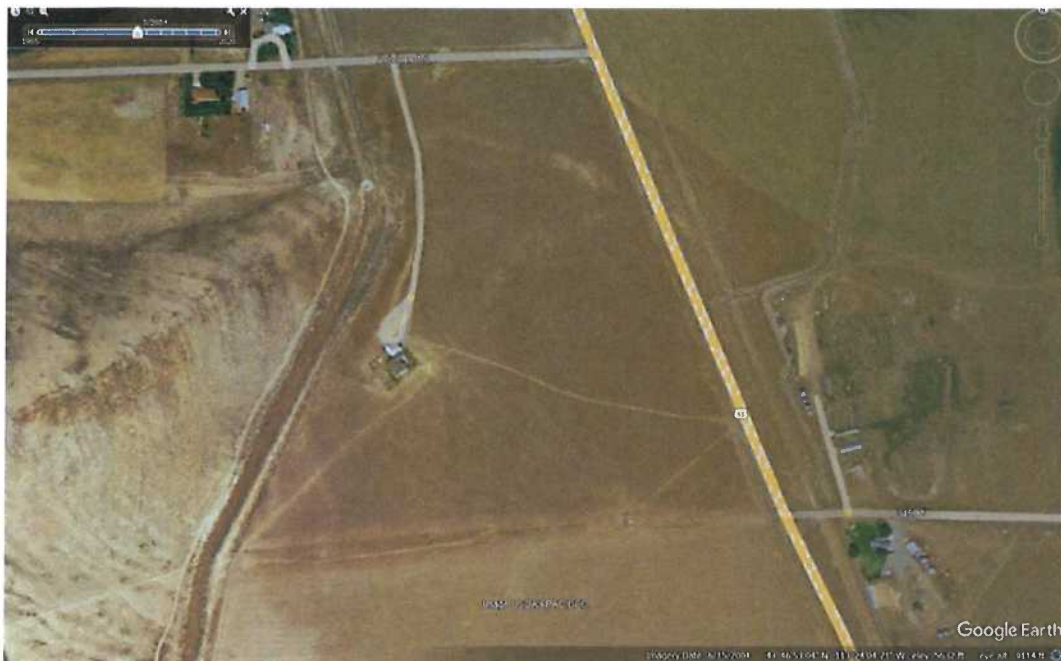


Figure 9. Google Earth Depiction of this land using imagery dated 6/15/2004.



Figure 10. Google Earth Depiction of this land using imagery dated 5/21/1992.

Thus, application of the language in the statute to this situation results in the following assessment:

(2) All rights to the use of water acquired under this chapter or otherwise shall be lost and forfeited by a failure for the term of five (5) years to apply it to the beneficial use for which it was appropriated and when any right to the use of water shall be lost through nonuse or forfeiture such rights to such water shall revert to the state and be again subject to appropriation under this chapter;

Neither ground water nor surface water have been applied to irrigate this land for many years, more than 5.

except that any right to the use of water shall not be lost through forfeiture by the failure to apply the water to beneficial use under certain circumstances as specified in section 42-223, Idaho Code.

See the analysis of Section 42-223 below.

The party asserting that a water right has been forfeited has the burden of proving the forfeiture by clear and convincing evidence.

The Protestants in this matter are providing this evidence.

(3) Upon proper showing before the director of the department of water resources of good and sufficient reason for nonapplication to beneficial use of such water for such term of five (5) years, the director of the department of water resources is hereby authorized to grant an extension of time extending the time for forfeiture of title for nonuse thereof, to such waters for a period of not to exceed five (5) additional years.

An extension is not warranted in this case.

(4) Application for an extension shall be made before the end of the five (5) year period upon forms to be furnished by the department of water resources and shall fully describe the right on which an extension of time to resume the use is requested and the reasons for such nonuse and shall be accompanied by the statutory filing fee; provided that water rights protected from forfeiture under the provisions of section 42-223, Idaho Code, are exempt from this requirement.

An extension was not requested by the applicant.

Pertinent portions of Section 42-223 are addressed as follows:

42-223. EXCEPTIONS OR DEFENSES TO FORFEITURE. A right to the use of water shall not be lost by forfeiture pursuant to the provisions of section 42-222, Idaho Code, for a failure to apply the water to beneficial use under the conditions specified in any subsection of this section. The legislature does not intend through enactment of this section to diminish or impair any statutory or common law exception or defense to forfeiture existing on the date of enactment or amendment of this section, or to preclude judicial or administrative recognition of other exceptions or defenses to forfeiture recognized in Idaho case law or other provisions of the Idaho Code. No provision of this section shall be construed to imply that the legislature does not recognize the existence or validity of any common law exception or defense to forfeiture existing on the date of enactment or amendment of this section.

(1) A water right appurtenant to land contracted in a federal cropland set-aside program shall not be lost or forfeited for nonuse during the contracted period. The running of

any five (5) year period of nonuse for forfeiture of a water right shall be tolled during the time that the land remains in the cropland set-aside program.

This exception or defense is not applicable.

(2) A water right held by a municipal provider to meet reasonably anticipated future needs shall be deemed to constitute beneficial use, and such rights shall not be lost or forfeited for nonuse unless the planning horizon specified in the license has expired and the quantity of water authorized for use under the license is no longer needed to meet reasonably anticipated future needs.

This exception or defense is not applicable.

(3) A water right shall not be lost or forfeited by a failure to divert and apply the water to beneficial use if the water is not needed to maintain full beneficial use under the right because of land application of waste for disposal purposes including, but not limited to, discharge from dairy lagoons used in combination with or substituted for water diverted under the water right.

This exception or defense is not applicable.

(4) A water right shall not be lost or forfeited by a failure to divert and apply the water to beneficial use if the reason for the nonuse of the water is to comply with the provisions of a ground water management plan approved by the director of the department of water resources pursuant to section 42-233a or 42-233b, Idaho Code.

This exception or defense is not applicable.

(5) A water right shall not be lost or forfeited by a failure of the owner of the right to divert and apply the water to beneficial use while the water right is placed in the water supply bank or is retained in or rented from the water supply bank pursuant to sections 42-1761 through 42-1765A, Idaho Code, or while the water right is leased pursuant to sections 43-335 through 43-342, Idaho Code, or sections 42-2501 through 42-2509, Idaho Code, or while use of the water is made under any other provision of law authorizing the rental or lease of water rights.

This exception or defense is not applicable.

(6) No portion of any water right shall be lost or forfeited for nonuse if the nonuse results from circumstances over which the water right owner has no control. Whether the water right owner has control over nonuse of water shall be determined on a case-by-case basis.

This exception or defense is not applicable. The water right holder could have requested to drill a replacement well and/or establish surface water works decades ago.

(7) No portion of a water right held by an irrigation district, a Carey Act operating company, or any other company, corporation, association, or entity which holds water rights for distribution to its landowners, shareholders or members shall be lost or forfeited due to nonuse by such landowners, shareholders or members, unless the nonuse is subject to the control of such entity.

This exception or defense is not applicable.

(8) No portion of a water right held by an irrigation district shall be lost, forfeited or subject to forfeiture as a result of the exclusion of land from the district pursuant to chapter 11, title 43, Idaho Code, so long as any five (5) year period of nonuse following the exclusion does not result from circumstances over which the district has control.

This exception or defense is not applicable.

(9) No portion of any water right shall be lost or forfeited for nonuse if the nonuse results from a water conservation practice, which maintains the full beneficial use authorized by the water right, as defined in section 42-250, Idaho Code.

This exception or defense is not applicable.

(10) No portion of any water right shall be lost or forfeited for nonuse if the nonuse results from the water right being used for mitigation purposes approved by the director of the department of water resources including as a condition of approval for a new water right appropriation approved pursuant to section 42-203A, Idaho Code, a water right transfer approved pursuant to section 42-222, Idaho Code, a water exchange approved pursuant to section 42-240, Idaho Code, or a mitigation plan approved in accordance with rules promulgated pursuant to section 42-603, Idaho Code.

This exception or defense is not applicable.

(11) No portion of any water right with a beneficial use related to mining, mineral processing or milling shall be lost or forfeited for nonuse, so long as the nonuse results from a closure, suspension or reduced production of the mine, processing facility or mill due in whole or in part to mineral prices, if the mining property has a valuable mineral, as defined in section 47-1205, Idaho Code, and the water right owner has maintained the property and mineral rights for potential future mineral production.

This exception or defense is not applicable.

(12) No portion of any water right shall be lost or forfeited for nonuse if, after the five (5) year period of nonuse, use of the water is resumed prior to a claim of right by a third party. A third party has made a claim of right if the party has:

- (a) Instituted proceedings to declare a forfeiture;
- (b) Obtained a valid water right authorizing the use of such water with a priority date prior to the resumption of use; or
- (c) Used the water made available by nonuse pursuant to an existing water right.

This exception or defense is not applicable. In summary, the applicant has no valid exception or defense to forfeiture and the water rights on this property should be determined by IDWR to have been forfeited.

2.0 Moving the Surface Water Point of Diversion Will Cause Harm to Existing Rights

Page 3 of the Application for Transfer states in part as follows:

The Big Lost River water rights are authorized to be diverted down the 3 in 1 Ditch, which the headgate is located about 4.5- 5 miles north of the property. The 3 in 1 Ditch is notorious for being unreliable and rights have been mostly undeliverable through this ditch for many years. Many users of the 3 in 1 Ditch either have alternate points of diversion to allow them to receive their water rights through other conveyance systems or rely on their overlapping ground water rights to satisfy their supply needs. The applicant has also done this for other Big Lost River rights held for the proposed farm location.

Problems with this application are expressed below.

Water Right Transfers Should Not Result in Adverse Impacts to Third Parties

A fundamental tenet of western water law is that water right transfers should not result in adverse impacts to third parties. If the proposed application for transfer is approved it would result in negative impacts to surface water users, and would potentially result in negative impacts to ground water users. This section of the report relates to surface water users. The potential impacts to ground water users are discussed later in the report.

The application states that "the applicant has done this for other Big Lost River rights held for the proposed farm location." While this is true, Transfer No. 79972 was approved in error because Department staff were misled into thinking that (a) the 3 in 1 Ditch is no longer successfully used and (b) diversion at a new downstream point of diversion would not cause harm.

A Water Right Application Does Not Have to Be Protested to Initiate a Full Review by IDWR

Application for Transfer No. 79972 was properly advertised by IDWR and was not protested. Nevertheless the agency has a duty to fully review a proposed transfer for protection of third parties that might be injured. Accordingly, Mr. Michael Holliday prepared a "Review & Evaluation of Sufficiency of Information" for this application dated June 15, 2015. His assessment of injury to other water rights was as follows:

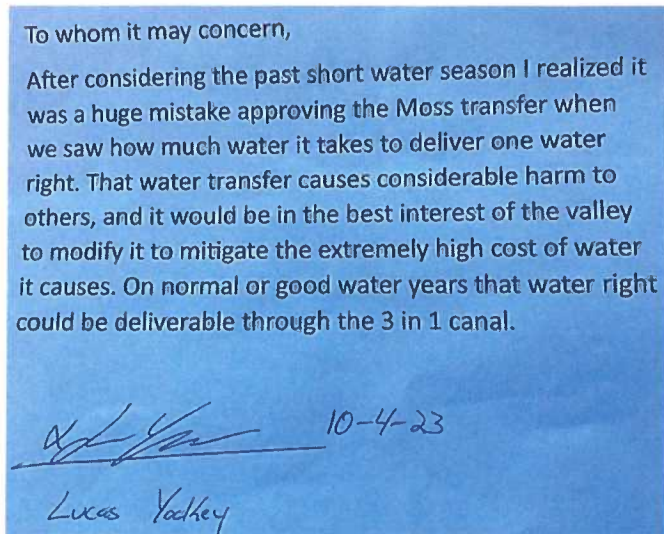
Injury to Other Water Rights:

Other rights will not be injured by the proposed changes. The watermaster reviewed the application and did not oppose its approval. Although the proposed new point of diversion is located downstream from the current point of diversion on a losing river reach, discussion with the watermaster revealed that conveyance losses are uniformly charged to all diversions between Mackay Dam and Arco, regardless of their location on the river. The quantity authorized to be diverted will not change as a result of the transfer. The transfer application was advertised and no protests were filed.

Erroneous Information Was Provided to IDWR

What Mr. Holliday stated is correct in a good water year. What his memo fails to address, and apparently he was not aware of when he wrote the memo, is that during a water-short year, diversions downstream from the original point of diversion for this water right have historically not been delivered due to a futile call. The Watermaster who provided the comments for this transfer, Mr. Lucas Yockey, has described to

Protestant Byron Pehrson that he was not thinking about this when he made his recommendation to IDWR. As a result, Mr. Yockey prepared the document depicted in Figure 11. I am advised that Mr. Yockey is now prepared to testify to this oversight, and to the fact that in a poor water year delivery downstream from the original point of diversion of this water right, through the Darlington Sinks, was historically determined to be futile.



To whom it may concern,

After considering the past short water season I realized it was a huge mistake approving the Moss transfer when we saw how much water it takes to deliver one water right. That water transfer causes considerable harm to others, and it would be in the best interest of the valley to modify it to mitigate the extremely high cost of water it causes. On normal or good water years that water right could be deliverable through the 3 in 1 canal.

[Signature] 10-4-23
Lucas Yockey

Figure 11. Copy of Letter from Former Big Lost River Watermaster Lucas Yockey dated October 4, 2023

Since this transfer has been approved, delivery on the river has been changed, to the detriment of third parties. Recently, I am told, as much as 6,000 or 7,000 miners inches (120 – 140 cfs) of water has been sent past the original point of diversion of this water right to push the 80 miners inches of that water right to the new point of diversion. This is a new change caused by approval of the transfer. Prior to approval of the transfer, this 6,000 or 7,000 inches would have been used to satisfy upstream 1884 and 1885 water rights rather than to be lost in the Darlington Sinks. Thus, third parties have been injured by this change.

The IDWR State Office personnel in charge of water distribution have been requested to provide instructions to the Watermaster to prevent injury now that Transfer No. 79972 has been approved and the Department did not condition the transfer to prevent this injury.

If A Water Right is Removed from a Ditch the Portion of the Water Right Used as Carry Water Should be Left in the Ditch

Normally when a water right is allowed to be removed from a ditch, the carry water aspect of the water right is required to be left in the ditch, to avoid negative impacts to third parties. This has long been a consideration in transfers before IDWR. In the case of Transfer No. 79972 it is possible that Mr. Holliday was led to believe the 3 in 1 ditch was no longer used. That is not the case, as demonstrated by the water district records that will be submitted in this matter.

The 3 in 1 Ditch is Still Used

The application states as follows:

The 3 in 1 Ditch has not been able to deliver water rights for many years. Patrons of this ditch have found alternate methods of delivery. The property was split and the well was no longer accessible for delivery of ground water. These water rights were not deliverable and use was outside the owners control.

This is not correct as evidenced by documentation that will be submitted to IDWR.

3.0 Moving the Ground Water Point of Diversion Might Cause Harm to Existing Rights

The applicant proposes to move the points of diversion for ground water from the locations depicted in Figure 12 to the location depicted in Figure 13.

A paper prepared by Gus Womeldorph in 2022 entitled "Water Table Elevation Changes in the Big Lost River Valley" addresses the status of the aquifer in this portion of the Big Lost River Basin. Figure 14 is from this report. Note that depletions in the aquifer range from 30 feet to 40 feet or more during the period from 1967 to 2020. If a water right from ground water has been forfeited and is allowed to be renewed, this would exacerbate the declines in the aquifer.

In addition, moving pumping from one portion of the aquifer to another can cause harm to the wells in the vicinity of the newly proposed point of diversion. Kenneth Neely, a hydrogeologist with Idaho Water Engineering LLC (IWE), conducted a review of the document titled "Estimate of Drawdown Impact from Proposed Water Right Application to Transfer No. 87484" which was prepared by Rocky Mountain Environmental Associates Inc (RMEA) on October 6, 2023. The impact analysis conducted adheres to basic hydrogeological principles with respect to the water level impact calculations. However, there are several areas of concern regarding the conclusions of Rocky Mountain's analysis:

1. With regards to actual local data, the analysis relies on three well driller's reports (Moss (original owner on well report is Reynolds), Pehrson and McAfee). There are some important differences in the lithologic entries for the three wells. The Moss well has two water-bearing zones separated by a thick (94 feet) section that is listed as non-water-bearing. The McAfee report also lists two water-bearing zones with a thick (80 feet) non-water-bearing section between them. However, the Pehrson well lists water-bearing strata from 0 to 150 feet.
2. Based on the Moss well, the selection of an aquifer thickness of 130 feet, which was used in RMEA's calculation of Transmissivity is questionable. Since the Moss well is the proposed point of diversion for the transfer, I suggest using the aquifer thickness in this well, which is 66 feet (based on the static water level being the top of the upper aquifer which makes the upper aquifer 22 feet thick and the lower aquifer is 44 feet thick).

3. The use of the McAfee well pumping test may be applicable. However, that well is ½ mile from the Moss and Pehrson well, so extrapolating its 63-year-old test result to the Moss/Pehrson location could be problematic.
4. RMEA's analysis assumes that the Moss well and the Pehrson well are in hydrological communication. This is a reasonable assumption. However, aside from water levels on the well driller's reports, there are no water level data (neither for static or pumping conditions) for either well, to our knowledge. Ground water level data are critical to ascertain whether the wells are hydraulically connected, and whether the pumping of one well affects the levels in the other well.
5. There is no pumping history for the Moss well. How does the proposed increase of 0.49 cubic feet per second at the Moss well compare to the recent and historic rate of discharge at this well?
6. IWE recommends that a well pumping test be conducted on the Moss well with the Pehrson well used for observation. Both wells should be outfitted with transducers and manual measurements should be taken during the test. The duration of the test should be 24 to 48 hours, and the pumping rate should be the new proposed rate for the Moss well (current rate + 0.49 cfs).

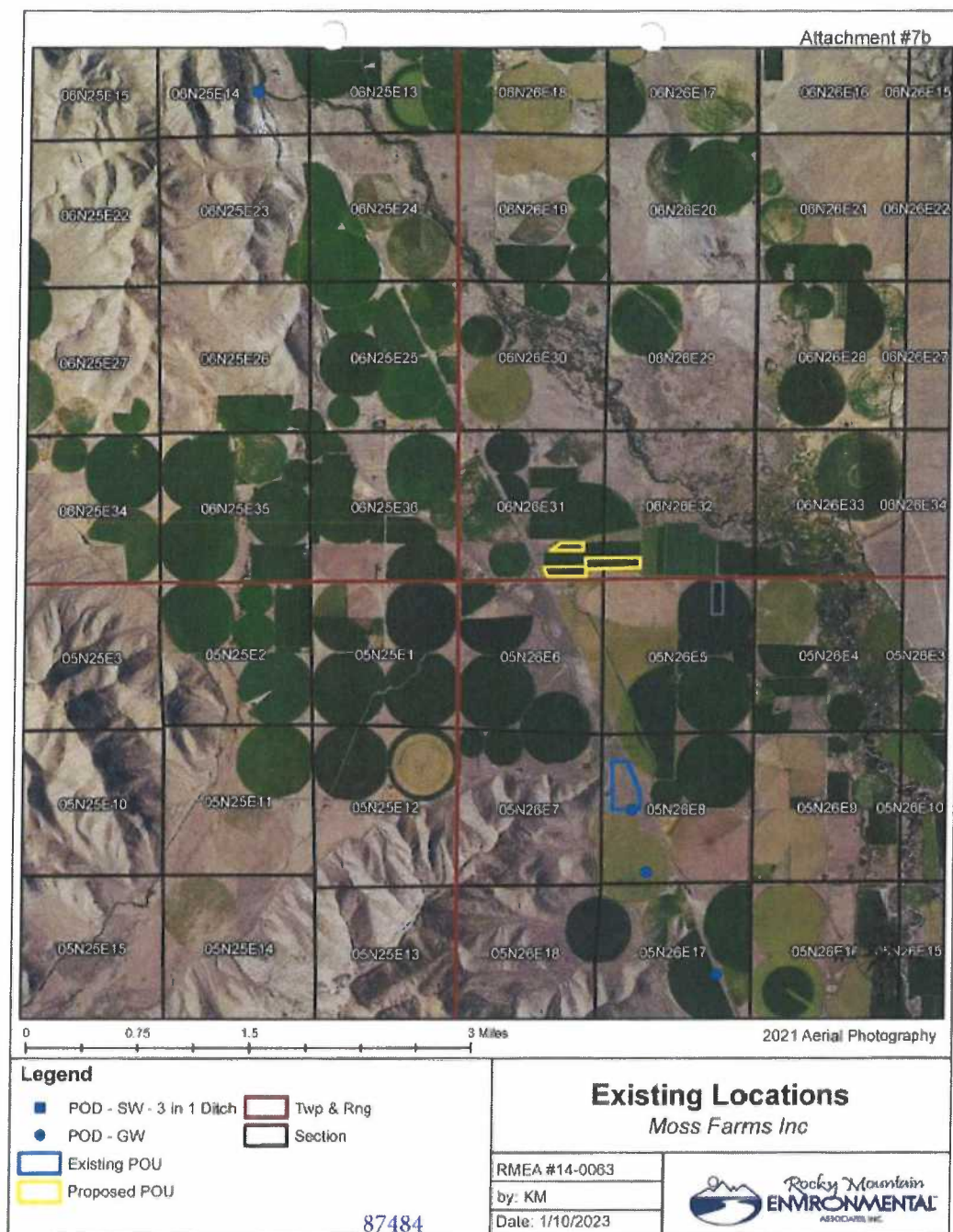


Figure 12. Locations Where the Water Rights Historically Existed.

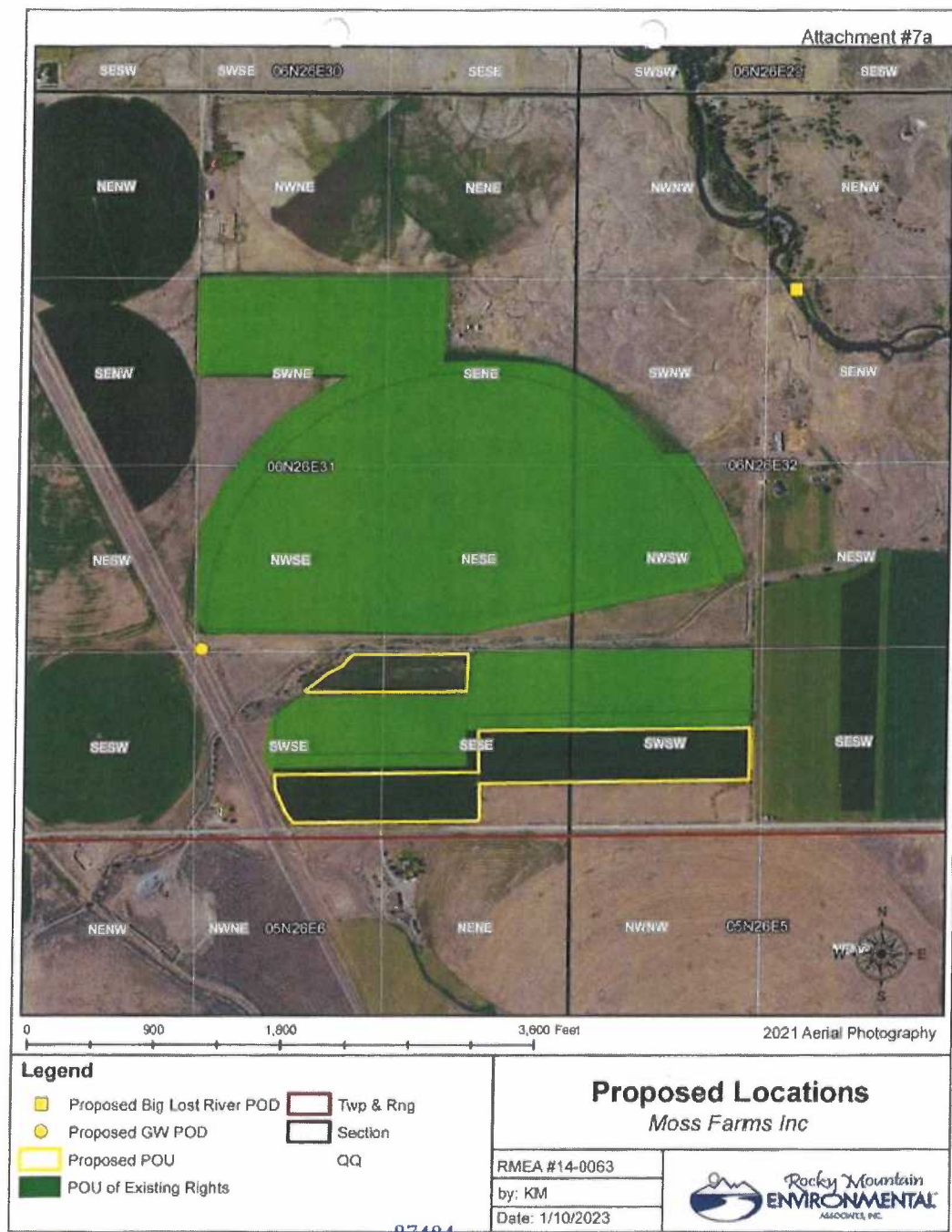


Figure 13. Proposed New Locations.

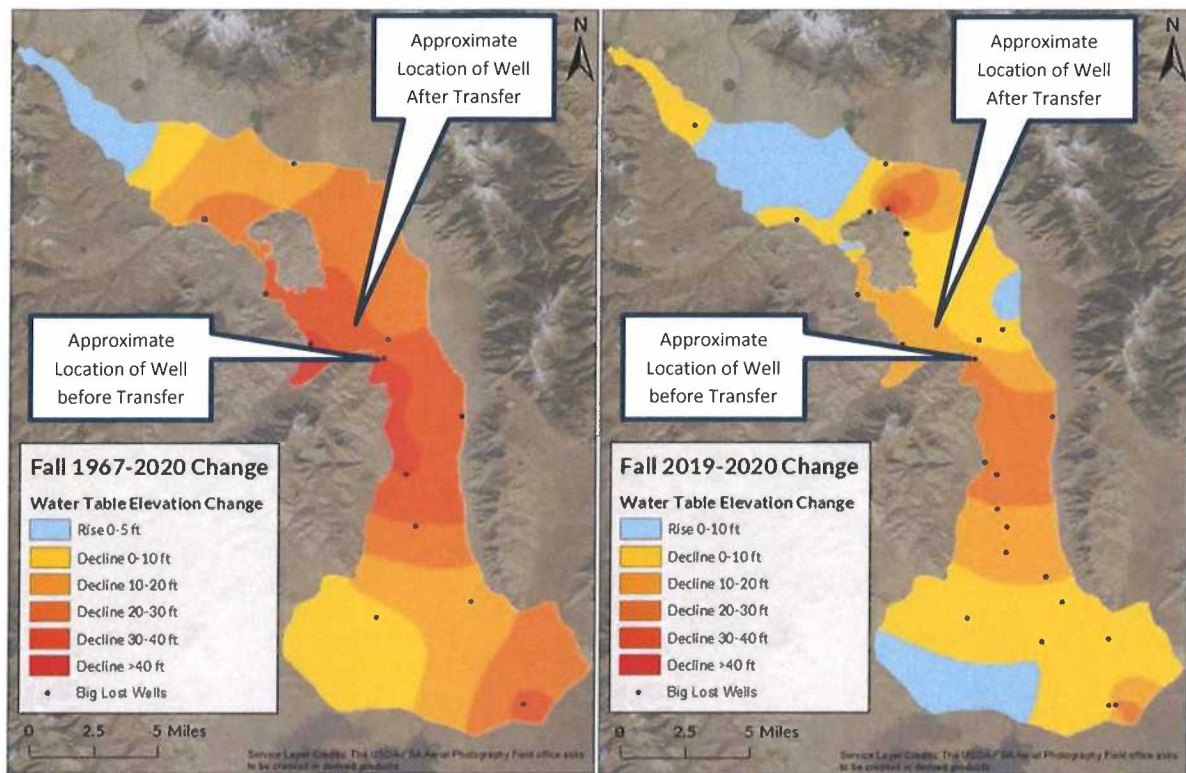


Figure 6 Water table elevation change in the Big Lost River Valley Network wells, fall 1967-2020 (left) and fall 2019-2020. Large ground water level changes are represented in each change map, indicative of the potential for high variation in water levels over time in the Big Lost River Valley.

Figure 14. Water Table Elevation Changes in the Big Lost River Valley, extracted from “Update of Ground Water Conditions in the Big Lost River Valley February 2022 By Gus Womeldorph.”

Summary

Application for Transfer No. 84784 should not be approved. If it is approved, it should be properly conditioned to protect the rights of third parties.