STATE OF SOUTH DAKOTA
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES

WATER MANAGEMENT BOARD

IN THE MATTER OF WATER APPLICATION NO. 2850-2, Elk Mountain Water Users Association, Inc.	))))))	FINDINGS OF FACT, CONCLUSIONS OF LAW, AND FINAL DECISION

This matter came before the South Dakota Water Management Board for hearing on May 3, 2023. Board members James Hutmacher, Peggy Dixon, Rodney Freeman, Tim Bjork, Chad Comes, and Bill Larson were present at the hearing and heard the evidence presented. Applicant Elk Mountain Water Users Association, Inc. (Elk Mountain) was represented by J. Scott James. Petitioners Daniel Stearns and Dalton Stearns were represented by Robert J. Galbraith. Petitioners Tomas and Eraclio Martinez were represented by Matthew E. Naasz. Petitioner Travis Paulton appeared pro se. Ann F. Mines Bailey represented the Department of Agriculture and Natural Resources, Water Rights Program and the Chief Engineer.

The Board, having considered the testimony and exhibits presented and all records and documents on file and having entered its oral decision and rulings on the parties' submissions, now enters the following:

FINDINGS OF FACT

1. On July 7, 2022, Water Rights received Water Permit Application No. 2850-2 on behalf of Elk Mountain seeking an appropriation of 145 acre-

feet of water per year at a maximum diversion rate of 0.333 cubic feet of water per second (cfs) from one well to be completed into the Madison aquifer for use in a water distribution system, for commercial use, and for fire protection in Custer County. The well is to be located in the NW¼ NW¼ Sec. 21 T4S-R1E.

2. The Chief Engineer, Eric Gronlund, recommended approval of the application subject to qualifications.

3. Notice of Water Permit Application No. 2850-2 was timely advertised on September 28, 2022, in the Rapid City Journal and the Custer County Chronicle (Custer County) and posted on the DANR website.

4. Water Rights received timely petitions in opposition to Water Permit Application No. 2850-2 from Dalton Stearns, Daniel Stearns, William and Susan Paulton, Travis Paulton, and Jim and Charol Pitts on October 11, 2022.

5. Water Rights also received a petition in opposition from Tomas and Eraclio Martinez on October 28, 2022, after the deadline. A motion to dismiss the Martinezes was made by Water Rights. Initially, the prehearing chair granted the motion to dismiss; however, upon appeal, the Board determined that the Martinezes should be allowed to participate.

6. The matter was scheduled to be heard by the Water Management Board during its December 7, 2022 meeting. A request for an automatic delay was made and the hearing was rescheduled for the next Board meeting

to be held on March 8, 2023. Due to weather concerns, the hearing was then continued from the Board's March meeting to the May meeting.

7. Water Permit Application No. 2850-2 is a new water permit application which requires a determination pursuant to SDCL § 46-2A-9 whether there is a reasonable probability that unappropriated water is available for the proposed use, whether the proposed use would impair domestic water uses and water rights, whether the use would be a beneficial use, and whether the proposed use is in the public interest pertaining to matters of public interest within the regulatory authority of the Water Management Board.

8. Kim Drennon, a natural resources engineer with Water Rights, reviewed the permit application and performed a technical review of the application. Ms. Drennon provided expert testimony regarding the technical review of the application to the Board.

9. The Madison aquifer is composed of the permeable and saturated portions of the Madison Group which is comprised of limestone and dolomite. It is older and stratigraphically lower than the Greenhorn Formation. The Madison aquifer underlies approximately 210,000 square miles in Montana, Wyoming, North Dakota, and South Dakota. In South Dakota, it underlies approximately 30,000 square miles. Aquifer material in the area of the proposed point of diversion averages a thickness of approximately 400 feet and occurs approximately 1,020 feet below surface. The aquifer is under

confined conditions in the area of the point of diversion with well logs in the area demonstrating an artesian head pressure of approximately 130 feet.

10. The Madison aquifer receives recharge through infiltration of precipitation along the outcrop and from streamflow losses. The best information available calculates that recharge to the Madison aquifer equals 137,000 acre-feet of water per year in South Dakota.

11. Ms. Drennon calculated withdrawals from the Madison aquifer in South Dakota to be approximately 67,554 acre-feet per year, including water reserved by future use permits.

12. Ms. Drennon further testified that there are 25 observation wells completed into the Madison aquifer. A review of the data from those observation wells indicates that the aquifer is responding to climatic conditions and that natural discharge is available for capture.

13. Ms. Drennon testified it is her conclusion that, based upon her review of the best information available regarding recharge to the aquifer, existing water rights, and the observation well data, there is sufficient unappropriated water available to satisfy this application.

14. There are 161 existing water rights/permits currently authorized to withdraw water from the Madison aquifer in South Dakota.

15. Ms. Drennon testified that the nearest existing domestic well on record is located approximately 0.7 miles to the south of the proposed point of diversion and owned by the Martinezes. Based upon the statements and maps presented, it is believed that that domestic well completion report, as

submitted by the well driller, is inaccurate and the well is actually 900 feet from the proposed point of diversion.

16. The nearest existing water right to the proposed point of diversion is approximately 17 miles to the southeast.

17. The closest observation well is approximately 6 miles north of the proposed point of diversion.

18. Ms. Drennon testified that the Madison aquifer is highly transmissive in the area of this application. She furthered her explanation by stating that an aquifer that has high transmissivity will have lower drawdown in nearby wells because the aquifer can recharge the area more quickly.

19. Ms. Drennon concluded that, based upon the relatively low rate of diversion, the high transmissivity of the aquifer, the presence of approximately 130 feet of head pressure in the area, and no previous complaints of interference in the aquifer, there is a reasonable probability that the application could be developed without unlawful impairment to existing rights.

20. Ms. Drennon also testified that the closest springs stemming from the Madison aquifer are located approximately 30 miles southeast of the proposed point of diversion and that it would be highly unlikely that the springs would be affected by this proposed diversion. She further testified that the springs in the vicinity of the proposed point of diversion are not from the Madison aquifer and most likely come from the Minnekahta Formation or other alluvial formations in the area.

21. The Board finds Ms. Drennon to be a credible expert witness and that these Findings of Fact are supported by the evidence presented including Ms. Drennon's testimony and the reports and exhibits which she prepared and/or upon which she relied.

22. The Board also received the testimony of applicant's expert witness, Dan Nebelsick, a civil engineer with DGR Engineering. Mr. Nebelsick assisted Elk Mountain with the design for the project and with submitting the application for a water right. In doing so, Mr. Nebelsick worked with Elk Mountain to estimate the volume of water necessary to meet the proposed uses. Mr. Nebelsick testified that he also performed a technical review.

23. Mr. Nebelsick testified that the Madison aquifer is fully saturated at this location. He further testified that there was unappropriated water available.

24. Mr. Nebelsick additionally testified that the springs in this area do not likely originate from the Madison aquifer given the confining layer and the lack of head pressure in the Madison aquifer even if it could penetrate the confining layer.

25. Mr. Nebelsick also calculated the potential drawdown should the proposed diversion be granted. His calculations demonstrated that if the proposed diversion pumped at its maximum permitted rate of 150 gallons per minute continuously for 24 hours, the drawdown at the Martinez well would range between 3 to 70 feet based upon the range of potential transmissivity rates.

26. The Board finds Mr. Nebelsick to be a credible expert witness and these Findings of Fact are supported by the evidence presented including Mr. Nebelsick's testimony and the exhibits which he prepared and/or upon which he relied.

27. Both Ms. Drennon and Mr. Nebelsick testified that the best information regarding the characteristics of the aquifer in this location and the potential effects of the proposed diversion on nearby wells would be obtained through an aquifer performance test, also referred to at times as an aquifer pump test. Both, however, testified that the best information available are the studies that comprise the Black Hills Hydrology Report and upon which they each relied.

28. John Morgan, president of the Elk Mountain Water Users Association, also offered testimony to the Board. Additionally, Mr. Morgan is a member of the volunteer fire department. Mr. Morgan testified how the Highlands Fire Department currently obtains water from Newcastle, approximately 18 miles away, to fight fire. Mr. Morgan testified about the water needs and anticipated use of the water by the residents in the area.

29. The Board also received testimony from Luke Caster. Mr. Caster testified that he lives in the area and is the chief of the Highlands Fire Department. Mr. Caster testified that while there is water storage around the area, having this water permit would reduce the travel time. Mr. Caster also testified regarding the history of fires in the area and opined that the fires in recent times have been larger than those in the past.

30. Kent Keidel also provided testimony to the Board. Mr. Keidel lives in the area of the proposed diversion. He testified that the water is needed and that the sources currently available are not reliable.

31. Eraclio Martinez testified before the Board. His family owns and operates the Martinez Ranch located adjacent to the proposed point of diversion. Mr. Martinez testified that their well is located approximately 900 feet from the proposed point of diversion. Mr. Martinez testified that the well is the main water supply for his family and his father's family as well as the cattle and horses which they manage on the ranch. He expressed concerns that his well would be impacted by the proposed diversion.

32. Travis Paulton, a cattle rancher, local landowner and professional wildland firefighter, also provided testimony to the Board. Mr. Paulton testified that his ranch relies on their well which is completed into the Madison aquifer and located 4.7 miles south of the proposed point of diversion. Mr. Paulton expressed his concerns regarding the amount of water requested by this proposed diversion and his belief that the amount of water requested is greater than what is needed.

33. Shaun Pitts additionally provided testimony to the Board regarding his involvement with the Highlands Fire Department, including his family's provision of equipment and water for the fighting of fires in the area. Mr. Pitts further testified regarding the presence of a commercial well in the area that is available to the public for the purchase of water.

34. The Board also received testimony from Dalton Stearns. Mr. Stearns testified regarding the locations of a number of different homes, wells, and water sources. Mr. Stearns also testified that his ranching operation and family rely on the Madison aquifer well on his land. Mr. Stearns described the reliance of his family and others upon the springs and surface waters located on his land and his leased land and the effects that would be felt should those sources go dry. He further expressed his concerns about this project and its use of public funds and the amount of water requested.

35. Mr. Daniel Sterns also testified before the Board. Mr. Stearns testified that he owns land in the area of the proposed diversion. Mr. Stearns testified about the springs on his land and in the vicinity and the testing of the water which he had performed.

36. Petitioners did not submit sufficient evidence through expert opinions, testimony, or other evidence that would support a determination that there is not a reasonable probability that there is unappropriated water available, that there would be an unlawful impairment should the application be granted, that this appropriation is not a beneficial use of water, or that it is not in the public interest.

37. The springs mentioned by petitioners are not sourced from the Madison aquifer and most likely sourced from the Minnekahta Formation.

38. The best information reasonably available regarding the Madison aquifer is the Black Hills Hydrology Report.

39. The Board finds that based upon the best information reasonably available, the factors of SDCL § 46-2A-9 are satisfied.

40. The evidence establishes that there is unappropriated water available in the Madison aquifer to satisfy this application.

41. The evidence establishes the proposed diversion would not unlawfully impair existing water rights or domestic water uses.

42. The Board further finds that the proposed uses of the water for a water distribution system, commercial use, and fire suppression constitute beneficial uses.

43. The Board further finds that placing the water to these beneficial uses is in the public interest.

44. Any finding of fact more properly designated as a conclusion of law shall be treated as such.

Based on the foregoing Findings of Fact, the Board makes the following Conclusions of Law:

CONCLUSIONS OF LAW

1. The Board has jurisdiction over this matter. The application falls within the Board's responsibility over water appropriation and regulation in Title 46.

2. Publication was properly made, and the Notices of Hearing were properly issued pursuant to SDCL § 46-2A-4.

3. The Chief Engineer recommended granting the application. The recommendation, however, is not binding on the Board. SDCL § 46-2A-4(8).

4. The applicant is required to satisfy each of the factors set forth in SDCL § 46-2A-9.

5. The Board concludes that the applicant has satisfied each of the factors set forth in SDCL § 46-2A-9.

6. South Dakota Codified Law, section 46-2A-9 provides that a permit to appropriate water may be issued "only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board as defined by §§ 46-2-9 and 46-2-11." Each of these factors must be met and the permit must be denied if the applicant does not meet its burden of proof on any one of them.

7. The first factor for consideration under SDCL § 46-2A-9 is whether there is water available for the appropriation. Determination of water availability includes consideration of the criteria in SDCL § 46-6-3.1 pertaining to recharge/withdrawal: whether "according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source."

8. South Dakota Codified Law, section 46-6-3.1 provides an exception to the recharge/withdrawal limitation. It states in pertinent part, "[a]n application may be approved, however, for withdrawals of groundwater from

any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the estimated average annual recharge for use by water distribution systems." The Madison aquifer is older and stratigraphically lower than the Greenhorn Formation. Additionally, the permit is for use in a water distribution system. Thus, the appropriation may be granted even if the withdrawal would exceed the estimated annual recharge.

9. Nonetheless, the Board concludes it is not probable withdrawals from the aquifer would exceed recharge to the aquifer in violation of SDCL § 46-6-3.1 if the application is granted.

10. The Board concludes there is a reasonable probability that there is unappropriated water available to fulfill the amount requested by the application.

11. The second requirement of SDCL § 46-2A-9 is that the proposed water use may not unlawfully impair existing domestic uses and water rights. The proposed diversion can be developed without unlawful impairment of existing water rights or domestic water uses.

12. The Board concludes that artesian head pressure is not a protected means of delivery.

13. The third element set forth in SDCL § 46-2A-9 is whether the use of water would be a beneficial use: one that is reasonable and useful and beneficial to the appropriator and also consistent with the interest of the public in the best utilization of water supplies under SDCL § 46-1-6(3). The proposed

uses (water distribution system, commercial use, and fire suppression) are beneficial uses.

14. The fourth requirement of SDCL § 46-2A-9 concerns the public interest. The proposed use of the water must be "consistent with the interests of the public of this state in the best utilization of water supplies." SDCL § 6-1-6(3). The Board concludes that appropriating water for use in a water distribution system, commercial use, and fire suppression is in the public interest.

15. Any conclusion of law more properly designated as a finding of fact shall be treated as such.

FINAL DECISION

Water Rights filed Proposed Findings of Fact and Conclusions of Law and Decision and Intervenors Tomas and Eraclio Martinez (Intervenors") filed limited objections. In compliance with SDCL § 1-26-25, the Proposed Findings of Fact and Conclusions of Law are accepted, modified, or rejected as follows:

Proposed Findings of Fact

The facts set forth in Water Rights proposed Findings of Fact are accepted as proposed.

Intervenors objected to Findings Paragraph 19 as incomplete. Intervenors stated: "Ms. Drennon agreed that an aquifer performance test would provide the best information with which to determine whether the application could be developed without unlawful impairment of the Martinez

Well." No alternative finding of fact was proposed and this statement does not affect the fact set forth in Paragraph 19.

Intervenors objected to Findings Paragraph 27 as incomplete. Intervenors stated: "The undisputed testimony from both expert witnesses was that an aquifer performance test would be the best information upon which to base an opinion as to whether the proposed diversion would impair nearby existing diversions from the Madison aquifer." No alternative finding of fact was proposed and this statement does not affect the fact set forth in Paragraph 27.

Intervenors objected to Findings Paragraph 31 as incomplete. Intervenors stated: "Mr. Martinez also testified that the Martinez well, which is located approximately 900 feet from the proposed point of diversion, is a Madison aquifer well. This testimony was not disputed by either the Water Rights Program or the applicant." No alternative finding of fact was proposed and this statement does not affect the fact set forth in Paragraph 31.

Intervenors objected to Findings Paragraph 41 as incomplete. Intervenors stated: "The evidence elicited at the hearing on this matter establishes that an aquifer performance test would be the best information available to determine whether the proposed diversion would unlawfully impair domestic water uses." No alternative finding of fact was proposed and this statement does not affect the fact set forth in Paragraph 41.

Proposed Conclusions of Law

Intervenors objected to Conclusions Paragraph 11. Intervenors stated: "Without an aquifer performance test, given the proximity of the proposed

diversion to the Martinez well, the evidence does not establish that the proposed diversion can be developed without impairment of the Martinez well. For that reason, this application should be denied until such time as an aquifer performance test is completed and evaluated by the water rights program." This is an opinion stated by the Intervenors that is not supported by the evidence presented or the policies and procedures of the Water Rights Program which focuses on the best evidence *available* when reviewing an application

Based on the foregoing Findings of Fact and Conclusions of Law, the Board enters its determination that Water Permit Application No. 2850-2 is granted with a priority date of July 7, 2022, and the following qualifications:

1. In accordance with SDCL §§ 46-1-14 and 46-2A-20, Permit No. 2850-2 is issued for a twenty-year term. Pursuant to SDCL § 46-2A-21, the twenty-year term may be deleted at any time during the twenty-year period or following its expiration. If the twenty-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2850-2 may also be cancelled for non-construction, forfeiture, abandonment or three permit violations pursuant to SDCL §§ 46-1-12, 46-5-37.1 and ARSD 74:02:01:37.

2. The well will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under the Permit, shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

3. The well authorized by Permit No. 2850-2 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

4. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Madison aquifer.

5. Water Permit No. 2850-2 appropriates up to 145 acre-feet of water annually.

Dated this _____ day of July, 2023.

BY THE BOARD:

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South Dakota Water Management Board