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MINUTES OF THE 248TH MEETING
OF THE WATER MANAGEMENT BOARD
FLOYD MATTHEW TRAINING CENTER
523 EAST CAPITOL AVENUE
PIERRE, SOUTH DAKOTA
MARCH 6, 2024

CALL TO ORDER AND ROLL CALL: Chairman William Larson called the meeting to order at 9:30 a.m. Central Time. A quorum was present.

Motion by Holzbauer, seconded by Freeman, to appoint Peggy Dixon as Acting Chair. Motion carried.

Acting Chair Dixon announced that the meeting was streaming live on SD.net, a service of South Dakota Public Broadcasting.

The following attended the meeting:

Board Members: William Larson, Rodney Freeman, Tim Bjork, and Chad Comes attended remotely. Peggy Dixon and Leo Holzbauer attended in-person. Jim Hutmacher was absent.

Department of Agriculture and Natural Resources (DANR): Eric Gronlund, Chief Engineer, Ron Duvall, Amanda Dewell, Adam Mathiowetz, Whitney Kilts, Nakaila Steen, Mark Rath, and Brittan Hullinger, Water Rights Program; Mark Mayer, Director, Office of Water.

Attorney General's Office: David McVey, board counsel; Jennifer Verleger, Water Rights Program counsel.

Court Reporter: Carla Bachand, Capital Reporting Services.

Water Permit Application Nos. 479A-2 and 485A-2, Rockerville Gold Town LLC: Dean Bell.

Water Permit Application No. 8787-3, Cheryl E. Nelson: Cody Honeywell, Joel Toso, Gary Schumacher, Deanna Archer, Sharleen Eliason, Steve Mikkelsen, Dan Bloodgood, Larry Goebel, Dale Goebel, Kathy Miller, and Violet Hines.

ADOPT FINAL AGENDA: Motion by Comes, seconded by Larson, to adopt the agenda. Motion carried unanimously.

CONFLICT DISCLOSURES AND REQUESTS FOR STATE BOARD WAIVERS: None.

ADOPT DECEMBER 6, 2023, MINUTES: Motion by Freeman, seconded by Bjork, to approve the minutes of the December 6, 2023, Water Management Board meeting. Motion carried

unanimously.

SET MAY 8-9, 2024, MEETING LOCATION: Motion by Holzbauer, seconded by Bjork, to hold the May 8-9, 2024, meeting in Pierre.

Chairman Larson noted that due to his court schedule, he will not be able to attend the May meeting.

The motion carried unanimously.

PUBLIC COMMENT PERIOD IN ACCORDANCE WITH SDCL 1-25-1: Jay Gilbertson, East Dakota Water Development District, commented on Missouri River issues, proposed large water distribution projects, and tribal water rights.

STATUS AND REVIEW OF WATER RIGHTS LITIGATION: David McVey reported that the two Water Management Board decisions on McCook Lake Recreation Area Association's declaratory ruling request and Dakota Bay's water permit application were appealed to the First Judicial Circuit Court. Both matters have been fully briefed, and oral arguments are scheduled for April 9, 2024.

UPDATE ON DANR ACTIVITIES: Eric Gronlund, Chief Engineer, Water Rights Program, reported Jeanne Goodman, who was the DANR deputy secretary and the director of the Office of Water, retired last June. Mark Mayer was recently appointed the director of the Office of Water, Mark McIntire was appointed administrator of the Drinking Water Program, and Brian Walsh was appointed DANR deputy secretary.

Mr. Gronlund discussed the Federal Emergency Management Agency (FEMA) High Hazard Potential Dam grant program (HHPD). The 2016 Water Infrastructure Improvements for the Nation Act created the HHPD grant for technical, planning, design, and construction assistance for rehabilitation of eligible high hazard potential dams. FEMA recently designated approximately $550,000,000 to be distributed over three grant cycles. Approximately $185,000,000 is available for the FFY 2024 HHPD grant cycle.

South Dakota recently completed Part 1 of the grant application process with the intent of securing funding for rehabilitation of the Richmond Dam owned by School and Public Lands, and Marindahl Dam owned by Game, Fish and Parks. The South Dakota DANR is the state administrative agency overseeing the application process and grant administration. DANR expects to hear from FEMA in April regarding the amount of the grant award. Part 2 of the grant process requires DANR to submit the scope of work by July 31, 2024. The funding will be released in October 2024.

Mr. Gronlund reported that in 2022 the legislature appropriated $6,500,000 for the Richmond Dam project. At that time, spillway replacement was proposed. It was later discovered that there is a severe seepage problem with the dam, which escalated the cost of repair to approximately $20,000,000 to $24,000,000. The 2024 legislature approved an additional $3,150,000 for the rehabilitation of Richmond Dam. Also approved was House Bill 1064, which provided

approximately $2,000,000 for the completion of work on Lake Alvin and Newell Lake.

In the 2024 Legislative Session, House Bill 1209 would have appropriated money to reconstruct Custer West Dam. Senate Bill 153 would have appropriated money to Game, Fish and Parks to improve and repair infrastructure around Lake Hiddenwood. Both bills were deferred to the 41st legislative day.

Also in the 2024 Legislative Session, House Bill 1128 requires a zoning authority to determine that a well is an established well that has not been abandoned when making a permitting decision. The bill defines an abandoned well and an established well. The bill provides that a well that is either abandoned or not established, or both, must not be used as a basis for denial of the zoning determination. The bill, in part, was brought in response to several county zoning decisions relating to the siting of new concentrated animal feeding operations. This bill is in Chapter 11, Section 2 of Codified Law, which is county planning and zoning. DANR provided input on the bill to ensure it would not impact any of the department's regulatory authority in Title 46, which are the Water Rights statutes. The bill was signed by the Governor.

Mr. Gronlund answered questions from the board.

ADMINISTER OATH TO DANR STAFF: The court reporter administered the oath to DANR staff who were present and intended to testify during the meeting.

APPOINTMENT OF RAPID VALLEY WATER MASTER: Nakaila Steen, DANR Water Rights Program, reported the Rapid Valley Conservancy District had requested that Kevin Ham be appointed as the Water Master for the 2024 irrigation season for the Rapid Creek area. Mr. Ham has been Water Master since 2005.

Motion by Freeman, seconded by Larson, to appoint Kevin Ham as the Rapid Valley Conservancy District Water Master for the 2024 irrigation season. Motion carried unanimously.

SEVEN YEAR REVIEW OF FUTURE USE PERMITS: A table listing the future use permits up for a seven-year review was included in the packet the board members received prior to the meeting. Certain entities such as water distribution systems, municipalities and rural water systems can reserve water for future needs.

State law requires that future use permits be reviewed by the Water Management Board every seven years, and it requires the permit holder to demonstrate a reasonable need for the future use permit.

Amanda Dewell reported that the Water Rights Program contacted each of the entities inquiring whether the entity wanted to retain the future use permit. The letters received from the entities requested to retain their future use permits, the Chief Engineer's recommendations, and the Affidavits of Publication showing that the hearing was public noticed were included in the board packet. No letters in opposition were received in response to the public notices.

The chief engineer recommends that the board allow the following Future Use Permits to remain in effect for an additional seven years, as listed below.

No.	Name	Amount Remaining in Reserve	Source
1443-2	West Dakota Water Development District	10,000 AF	Missouri River/Oahe Reservoir
5219-3	City of Canton	1,175 AF	Dakota Aquifer

Motion by Holzbauer, seconded by Comes, that the future use permits shown in the table remain in effect for the amounts listed. A roll call vote was taken, and the motion carried unanimously.

CANCELLATION CONSIDERATIONS: A table listing the proposed cancellations, the notices of cancellation, and the chief engineer's recommendations were included in the packet the board members received prior to the meeting.

Ms. Dewell stated that 21 water rights and water permits were scheduled for cancellation. The owners were notified of the hearing and the reasons for cancellation. The department received no comments or letters in response to the notices of cancellation.

The chief engineer recommended cancellation of the following water rights and water permits for the reasons listed.

Number	Original Owner	Present Owner(s) and Other Persons Notified	Reason
DIVISION II WATER RIGHTS/PERMITS			
RT 408-2	Miles Dejong	Same	Abandonment/Forfeiture
DIVISION III WATER RIGHTS/PERMITS			
RT 1984-3	Gerald Elsinger	Same	Abandonment/Forfeiture
RT 3952-3	Kendall Peterson	Same	Abandonment/Forfeiture
RT 4472-3	Darrel Biddle	Same	Abandonment/Forfeiture
RT 4762-3	Graham Aviation LLC	City of North Sioux City c/o Eric Christensen	Abandonment/Forfeiture
RT 5391A-3	Ralph & Lucille Marquardt	Maxwell Httn Brethren c/o Mark Hofer	Abandonment/Forfeiture
RT 6658-3	Dakota Raptor LLC c/o Adam Koplin	Same	Abandonment/Forfeiture
PE 6744-3	Judith Grant	Darrell & Michelle Lindner	Abandonment/Forfeiture

PE 7319-3	Graham Aviation LLC	City of North Sioux City c/o Eric Christensen	Abandonment/Forfeiture
PE 7539-3	Daniel Hauck	Same	Non-Construction
PE 7542-3	RT Investments 2001 LLC c/o Danny Hofer	Same	Non-Construction
PE 7604-3	Melius Farm & Feedlot c/o Keith Melius	Same	Non-Construction
PE 7605-3	Melius Farm & Feedlot c/o Keith Melius	Same	Non-Construction
PE 7707-3	John H Derksen	Same	Non-Construction
PE 7708-3	John H Derksen	Same	Non-Construction
PE 7990-3	Robert Walsh	Same	Non-Construction
PE 8007-3	Louis Latendresse	Joan Latendresse	Non-Construction
PE 8039-3	Grohs Farms Partnership c/o Todd Grohs	Same	Non-Construction
PE 8055-3	Tarn Viera	Same	Non-Construction
PE 8180-3	Zochert Farms Inc c/o Neil Zochert	Same	Non-Construction
PE 8608-3	Dennis & Wayne Fischer	David & Judy Grenz	Abandonment/Forfeiture

Motion by Freeman, seconded by Larson, to accept the chief engineer's recommendations for cancellation of the 21 water rights and water permits for the reasons listed in the table. A roll call vote was taken, and the motion carried unanimously.

IRRIGATION QUESTIONNAIRE VIOLATIONS FOR FAILURE TO REPORT 2023 WATER USE: Ms. Dewell presented the report on irrigation questionnaire violations.

On October 20, 2023, irrigation questionnaires were mailed by first class mail to 1,992 irrigators for reporting water use for the 2023 irrigation season. The permit holders were given until December 4, 2023, to return the forms. The cover letter included the three options for how questionnaires could be completed and returned. The three options for returning the irrigation forms are online, which is the preferred method, by mail, or by fax.

On January 19, 2024, 142 notices were mailed by first class mail to those irrigators who had not returned the irrigation questionnaires. Additional questionnaire forms were included with the mailing.

The January 19, 2024, notice advised permit holders that the Water Management Board may take one or more of the following actions regarding their permit(s) pursuant to SDCL 46-1-12 and SDCL 46-1-14:

- The permit(s) could be suspended for a period of up to one year (first violation) or

a period of up to three years (second violation – includes one previous suspension).

- The permit(s) could be cancelled (third violation – includes at least two previous suspensions).

- The permit(s) could be amended to include the mandatory irrigation questionnaire qualification.

- The board could postpone any action or take no action.

The Water Rights Program recommended that the board take the following action for permits with irrigation questionnaires not received by March 6, 2024:

Suspend Water Right 4687-3A, James L. Sutton, for one year (Violation 1) effective April 8, 2024, unless the questionnaire is received prior to the effective date,

Suspend Water Right 1530-2, Vern Keszler (deceased) Alvin Keszler, operator, for three years (Violation 2) effective April 8, 2024, unless the questionnaire is received prior to the effective date; and

Amend the Water Right 4687-3B, James L. Sutton Jr. to include the mandatory irrigation questionnaire qualification (Violation A) effective March 6, 2024.

Motion by Freeman, seconded by Comes, to suspend Water Right 4687-3A for one year effective April 8, 2024, unless the questionnaire is received prior to the effective date, to suspend Water Right 1530-2, Vern Keszler (deceased) Alvin Keszler, operator, for three years effective April 8, 2024, unless the questionnaires are received prior to the effective date, and to amend the Water Right 4687-3B, James L. Sutton Jr. to add the Irrigation Questionnaire qualification effective March 6, 2024. Motion carried unanimously.

UNOPPOSED NEW WATER PERMITS ISSUED BY THE CHIEF ENGINEER WITHOUT A HEARING BEFORE THE BOARD: Prior to the meeting, the board received a copy of the table listing the unopposed new water permits issued by the chief engineer. See attachment.

NEW WATER PERMIT APPLICATIONS: The pertinent qualifications attached to approved water permit applications throughout the hearings are listed below:

Well Interference Qualification
The well(s) approved under this permit will be located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

Well Construction Rule Qualification
The wells authorized by Permit No. _____ shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with 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.

Irrigation Water Use Questionnaire Qualification
This permit is approved subject to the irrigation water use questionnaire being submitted eachyear.

Low Flow Qualification
Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

CONSIDER WATER PERMIT APPLICATION NO. 8803-3, JEFFREY THOMPSON: Whitney Kilts, engineer with the Water Rights Program, presented her report on the application.

Water Permit Application No. 8803-3 proposes to irrigate 116 acres at a maximum instantaneous diversion rate of 1.78 cubic feet of water per second (cfs) from one well approximately 28 feet deep to be completed into the Big Sioux: Middle Skunk Creek aquifer. The well and acres to be irrigated are in the NE ¼ Section 29-T104N-R50W, Minnehaha County, approximately three miles east of Colton, SD.

The application requested a diversion rate greater than the statutory limit of one cfs per 70 acres. Based on the map provided with the application, the center pivot being proposed appears to do a partial rotation due to a building site. Center pivot irrigation systems typically require a certain diversion rate to operate properly, whether making a partial or full rotation. This reason has been accepted in the past by the Water Management Board and the Water Rights Program to justify the diversion rate greater than the statutory limit.

The Big Sioux: Middle Skunk Creek aquifer is a shallow, glacial aquifer that underlies a portion of the Skunk Creek flood plain and portions of the Western Skunk Creek flood plain in western Minnehaha County and a small portion of southwestern Moody County. The estimated recharge area is 17,417 acres. The recharge rate to this aquifer was estimated by Hedge's 1985 study of recharge to aquifers in eastern South Dakota, which used observation well analysis to estimate recharge to be 3.2 inches per acre. That results in recharge to the aquifer of 4,644 acre-feet per year, on average.

Domestic use is not considered to be a significant part of the hydrologic budget for the aquifer. The budget focused on looking at withdrawals due to appropriative users. There are 13 water rights and one future use permit from this aquifer, with the future use permit being held by the City of Sioux Falls.

For the report, withdrawals were estimated using two different methods, the difference between the two methods being the estimated use by the City of Sioux Falls, which is the biggest user in the aquifer. For non-irrigation permits limited solely by a diversion rate, 60 percent of pumpage was estimated as their average annual use. For non-irrigation permits limited by an annual volume, full use of that annual volume was assumed. For future use permits, full development of the future use permit was assumed. The estimated total average annual withdrawals were 5,541 acre-feet per year.

The second methodology used differed only in how the use by the City of Sioux Falls under their water rights for this aquifer was looked at. For that methodology, the average reported pumping by the City of Sioux Falls was utilized. The department has 26 years of reported data for the city's pumping, which is shown in Table 2 on page 7 of the report. That pumping, on average, was only 30 percent of the city's annual volume limit for their permits within this aquifer, which lead to an estimated water use of 2,134 acre-feet per year.

Ms. Kilts stated that the Chief Engineer focused on average withdrawals when making his recommendation. Estimated average annual use for this application is 97 acre-feet per year.

Observation well data shows that at the current level, withdrawals are not likely exceeding recharge on an aquifer-wide scale. However, the historic observation well data does not represent the development of the future use permit from this aquifer or the fact the City of Sioux Falls is currently, on average, only pumping approximately 30 percent of their total permitted annual volume allocation from the aquifer.

The proposed well site for this application is within the future use area for the City of Sioux Falls. The saturated thickness of the aquifer in some locations can be limited in dry years, however, given the details in the report, Ms. Kilts concluded that it is unlikely that nearby adequate wells would be unlawfully impaired by this application.

The Chief Engineer recommended approval of the application with the following qualifications:

1. The well approved under Water Permit No. 8803-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

2. The Water Management Board retains jurisdiction of Water Permit No. 8803-3 to manage use of water from the Big Sioux: Middle Skunk Creek aquifer. Based on the historical average water use, unappropriated water is available. However, if the average use increases and begins to unlawfully impair senior water right holders or domestic water users with adequate wells, then curtailment of water use under this Permit may be necessary.

3. The well authorized by Permit No. 8803-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with 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. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 8803-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 116 acres with an annual volume not to exceed two acre-feet of water per acre per year.

5. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

Mr. Gronlund stated that this application was scheduled to be heard by the board due to water rights factoring in the underutilized portion of the City of Sioux Falls' water rights from the Middle Management Unit of the Big Sioux aquifer. If Sioux Falls were fully utilizing its appropriation from the aquifer, withdrawals would exceed recharge and conflict with SDCL 46-6-3.1. However, the city has historically only used 30 percent of its appropriative limit, so water is available in the hydrologic budget at the current time. Mr. Gronlund noted that does not mean that the City of Sioux Falls' water rights from the Middle Skunk Creek are subject to cancellation for abandonment or forfeiture because there is a board rule that allows for exceptions to the non-use of water if the entity is maintaining that for fire protection or standby uses.

Mr. Gronlund noted that SDCL 46-1-4 requires that water resources of the state be put to beneficial use to the fullest extent of which they are capable. In this instance, since this portion has not historically been utilized, but is not subject to cancellation, the Water Rights Program crafted Qualification Number 2, such that the board retains jurisdiction to manage use of water resources in the aquifer and the water can be, in the future, curtailed if average use of water in the aquifer increases. The Water Management Board has the authority to place these types of qualifications based on SDCL 46-1-14.

No petitions in opposition to the application were received in response to the public notice.

Mr. Gronlund answered questions from the board about temporary use permits and Qualification Number 2.

Motion by Bjork, seconded by Larson, to approve Water Permit Application No. 8803-3, Jeffrey Thompson, subject to the qualifications set forth by the Chief Engineer. Motion carried unanimously.

CONSIDER WATER PERMIT APPLICATION NOS. 479A-2 AND 485A-2, ROCKERVILLE GOLD TOWN LLC: Nakaila Steen, engineer with the Water Rights Program presented her reports for Water Permit Application Nos. 479A-2 and 485A-2, submitted by Rockerville Gold Town LLC.

Water Permit Application No. 479A-2 proposes to amend Water Right No. 479-2 to add additional types of water use and an additional well with no increase in the amount of water appropriated by the original water right. Water Right No. 479-2 authorizes the appropriation of 64.5 acre-feet of water per year at a diversion rate of 0.09 cfs (approximately 40 gpm) from two wells completed into the Crystalline Rock aquifer for commercial use year-round. Water Right No. 479-2 has a June 6, 1953, priority date.

The application proposes to add the existing third well completed into the Crystalline Rock aquifer (52 feet deep) and requests use of water for rural water system, domestic, water distribution system, commercial, and residential purposes. If approved, Water Permit Application No. 479A-2 and Water Right No. 479-2 will collectively authorize the appropriation of 64.5 acre-feet of water

per year at a maximum diversion rate of 0.09 cfs (approximately 40 gpm) from three wells completed into the Crystalline Rock aquifer for commercial, rural water system, domestic, water distribution system, and residential purposes.

Water Permit Application No. 485A-2 proposes to amend the period of annual use for Water Right No. 485-2 to allow for year-round water use and add additional types of water use with no increase in the amount of water appropriated by the original water right. Water Right No. 485-2 authorizes the appropriation of 16.1 acre-feet of water per year at a diversion rate of 0.066 cfs (approximately 30 gpm) from one well completed into the Crystalline Rock aquifer for commercial use. Water Right No. 485-2 has a May 1, 1958, priority date.

With the amendment proposing year-round use, Water Permit Application No. 485A-2 stipulates that use of water outside of the May through August timeframe is subject to existing water rights with priority dates predating the approval date of Water Permit Application No. 485A-2, if the application is approved. The application identifies uses of water for rural water system, domestic, water distribution system, commercial, and residential purposes.

If approved, Water Permit Application No. 485A-2 and Water Right No. 485-2 will collectively authorize the appropriation of 16.1 acre-feet of water per year at a maximum instantaneous diversion rate of 0.066 cfs (approximately 30 gpm) from one well completed into the Crystalline Rock aquifer for commercial, rural water system, domestic, water distribution system, and residential purposes year-round.

The location of both applications is Rockerville, SD in Pennington County.

Ms. Steen stated that the criteria for granting an amendment of a water right set forth in SDCL 46-2A-12 and 46-5-30.4 and includes: the amendment may not increase the rate of diversion or increase the volume of water appropriated, unlawfully impair existing rights, must be for a beneficial use, and in the public interest.

The Crystalline Rock aquifer consists of many localized aquifers within the Precambrian-aged, crystalline core of the Black Hills and Tertiary-aged igneous rocks, where extensive fractures and weathering zones allow for the transmission of water. The crystalline rocks that comprise the aquifer have very low primary porosity, so water movement in the aquifer is controlled by secondary porosity, where groundwater flows through fractures and faults. The nature of secondary porosity is highly variable and unpredictable; therefore, local aquifer characteristics are site specific. The Crystalline Rock aquifer is estimated to have an outcrop area of approximately 574,000 acres.

Figure 1 on page three in the reports, displays a map of the Crystalline Rock aquifer water rights/permits within approximately two miles of the existing wells proposed to be used by these applications.

No water well or test hole completion report were submitted with Water Permit Application Nos. 479A-2 or 485A-2 for the existing wells proposed to be used. Water well completion reports on file with the Water Rights Program for wells completed into the Crystalline Rock aquifer within

approximately one mile of the existing wells have depths ranging from 25 to 600 feet, with an average depth of approximately 265 feet.

While the formations in the Crystalline Rock aquifer are older and stratigraphically lower than the Greenhorn Formation and the applicant's proposed use is for use in a water distribution system as defined by SDCL 46-1-6(17), other use types including domestic, commercial, residential, and rural water system uses for these wells are proposed.

Although, these applications are not proposing to increase the amount of water appropriated by Water Right Nos. 479-2 or 485-2, a comparison of average annual recharge to average annual withdrawal from the Crystalline Rock aquifer was presented in the reports for the information of the Chief Engineer and the Water Management Board.

Recharge to the Crystalline Rock aquifer is primarily through the infiltration of precipitation and streamflow losses. There is no estimated average annual recharge rate available for the localized Crystalline Rock aquifer of interest. However, to provide a general sense of minimum and maximum recharge to the aquifer, Driscoll and Carter's 2001 study estimated a minimum recharge rate of 3,600 acre-feet per year, or 0.07 inches per year. Due to the transient and variable nature of the recharge conditions, this number may not necessarily be reliable. Additionally, the average annual recharge rate must be much greater to account for losses from the Crystalline Rock aquifer to streamflow. Utilizing average annual yield potential, Driscoll and Carter (2001) provided a general sense of an upper limit on a possible recharge rate to the Crystalline Rock aquifer ranging between approximately 1 to 2 inches per year.

Discharge from the Crystalline Rock aquifer is primarily through well withdrawals, seepage to streams, and evapotranspiration where the static water level of the aquifer is at or near the ground surface.

Figure 1in the report shows the existing wells proposed to be used by these applications, Water Right Nos. 479-2, 483-2, 485-2, 2211-2, 2345-2, and 2731-2, and Water Permit Nos. 2805-2 and 2823-2, are separated from the other nearby water rights/permits by several faults. The estimated average annual withdrawal rate from the localized Crystalline Rock aquifer of interest, by the currently authorized water rights/permits (including the estimated use for Water Permit Application Nos. 479A-2 and 485A-2, if approved), is approximately 193 acre-feet per year.

A domestic use withdrawal rate was estimated to give a sense of scale to local domestic use from the Crystalline Rock aquifer. There were 42 domestic wells identified within a one-mile radius of the existing wells proposed to be used in these applications. Assuming 0.2 acre-feet per year for each rural dwelling within a one-mile radius equates to a withdrawal rate of approximately 8.4 acre-feet per year. When applying that withdrawal rate to only the ten existing domestic wells within a quarter mile, it equates to approximately two acre-feet per year.

The Water Rights Program monitors two observation wells that have been historically considered as completed into the Crystalline Rock aquifer. It was determined one of the observation wells is open to both the Deadwood Formation and the Crystalline Rock, so it is uncertain how representative that observation well is of either the Deadwood or Crystalline Rock aquifers.

Therefore, only observation well CU-86A was used in this analysis. The hydrograph for CU-86A, shown in Figure 3 on page 10 of the report, indicates the aquifer responds well to climatic conditions, with water levels rising during wetter periods and declining to a stable water level during drier periods. Although observation well CU-86A is located approximately 17 miles southwest of the existing wells, the hydrograph still provides evidence of recharge to the Crystalline Rock aquifer over the period of record.

Driscoll and Carter stated that recharge to the Crystalline Rock aquifer must be much greater than the estimated 3,600 acre-feet per year to account for the groundwater discharge that contributes to the base flow to many streams. This statement is supported by the hydrograph for observation well CU-86A, which displays the water level generally rising over its period of record despite increased development of the localized aquifer in the area of the observation well.

Shown in Figure 4 on page 13 in the reports for both applications, the nearest water right/permit to the proposed existing wells is Water Permit No. 2823-2, located approximately 250 feet northwest and held by Benjamin Klinkel.

The nearest domestic well, based on the Water Rights Programs database, is located between 500 to 650 feet northeast of the nearest proposed existing wells. The applicant provided a map of nearby well locations with the application, and based on this map, the nearest domestic well was identified to be located approximately 300 feet southwest of the proposed existing wells for both applications.

Both applications seek to add types of water use with no increase in the total volume of water appropriated by Water Right Nos. 479-2 and 485-2.

Continued development of the Crystalline Rock aquifer has occurred since Water Right Nos. 479-2 and 485-2 were issued without a significant history of well interference complaints. The hydrograph for observation well CU-86A showing natural fluctuations in water levels in response to climate conditions over the period of record, along with Driscoll's and Carter's commentary, indicate recharge occurs to the Crystalline Rock aquifer.

Adequate domestic wells are protected under South Dakota Codified Water Law, and three of the four wells proposed to be used are existing wells that have been authorized to be in place and are presumed to have been in use since the 1950s without any reported well interference complaints on file with the DANR-Water Rights Program.

There is a reasonable probability that Water Permit Application Nos. 479A-2 and 485A-2 to amend Nos. 479-2 and 485-2 will not unlawfully impair adequate wells for existing water rights/permits and domestic users.

Ms. Steen stated that the Chief Engineer recommended approval of the amendments to Water Permit Nos. 479-2 and 485-2. The applications do not seek to increase the volume of water appropriated by Water Right No. 479-2 and 485-2; therefore, the criteria requiring unappropriated water to be available for the applications is met. There is a reasonable probability that the amendments will not unlawfully impair adequate wells for existing water rights/permits and

domestic users. The proposed uses are beneficial uses and are in the public interest.

If the applications are approved, the standard qualification requiring the applicant to control water withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights will be included. Both recommendations set forth the annual volume that may be pumped and require the permit holder to report the annual volume of water withdrawn.

In addition, the recommendation for Application No. 485-2, which authorizes year-round use, includes a condition that use from September 1 – April 30 is subject to water rights with priority dates predating the approval date of this application.

Mr. Bjork stated that he is concerned about the Crystalline Rock Aquifer. According to Driscoll and Carter's 2001 study, it must be at least equal to the average withdrawal of 3,600 acre-feet per year. Mr. Bjork said if the withdrawal rate is 3,600 acre-feet, there must be that much coming into the aquifer, so Driscoll and Carter were stating an obvious fact.

Ms. Steen said recharge has been a struggle to estimate for this aquifer.

Mr. Bjork said it is concerning to him because of all the growth in the Black Hills and more wells being drilled into the Crystalline Rock Aquifer. How do we know the recharge rate?

Ms. Steen said it is hard to know because it can be very site-specific, and one of her concerns with the applications is how concentrated the Crystalline Rock Aquifer wells are in this area and the fact that maybe no new water was going to be appropriated. She noted that a volume cap to what they are allowed to withdraw is being set.

Mr. Bjork said we need to figure out exactly what the recharge rate is into this aquifer because the statute says we must know what the recharge and discharge rates are under these conditions. Mr. Bjork said this is a tough one, but we need to know given the growth that is taking place in the Black Hills.

Motion by Bjork, seconded by Freeman, to approve Water Permit Application Nos. 479A-2 and 485A-2, Rockerville Gold Town LLC, subject to the qualifications set forth by the Chief Engineer. Motion carried unanimously.

CONSIDER WATER PERMIT APPLICATION NO. 8763-3, B&K DAIRY FARMS, LLC AND WATER PERMIT APPLICATION NO. 8797-3, DONALD D. BENSON: Adam Mathiowetz presented his reports on the application.

Water Permit Application No. 8763-3 proposes to appropriate 480 acre-feet of water annually at a maximum instantaneous diversion rate of 1.11 cfs from one well, approximately 270 feet deep, to be completed into the West Management of the Upper Vermillion Missouri aquifer (Upper Vermillion Missouri: West). The proposed well site is approximately three miles west of Viborg, SD in Turner County (SW ¼ SE ¼ Section 20-T97N-R53W). The well is for commercial use in a dairy operation located in the E ½ SW ¼ Section 24-T97N-R54W.

Water Permit Application No. 8797-3 proposes to irrigate 65 acres at a maximum instantaneous diversion rate of 1.78 cubic feet of water per second (cfs) from one well, approximately 222 feet deep, to be completed into the Upper Vermillion Missouri: West aquifer. The site is in the SW ¼ NW ¼ Section 30 with the land to be irrigated in the NW ¼ Section 30; all in T98N-R53W in Turner County. The site is approximately four miles west of Hurley, SD.

The applicant is requesting a diversion rate greater than the statutory limit of one cfs per 70 acres. This request is because the applicant is doing a partial rotation of the center pivot. It is known that center pivot systems that make a partial rotation still require the same diversion rate as a full rotation system, and it has been past practice of the Water Rights Program and the Water Management Board to approve that request.

The aquifer is the Upper Vermillion Missouri: West aquifer, which is a Quaternary aged glacial outwash lying in a northwest to southeast trending bedrock valley primarily in Turner County. This aquifer was previously considered in 2012 by Water Rights engineer Ken Buhler, and at that time all applications from the Upper Vermillion Missouri aquifer, which would include what is now known as the North Management Unit, the South Management Unit, and the West Management Unit, were deferred while the South Dakota Geological Survey conducted a study of the aquifer.

Mr. Mathiowetz noted that during his presentation he will refer to page numbers and figures in the report for Water Permit Application No. 8797-3. The reports for this application and Water Permit Application No. 8763-3 are virtually identical.

In 2014 Mr. Buhler did a redefinition delineation of all three management units. Figure 1 on page 2 of the report shows two aquifer delineations, one is the larger black outline extending into Hutchinson and McCook counties. That is the 2012 delineation that Buhler did. The smaller red dashed outline with the cross hatch and the spikey northwestern edge was the 2014 partial re-delineation of the aquifer. That spikey edge is an approximate boundary because there is a lack of data extending further northwest to do a full delineation of the aquifer.

At the proposed well locations for both applications, the aquifer is confined. Recharge to the aquifer occurs through leakage from fractures in the Sioux Quartzite, outflow from hydrologically connected portions of the Niobrara aquifer, and some direct infiltration of precipitation where the aquifer may be near land surface. No specific recharge rate to the aquifer has been calculated. However, historically, the Water Rights Program has used a range of 0.15 to 0.6 inches per year that was determined by the Hedges report in 1982 for management and development programs to use as a good estimate for buried confined aquifers such as the Upper Vermillion Missouri: West aquifer.

Using Buhler's 2014 delineation and the recharge rate range, that comes to 245 to 980 acre-feet per year. Buhler completed a flow-net analysis to calculate groundwater outflow from the aquifer using January 2014 water level data, a cross sectional area from the SD Geological Survey based on their study, and estimated hydraulic conductivity that he calculated using various pumping/development data that was provided on well completion reports for the various

appropriative users in the aquifer.

Buhler based his outflow calculations from observation wells TU-77Z and TU-77T. The map showing the locations of those wells is shown in Figure 1 on page 2. Observation well TU-77Z was destroyed by road construction in 2018. The groundwater outflow, as Buhler called it, is technically aquifer intra-flow because TU-77T, the most down gradient well, is still in the within the aquifer. It is below the cross-section so that math can be used, but it is not either at the outlet of the aquifer or slightly across the line into the hydrologically connected Upper Vermillion Missouri: South aquifer. However, it is close enough to that discharge area from the Upper Vermillion Missouri: West aquifer that it can serve as an analog for the groundwater outflow, which the Water Rights Program recognizes is representative of the amount of recharge to the aquifer in excess of withdrawals, and therefore, can serve as an analog for what recharge to the aquifer is.

At the time of Buhler's analysis, he calculated a groundwater outflow of 2,681 acre-feet per year; however, he did not account for a couple of permits that are down gradient from his outlet well, TU-77T. When accounting for reported pumping for the previous year leading up to that data, the outflow becomes 2,657 acre-feet per year.

Mr. Mathiowetz stated that as part of his analysis he recalculated groundwater outflow using the earliest available data for each calendar year, which was typically May. If he did not have data that was within 30 days of May 1, that year was not included as part of his analysis. He recalculated a flow-net for TU-77Z to TU-77T to recreate Buhler's data for the period of record and because TU-77Z was destroyed, Mr. Mathiowetz also did calculations for TU-77S to TU-77T and determined an average groundwater outflow for TU-77Z to TU-77T to be 3,179 acre-feet per year and from TU-77S to TU-77T, 2,438 acre-feet per year. When he accounted for the down-gradient pumping from TU-77T, those became 3,062 to 2,329 acre-feet per year, thus the likely average outflow over the period of record is between those two last numbers. However, when looking at the 2023 observation well data, there is a very steep decline in the water level for TU-77S, the most upgradient well. Figure 4 on page 4 of the report is a hydrograph for TU-77S. This change reduced the calculated outflow to less than 500 acre-feet per year. Figure 5 on page 7 of the report shows the calculated outflows. This decline in water level may have been directly related to nearby pumping under Water Permit No. 8555-3, as well as drought conditions.

Mr. Mathiowetz stated that it would be prudent to keep monitoring the observation well water levels to ensure that the 2023 data is accurate and to attempt to discern the cause of the significant recent decline as to whether it was purely based on pumping of the nearby permits or whether there are other unknown factors.

A comparison of groundwater outflow to withdrawals must be taken in the context of year-to-year changes in weather, total withdrawals, and location of withdrawals to the observation well data, and the observation well sites. This is vitally important in a confined aquifer where nearby pumping significantly affects water levels and changes in the water level can have a significant effect on the groundwater outflow calculations. The flow-net analysis does show that the Hedges rate of 0.15 to 0.6 inches per year is likely not accurate and likely much lower than the actual recharge to the aquifer.

When reviewing withdrawals from the aquifer, there are well withdrawals, some natural outflow to the Upper Vermillion Missouri: South aquifer, and there may be evapotranspiration where the aquifer is near land surface along Turkey Ridge Creek.

At the time of the reports were prepared, there were 14 water rights and permits authorized to withdraw water from the Upper Vermillion Missouri: West aquifer. Since then, there have been two more applications; one for a transfer of acres from one existing permit that is yet to be developed and another is to add acres to that transfer, if it were approved.

The non-irrigation use, in addition to the proposed use of Water Permit Application No. 8763-3, was estimated to be 1,037 acre-feet per year.

Currently, there are 11 water rights and water permits authorizing the irrigation of 1,571 acres from the aquifer. In 2022, there were seven water rights or permits reporting zero irrigation water use with the primary reason being for non-construction for six of the seven permits. Four of those six were approved in 2021 or 2022, and therefore, are still well within their permitted construction development period.

An application rate of 4.6 inches per permitted acre (Table 3 on page 10 of the report) was calculated for the period of 2013 to 2022, excluding the data from the systems reported as not constructed. It is most reasonable to use this application rate because it represents the actual pumping per permitted acre and does not skew low due to those systems yet to be developed. Applying this application rate to the entirety of all permitted acres and the acres proposed under Application No. 8797-3 is an estimated average annual irrigation use of 602 acre-feet per year. Combining the non-irrigation, average use plus the proposed application, the average irrigation use using the application rate plus the proposed application comes to a total of 1,639 acre-feet per year (Table 4 on page 12 of the report).

Trends in the existing observation wells TU-77S and TU-77T, as well as destroyed well TU-77Z, are similar across their periods of record. However, recent declines in water levels have been much greater in TU-77S than in TU-77T (Figure 7 on page 13 of the report). The recent declines are, in part, caused by recent drought conditions; however, TU-77S is showing a much steeper decline, which may be caused by a recent increase in nearby pumping. A comparison of the water levels when put in terms of elevation, as shown in Figure 7, shows that the water levels for TU-77S have been above TU-77T for most of the period of record. That is expected as it is the upgradient well in the aquifer, and water should be moving from the direction of TU-77S to TU-77T. Historically, the difference has been 15 to 20 feet. Starting in 2022 and continuing into 2023, the elevation difference changed. In 2022, TU-77S had a water level elevation below TU-77T, indicating a reversal of water flow direction, which could indicate no outflow from the aquifer. In 2023, for part of the year TU-77S did have a water level elevation a couple of feet above TU-77T, but then dipped lower.

In terms of general water availability, when you compare the groundwater outflow chart (Figure 5 on page 7 of the report) and the observation well hydrographs (Figure 7 on page 13) the similar shape is obvious and expected because water level changes affect the math that is used to calculate

groundwater outflow.

Previous Water Management Board decisions and Circuit Court decisions have relied upon or state that average annual recharge and average annual withdrawal should be considered, it is necessary to consider the context of development that is currently occurring in the aquifer. There have been several recently approved permits that have yet to be developed and begin pumping , thus, are not accounted for directly in the average reported pumping from the aquifer and are also not shown in the observation well data. Averages take time to develop. While, likely, pumping can be projected by calculating an application rate per permitted acre, that projection does not get reflected in the observation well data and is not calculable in the estimated groundwater outflow calculations. This is especially important because the ratio of undeveloped permits to developed permits is roughly one to one.

There are two separate primary factors to consider in this instance when determining if unappropriated water is available for these proposed appropriations. First, there has been a recent change in groundwater levels, particularly in TU-77S and, thus, the estimated groundwater outflow from the aquifer. This may have been caused by drought conditions or recent nearby development of appropriative permits affecting the artesian head in the aquifer. Second, there are several irrigation permits that have yet to be fully developed and, thus, are not properly accounted for in the average pumping from the aquifer or in the observation well data. Most of these undeveloped permits have three to four years left in their respective development periods.

When considering these factors, there may not be unappropriated water available for these applications.

The Chief Engineer recommends deferral to allow time for the development of these currently permitted water rights and permits and for continued monitoring of the water levels in the observation wells.

For Water Permit Application No. 8763-3, the nearest water right/permit from the Upper Vermillion Missouri: West aquifer is approximately 0.43 miles away and the next nearest is approximately 1.28 miles away.

The nearest domestic wells on file with the Water Rights Program are 0.6 and 0.8 miles away. There may be other domestic wells in the area that are not on file with the Water Rights Program, and the locations of those domestic wells are based on the location information provided by the well driller at the time of well completion.

For Water Permit Application No. 8797-3, the nearest water right/permit is held by the applicant at the approximate same location as this application, but it has yet to be developed and will be cancelled if this application is approved. The next nearest water right is approximately 0.63 miles away and the next nearest is 0.74 miles away. There are two other permits within approximately one mile of this application.

The nearest domestic well on file with the Water Rights Program is approximately 0.6 miles away and there may be other domestic wells that are not on file with the Water Rights Program.

In general, the aquifer is confined at both applicant's proposed well sites. This means nearby pumping can have significant impacts on the artesian head of the aquifer.

One complaint was filed in July 2022 with the Water Rights Program regarding potential well interference from wells completed into the Upper Vermillion Missouri: West aquifer. The complainant stated their well was not pumping water for their cattle. No well completion report was found for this well. The well was believed to be 7 to 15 years old, so a well completion report should have been filed. The well owner believed the well to be 160 feet deep with a pump setting of 60 feet below top of casing. The hydrograph for nearby observation well TU-77S showed a static water level of 40 feet below top of casing. The observation well and the non-pumping well did have similar land surface elevations and would be expected, under static conditions, to have similar water levels. Based on the nearest appropriative pumping to the non-pumping wellbeing 1.3 miles away and the location of the non-pumping well, which was near the edge of the aquifer, it is believed that the issues for the non-pumping well were not from unlawful impairment by existing users, but the pump placement was too high in the well, as well as proximity to the aquifer edge, creating excess drawdown, and therefore, not allowing the pump to operate properly.

While there have been no significant effects on water levels in Observation Well TU-77T, which is within one mile of three high-capacity permits, only one of which is regularly used and developed, TU-77S has shown significant recent declines. Based on past Water Management Board decisions, the artesian head above the top of aquifer is not necessarily protected as a means of delivery of water. Furthermore, wells need to be adequate, by definition, within the well construction standards, which require a well capable of placing a pump inlet at least 20 feet into a saturated aquifer. The artesian head pressure above the top of aquifer at each application site is expected to be approximately 60 feet.

Based on the statues and administrative rules designed to protect users with adequate wells, the amount of artesian head pressure and the lack of substantiated well interference complaints, there is a reasonable probability that both applications could be developed without unlawfully impairing existing appropriative users with adequate wells or adequate domestic wells.

Based on the analysis of estimated recharge to the aquifer, estimated groundwater outflow from the aquifer, average water withdrawals and expected withdrawals, and observation well data, it has been determined that there may not be unappropriated water available for either of the applications.

The Chief Engineer recommends deferral of both applications for at least two years to monitor the water levels of the observation wells and allow currently permitted systems to develop and be put to beneficial use before re-evaluating the availability of unappropriated water and the potential for unlawful impairment.

In response to a question from Acting Chair Dixon, Mr. Gronlund stated that the deferrals will be tracked by the Water Rights Program and brought back before the board sometime after two years have passed. He noted that the Water Rights Program has consulted with the SD Geological Survey regarding this matter, and the Geological Survey intends to look further into the

delineation of the aquifer.

Motion by Comes, seconded by Larson, to defer Water Permit Application No. 8763-3, B & K Dairy, and Water Permit Application No. 8797-3, Donald D. Benson, for up to two years to allow for additional monitoring of water levels in observation wells completed into the Upper Vermillion Missouri: West aquifer and time for recently issued water permits to be developed. Motion carried unanimously.

Mr. Gronlund introduced Mark Mayer, Director of the Office of Water. Mr. Mayer was previously the administrator of the Drinking Water Program.

CONSIDER CONTESTED WATER PERMIT APPLICATION NO. 8787-3, CHERYL E. NELSON: Acting Chair Dixon opened the hearing.

Appearances

Jennifer Verleger, Assistant Attorney General, representing the Chief Engineer and the Water Rights Program.

Cody Honeywell, attorney from Pierre, representing the applicant.

Gary Schumacher, attorney from DeSmet, representing Dianna Archer, Sharleen Eliason, and the Archer Family Trust.

Dale Goebel stated that he represents his brother and their corporation.

Dan Bloodgood, appeared pro se.

Opening Statements

The Water Rights Program waived opening statements.

Cody Honeywell stated that the applicant is requesting that two wells that were drilled in 2002 be permitted. The application meets the standards set out in statute. The expert witness for the applicant is Steve Mikkelsen. Mr. Honeywell noted that the petitioners in opposition to the application are concerned with where the water will be discharged from these two wells, so his client's intention is to discharge the water to the north rather than to the south. To the south of the Paul Nelson Farms is Nelson Lake. The petitioners are landowners surrounding Stone Lake, which is to the east of Nelson Lake. Mr. Honeywell said it is his understanding that since his client will be discharging water to the north, the petitioners in opposition may not actually oppose the permit.

Gary Schumacher stated that on page 13, Conclusion No. 1. of Mr. Mathiowetz's report, he indicated that that Water Permit Application No. 8787-3 proposes to appropriate up to 225 acre-feet per year at a maximum instantaneous diversion rate of 0.62 cfs from two existing wells.

Mr. Schumacher said those two existing wells are currently running.

Mr. Schumacher said in Conclusion No. 2 Mr. Mathiowetz gives a conclusion that, based on the analysis of the hydrologic budget and observation well data for the Inyan Kara aquifer, there is a reasonable probability unappropriated water is available for this application. Conclusion No. 3 states that there is a reasonable probability that use from this proposed diversion will not unlawfully impair existing appropriative or domestic users with adequate wells. In his report, Mr. Mathiowetz references a Gettysburg well and a domestic well, and his conclusion is that there is adequate water in the aquifer and that those wells won't be affected.

Mr. Schumacher stated that in the documents provided on February 21, 2024, by Cody Honeywell, who is the attorney for the applicant, Cheryl Nelson, Exhibit F indicates that the applicant is going to discharge to the north. Mr. Schumacher said his clients are affected by Nelson Lake, which has increased in size over time. The proposed application today is an application that deals with permitting the two wells that are running. There is a separate permit that comes later, dealing with the discharge. Mr. Schumacher said his client's position is that when looking at the totality of the circumstances, the applicant has informally indicated that discharge from the wells that are currently running will be discharged so it doesn't go into either Stone Lake or Nelson Lake. Mr. Schumacher said based on those assumptions and representations, his clients are not going to object to the permitting of the two wells under Application No. 8787-3. Mr. Schumacher said his clients recognize this is a two-step process, and the next step will be permitting the discharge.

Larry Goebel stated that Goebel Farms is on the north edge of Stone Lake. In the past, they had put 100 head of cattle in that pasture every year, but now they can't use the pasture because they can't keep fences up due to the water. Mr. Goebel said they aren't trying to make it rough for the Nelsons, but Goebel Farms is trying to make it so their operation can hang on too.

Mr. Honeywell stated that since Goebel Farms is a corporation, Mr. Goebel cannot represent Goebel Farms.

David McVey stated that there isn't a specific statute that addresses this issue, but in 2003 there was a Supreme Court ruling that corporations must be represented by counsel, and that ruling was expanded to include LLCs in 2013.

Ms. Verleger offered Exhibit 107, which includes Mr. Mathiowetz's report, the application, the petitions in opposition, the procedural scheduling order, notice of hearing, and other correspondence.

The exhibit was admitted into the record.

Ms. Verleger called Adam Mathiowetz, who was previously administered the oath.

Mr. Mathiowetz testified that he is an engineer with the DANR Water Rights Program.

Exhibit 102 is Mr. Mathiowetz's curriculum vitae (CV). Mr. Mathiowetz stated that he created the CV on February 12, 2024.

Ms. Verleger offered Exhibit 102. The exhibit was admitted into the record.

In response to questions from Ms. Verleger, Mr. Mathiowetz provided the following testimony.

He has both a Master's and Bachelor's of Science degrees in agricultural engineering from South Dakota State University. He is a registered as a licensed professional engineer in the state of South Dakota. He is currently the groundwater team lead for the Water Rights Program and has been in the position for 12 years. Mr. Mathiowetz conducts groundwater investigations and investigates groundwater-related complaints, conducts permit inspections for licensing, prepares and peer reviews reports for groundwater permit applications, provides information and technical assistance to the public, state agencies, and other agencies on groundwater and wells, provides technical assistance to the Chief Engineer regarding groundwater and wells, provides technical assistance to the Water Management Board regarding groundwater and wells, permit applications, interprets data from the observation well network, and provides expert testimony during Water Management board hearings. Mr. Mathiowetz is the primary manager of the summer seasonal employees who measure the observation well network as well as the primary contact regarding maintenance, management, and water levels of the observation well network. He is the day-to-day manager for the fulltime technicians who maintain the network and the lead regarding licensing of well drillers and pump installers for the state. He also reviews water well completion reports submitted to the Water Rights Program.

Mr. Mathiowetz wrote the technical report for Water Permit Application No. 8787-3, regarding the availability of unappropriated water and the potential for unlawful impairment to existing water rights.

In January 2023 the Water Rights Program received a complaint regarding uncontrolled flowing wells at the Paul Nelson Farm Lodge. Mr. Mathiowetz and Water Rights Program staff engineer Mark Rath conducted an on-site investigation to determine the nature of the flowing wells. At that time, staff informed an attorney with Mr. Honeywell's firm who was representing the applicant and present for the investigation, that a water permit is required for use from two of the wells because the flow rate was in excess of reasonable domestic use and the wells were supplying water to projects that do not qualify as domestic use.

Water Permit Application No. 8787-3 proposes to appropriate up to 225 acre-feet of water annually at a maximum instantaneous diversion rate of 0.62 cubic feet of water per second (cfs) from two existing wells completed into the Inyan Kara aquifer. The wells are estimated to be approximately 2,120 deep. The site is located approximately 12 miles southeast of Gettysburg, SD in Sully County. The water is to be used for geothermal, recreation, and fish and wildlife propagation purposes at the Paul Nelson Farm Lodge. After being used for geothermal purposes in the onsite lodge structures, water, at the time the application was submitted, was to be discharged to a dry draw dam with a storage capacity of 15 acre-feet at the primary spillway. The dry draw dam also captures surface runoff from approximately 24 acres. Overflow from the dam, at the time the application was submitted, was directed toward Nelson Lake.

At the time of inspection, there were four wells located at the site. One well is currently permitted

under Permit No. 6418-3, authorizing a diversion rate of 0.22 cfs for fish and wildlife propagation and domestic use to fill a dam. The other well was reported to the Water Rights Program by staff for the well owner and the attorney that was present during the complaint investigation, as to be for livestock use. They were informed that they are allowed up to 5 gpm to prevent freezing of that well as allowed under South Dakota Well Construction Standards, and when the well is not in use, it needed to be shut in and not allowed to flow at all.

The Inyan Kara aquifer is the saturated and permeable materials that make up the Inyan Kara Group. The Inyan Kara Group is comprised of Lower Cretaceous aged Fall River and Lakota Formations which are bedrock sandstones. This aquifer is a regional bedrock aquifer that underlies most of the northern great plains. The Lakota Formation and the Fall River Formation are managed as one aquifer by the Water Rights Program, due to the hydrologic similarities and direct hydrologic connectiveness between those two formations.

Locally, in east river South Dakota primarily, the Inyan Kara can be identified as the Sundance aquifer by well drillers; however, it should not be confused with the actual Sundance Formation, which is a Jurassic Age formation located in western South Dakota around the Black Hills.

A confined aquifer, which the Inyan Kara is at the location of the application, is an aquifer where the water level in a well rises above the physical saturated material of the aquifer. An unconfined aquifer is an aquifer at which the static water level is below the physical top of the material that makes up the aquifer, essentially, the water surface is at air pressure and there is dry aquifer material above the saturated portion of the aquifer.

SDCL 46-2A-9 states that permits can only be issued when there is a reasonable probability that there is unappropriated water available. This determination is made by reviewing a hydrologic budget which compares recharge and withdrawals to the aquifer, as well as reviewing available observation well data.

The Department of Agriculture and Natural Resources maintains nine observation wells completed into the Inyan Kara aquifer. The one observation well that is east of the Missouri River is ED-85B, located near Mina Lake, which is approximately 64 miles northeast of the well sites for this application. The other eight observation wells in the Inyan Kara aquifer are located west of the Missouri River, more than 170 miles away.

Figure 1 on page 4 of the report is the hydrograph for observation well ED-85B. It shows manual water level measurements taken by DANR staff over the period of record from the well. The data shows that originally, it had a relatively stable water level up until the mid-1990s, then had a relatively steady decline until the last five to six years. In between, there were some more extreme spikes in a downward trend. The general downward trend period was likely due to nearby development of other wells that are allowed to flow. The significant downward spikes were due to a nearby appropriator using their well, and when diversion stopped under their appropriative permit, the significant spikes stopped. On the right side of the hydrograph some stabilization is seen, which could be due to either fewer nearby users or other factors that could not be predicted. Mr. Mathiowetz does not consider the decreased trend to be a concern. In a highly confined aquifer, which this observation well is in, the water level indicated that this well, if allowed, would

flow. It has over 360 feet of head at its maximum above ground surface. The top of the aquifer is more than 1,000 feet below land surface. With that significant amount of artesian head, allowing a well to flow or pumping a well can have a significant effect, which means they are just reducing the artesian head in the aquifer, and therefore, not a significant change in the water availability.

Recharge is water entering an aquifer. The Inyan Kara aquifer receives recharge by the infiltration of precipitation and streamflow over the outcrop, primarily in the Black Hills, and groundwater inflow from aquifers in hydrologic contact with the aquifer where the Inyan Kara aquifer has a lower hydraulic head than the other aquifer it is in contact with.

No single report has determined the total recharge to the aquifer, but here have been two that have attempted to quantify it. One, done in the early 2000s as part of the Black Hills Hydrology Study estimated the recharge to the outcrop portion in the Black Hills to be 11,600 acre-feet per year. This estimate does not account for upward leakage from underlying aquifers or from precipitation recharge in areas outside the Black Hills, such as the western edge of the Powder River Basin in Montana.

In the 1980s there was an attempt to model flows between the underlying Madison aquifer, the Inyan Kara aquifer, and confined shale units. However, the model is based on dated information and there is quite a bit of newer information available that could significantly modify the model's analysis. That model estimated a flow of 16,000 acre-feet per year from the Madison Group into the Inyan Kara aquifer. Combined, that is a total of 27,600 acre-feet per year. While the 1980s model is based on dated information, it is the best available information.

A withdrawal is a deliberate removal of water from an aquifer. Table 7 on page 11 of the report shows the estimated average annual withdrawals from the aquifer, including pending applications.

Table 2 on page 6 of the report shows the estimated annual water use from the Inyan Kara aquifer by permitted Concentrated Animal Feeding Operations (CAFOs) water rights/permits. The estimated use by all permitted CAFO water rights/permits in the aquifer totals 1,094.6 acre-feet per year. Mr. Mathiowetz explained how the estimated use was determined.

Table 3 on page 7 of the report shows the estimated annual water use from the aquifer by water rights and permits required to report their withdrawal to the Chief Engineer. The estimated use by all permits and rights totals 4,020.5 acre-feet per year. Mr. Mathiowetz explained how the estimated water use was determined.

Table 4 on page 8 of the report shows the estimated annual use by water rights and permits for public water systems using the Inyan Kara aquifer as their sole source and are required to report to the Drinking Water Program. The estimated use by all permits and rights totals 283 acre-feet per year. Mr. Mathiowetz explained how the estimated water use was determined.

Table 6 on page 10 of the report shows the average annual reported irrigation water use from the aquifer from 1982 to 2022. The estimated irrigation use by all permits and rights from 2013 to 2022 totals 120.3 acre-feet per year. Mr. Mathiowetz explained how the estimated water use was determined.

Mr. Mathiowetz noted that there are irrigation permits from the Inyan Kara aquifer that are not required to report their annual irrigation totals to the Water Rights Program. For those, an application rate of 12 inches per permitted acre was assumed for a total of 588.5 acre-feet of water use per year.

Future Use Permit No. 1780-2 reserves 142 acre-feet of water per year, and future use permits are fully developable.

Application No. 2686-2 is being held in abeyance, pending federal permitting for Powertech. The request was for 274.2 acre-feet of water per year. If application is approved, it would have a senior priority date and should be accounted for in the hydrologic budget for this application.

Application No. 8787-3 is included in determining the current hydrologic budget.

Table 5 on page 9 of the report shows a summary of Inyan Kara non-irrigation water rights and permits not supplied by a rural water system, not required to report, or not operating a CAFO. The estimated average annual water use is 7,483 acre-feet per year. Mr. Mathiowetz explained how the estimated water use was determined.

The total estimated average annual withdrawal from the Inyan Kara aquifer, assuming approval of all pending applications, is 14,231.1 acre-feet per year. Based on the hydrologic budget of recharge of 27,600 acre-feet per year and average annual withdrawals of 14,231.1 acre-feet per year, there is a reasonable probability that unappropriated water is available for this application.

The nearest Inyan Kara aquifer water right/permit is Water Permit No. 8334-3, for the Gettysburg County Club, located approximately 12.3 miles northwest of the applicant's well sites. The nearest domestic well on file with the Water Rights Program that is likely completed into Inyan Kara aquifer is located approximately 2.1 miles east of the applicant's most easterly well site. The locations of domestic wells are based on the location provided by the well driller on the water well completion report. It is possible there are other domestic use Inyan Kara aquifer wells in the area of the applicant's proposed well site that are not on file with the Water Rights Program.

Drawdown is an effect that happens when a well is pumped or allowed to flow, that lowers the water level around the well, and it happens in a cone with the deepest part being at the well being used and less reduction further away from the well being used. In this case, due to the extremely confined nature of the aquifer, drawdown in this instance is just of the artesian head pressure and not the saturated aquifer.

There have been no complaints filed in the area regarding well interference in Inyan Kara aquifer wells.

Mr. Mathiowetz concluded there is a reasonable probability that unappropriated water is available for this application. With review of existing statutes and administrative rules, as well as the significant artesian head pressure available and lack of history complaints regarding well interference from the aquifer in the area, there is a reasonable probability that use from these

proposed diversion points will not unlawfully impair existing appropriative or domestic users with adequate wells. South Dakota Well Construction Standards allow for an alternative standard for some Inyan Kara aquifer wells. The term used for this is often called a slim hole well. Per statute and rule, a slim hole well cannot be used for an appropriative user when they construct a new well, but they can use it if they have a long-term existing well. Any newly constructed well for this application would need to be an adequate well, which requires the ability to place a pump 20 feet into the saturated aquifer. The slim hole well by design, which has the primary goal to reduce cost due to the depth of the formation, does not allow a pump to be placed into the saturated aquifer; therefore, the applicant, if they drill a replacement well, will need to do full size construction to the aquifer instead of the alternative slim hole well design.

This proposed use may also require a discharge permit from DANR. Mr. Mathiowetz stated that his analysis does not consider that as part of reviewing the availability of unappropriated water or the potential of unlawful impairment.

Mr. Mathiowetz reviewed the petitions submitted regarding this application. Four petitions and one comment were submitted. The primary issues on the petitions were flooding of property, roads, and the loss of productive land. The submitted comment echoed the concern for flooding of property and roads. There were concerns regarding the expansion of Nelson Lake creating further flooding. There was a question as to why the requested diversion rate was needed, and there was a comment within one of the petitions that the commenter believed more wells were in use than were requested.

Mr. Mathiowetz stated that the petitions do not affect his analysis or conclusions for consideration of the availability of unappropriated water or unlawful impairment of existing water rights.

In response to questions from Mr. Honeywell, Mr. Mathiowetz stated that Table 7 shows an estimated average annual water use of 225 acre-feet per year for Application No. 8787-3. He noted that 0.62 cfs is the diversion rate, which is the flow rate, and 225 acre-feet per year is the total volume permitted to be used, if the application is approved. Regarding the special consideration for well construction on page 12, if one of the wells requested to be used for this application were to fail and need to be replaced, the replacement would have to meet that standard.

In response to questions from Mr. Schumacher, Mr. Mathiowetz stated that Table 7 shows that, if approved, Application No. 8787-3 would be permitted for a maximum use of 225 acre-feet per year. An acre-foot is one foot of water over one acre; it is a volume. Mr. Mathiowetz does not know the current size of Nelson Lake.

Mr. Schumacher stated that the last sentence in the second paragraph on page 13 states that the proposed use may also need a discharge permit from the DANR-Water Quality Program for the discharge from these wells. The last sentence in Conclusion No. 1 on page 13 states that the primary spillway for the dam discharges to Nelson Lake. He asked if it would be fair to say that, based on Mr. Mathiowetz's report, if the discharge goes into Nelson Lake, it could affect Nelson Lake by 225 acre-feet per year. Mr. Mathiowetz answered that if you do not account for evaporation, it is possible that it could affect Nelson Lake by 225 acre-feet.

Ms. Verleger called Eric Gronlund who had previously been administered the oath.

Exhibit 103 is Mr. Gronlund's CV. Mr. Gronlund created the CV, which is up to date.

Ms. Verleger offered Exhibit 103. The exhibit was admitted into the record.

In response to questions from Ms. Verleger, Mr. Gronlund testified that he is employed with the Department of Agriculture and Natural Resources. He has a Bachelor of Science degree in Agricultural Engineering from South Dakota State University and is a registered professional engineer in the state of South Dakota. He is the administrator of the DANR Water Rights Program, and in that capacity, he acts as the Chief Engineer. He has been the Chief Engineer for four years. As the Chief Engineer, Mr. Gronlund has the statutory obligation to act as a technical advisor to the Water Management Board on allocation issues, and he also makes recommendations on water permit applications to appropriate water.

When a water permit application is filed, the Water Rights Program conducts a completeness review. The application is then assigned to a staff engineer to review regarding two of the criteria for granting a water permit and to prepare a report. The report is then reviewed by Mr. Gronlund for the purposes of making a recommendation. Once a recommendation is made, the application is public noticed with an opportunity to file a petition in opposition. When a petition in opposition is filed, a contested case hearing is scheduled before the Water Management Board.

Mr. Gronlund prepared the recommendation for Application No. 8787-3. The recommendation was for approval with qualifications. The beneficial use of the water is geothermal, recreation, and fish and wildlife purposes. Regarding public interest issues, Mr. Gronlund generally looks at past board decisions and past board actions. Geothermal use, recreational, and fish and wildlife are commonly known to be in the public interest. In addition, specifically geothermal heating is listed for single households in the domestic use definition, not requiring a permit if it is under reasonable domestic use. With that, Mr. Gronlund sees a legislative intent that use of water for geothermal is in the public interest.

Mr. Gronlund has reviewed the petitions and comment for this matter. Most of the concerns expressed the petitions and comment were regarding loss of income and flooding to property. Based on Mr. Gronlund's interpretation of the statute, those issues are not encompassed by the four criteria for granting a water permit under SDCL 46-2A-9.

Mr. Gronlund noted that there was discussion during the hearing about the flow being directed to the north instead of south to Nelson Lake, and that is something the board may want to consider.

Mr. Honeywell had no questions of Mr. Gronlund.

Mr. Schumacher asked if it is correct that in his recommendation Mr. Gronlund indicated there would be 225 acre-feet of water that would contribute to Nelson Lake. Mr. Gronlund said up to 225 acre-feet of water would be authorized for diversion. Mr. Schumacher asked if that could contribute as much as 225 acre-feet of water to Nelson Lake per year as a maximum. Mr. Gronlund answered that it may.

Mr. Schumacher asked Mr. Gronlund if there are concerns about economic damage to adjoining property owners. Mr. Gronlund stated that those concerns were contained in the petitions, and he also visited with one of the Goebels in December 2022 in that regard. Mr. Schumacher asked in Mr. Gronlund's testimony, on direct examination, if it would be his recommendation that there should be consideration given to discharging the 225 acre-feet of water per year to the north instead of discharging it into Nelson Lake. Mr. Gronlund stated that his understanding is that there might be a stipulation to that effect, but he was bringing that up to the board just so it is clear in the future if that weren't to happen.

Mr. Schumacher asked Mr. Gronlund if, hypothetically, that were to happen would he agree with having that water diverted to the north. Mr. Gronlund stated that he would, but he doesn't have a say in that. Mr. Schumacher said he understands that, but given that Mr. Gronlund is a professional engineer, if he gave a hypothetical that said if there was a recommendation for that diversion, Mr. Gronlund's professional opinion would be that he agrees with that recommendation.

Ms. Verleger objected to the question. It is outside of the scope of what Mr. Gronlund does.

Mr. Honeywell called Steve Mikkelsen who was administered the oath by the court reporter. Mr. Mikkelsen testified that he is the general contractor for Paul Nelson Farm. He has worked for Paul Nelson Farm since 1990. Mr. Mikkelsen assisted in preparing the water permit application. The application is for two wells.

Exhibit A includes Figures 1, 2 and 3. Figure 1 is a location map, and Figure 2 is a map showing the area and Well 2 and Well 4, which are the two wells at issue.

Mr. Mikkelsen stated that he was present when these wells were drilled in 2002. The wells were drilled by Huron Well Drilling. Mr. Mikkelsen stated that he was also involved in trying to locate well logs for those two wells. The applicant talked to the well driller, Stretch, and he was not able to get well logs because Huron Well Drilling went out of business. On page 3 of the application is the South Dakota water well completion report for Well 3. The well completion report states, "This is the well log for Well 3 just to the north of Wells 2 and 4. The well logs for Wells 2 and 4 have not been found. Wells 2 and 4 are very similar to Well 3."

Mr. Honeywell offered Exhibit A. The exhibit was admitted into the record.

Page 1 of the application shows that 0.62 cfs is the amount of water claimed. Mr. Mikkelsen stated that the wells are used in low areas for wildlife and there are fishponds for recreation. The wells are also used for geothermal purposes during the heating season. The maximum of 0.62 cfs will be used in the wintertime for geothermal purposes, and when the water is not being used for geothermal it will be turned down. Mr. Mikkelsen said the maximum used during the wintertime for geothermal is 280 gpm.

Exhibit A, Figure 3 is a map showing the location of the Paul Nelson Lodge Dam, the pond outlet, and Well 2. For geothermal heating, the water is run through small pipes in concrete floors, and it

takes the heat out of the water to heat the buildings. The pond shown in Figure 3 is the pond that is used for recreation. There is an 8-inch outlet pipe running west to east shown on Figure 3. That pipe will not be used because the water will now be discharged to the north. Well 2 and Well 4 connect to the system. Mr. Mikkelsen said the new plan to discharge the excess water is to take it 1.5 miles north and into Okobojo Creek.

Exhibit F is a map that shows Paul Nelson Farm Lodge and the new pipeline that would go north from Well 2 for discharging water into Okobojo Creek.

Mr. Honeywell offered Exhibit F. The exhibit was admitted into the record.

In response to questions from Mr. Honeywell, Mr. Mikkelsen stated that the new plan is to discharge all the water north onto the area marked Section 1, T116N, R75W, on Exhibit F. That property is owned by Eric Nelson, who is the son of Cheryl Nelson. Mr. Mikkelsen stated that Exhibit A, Figure 2, shows Wells 2 and 4, which are connected. Well 4 will be used for heating and in the off season the water is put into a slough next to the well. The slough is used for fishing and hunting. Well 4 is turned down when no water is being used. The new plan is to discharge water from both wells to the north, so no water from the wells will enter Nelson Lake.

Mr. Honeywell offered Exhibit G, the application submitted by Cheryl Nelson. The exhibit was admitted into the record.

Mr. Holzbauer stated that for geothermal heating, there is no discharge of water because it recirculates. Mr. Mikkelsen said at this time the left over water is being discharged into Nelson Lake. They are using artesian water, which is free flowing. The water flows through pipes through all six of the buildings at the Nelson Farm. The water comes out of the ground at 85 degrees, and after the water is run through the system, the water is discharged.

There were no further questions of Mr. Mikkelsen.

Mr. Honeywell called Joel Toso who was administered the oath by the court reporter.

In response to questions from Mr. Honeywell, Mr. Toso testified that he is a consulting engineer at Barr Engineering. Mr. Toso was hired by Paul Nelson Farms to assist with compiling information for Application No. 8787-3. He has a bachelor's degree in civil engineering, a master's degree in civil engineering with a focus on hydrology, and a PhD in hydraulics. Mr. Toso did a site visit at Paul Nelson Farms. During the visit he looked at all the well heads, tested the shutoff pressure, and installed an in-line meter to test the flow rate at Well 2 and Well 3. Mr. Toso assisted in calculating the 0.62 cfs using the in-line flow meter. That is the maximum during the winter for geothermal purposes. Mr. Toso stated at this time, water is being discharged into Nelson Lake. Mr. Toso studied other options for discharge, such as holding the water on-site. Mr. Toso also performed a study regarding the effect of the water on Nelson Lake. The water from these wells will now be discharged to the north to avoid issues regarding discharging to Nelson Lake.

Exhibit B includes Figure 2A and Figure 2B. Figure 2A shows Well 2 and Well 4 and it contains two green circles showing a one-mile radius from the wells. Figure 2B shows similar information

with a USGS topographic map. Mr. Toso prepared both exhibits.

Mr. Honeywell offered Exhibit B. The exhibit was admitted into the record.

Responding to questions from Mr. Honeywell regarding Exhibit B, Figure 2B, Mr. Toso stated that he considered this type of information when analyzing the discharge patterns. Looking at the watershed to Nelson Lake was one consideration of the analysis. Also considered, were the discharge points to the north that could be used, such as where Okobojo Creek starts. Well 2 is northwest of Paul Nelson Farms. The current plan is to pipe the discharge to the north, to the Okobojo Creek watershed (Exhibit F), so the water will run away from Nelson Lake.

Exhibit E is the 2023 Surface Water Quality Analysis done by Pace Labs for the Well 2 and Well 4, Stone Lake, Nelson Lake, and the Lodge Pond. Mr. Toso assisted in preparing the exhibit.

Mr. Honeywell offered Exhibit E. The exhibit was admitted into the record.

In response to questions from Mr. Honeywell regarding the numbers in Exhibit E, Mr. Toso stated that the exhibit shows standard constituents that are looked for in water quality. The state has specific standards for these different constituents. Each of the constituents listed in the first column of the table was tested for from the four water sources to compare the water quality of each water source. The well water is probably the best of all sources tested in terms of water quality. The iron in the well water is higher than the other sources. If the well is discharged to the pond, the iron drops very quickly from 2,000 in the well to 67 at the pond.

Responding to questions from Mr. Schumacher, Mr. Toso stated that Well 2 and Well 4 will be connected and they will discharge to the north so the water will not go into to Nelson Lake.

Mr. Schumacher stated that, on behalf of his clients, he would not call any witnesses or offer any exhibits.

There was no other testimony.

Ms. Verleger had no closing statement.

Mr. Honeywell stated that given the testimony of Steve Mikkelsen, Joel Toso, and Adam Mathiowetz there is no dispute that the standards set out in SDCL 46-2A-9 have been met. Mr. Mathiowetz testified that there is a reasonable probability that unappropriated water is available for his client's use. There was no evidence presented by the petitioners that would be contrary to the evidence that has been admitted. The proposed diversion can be developed without unlawful impairment of existing domestic water uses and rights. Mr. Mathiowetz testified to this, and it was in the Chief Engineer's recommendation. There was no testimony from any of the petitioners to oppose. The proposed use is a beneficial use. Mr. Mikkelsen testified that that the water will be used for geothermal heating on-site for the lodge and other structures in addition to recreation and fisheries. There was no evidence presented that opposed that statement. It is undisputed that this in the public interest under the authority of the Water Management Board. A lot of the points from the petitioners that opposed the application were regarding the discharge of the water. Mr.

Honeywell's client took that into account when developing a plan. His client wants to be a good neighbor, so decided to discharge the water to the north. Mr. Honeywell requested that the board approve the water permit application.

Mr. Schumacher said under SDCL 46-2A-9, his clients do not object that the first three factors dealing with reasonable probability, unlawful impairment, and beneficial use, have been met. Mr. Schumacher said he understands that the Water Management Board may have a slightly different perspective of public interest, but from his client's perspective given the discussion by the expert engineer, Adam Mathiowetz who indicated on page 13 of his report (Exhibit 107) that this proposed use may also need a discharge permit from the DANR Water Quality Program for the discharge from these wells. When that is considered in context with the testimony and the exhibits that were offered by the applicant's expert witness, Mr. Toso, the discharge will go to the north, and if it goes to the north, then it will not affect Nelson Lake. Based on those premises, Mr. Schumacher's clients do not object to the application as presented during today's hearing.

Motion by Freeman, seconded by Larson, to approve Water Permit Application No. 8787-3, Cheryl E. Nelson, subject to the qualifications set forth by the Chief Engineer.

Mr. Comes asked if the board motion needs to include, as an additional qualification, the requirement that the discharge be directed to the north.

Mr. McVey stated that the discharge permit is a separate matter, he is not sure it is within the board's consideration of this application to contemplate discharge, and that it may subsequently affect the DANR Secretary's consideration of discharge.

Acting Chair Dixon said her opinion is that the discharge is not part of the Water Management Board's responsibility at today's hearing, so it should not be included as a qualification.

Mr. Freeman stated that the discharge matter will be handled later, but the testimony given under oath today was clear that the water will be discharged to the north.

Mr. Holzbauer asked if this water permit is based on the discharge going north.

Mr. McVey stated that the application seeks a water permit, which is based on the four factors set forth in SDCL 46-2A-9, so the question before the board is, does the application as written meet the statutory requirements of the statute.

A roll call vote was taken on the motion to approve with the Chief Engineer's qualifications, and the motion carried unanimously.

Mr. McVey stated that ARSD 74:02:01:13.01 gives the board the discretion to require Findings of Fact and Conclusions of Law. Sometimes where the case is not contested, Findings of Fact and Conclusion of Law are waived. Because this matter is likely to return for a discharge permit application, it may be relevant to have the Findings of Fact and Conclusions of Law available for that matter.

Mr. Freeman stated that he would like to have Findings of Fact and Conclusions of Law be prepared to make sure the board incorporates the flow of the discharge going north.

The board members agreed.

Mr. McVey requested that the Water Rights Program file proposed Findings of Fact by April 15, that objections be filed by April 25, and that the board consider the Findings of Fact, Conclusions of Law and Final Decision at the May 8, 2024, Water Management Board meeting.

ADJOURN: Motion by Freeman, seconded by Bjork, to adjourn. Motion carried unanimously.

A court reporter was present, and a transcript of the proceedings may be obtainedby contacting Carla Bachand, Capital Reporting Services, PO Box 903, Pierre SD 57501, telephone number (605) 222-4235.

An audio recording of the meeting is available on the South Dakota Boards and Commissions Portal at https://boardsandcommissions.sd.gov/Meetings.aspx?BoardID=106.

Approved May 8, 2024.

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Water Management Board

ATTENDANCE SHEET
WATER MANAGEMENT BOARD
Date 3-6-24

NAME *(PLEASE PRINT)*	MAILING ADDRESS	CITY, STATE & ZIP	ITEM OF INTEREST
Doug Bell	Rapid City, SD 2700 W. Main St		Rockerville
Cody Honeywell	303 S Pierre St	57501	Nelson Farms
Joel Toso	1225 E Conde Rd Bismarck & 103 Jolie St Avenue S.E. De Smet, SD	58501 57231	" Nelson Farms
Gary W. Schumacher			
Joanna Archer	8531 S. Blacksberg Sturgis SD	Sturgis SD 57785	Nelson Farms
Sharleen Eliason	706 Sunset Drive	Gettysburg SD 57442	Nelson Farms
Steve MiKKelsen	PO Box 103	Agar SD 57520	Nelson Farm
Kathy Miller	1916 E. Erskine	Pierre SD 57501	
Wesley Jones	834 Cherry Dr	Pierre, SD 57501	
Dan Glodstead	41258 SD Hwy 38	Mitchell SD 57301	
Larry Goebel	32240 SD 170th St	Lebanon SD	57455
Dale Goebel	32240 - 170th St	Lebanon SD	57455

WATER MANAGEMENT BOARD MEETING
March 6, 2024

Qualifications:
wi - well interference
wcr -well construction rules
iq - irrigation questionnaire
lf - low flow

Unopposed New Water Permit Applications Issued Based on the Chief Engineer Recommendations

No.	Name	Address	County	Amount	Use	Source	Qualifications
2033-1	Butte-Meade Sanitary Water District	Newell	BU	2.0 cfs	RWS	1 well – Madison	wi, wcr, 4 special
2086A-2	City of Rapid City	Rapid City	PE	4,075 AF	Future Use Reservation	Madison	4 special
8798-3	Don & Dennis Mitzel	Herreid	CA	1.78 cfs	Irrigation	1 well – Grand	wi, wcr, iq
8800-3	Simplot AB Retail, Inc. dba Simplot Grower Solutions	Boise ID	SP	0.33 cfs	Industrial	1 well – Dakota	wi, wcr, 3 special
8801-3	Adam Wiese	Flandreau	MY	2.67 cfs	Irrigation	3 wells – Big Sioux Moody	wi, wcr, iq
8802-3	Adam Wiese	Flandreau	MY	2.22 cfs	Irrigation	1 well – Big Sioux Moody	wi, wcr, iq
8804-3	Dwight Warkenthien	Willow Lake	CK	No Add'l	Irrigation	VEF: Willow Management Unit	wi, iq
8805-3	Craig Bass	Castlewood	HM	1.78 cfs	Irrigation	1 well – Big Sioux North	wi, wcr, iq
8806-3	City of Sioux Falls	Sioux Falls	MA	3,600 AF	Future Use Reservation	Slip Up Creek	3 special
8811-3	Nathan Meland	Wallace	CD	No Add'l	Irrigation	Slough	iq

Future Use Reviews

1443-2	West River Water Dev. Dist.	Rapid City	ST	10,000 AF	Future	Missouri River/Oahe Reservoir	1 special
5219-3	City of Canton	Sioux Falls	LN	1,175 AF	Future	Dakota	4 special