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MINUTES OF THE 259TH MEETING
OF THE WATER MANAGEMENT BOARD
FLOYD MATTHEW TRAINING CENTER
523 EAST CAPITOL AVENUE
PIERRE, SOUTH DAKOTA
MAY 6-7, 2026

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

The meeting was streaming live on SD.net, a service of South Dakota Public Broadcasting.

The following were present for the meeting:

Board Members: William Larson, Chad Comes, Peggy Dixon, Rodney Freeman, and Kelly Hepler. Leo Holzbauer participated via telephone. Jim Hutmacher was absent.

Department of Agriculture and Natural Resources (DANR): Mark Mayer, Director of the Office of Water; Adam Mathiowetz, Acting Chief Engineer, Ron Duvall, Amanda Dewell, Whitney Kilts, Shannon Konst, Austin Settje, Rachel Rodriguez, and Kim Drennon, Water Rights Program; and Aaron Ward, Kathleen Grigg, Nick Kelly, and Kyle Doerr, Water Quality Program.

Attorney General's Office: David McVey, Board counsel; Emily Greco, Water RightsProgram counsel.

Court Reporter: Carla Bachand, Capital Reporting Services.

Others: See attached attendance sheets.

ADOPT FINAL AGENDA: Motion by Freeman, seconded by Hepler to amend the agenda by adding a discussion of the Tulare: Western Spink Hitchcock appropriations to the 1:30 p.m. agenda item, Consider Held Tulare: Western Spink Hitchcock Applications, and to adopt the agenda as amended. A roll call vote was taken, and the motion carried unanimously.

CONFLICT DISCLOSURES AND REQUESTS FOR STATE BOARD WAIVERS: None.

APPROVE MARCH 4, 2026, BOARD MINUTES: Motion by Freeman, seconded by Comes, to approve the minutes from the March 4, 2026, Water Management Board meeting. The motion carried unanimously.

OCTOBER 7-8, 2026, MEETING DATES AND LOCATION: The October 7 and 8, 2026, Water Management Board meeting will be at the Matthew Environmental Training Center, 523

East Capitol, Pierre, beginning at 9:30 a.m. on October 7.
PUBLIC COMMENT PERIOD IN ACCORDANCE WITH SDCL 1-25-1: Paul Muth commented on the City of Mitchell wanting to drain water into the James River.

UPDATE ON DANR ACTIVITIES: Adam Mathiowetz, Acting Chief Engineer, reported on activities taking place within the Office of Water. He discussed drought conditions in the state, the State Drought Task Force, low flow warning letters that were recently issued on several creeks and shutoff orders that were issued on the Little Missouri River, and discussions with the Bureau of Reclamation regarding Black Hills reservoir levels.

The Water Rights Program has State Water Resources Management System funding which will be used to install new observation wells in the bedrock aquifers of the Black Hills as well as the Sioux Quartzite in the Sioux Falls area. The Water Rights Program has been in communication with the U.S. Geological Survey on sites as well as the potential use of some existing wells. The Water Rights Program is also considering purchasing new data loggers.

Mr. Mathiowetz noted that the Richmond Dam rehabilitation project was expected to begin the week of May 4, 2026.

Mr. Mathiowetz announced that Ron Duvall is retiring on May 8, 2026.

STATUS AND REVIEW OF WATER RIGHTS LITIGATION: David McVey reported that the Surface Water Quality Program received two Surface Water Quality Discharge Permit applications from the city of Custer. The contested case procedure requires the appointment of a prehearing chair and that a prehearing conference take place within 20 days of receipt of a petition. He noted that Rodney Freeman is the Board's appointed prehearing chair, and a prehearing conference is scheduled for May 12, 2026.

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

SEVEN-YEAR REVIEW OF FUTURE USE PERMITS: A table listing the future use permits for a seven-year review was included in the packet the Board members received prior to the meeting.

Amanda Dewell stated that certain entities such as water distribution systems, municipalities, sanitary districts, 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 to retain the future use permit.

Ms. Dewell reported that there were six future use permits for review. The Water Rights Program contacted each of the permit holders inquiring whether they wanted to retain the future use permits for an additional seven years. The letters received from the entities requesting to retain their future use permits, the Acting Chief Engineer's recommendations, and the Affidavits

of Publication showing that the hearing was public noticed were included in the Board packet.

No Petitions in opposition or comments were received in response to the public notices.

The Acting Chief Engineer recommended that the Board allow the following future use permits to remain in effect for an additional seven years, to be reviewed in 2033, as listed below.

No.	Name	Amount Remaining in Reserve	Source (Aquifer)
135-3	City of Pierre	3,374 AF	Pierre
217-3	City of Brookings	1,612 AF	Big Sioux: Aurora
549-3	City of Milbank	808 AF	Veblen
1780-2	City of New Underwood	142 AF	Fall River
4927-3	Clark Rural Water System	221 AF	Vermillion East Fork & Antelope
5003-3	City of Pierre	3,374 AF	Pierre

Motion by Holzbauer, seconded by Hepler, to accept the Acting Chief Engineer's recommendation that the six future use permits remain in effect for another seven years for the amounts shown in the table. A roll call vote was taken, and the motion carried unanimously.

CONSIDER PETITION FOR VARIANCE FROM MINIMUM SPILLWAY DESIGN REQUIREMENTS, LAKE MITCHELL DAM: Assistant Attorney General Emily Greco represented the Water Rights Program. The petition was uncontested

Ms. Greco called Whitney Kilts, staff engineer, who testified that Lake Mitchell Dam is an existing intermediate sized, Category 1 (high hazard) dam, which is a dam whose failure may cause loss of life. The dam is located in the City of Mitchell in Davison County. The dam is on Firesteel Creek on the city's north side.

An updated inflow design flow study by Houston Engineering submitted with this variance request. The updated study indicates the dam can only accommodate a 23 percent Probable Maximum Flood (PMF) event. Water Rights staff reviewed the study by Houston Engineering and found it consistent with the current best practices for this type of study.

Pursuant to ARSD 74:02:08:07, the minimum design flood that an intermediate sized, high hazard Category 1 dam needs to accommodate without failure of the dam is the 50 percent PMF event unless a dam is granted a variance pursuant to SDCL 46-7-5.3. Therefore, the City has requested a variance.

Ms. Kilts stated that, for clarification, the 23 percent PMF event is the current capacity of what is in place at the dam.

SDCL 46-7-5.3 states that upon petition to the Board by the owner of a dam, the Chief Engineer may investigate and conduct the necessary analysis to determine the potential damage to

downstream residents or property if a dam were to fail due to inadequate spillway capacity. After the investigation and analysis, the Chief Engineer may recommend that a variance to Board rules relating to minimum spillway design requirements for dams be granted or denied. The recommendation, notice, and hearing before the Board shall be conducted pursuant to the procedure contained in chapter 46-2A. Following the hearing, the Board may grant a variance upon a finding that failure of the dam due to inadequate spillway capacity will not increase the potential for damage from flooding to downstream residents or property.

Ms. Kilts stated that Figure 2 on page 7 of the staff report shows the depth-velocity-flood danger relationship for houses built on foundations. Figure 2 is color coded to show low risk up to high risk for occupants of houses in relation to increasing the depth and velocity of a flood event.

Table 4 on page 10 of the staff report compares the risk to downstream structures at with the dam failing at 23 percent PMF event (current capacity) and the risk to downstream structures with no dam failure if the dam was modified to be able to pass the 50 percent PMF event. This information indicates that at the current level of downstream development, there is a case for a variance to allow the current spillway capacity to be maintained since requiring the spillway to be upgraded to meet the rule would cause increased risk of damage to downstream residences. The location of the structures listed on Table 4 is shown on the first set of maps in Appendix A of the Houston report.

Acting Chief Engineer Mathiowetz recommended the Board grant the variance with the following qualifications:

1. Construction or removal of a dam as defined by Administrative Rules of South Dakota (ARSD) 74:02:08:01(7) will need to comply with ARSD Chapter 74:02:08, Safety of Dams Rules, including approval of plans and specifications by the Chief Engineer prior to any reconstruction, alteration, repair, or breaching of the dam.

2. The Emergency Preparedness Plan (EPP) shall be updated and reviewed annually. The EPP is required to include details on how and when to warn the residences and business that are most at risk for loss of life from a dam failure.

3. The dam owner is responsible for ensuring an EPP tabletop exercise be held at least every six years.

4. The variance is subject to periodic review. Upon review, if it is determined that the risk associated with the variance has increased the potential for damage from flooding to downstream residents of property compared with the risk associated with compliance with the Safety of Dams Rules, the Chief Engineer may recommend revocation of the variance to the Board. Any such recommendation is subject to the procedure contained in SDCL Chapter 46-2A.

Ms. Kilts answered questions from the Board regarding a periodic review of the variance.

Motion by Comes, seconded by Freeman, to grant the variance from spillway requirements for

Lake Mitchell Dam. The 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. The well owner under this Permit shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

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 each year.

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. 8987-3, VIC UTECH: A court reporter was present, and a transcript of this hearing was prepared. A copy of the transcript may be obtained by contacting Carla Bachand, Capital Reporting Services, PO Box 903, Pierre SD 57501, telephone number (605) 222-4235.

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

Please refer to the transcript or the audio recording for the full proceeding.

Chairman Larson opened the hearing at 10:00 a.m.

Stacy Hegge and Marcus Hluchy, Gunderson, Palmer, Nelson & Ashmore, appeared on behalf of the applicant, Vic Utech.

Emily Greco, Assistant Attorney General, appeared on behalf of the Chief Engineer and the Water Rights Program.

James Moore, Woods Fuller Law Firm, appeared on behalf of the intervenor, Spring Creek/Cow Creek Sanitary District.

The purpose of the hearing was to consider Water Permit Application No. 8987-2, submitted by Vic Utech, to appropriate up to 2.45 acre-feet of water annually at a maximum pump rate of 0.22 cubic feet of water per second (cfs) from one existing well completed into the Grey Goose aquifer (90 feet deep). The well will supply water for commercial use at an RV Park located in Sully County, approximately 12 miles northwest of Pierre, SD.

This application uses the same well that is currently authorized under Water Right No. 8008-3 authorizing irrigation of 131 acres. The proposed appropriation of up to 2.45 acre-feet of water annually at a maximum pump rate of 0.22 cfs would be in addition to the 2.22 cfs, authorized by No. 8008-3. Combined, Water Right No. 8008-3 and Water Permit Application No. 8987-3 will appropriate groundwater at a maximum combined diversion rate of 2.44 cfs from one existing well completed into the Grey Goose aquifer.

Ms. Hegge moved to dismiss the Spring Creek/Cow Creek Sanitary District and its opposition to the water permit application because the sanitary district has no standing to proceed.

Mr. Moore stated that the standing argument is a way to avoid deciding the merits of the arguments that the sanitary district has raised. He requested that the motion to dismiss based on standing be denied.

Ms. Greco stated that the Board does not have the regulatory authority to decide matters of the district's ordinances.

Chairman Larson made a motion to enter into executive session for the purpose of consulting with legal counsel regarding proposed or pending litigation pursuant to SDCL 1-25-2(3). Freeman seconded the motion, and the motion carried unanimously.

The Board went into executive session at 10:14 a.m. and came out of executive session at 11:00 a.m.

Chairman Larson moved to deny the motion to dismiss the intervening petition. Freeman seconded the motion. A roll call vote was taken, and the motion carried with Comes, Dixon, Freeman, Hepler, Holzbauer, and Larson voting aye.

Witnesses administered the oath and testifying on behalf of the DANR Water Rights Program:

Austin Settje, Staff Engineer
Adam Mathiowetz, Acting Chief Engineer

Exhibits offered by the Water Rights Program and admitted into the record:

Exhibit 1 – Administrative file, Water Permit Application No. 8987-3, Vic Utech

Exhibit 2 – Austin Settje curriculum vitae
Exhibit 3 – Adam Mathiowetz curriculum vitae

Witness administered the oath and testifying on behalf of the applicant:

Victor Utech

Exhibits offered by Ms. Hegge on behalf of Victor Utech and admitted into the record:

Exhibit 103 – Map of the area where the well is located
Exhibit 104 – Map showing state parks – Cow Creek Recreation Area, Spring Creek Recreation Area, and Okobojo Point Recreation Area

Ms. Hegge renewed her motion to dismiss. Chairman Larson denied the motion to dismiss.

Witness administered the oath and testifying on behalf of the Spring Creek/Cow Creek Sanitary District:

Todd Schneider

Exhibits offered by Mr. Moore on behalf of Spring Creek/Cow Creek Sanitary District and admitted into the record:

Exhibit 201 – Resolution 2024-5 requiring all premises to have water and sewer service available to the premises through the Spring Creek/Cow Creek Sanitary District
Exhibit 203 – Resolution 2024-1 giving approval to certain drinking water facilities improvements; giving approval to the issuance and sale of a project revenue bond to finance, directly or indirectly, the improvements to the facilities, approving the form of the loan agreement and the project revenue bond and pledging project revenues and collateral to secure the payment of the bond, and creating special funds and accounts for the administration of funds for operation of the system and retirement of the bond and providing for a segregated special charge or surcharge for the payment of the bonds.
Exhibit 204 – Resolution 2022-2 giving approval to certain clean water facilities improvements, giving approval to the issuance and sale of a revenue bond to finance, directly or indirectly, the improvements to the facilities, approving the form of the loan agreement and the revenue bond and pledging revenues and collateral to secure the payment of the revenue bond, and creating special funds and accounts for the administration of funds for operation of the system and retirement of the revenue bond and providing for a segregated special charge or surcharge fort the payment of the bonds.
Exhibit 205 – Resolution 2022-3 giving approval to certain drinking water facilities improvements, giving approval to the issuance and sale of a revenue bond to finance, directly or indirectly, the improvements to the facilities, approving the form of the loan agreement and the revenue bond and pledging revenues and collateral to secure the payment of the revenue bond, and creating special funds and accounts for the administration of funds for operation of the system and retirement of the revenue bond.
Exhibit 206 – Ordinance No. 7, Regulation of Water Use

Exhibit 209 – Minutes of the May 10, 2023, Spring Creek/Cow Creek Sanitary District meeting
Exhibit 210 – Petition for a resolution of exclusion of real property from the Spring Creek/Cow Creek Sanitary District
Exhibit 211 – Sixth Judicial Circuit Notice of Appeal
Exhibit 212 – Sixth Judicial Circuit Notice of Intent to Dismiss Action
Exhibit 213 – Map of Codger's Castaway Subdivision
Exhibit 214 – December 22, 2021, facility plan, amended in June 2023, prepared by Bartlett & West, Lagoon Improvements, Spring Creek/Cow Creek Sanitary District
Exhibit 218 – November 20, 2024, minutes of Spring Creek/Cow Creek Sanitary District meeting
Exhibit 219 – Order for organization and incorporation of Spring Creek/Cow Creek Sanitary District of Hughes County and Sully County, SD
Exhibit 222 – August 13, 2025, letter from Todd Schneider, Spring Creek/Cow Creek Sanitary District to Vic Utech regarding plans for a proposed RV park

Following direct examination, cross-examination, redirect, and questions from the Board members Chairman Larson declared the testimony and evidence closed in this matter.

Chairman Larson made a motion to go into executive session for the purpose of consulting with legal regarding this matter pursuant to SDCL 1-25-2(3).

The Board went into executive session at 1:55 p.m. and came out of executive session at 2:21 p.m.

Chairman Larson requested a motion from the Board to either approve or deny the application.

Chairman Larson made a motion to deny Water Permit Application No. 8987-3, Vic Utech, because it is not in the public interest due to it being in conflict with an ordinance that was issued by another public subdivision and the body politic of the State of South Dakota. Hepler seconded the motion. A roll call vote was taken, and the motion carried with Comes, Dixon, Freeman, Hepler, Holzbauer, and Larson voting aye.

Mr. Moore will prepare proposed Findings of Fact and Conclusions of Law by May 29, 2026. Objections and counter proposals are due by June 10, 2026.

CONSIDER WATER PERMIT APPLICATION NO. 8991-3, CENTURY SWINE RE, LLC: Chairman Larson opened the hearing at 2:30 p.m.

Emily Greco, Assistant Attorney General, appeared on behalf of the Chief Engineer and the Water Rights Program.

Paul Tschetter, Boyce Law Firm, appeared on behalf of the applicant, Century Swine RE, LLC.

Connor Shaull, Attorney, appeared on behalf of petitioners, Cindy, Larry, and Garrett Heinz and petitioner Amanda Arbaca.

Ms. Greco asked if any of the other petitioners were present. No other petitioners were present in person or remotely.

Ms. Greco offered Exhibit 1, the administrative record. The exhibit was admitted into the record.

Ms. Greco called Austin Settje, who had previously been administered the oath.

Ms. Greco offered Exhibit 2, Austin Settje curriculum vitae.

Mr. Settje stated that he prepared the curriculum vitae, and it is up to date. He stated that under Work Experience in the first two lines, the words "water" and "Natural" were spelled incorrectly.

The exhibit was admitted into the record.

Mr. Settje, a staff engineer in the Water Rights Program, testified regarding his job duties, the water permit application submitted by Century Swine, and his report on the application.

Mr. Settje provided the following testimony in response to questions from Ms. Greco.

Water Permit Application No. 8991-3 proposes to appropriate up to 154 acre-feet of water annually at a maximum combined pump rate of 0.50 cubic feet of water per second (cfs) from one existing well and up to two additional wells to be completed into the Dakota aquifer for commercial use in a swine facility located in Edmunds County approximately ten miles southwest of Roscoe, SD.

The scope of the technical review was to determine the availability of water and the potential for unlawful impairment.

The Dakota Formation underlies most of eastern South Dakota. The well completion report for this location indicates a saturated aquifer thickness of 185 feet and that the aquifer is confined in this area. The artesian head pressure at this location is 1,175 feet above the top of the aquifer materials at this location. There are uncontrolled flowing wells in this area.

The Dakota Aquifer is older than or stratigraphically lower than the Greenhorn Formation. The Greenhorn Formation is a marker bed for drillers. The exception in SDCL 46-6-3.1 does not apply because the applicant's proposed use is not a water distribution system. In this case, Mr. Settje did assess whether withdrawals exceed recharge even though it is older or stratigraphically lower than the Greenhorn Formation.

When examining recharge versus withdrawal Mr. Settje used an average annual review. Using an average provides a little more detail and understanding of predictions.

Recharge to the Dakota aquifer in South Dakota occurs through upward leakage from underlying aquifers, the Madison and Inyan Kara, with a higher potentiometric surface than the Dakota aquifer, downward seepage through overlying confining layers, and through the infiltration of

precipitation on the Newcastle Formation that outcrops in the Black Hills. Based on the available information, the estimated recharge to the Dakota Aquifer is approximately 79.4 cfs, which is 57,500 acre-feet per year. Mr. Settje relied on the Bredehoeft and others 1983 report in approximating the recharge number. While outdated, the Bredehoeft and others' estimate is the best information available to give a sense of the scale of the recharge to the Dakota Aquifer in South Dakota. For example, the recharge estimates used for the Madison and Inyan Kara Aquifers in the Bredehoeft and other analysis are much lower than estimates calculated by the more recent research of Carter and others (2002) and Medler and others (2025). The Madison is one of the aquifers that recharges the Dakota Aquifer.

At the time of Mr. Settje's report there were 260 water rights/permits and seven future use permits reserving 4,287 acre-feet of water from the Dakota Aquifer. Of the 260 active water rights/permits, 97 are primarily for water distribution systems, 21 are for irrigation, 114 are for commercial use, seven are for industrial use, ten are for domestic use, four are for fish and wildlife propagation, two are for geothermal use, two are for institutional use, and three are for recreation. Based on his review, Mr. Settje determined the estimated average annual withdrawal rate from the Dakota aquifer is approximately 29,728 acre-feet per year. This was calculated using a combination of future use, non-irrigation use, irrigation use, and this application, if approved, assuming full volume.

Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the Dakota Aquifer for the proposed appropriation.

The Water Rights Program monitors 46 observation wells completed into the Dakota Aquifer. Mr. Settje reviewed all of the observation wells, but more closely reviewed the three wells closest to the location of the application; ED-85A, which is approximately 34 miles east, HD-87A, which is approximately 76 miles southeast, and AU-89A, which is approximately 126 miles southwest. Figure 1 on page 7 of Mr. Settje's report is a graph showing the elevation of water levels for these observation wells. Since discharge from uncontrolled flowing wells is likely to continue until water levels in the aquifer decline to being at or below the ground surface, continuing to allow beneficial pumping to occur reduces the amount of water being discharged to waste.

There is a reasonable probability that unappropriated water is available from the Dakota Aquifer for the proposed appropriation.

The closest Dakota Aquifer water right/permit, not held by the applicant, to the proposed diversion points is Water Permit No. 8666-3, which is held by SFP LLC. The diversion point for Water Permit No. 8666-3 is located 8.8 miles east of the diversion points for this application.

There are domestic wells on file with the Water Rights Program that are completed into the Dakota aquifer, with the closest domestic wells on file, not held by the applicant, located approximately 3.8 miles to the southeast and 5.7 miles to the northeast of the proposed diversion points. There may be other domestic wells completed into the Dakotas Aquifer that are not on file with the Water Rights Program because they predate reporting requirements.

The requirement for a well to receive protection from unlawful impairment is that it has to be an adequate well. An adequate well is defined as a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet. Given the saturated thickness of the Dakota Aquifer in Edmunds County and the lack of substantiated well interference complaints for adequate wells completed into the Dakota Aquifer in Edmunds County or the surrounding counties, any drawdown created from the proposed diversion is not expected to cause an unlawful impairment to existing water right/permit holders or domestic users with adequate wells.

Petitions opposing the application for a water right permit were filed by Larry, Cindy and Garret Heinz, Justin Baer, Lynette Kraft, John Schneider, Delores Prisbie, Neil Haar, Steve Hellwig, Colleen Haar, Duane Haar, Rich Rohrbach, Bryce Rohrbach, Jaydon Allen, and Amanda Abarca.

Mr. Settje stated that after reviewing the petitions it did not change his opinion on the availability of water and the potential for unlawful impairment.

In response to cross-examination by Mr. Tschetter, Mr. Settje testified that his estimates regarding withdrawals are on the higher side. The general approach to calculations regarding recharge was done on the conservative to lower side.

Mr. Tschetter asked if the Water Rights Program has received complaints for non-adequate wells in Edmunds County. Mr. Settje said he would not be able to recall all of the complaints for the Dakota Aquifer in this region. He was just looking for complaints for adequate wells that were investigated at the time, and he did not see any that would appear to be an adequate complaint.

Mr. Tschetter asked if it is correct that there may be people who have experienced a challenge with water access from their domestic well, but whether or not that complaint is related to an adequate well would be analyzed by the Water Rights Program. Mr. Settje answered that is correct. The Water Rights Program looks at all complaints. Mr. Settje's report concluded that there are no complaints on file with the Water Rights Program regarding well interference or adequate wells completed into the Dakota Aquifer.

Mr. Tschetter said regarding the review process, Mr. Settje clearly has the appropriate education, but he is curious if Mr. Settje has the benefit of others in the Water Rights Program with more experience reviewing his work. Mr. Settje stated several of the other engineers in the program who have experience in writing the technical reports specific to the Dakota Aquifer review his report.

In response to questions from Mr. Tschetter regarding the hydrologic budget, Mr. Settje stated that specifically he looked at discharge which takes into account everyone who is actively taking water out of the aquifer and then the recharge based off of the best available studies provides the most accurate recharge amount. Based off of the recharge coming into the aquifer and the totality of all withdrawals being taken from the aquifer are balanced and from that we are able to determine if the aquifer has available water in storage.

On cross-examination by Mr. Shaull, Mr. Settje testified that between the time he graduated from the School of Mines and Technology in 2022 and 2024 when he was hired by the Water Rights Program he had an opportunity to be a sound engineer so he did some traveling around the country and helped manage a tour for a band. He noted that a sound engineer doesn't have any real engineering background compared to his degree. Mr. Settje said he does not currently hold a professional engineer's license or professional geologist license. His course work in college did not contain any course work groundwater hydrogeology analysis.

Mr. Settje said he is the author of the report for Water Permit Application No. 8991-2. The recharge analysis in the report primarily relies on the Bredehoeft and others 1983 report, which is listed as outdated in the report. Mr. Settje said he did not ever commission or perform an updated recharge study for this report.

Mr. Shaull asked what it would look like if there were new documents and new research that went into the report. Mr. Settje answered that the Water Rights Program would take the most up-to-date information available and then have to re-adjust what the recharge value would be then compare that to the withdrawals. So, if the newer studies were to say there was more water available then that number would be higher.

Mr. Shaull asked who would be performing the new studies. Mr. Settje answered that there are studies performed by South Dakota Geological Survey and U.S. Geological Survey, which are probably the most common.

Mr. Shaull said on page 3 of Mr. Settje's report he wrote that it is unknown whether the true recharge rate of the Dakota Aquifer is higher or lower than Bredehoeft and others (1983) estimates. Mr. Settje said he used the best available information at the time.

Mr. Shaull said at the time the Bredehoeft report was outdated, but that is what Mr. Settje used. He asked if Mr. Settje looked for other studies that may have been done on the Dakota Aquifer to give us a more present-day recharge rate. Mr. Settje said he looked at all available information that was published at the time.

Mr. Shaull asked what it would look like if Mr. Settje were to conduct what Bredehoeft did in 1983 today. Mr. Settje answered that what Bredehoeft did and what he does are separate things. Bredehoeft would have a much stronger foundation in hydrology to be able to determine exactly how water is able to move through these formations and determine things such as recharge rate through certain aquifers and how those materials affect the transmissivity of that material. Mr. Settje said he looks at what is available then he writes the study on a comparing basis between that recharge and withdrawal. In the report it says the recharge rate could be higher or it could be lower. Mr. Settje said he believes more recent studies show that more recharge could be available.

Mr. Shaull said page 6 of the report Mr. Settje wrote that it is currently unknown how much water is being discharged from the Dakota aquifer through uncontrolled flowing wells. He asked what Mr. Settje meant when he wrote that. Mr. Settje stated that there is not currently a way to

measure how much water is being lost to uncontrolled flowing wells in the Dakota Aquifer. Mr. Settje said he would not say an uncontrolled flowing well is necessarily withdrawing from the aquifer. An uncontrolled well is a natural process that is happening within the aquifer as it is trying to reach equilibrium. The pressure of the Dakota Aquifer is what is causing the water to be pushed up through the ground and expelled on the surface.

Mr. Shaull asked if that affects withdrawal at all. Mr. Settje said it affects the way the Water Rights Program looks at the observation wells, which is something that staff definitely considers in the report. Some show a slight decline while the one closes to this application is stable. It could just show that the uncontrolled flowing wells in those areas are associated with the slight decline. Mr. Shaull asked if it is correct to say those wells included domestic wells that predate a certain time period. Mr. Settje said this is correct. Mr. Shaull asked if there could be wells closer to the applicant's proposed well in Application No. 8991-3 that weren't in consideration in this report. Mr. Settje said that is possible.

Mr. Shaull asked, on page 6, when Mr. Settje wrote that the Bredehoeft and others (1983) recharge estimate relies on outdated assumptions, what did he mean by outdated assumptions? Did that have to do more with methodology or was it just that the analysis was solid but it's 43 years ago so the time of history is not updated on a contemporary sense. Mr. Settje answered that it would be outdated so newer information that may be coming could change the amount. Mr. Shaull asked if that includes the methodologies that Bredehoeft used in 1983. Mr. Settje said he is not extremely knowledgeable on every method that Bredehoeft used to come up with the estimate, but he does know that this is the most accurate information we had at the time to use in this report.

Mr. Shaull asked if Mr. Settje's recharge estimate has a margin of error? Mr. Settje said it is labeled as approximately, and he is not able to say what the margin of error is, but it is as accurate as possible based off the information he had to work with.

Mr. Shaull asked Mr. Settje if, when he writes a report, he includes irrigation, livestock, municipal, and water usage in the cumulative analysis. Mr. Settje answered that the estimate includes future use, non-irrigation, irrigation, and this application.

Mr. Shaull said there are several conditions in the recommendation of the Acting Chief Engineer for Water Permit Application No. 8991-3. He asked Mr. Settje what role he plays in the qualifications that are listed in the engineer's ultimate report and recommendation. Mr. Settje stated that the technical report is for the chief engineer to be able to make recommendations and issue the qualifications. Mr. Shaull asked Mr. Settje if he had seen the seven qualifications prior to now. Mr. Settje answered that he did not.

Mr. Shaull asked Mr. Settje how an application is processed by the Water Rights Program and who determines whether it is reviewed by an engineer 1 versus an engineer 4. He asked if it depends on depth or the amount of water that is being proposed in the application. Mr. Settje answered that would be a question for the chief engineer.

On re-direct by Ms. Greco, Mr. Settje stated that he has authored approximately 40 reports to date. Besides the report for Application No. 8991-3, he has prepared four or five other reports regarding the Dakota Aquifer. Those water rights were ultimately granted.

In response to questions from Ms. Greco, Mr. Settje stated that neither he nor other engineers in the Water Rights Program conduct recharge studies. The Dakota Aquifer receives recharge through infiltration from other aquifers, including the Madison and Inyan Kara Aquifers. On page 3 of his report Mr. Settje noted that there are updated studies for the Madison and Inyan Kara
Aquifers that suggested higher recharge to those aquifers, so the aquifers that are recharging the Dakota Aquifer have a substantial amount of recharge. Because the Bredehoeft study is outdated, he can't accurately say whether the recharge today is higher or lower. Based on Mr. Settje's experience he believes the number could be higher.

Mr. Tschetter asked if it is correct that Mr. Settje was asked to analyze whether there is a reasonable probability that there is unappropriated water available for the applicant's proposed use, and he concluded that there is at least 27,000 acre-feet per year available. Mr. Settje answered that is correct.

Mr. Tschetter asked if it is correct that Mr. Settje was asked to analyze whether or not the proposed diversion can be developed without unlawful impairment of existing domestic wells and water rights and Mr. Settje concluded that it can be. Mr. Settje answered that is correct.

Mr. Shaull asked if it is correct that Mr. Settje testified that he has authored approximately 40 reports since his tenure at the Water Rights Program. Mr. Settje answered that is correct. Mr. Shaull asked Mr. Settje if he recalls any petitions, comments, or contested case hearings in which he was the author or a report where someone challenged the recharge rate, like the petitioners are challenging in this case. Mr. Settje said he does not recall.

Mr. Shaull asked if Mr. Settje used the same studies he used to calculate the recharge rate for this report in the reports he authored for the previous four or five Dakota Aquifer applications, and did he use the same outdated adjectives to describe the Bredehoeft study in those reports. Mr. Settje answered that he does not recall if the same language was used throughout all of the reports.

Chairman Larson asked if Mr. Settje used a study from 1909 for the recharge data. Mr. Settje answered that he used the Bredehoeft and others study from 1983. Bredehoeft and others attempted to match Darton's 1909 study. Darton had done the original study in the Dakota Aquifer, and Bredehoeft wanted to replicate some of those parts and be able to build off of Darton's work. Mr. Larson stated that Mr. Settje says in his report that it is not known what the recharge rate is. Mr. Settje stated that he does not know the exact recharge amount; he tried to use the most accurate information available at the time, which is Bredehoeft's study.

Ms. Greco called Adam Mathiowetz, Acting Chief Engineer, who was previously sworn.

Ms. Greco offered Exhibit 3, Adam Mathiowetz curriculum vitae.

Mr. Mathiowetz stated that he prepared his curriculum vitae and it is accurate and up to date.

The exhibit was admitted into the record.

In response to questions from Ms. Greco, Mr. Mathiowetz testified regarding his educational background, his current position, and work experience.

Mr. Mathiowetz stated that he has authored more than 200 reports and he has reviewed approximately the same number of reports for other staff engineers. When a water permit application is submitted and deemed complete, Mr. Mathiowetz assigns it to an engineer for a technical review. The engineer does a review regarding the availability of unappropriated water and potential for unlawful impairment. The report is then given to all other technical engineers for a peer review to look for both the technical issues or grammar and spelling issues and to make sure everything that should be considered was. After those corrections are made, the report is provided to the administrative staff within the program. Another review is conducted to check for technical information, grammar, and legal issues. Upon completion of that review and finalization of the report the Chief Engineer makes a recommendation. The recommendation is then public noticed in newspapers and on the public notice webpage. The public notice is placed in the newspaper of record for the county where permit application is and water use is to be. If that is not a daily newspaper, it is also published in the nearest daily newspaper. There is a deadline for submitting comments, petitions in opposition by members of the public, or if the applicant disagrees with the recommendation. If the recommendation was for approval of the application and no petitions in opposition were submitted, the Chief Engineer of the Water Rights Program can administratively approve the application on behalf of the Water Management Board. In most other instances if, for example, there is opposition from the public or applicant, or if there is a deferral recommendation, the application is brought before the Water Management Board for hearing.

In response to questions from Ms. Greco, Mr. Mathiowetz testified that he reviewed the application then assigned it to Austin Settje to write the technical report. During Mr. Settje's writing of the technical report Mr. Mathiowetz assisted him as needed in understanding or processing information. Mr. Mathiowetz then peer-reviewed the report as one of the technical engineering staff. When it was sent for administrative review, Mr. Mathiowetz again reviewed the report to make sure any language that was changed for grammar or legal purposes doesn't affect any of the technical meanings.

The recommendation for this application was written by Mark Mayer who was the previous Acting Chief Engineer. Mr. Mathiowetz testified that he agrees with Mr. Mayer's recommendation, which is for approval of Application No. 8991-3 with the following qualifications:

1. The wells approved under Water Permit No. 8991-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner must control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

2. The proposed wells authorized by Permit No. 8991-3 must be constructed by a licensed well driller and construction of the well and installation of the pump must 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.

3. The proposed new wells and any future replacement wells must meet the adequate well construction standard as defined in Administrative Rule of South Dakota (ARSD) 74:02:04:20. The new wells and any replacement wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.

4. Water Permit No. 8991-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-36.2 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.

5. Water Permit No. 8991-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:

   a) Chapter 74:54:01 Ground Water Quality Standards,
   b) Chapter 74:54:02 Ground Water Discharge Permit,
   c) Chapter 74:51:01 Surface Water Quality Standards,
   d) Chapter 74:51:02 Uses Assigned to Lakes,
   e) Chapter 74:51:03 Uses Assigned to Streams, and
   f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions

6. The Permit holder must report to the Chief Engineer annually the amount of water withdrawn from the Dakota Aquifer.

7. Water Permit No. 8991-3 authorizes a total annual diversion of up to 154 acre-feet of water annually from the Dakota Aquifer.

Ms. Greco asked Mr. Mathiowetz to tell the Board how this application is for beneficial use and in the public interest.

Mr. Mathiowetz stated that the water is for a beneficial use in a commercial animal feeding operation. South Dakota is an agricultural state, and as statutorily required, the Water Management Board is to place the water resources of the state to the maximum beneficial use. Mr. Mathiowetz stated that putting water to beneficial use to feed livestock creates economic value and provides a livestock opportunity, so it would be in the public interest.

In response to a question from Ms. Greco regarding uncontrolled flowing wells, Mr. Mathiowetz stated that the water that is flowing from the uncontrolled wells is flowing to waste, and some of the water may be used, but not all of it. The Water Rights Program's position regarding uncontrolled flowing wells is based off of previous Water Management Board that uncontrolled

flowing wells are flowing to waste, and that water can be appropriated because it does not constitute an appropriative withdrawal. It would be better to appropriate this water for a beneficial use before it is able to flow out of an uncontrolled well.

Ms. Greco asked how the appropriation would prevent the uncontrolled flowing well. Mr. Mathiowetz stated that an uncontrolled flowing well is reliant on having head pressure above land surface, which means that when you drill a well into the aquifer the water level rises above the top of the aquifer. If you are placing water to use, there is always going to be some drawdown. That is the physics of how wells work. If the water is placed to use, it is reducing water that could be flowing to waste.

In response to questions from Ms. Greco regarding recharge studies, Mr. Mathiowetz said he is familiar with recharge studies, but he has not conducted recharge studies himself. The Water Rights Program has not conducted any recharge studies; however, he believes the South Dakota Geological Survey, which is part of the Department of Agriculture and Natural Resources, has done some recharge studies.

Ms. Greco asked what is required for a recharge study. Mr. Mathiowetz stated that some of that depends on the specific aquifer. In general, you would look at the geology, which includes drilling holes and reviewing what holes have already been drilled. You would look at the hydrology, so you're going to consider water levels whether that is in existing wells or in observation wells that are new. You are also going to look at recharge sources and how that recharge mechanism occurs, which will involve precipitation, infiltration rates if it's a shallower aquifer that does rely on direct infiltration from precipitation on the land surface versus on a recharge zone, as well as evaporation and other types of methodology that prevents some of that precipitation from entering the aquifer. It depends on the scale of the study, but a relatively small aquifer, 20 to 30 square miles, could take a few years. For an aquifer, such as the Dakota Aquifer, which covers the entire state, a less detailed study may take five to 10 years, and a highly detailed study could take 20 years. The Water Rights Program is left with reviewing the available studies that have been completed or waiting for a study to be completed.

Ms. Greco asked for Mr. Mathiowetz's opinion regarding the status of the Bredehoeft study. Mr. Mathiowetz stated that believes some of the discussion was not necessarily as clear as it could be as written in Mr. Settje's report. With Bredehoeft, there are certain data points used in the estimation that we know are outdated. In particular, the incoming recharge from the Madison and Inyan Kara Aquifers. There was a 2025 study that was completed by the USGS that indicated more recharge goes into those aquifers. Therefore, there would be greater potential for that recharge to get into the Dakota Aquifer. In its general status, the methodologies and other numbers are relatively good, and this is the best reasonably available information, which is what the Water Rights Program is charged to use.

Ms. Greco asked Mr. Mathiowetz if he would be able to approximate what the range would look like if there was a range above or below that 27,000 acre-feet. Mr. Mathiowetz said he would expect the range at this time to lean slightly higher. He would not expect a plus or minus more than 5,000 acre-feet, based on his experience looking at other studies conducted for multiple aquifers because usually you're looking at a percentage variance that is related to the quality of

the methodology and numbers used to calculate the equations. In the past, we used pencil, paper, and maybe a calculator. Today, we have high-powered computers that can handle more complicated equations and larger data sets. So, the methodology is the same, but the ability to process extra data has increased. Another variable is changing precipitation patterns and also the availability of that precipitation data. From 1983 we now have 42 more years of precipitation data, so that would also inherently affect that calculation.

Mr. Mathiowetz stated that he reviewed the petitions in this case. One of the main concerns in the petitions was the sufficiency of the data. He stated that for the withdrawals portion of the report, the Water Rights Program uses the data that is available, which is the amounts of withdrawals reported by the appropriative permit holders. The estimation method the Water Rights Program uses is for those that do neither, the 60 percent methodology has shown that when compared to many other types of use, that is reasonable and that number has been accepted multiple times throughout the history of the Water Management Board. When it comes to recharge, the Water Rights Program is charged to use best reasonably available information, which is Bredehoeft, but even when taking in the fact that there is new data for some portions of their methodology, that new data indicates that the recharge number is probably on the low side.

Another concern regarded the entire impact of Century Swine's operation. Mr. Mathiowetz stated that there are two applications submitted by Century Swine to be considered by the Board today. They are for two separate aquifers, and they are very hydrologically distinct with several hundred feet between them, most of which is confining layers hydrologically separating them.

Another concern was that Century Swine was asking for more water than they might actually use. Mr. Mathiowetz stated that the Water Rights Program does not set the amount of water requested by the applicant. Staff does offer advice if the applicant has questions, and staff generally suggests that if the applicant is uncertain, to apply for a bit more water than they think they will need because when the licensing inspection is conducted, it will be licensed down to what is built. If they over build, then they have to apply for a new permit. When they ultimately get the license, they're licensed for the amount of water that they actually use.

Mr. Tschetter asked if a magnitude of 27,000 acre-feet annually is the delta between the recharge and the withdrawals. Mr. Mathiowetz said he believes that is approximately correct. He stated that the volume of water being requested with this application is 154 acre-feet per year.

Mr. Tschetter asked what the Water Management Board has found in the past for other hog facilities with respect to public benefit and public interest. Mr. Mathiowetz stated that in general, the Water Rights Program and Water Management Board has found that placing water to use to provide water to hogs in a commercial operation is a beneficial use of the water and is in the public interest.

In response to questions from Mr. Shaull, Mr. Mathiowetz stated that he assisted Mr. Settje, as needed, in preparing the technical report for this application; he also reviewed the completed report. The report states that the recharge rate could be higher or lower than estimated, and the report does not include a margin of error for the plus or minus 5,000 acre-feet he testified about.

Mr. Shaull asked if the report discusses the public interest or benefit that Mr. Mathiowetz talked about. Mr. Mathiowetz answered that public interest is outside the scope of the report.

Mr. Shaull stated that under SDCL 46-2A-9, there are four prongs that are required for a permit to be issued, and one of those prongs is public interest. He asked if the permit is granted in violation of an existing Edmunds County ordinance, would that be a problem for the public interest prong. Mr. Mathiowetz answered that it depends on the nature of the ordinance.

Mr. Shaull asked if the ordinance were to require the water supply to the CAFO to be viewed as one, and DANR viewed that as two, would that be a problem to the public interest. Mr. Mathiowetz answered no, because the water supplies are distinct from each other and, therefore, would have to be considered independently.

Mr. Shaull asked if the cumulative impact has to be considered. Mr. Mathiowetz stated that each application is for an independent water source. The Water Rights Program has to manage the water sources independently of each other. Staff reviews a hydrologic budget and observation wells. An observation well cannot measure two aquifers. Therefore, the technical review, which is the report, needs to only be able to consider that one aquifer. That is why, when there are multiple applications for one facility, but with different water sources there are two applications, two reports, and two recommendations. The recommendation is based off of the application.

Mr. Shaull asked if the public interest or the beneficial use are one in the same regardless of the water source, doesn't that have to be looked at cumulatively. Mr. Mathiowetz said not necessarily because if there is a well in one aquifer and not the other, there would not necessarily be an interest in the second aquifer by some people.

Mr. Shaull said Mr. Mathiowetz if beneficial use would the same for two wells that are supplying water to a commercial operation, and what is the distinction between the beneficial use analysis that was done. Mr. Mathiowetz answered that the beneficial use is the type of use, how the water is being placed to use, and the user is the same, but it is a separate application for a separate water source, so they are considered separately. While the consideration for all practical purposes on the beneficial use is the same, they are still separate.

Mr. Shaull asked if the report addresses the beneficial use or the matters of public interest. Mr. Mathiowetz answered that the technical reports address specifically the availability of unappropriated water and the potential for unlawful impairment.

Mr. Shaull asked if Mr. Mathiowetz is aware of any authority that would require him to conduct a recharge study. Mr. Mathiowetz answered no.

Mr. Shaull handed Mr. Mathiowetz Petitioners Exhibit 201, which is a letter written by Circuit Court Judge Sean M. O'Brien, dated April 11, 2012. He stated that, excluding the footnote, four lines up from the bottom of the last paragraph it states, "It seems contradictory to assert that is it not probably that water drawdown annually will exceed the average annual recharge without ever calculating the annual recharge or the average annual recharge." He asked Mr. Mathiowetz if he agrees with that sentence. Mr. Mathiowetz said he agrees with that statement.

Mr. Shaull asked if Mr. Mathiowetz agrees that a recharge study could theoretically be done on the Dakota Aquifer today? Mr. Mathiowetz answered yes.

Mr. Shaull offered exhibit 201. The exhibit was admitted into the record.

Mr. Shaull offered Petitioners Exhibit 202, which is an Order of Reversal and Remand for Rehearing back to the Water Management Board, for the same case as in Exhibit 201, signed by Circuit Court Judge Sean M. O'Brien on May 9, 2012. The exhibit was admitted into the record.

Mr. Shaull asked if Mr. Mathiowetz knows what a cone of depression is? Mr. Mathiowetz answered that he does. Mr. Shaull asked Mr. Mathiowetz to explain what it is.

Mr. Mathiowetz stated that a cone of depression is the drawdown immediately around a pumping well. Mr. Shaull asked if any cone of depression studies were done for the report on Application No. 8991-2. Mr. Mathiowetz answered that he does not believe so. He stated that it is typically not the standard practice of the Water Rights Program when it does not have extensive, high-quality local data on transmissivity available.

Mr. Shaull asked Mr. Mathiowetz to explain what the static water level is. Mr. Mathiowetz said static water level is the water level of an aquifer under static conditions, which is its standard non-pumped condition.

Mr. Shaull asked what the static water level is in this area. Mr. Mathiowetz answered that the report states the well drilled on November 10, 2025, had a static water level of approximately 180 feet below the ground surface. Mr. Shaull asked if that level seems low. Mr. Mathiowetz answered that it does not.

Mr. Shaull asked if the Water Rights Program conducted any study that reflects an average of the static water level in this area. Mr. Mathiowetz answered that part of the review of potential for unlawful impairment as well as one of the tables of Mr. Settje's report referencing historic water levels does include review of that.

Mr. Shaull asked why the static water level for this permit would be substantially lower than the average in the area. Mr. Mathiowetz said some of that depends on what time of year the well was drilled, or if the driller waited long enough for full recovery in the well, and measuring it after the air developed because some wells in their immediate area recover much faster than others. Primary recharge in South Dakota is in the spring and late winter through early summer. A later in the year reading and measurement is typically going to be lower than a spring reading in the same year. There will be some inversions of that, especially with such as a very shallow aquifer when it is a high precipitation year. Later in the year might be higher than the spring, but in general later year readings before the recharge season are lower than readings earlier in the year.

In response to questions from Mr. Shaull, Mr. Mathiowetz stated that when the report was written on January 27, 2026, the conditions were drier, and drier conditions tend to lower water

levels. Another factor is topography, so in terms of elevation, the 80-foot water level and the 180-foot of water level could be the same once elevation is taken into consideration. The well was drilled in 2025.

Mr. Shaull asked how the Water Rights Program analyzes the domestic wells that aren't on record. Mr. Mathiowetz answered that if the Water Rights Program does not have any information to analyze, it can't analyze it. Mr. Shaull asked how the Water Rights Program would obtain that information for wells that predate the recording requirements. Mr. Mathiowetz stated that someone would have to ask the owner of the well to provide enough information to substantiate what aquifer the well is in.

Mr. Shaull showed Mr. Mathiowetz Exhibit 204 and asked if this is the type of information he was discussing previously about owners of domestic wells not on record, as this is the type of information the Water Rights Program would take into consideration. Mr. Mathiowetz answered that information regarding well construction and well depth would be considered. The personal history, which appears to be most of the exhibit, would not necessarily be relevant to determining the well's water source or adequacy in terms of the adequate well rule.

Mr. Shaull asked if the owner of a domestic that doesn't show up in DANR records could submit this information to the Water Rights Program to show potential harm. Mr. Mathiowetz answered that as part of a petition this would be a reasonable form. He noted that this well is not completed into the Dakota Aquifer as listed in Exbibit 204, based on depth alone. The Water Rights Program has a form available for registering a domestic well, so it is included in the database.

Mr. Shaull asked if the Water Rights Program would take into consideration the potential harm as part of the public interest prong for this well. Mr. Mathiowetz answered yes, for the aquifer this well is completed into, which is not the Dakota Aquifer, which this particular application is discussing. He knows this particular well is not in the Dakota Aquifer because item 6 specifies that the well was drilled to a depth of 420 feet. The Dakota Aquifer in this area, as testified to by Mr. Settje, is over 1,000 feet deep.

Mr. Shaull asked if it's that simple that there's just a depth that you hit a certain aquifer, and if you keep going lower, you hit a different one. Mr. Mathiowetz answered that at this location it is. Obviously, there is some variation with topography. This is not like the Black Hills where there are hundreds of feet of topography over a quarter mile, and yes, it is this much difference in depth. It is relatively that simple.

Mr. Shaull asked what is above the Dakota Aquifer, based on the 420 feet. Mr. Mathiowetz stated that there are multiple formations above the Dakota Aquifer, and he would need State geologic and stratigraphic map to give the exact detail, but based on the depth of the well, he believes the well is into the Pierre Shale or potentially the Niobrara Formation. Having the well completion report with detailed geology would give him that answer. The location of the well is described in this document, so that would also aid in determining the aquifer.

Mr. Shaull asked if someone owns a well and they are worried that a potential new well will impact it, how does he tell the Water Rights Program about this existing well. Mr. Mathiowetz stated that there are several avenues. The well owner can contact the Water Rights Program, who would work through the process to register, or at the very least, discuss with the well owner what aquifer they well may be completed into. If there is a contested case, that would be part of the petition process.

Mr. Shaull asked if Mr. Settje's report includes all impacted wells, not just those that petitioned or submitted comments or contacted the Water Rights Program. Mr. Mathiowetz stated that Mr. Settje reviewed the wells that he has information available on.

Mr. Shaull asked when he authors reports does Mr. Mathiowetz consider all wells that could be affected by the applicant's proposed well, regardless if the owners of wells have contacted the Water Rights Program. Mr. Mathiowetz said if the Water Rights Program has information on a well and it's determined to be within the same aquifer, they are considered.

Mr. Shaull did not offer Exhibit 204.

In response to questions from Ms. Greco on redirect, Mr. Mathiowetz stated that it is typical for applicants and authorized users to be using water under multiple rights as well as from multiple sources depending on their needs, the quality, location, and availability, and sometimes just the cost to drill a deeper well may cause them to change the water source to something that is less costly. It is not unusual that there are two applications to different sources in this case. It is also not unusual for an applicant to have multiple rights for different sources as well as hook up to a local distribution system, particularly with livestock operations, which like to have backup sources. Based on his knowledge and experience Mr. Mathiowetz can be confident that recharge will still be greater because of the scale of difference between the estimated average annual withdrawals and the estimated recharge. Also, there are uncontrolled flowing wells, and there is some history that there have been estimates by previous Water Rights Program staff and others that there may be thousands of uncontrolled flowing wells, which would then mean based on previous discussion of water that is available for appropriation further add to, not recharge, but water available.

Ms. Greco asked if Mr. Mathiowetz is still confident that there is a reasonable probability that there is available water. Mr. Mathiowetz answered that he is.

Mr. Mathiowetz stated that in preparing for the hearing today, he reviewed the Hanson County Dairy application case file, which includes Exhibits 201 and 202.

Ms. Greco asked if Mr. Mathiowetz is familiar with what a remand from Circuit Court is. Mr. Mathiowetz answered that, to his understanding, it has to be reviewed again in light of input from the Circuit Court. The remand order was not a decision by the Circuit Court to deny the permit.

Ms. Greco asked if the Water Management Board issued a final decision on the Hanson County Dairy application. At Ms. Greco's request, Mr. Mathiowetz read a letter from Lynn Jackson

Schultz and LaBraun addressed to Eric Gronlund in the matter of Water Permit Application No. 7239-3, Hanson County Dairy, advising him that Hanson County Dairy had decided to withdraw its water permit application. The second page is a notice from the Department of Agriculture and Natural Resources to Mr. Kerkvliet, Mr. Schumacher, attorney, and Mr. Hofer who appears to be pro se , Mr. Tornow of Tornow Law Office, and Brad Schnabel who appears to be pro se from former Chief Engineer Garland Erbele dated September 10, 2012 cancelling the September 18-19, 2012 hearing of Water Permit Application No. 7239-3, Hanson County Dairy due to withdrawal of the application. Mr. Mathiowetz stated that ultimately, Hanson County Dairy never pursued this permit application, so there was never a decision by the Water Management Board regarding whether the application could be granted or not based on recharge numbers in the report for the Hanson County Dairy application.

In response to questions from Ms. Greco, Mr. Mathiowetz stated that the initial parts of the rule requiring wells to be reported came in the late 1970s and were generally effective in the mid-1980s. For wells that are not on file, staff can still look at data and draw a conclusion about whether water is available or whether there is unlawful impairment. For availability of water the Water Rights staff would consider the available recharge estimates, the observation well data, and the appropriative withdrawal data that is available, and the staff's knowledge of the aquifer in general. For unlawful impairment staff considers the wells on record as well as if there are notes within the file, and Form 2A of the application which notes the nearest wells, and there are historical maps that may have wells marked on them, however, those don't generally include any kind of depth, so determining the aquifer is challenging at the very best. Observation wells show the water level of the aquifer. There are differences between areas, and further apart observation wells are more in tune with their specific area. The Dakota Aquifer is a large and expansive bedrock. One of the natures of a bedrock aquifer is that it does tend to be broadly more similar and less reactive to annual precipitation changes, so observation wells a little further away from where the analysis is being done are able to be used. Even if every single domestic well that is drilled into the aquifer can't be looked at, the observation well data can still be used to understand whether the aquifer is stable. There are several observation wells in the Dakota Aquifer that show declining water, however, that's been a historic issue that can be traced back to 1909 and is reflected by the knowledge of uncontrolled flowing wells. Mr. Mathiowetz said he was asked earlier in the hearing about the drawdown cone that applies to flowing wells. There is some depression of water level nearer to more uncontrolled flowing wells, therefore the observation wells that are closer to more uncontrolled flowing wells tend to have more reflection of that decline.

Mr. Tschetter asked what would constitute unlawful impairment in the context of the use proposed and the concerns of the petitioners. Mr. Mathiowetz answered that unlawful impairment, as reviewed in the technical reports, primarily considers potential effects of drawdown in consideration of the wells in proximity and also in consideration of their construction and whether they meet the adequate well standard. Based on the best information available, there is a reasonable probability that unlawful impairment is not expected. However, as part of the standard process, the Chief Engineer's recommendation includes the well interference qualification to protect those wells that we maybe don't know about or if there

would be an unexpected aquifer condition that would be on a very small scale that we would not be aware of. The reporting of the actual amount of water withdrawn is primarily to be used for the availability of water use calculation, however, that could provide context if there were to be a question on drawdown issues because, for example, if one year someone withdrew one acre-foot of water, he would not anticipate drawdown 10 miles away versus if there were 1,000 acre-feet of withdrawal 10 miles away, which could be reasonable but it has to be taken into context of the hydrogeology of the aquifer as well as the well construction and many other factors.

Mr. Shaull asked if Hanson County Dairy initially received a permit from the Board. Mr. Mathiowetz said the Board initially approved the recommendation of the Chief Engineer and then it was challenged in Circuit Court, so to his understanding the Hanson County Dairy had an application but never actually had a permit.

Mr. Shaull said the Circuit Court is the one that said because there was no recharge done that statutorily the Board should not have granted that application. He asked Mr. Mathiowetz if that is correct. Mr. Tschetter objected to the extent that it inaccurately relays the contents of the exhibit.

Mr. Larson sustained the objection.

Mr. Shaull asked if the Circuit Court in the Hanson County case remanded the application. Mr. Mathiowetz answered that is correct. Mr. Shaull stated on page 12, the court highlights the contradiction in the Board's assertion that it is not probable that the water withdrawn annually will exceed the average annual recharge without ever calculating the annual recharge or the average annual recharge. Mr. Tschetter objected to the extent that it inaccurately communicates the court's decision with respect to what the contradiction that's being discussed is.

Mr. Larson sustained the objection.

Mr. Shaull said on page 12 of Exhibit 201 the previous sentence seems contradictory in that the court finds these two conclusions to be inconsistent with one another. He asked Mr. Mathiowetz if he understands that these two conclusions clearly refer to the findings of fact that is referenced in this paragraph.

Mr. Tschetter restated his objection. Chairman Larson overruled the objection.

Mr. Mathiowetz said he does believe it is referencing the findings of fact. That sentence does not explicitly state that, but he does believe that is the intent based on the rest of the document.

Mr. Shaull asked who makes those findings of fact in this paragraph. Mr. Mathiowetz answered that he does not know who wrote the findings of fact, but to his understanding findings of fact are prepared and each party has the opportunity to contribute to the findings of fact.

Mr. Shaull said the first sentence of the paragraph may help clarify this ambiguity. First the court finds a contradiction in the Water Management Board's findings of fact and conclusions of

law relating to this issue. Then later on the court talks about how it's contradictory to assert that it is not probably…he asked Mr. Mathiowetz if he sees that in the exhibit.

Mr. Tschetter restated his objection because he believes the contradiction is the language used in that particular finding of fact and that particular conclusion of law. Chairman Larson overruled the objection because the paragraph speaks for itself.

Mr. Shaull asked if Mr. Mathiowetz's understanding is that he is required to do a recharge analysis in order to effectively analyze the four prongs under the statute. Mr. Mathiowetz answered that his understanding is that the analysis of recharge should occur as long as there is reasonably available information. The reasonably available information which is statutorily required is what sets that exact detail of whether it absolutely must be done under every possible circumstance versus whether it needs to be done essentially as much as possible while still being reasonable with the information available.

Mr. Shaull said certainly doing a recharge study would satisfy that requirement. Mr. Mathiowetz said it depends on the quality of the study.

Mr. Shaull had no other questions of Mr. Mathiowetz.

Mr. Comes asked if Mr. Mathiowetz said that water flowing from an aquifer to waste indicates the aquifer is seeking equilibrium. Mr. Mathiowetz answered typically yes.

Mr. Comes said he recalls the Hanson Dairy reference in past reports. He asked why that reference or commentary wasn't included in the report for this application. Mr. Mathiowetz answered that the decision came a month after he started working for the department. Some of that was because the decision immediately occurred, staff had advice from legal counsel to include it is a report verbatim even though staff was practicing the requirement already. Over time it was determined that, because it is a separate court decision, the citations needed to be referenced specifically but not included in the body of the text.

Mr. Hepler said from an engineer's perspective he believes water flowing freely is not exactly a waste during drought years. From a biological perspective, a lot of fish and wildlife benefit from it, so waste is not the word he would use to describe it. Mr. Mathiowetz responded that he was specifically citing uncontrolled flowing wells. There are a number of permits for fish and wildlife propagation. There are domestic uses that their extra water that is not used for cattle also biologically does that. Mr. Mathiowetz said he is referencing past decisions from the Board when he cites waste, specifically, as well as discussions staff has had with legal counsel in the past.

Mr. Hepler commented that maybe current legal counsel won't call it waste while he's sitting on the Board.

Ms. Dixon asked if the observation wells can tell us something about recharge. Mr. Mathiowetz answered yes, they can. Ms. Dixon asked if, in addition to the levels in the aquifer, is this an overall snapshot of the health of the aquifer. Mr. Mathiowetz answered that is also what it does,

but it has to be taken into context of all of the other conditions. With the Dakota Aquifer being so extensive and it also somewhat based those observation wells being so far apart some details are more localized, so they're only reflected in the well that's very close. When taken in the context of all of them, because the Dakota Aquifer underlies most of South Dakota, it is a broader look at the health of the aquifer as well if there are varying conditions. Ms. Dixon asked if we have a very wet season, would the observation wells indicate higher level. Mr. Mathiowetz answered yes.

Mr. Tschetter called Nick Fitzgerald who was administered the oath by the court reporter.

In response to questions from Mr. Tschetter, Mr. Fitzgerald provided the following testimony. He provided information regarding his employment at Pipestone Veterinary Clinic as the director of business development. Century Swine RE LLC is a 12,800 breed to wean sow farm.

Exhibit 101 is Century Swine's application for a Conditional Use Permit filed with Edmunds County. Page CS 9 of Exhibit 101 is a letter from the Edmunds County zoning officer, Britteny Duvall saying Conditional Use Permit Number 25-02 was approved. Page CS 3 is the unsigned version of the document.

Exhibit 102, page CS 102 is the same document but contains Mr. Fitzgerald's signature. Exhibit 102 is an exact copy of the Conditional Use Permit application. Exhibit 101 does not have Mr. Fitzgerald's signature and the exhibit contains the same information. The primary reason behind the duplication was that initially when requested, Mr. Fitzgerald was out of the office, so he followed up at a later date with the copy of the application. Exhibit 101 includes the letter from the county informing Century Swine that the conditional use permit was granted on page CS 9. Page CS 10 of Exhibit 101 is a letter to Mr. Fitzgerald from Edmunds County communicating that the building permit was also approved. Page CS 11 of Exhibit 101 is the building permit to construct two buildings on the farm to house sows, gilts, and boars. The project is currently under construction and is about 70 percent complete. The total project cost for construction as reflected on page CS 11 of Exhibit 101 is approximately $52,000,000 for the structures.

Mr. Tschetter offered Exhibit 101 and Exhibit 102. The exhibits were admitted into the record.

This proposed farm will offer 33 full-time career opportunities for families with an average annual payroll of approximately $2,260,000 and employer-sponsored health care. The farm will also spend approximately $4,500,000 per year on feed. The farm will be an end user of grain, increasing local grain demand of approximately 360,000 bushels of corn and 70,000 bushels of soybeans in the form of soybean meal. The farm will also use utilities; gas, electricity, sanitation services, snow removal, lawn care, etc. Century Swin projects the cost of those utilities to be a value of $587,000 per year in addition to the property taxes, sales, and excise taxes that would ultimately come back to Edmunds County through the RPP Program.

Water, air, and feed are the three most critically important nutrients to be able to operate a livestock farm, so as Mr. Fitzgerald looks at locating facilities, those three boxes must be met in order to advance.

Mr. Tschetter stated that one of the issues raised by the petitioners in this matter are statements that were perceived to be inconsistent in terms of how much water is going to be used. Mr. Fitzgerald participated in the conditional use permitting process in Edmunds County by attending public meetings and providing testimony for that permit. Mr. Tschetter said some of the petitioners may feel like Mr. Fitzgerald provided inconsistent information in terms of anticipated water usage.

Mr. Shaull objected on foundation and hearsay grounds. Chairman Larson overruled the objection.

Mr. Fitzgerald stated that he is not entirely sure what the inconsistencies are, however, during the testimony he gave in the county commission meeting about water and water usage, he had said that the farm will utilize four to five gallons per sow per day on average. Century Swine needs to build the system for peak water usage, not just the average water usage over the course of a 12-month period of time. The average water usage would be approximately four to five gallons per animal per day, and the peak water usage during the warm months would be closer to 9.5 gallons per animal per day. The application for a water permit is for peak water needs. Century Swine applied for 154 acre-feet, or 50,000,000 gallons annually.

Mr. Tschetter asked Mr. Fitzgerald to explain why Century Swine submitted two water permit applications. Mr. Fitzgerald stated that the well driller, Stretch's Well Service, believed there to be a shallower aquifer. Century Swine initially opted to pursue the shallower aquifer, so the first well was drilled into that aquifer. A water suitability test was then performed that the veterinarians on staff at Pipestone were able to review, and they determined that the water quality in the shallower aquifer was not as suitable for livestock as they would like, so a deeper well was drilled in the Dakota Aquifer. There is one existing well on the site today, and testing on that well was more suitable for the livestock. This is the reason there are two applications.

In response to questions from Mr. Shaull, Mr. Fitzgerald testified that he is Director of Business Management at PBC Management 2 LLC, doing business as Pipestone. He is a business development executive. He does not have a professional engineer license or a professional geologist license. Mr. Fitzgerald did not personally perform any of the engineering or hydrogeology analysis underlying any of the application. Pipestone and Century Swine RE LLC have a contractual relationship, and within the contractual relationship Pipestone's expertise is in design, management, animal health, and staffing of the facilities. Pipestone is the manager of the swine operation. The letter on page CS 9 of Exhibit 101 is addressed to SFP LLC. One of the ownership entities of Century Swine RE LLC is SFP LLC – Century Swine. Mr. Shaull asked if those two entities are related but distinct.

Mr. Tschetter objected to the extent that the question calls for a legal conclusion. Chairman Larson overruled the objection.

Mr. Fitzgerald stated that SFP LLC is an owner in Century Swine.

Mr. Shaull asked why Ms. Duvall mailed the letter regarding approval of the conditional use permit to SPF LLC. Mr. Fitzgerald answered that is because SFP LLC is one of the owners of Century Swine RE LLC.

Mr. Fitzgerald stated that the conditional use permit packet authorizes a total head count of 16,494 animals. Mr. Fitzgerald continued to say that Century Swine applied for more water than the average anticipated usage, they had not commissioned their own recharge or drawdown studies of the Dakota Aquifer or the nearby wells, and is not offering a numeric drawdown model at any well. He concluded that Century Swine has not retained an independent hydrogeologic expert and solely relying on the Water Rights Program's analysis.

A requirement of the conditional use permit was that Century Swine was to notify rural water, Hillside Township, and the count highway superintendent.

Mr. Shaull asked if Pipestone has offered a monitoring plan or a mitigation plan for any of the petitioners or commenters' wells that are affected in this case. Mr. Fitzgerald answered that they have not.

Mr. Shaull said if, hypothetically, Century Swine's companion application, No. 9882-3 which refers to the Pierre Shale Aquifer, is denied, the operation will rely entirely on this application. Mr. Fitzgerald stated that is correct. Mr. Shaull asked if the operation has a contingency supply if either or both applications are denied or curtailed by the Board. Mr. Fitzgerald answered that there is an agreement with WEB Water to supply water to the farm, but the intent is to utilize the well water first and have rural water as a backup. If the applications are not approved WEB Water will be used. Pipestone has not requested any type of conditions that would limit use during a regional shortage.

Chairman Larson asked if Century Swine RE LLC a South Dakota entity. Mr. Fitzgerald answered that it is.

Mr. Shaull called Garrett Heinz who was administered the oath by the court reporter.

In response to questions from Mr. Shaull Mr. Heinz testified he currently lives in Ipswich, but he grew up on the family farm approximately 16 miles south of Roscoe, which is four miles southeast of the proposed Century Swine well. The farmland is used for a cow/calf operation.

Mr. Heinz said Exhibit 203 is a map from the county GIS site showing the aquifer with a graph at the bottom showing elevation. Point A on the map is where the well application is located, but he isn't sure if it's for this application or the second application. The black and white dotted line on the exhibit that goes from left to right, and there is a B in green. That parcel of land is where he grew up and where his parents currently live. It is a registered Century Farm. Point B has a lower elevation than Point A. The Dakota Aquifer is shown, in addition to sand and gravel 100 plus continuous aquifer and a sand and gravel 100 plus discontinuous. Mr. Heinz said sand and gravel is porous so water flows through and water flows downhill. Within Parcel B there is water his family uses. There is approximately 100 plus acres of water. It is a very large basin style slough, and there is a wetland in the quarter section to the west that is used exclusively for

watering cattle in the fall. Combined, the two sloughs hold approximately 140 acres of water for cattle. Mr. Heinz said one of the intervenors in this case comes from Lake City, which is an hour and a half away, to collect minnows from the slough because of its unique characteristics and the amount of minnows he can get from the slough. Mr. Heinz said he receives a cash payment for this. Mr. Heinz stated that his family has lived on this farm since 1914.

Mr. Shaull asked Mr. Heinz to explain the observations that he is aware of from a factual standpoint regarding the effects of similar wells in this area that have been carried out for similar livestock operations.

Mr. Heinz said the wells that were mentioned in earlier testimony as examples of Dakota Aquifer wells are approximately 81 feet deep. On Exhibit 203 to the northeast is Loyalton and further to the east is currently a farm. Four miles south and east of that farm is a slough, and that slough is very obviously receding, and sloughs in other areas are not. Mr. Heinz said he understands that is not evidence of impairment, but it certainly demonstrates risk. This slough is almost the exact distance from that farm as the Heinz slough is from this permit application.

Mr. Tschetter asked Mr. Heinz if he retained any engineers in helping him analyze the matters at issue in this application. Mr. Heinz said he did not retain any engineers.

Mr. Tschetter asked if Mr. Heinz consulted with any engineers who offered opinions. Mr. Heinz answered he has consulted with engineers, but their opinions were not contained in his petition.

Mr. Tschetter asked if Mr. Heinz had the opportunity to hire an engineer to assist in analyzing the data that was presented as part of the Water Rights Program's staff analysis. Mr. Heinz said he could have spent a significant amount of money but did not hire an engineer.

Mr. Tschetter asked if Mr. Heinz participated in the county's local zoning. Mr. Heinz said he did.

Mr. Tschetter asked if Mr. Heinz has been aware of this project since last year. Mr. Heinz answered he has been aware of the project since April 22, 2025, and he submitted the petitions in this matter several months ago.

Mr. Tschetter asked if Mr. Heinz has any reasons to refute the data and conclusions that the Water Management Board staff have reached. Mr. Heinz said he has yet to see the recharge data.

Mr. Tschetter asked if Mr. Heinz has any reason to believe the conclusions that have been reached are inaccurate. Mr. Heinz questioned the Water Rights Program's findings, stating 34 miles away is the nearest monitoring well, the program is going off data from 1983, which is43 year-old data, and no recharge data.

Mr. Tschetter asked if Mr. Heinz has any of his own data to refute the engineer's conclusions. Mr. Heinz answered said there is evidence that there is no recharge data.

Mr. Tschetter asked if Mr. Heinz understands that the engineers from the Water Rights Program are speaking from a probability standpoint. Mr. Heinz said he does.

Mr. Tschetter asked if Mr. Heinz has anything, other than what he provided for the record today, showing evidence of unlawful impairment other than what he alleges in his petition. Mr. Heinz said he can't prove impairment because there's no withdrawal yet.

Mr. Tschetter asked if Mr. Heinz agrees with the conclusion that the proposed use is a beneficial use. Mr. Heinz said if the proposed use was as stated, possibly.

Mr. Tschetter asked if Mr. Heinz agrees that the proposed use is in the public interest. Mr. Heinz asked Mr. Tschetter to explain the exact use. He asked if it was for 12,000 sows or 16,000 sows, and he's still waiting to find out what the exact use is.

Mr. Tschetter said as the project has been proposed, and there has been testimony at Edmunds County and here today. He asked if Mr. Heinz agrees that the proposed use is in the public interest. Mr. Heinz said if it was in alignment with what was presented at the county hearing, yes. However, the statement of 60,000 gallons a day does not reflect the allocation being requested here today, which is why he did seek an appeal within the 30 days because the way it was presented at the county hearing is not in alignment with what was being said at this hearing.

Mr. Tschetter asked if Mr. Heinz has any reason to disagree with Mr. Fitzgerald's testimony about peak use of water and average use of water. Mr. Heinz said Mr. Fitzgerald was referring to 12,000 sows so the number that is given in the manure management application from DANR, which is the 16,000, and take that times the nine gallons, that is 150,000, but at the county hearing Mr. Heinz asked Mr. Fitzgerald where he was getting the water and how much and Mr. Fitzgerald said it would be 60,000 gallons a day from a deep well. There was no mention of WEB, multiple wells, and multiple applications.

Mr. Tschetter asked Mr. Heinz if he has any reason to disagree with the testimony Mr. Fitzgerald provided today. Mr. Heinz answered that he does not know.

Mr. Shaull asked Mr. Heinz if he is familiar with any law that would require the petitioner to provide the recharge data in a case like this. Mr. Heinz answered absolutely not.

Motion by Larson, seconded by Freeman, to go into executive session pursuant to SDCL 1-25-2(3) for the purpose of consulting with legal counsel. The motion carried unanimously.

Motion by Freeman, seconded by Dixon, to approve Water Permit Application No. 8991-3, Century Swine RE LLC subject to the qualifications set forth by the Acting Chief Engineer. A roll call vote was taken, and the motion carried unanimously.

Mr. McVey requested that Mr. Tschetter prepare and submit Findings of Fact and Conclusions of law by May 29, 2026. Objections are due June 6, 2026.

Chairman declared a recess until the following day.

May 7, 2026, 8:30 a.m.

Chairman Larson called the meeting back to order. A quorum was present.

CONSIDER WATER PERMIT APPLICATION NO. 8982-3, CENTURY SWINE RE, LLC: Mr. Tschetter, counsel for Century Swine RE LLC and Mr. Shaull, counsel for the petitioners, both stated that they agreed that the Board take no action today on Water Permit Application No. 8982-3.

Motion by Hepler, seconded by Freeman, to defer Water Application No. 8982-3 until the July 8-9, 2026, Water Management Board meeting. A roll call vote was taken, and the motion caried unanimously.

CONSIDER ADDITION OF MANDATORY WATER USE REPORTING QUALIFICATIONS TO WATER PERMIT NO. 6662-3, VANNORSDEL'S INC., WATER RIGHT NO. 2041-3, CITY OF VIBORG, AND WATER RIGHT NO. 4053A-3 & 5520-3, TOWN OF SOUTH SHORE: Amanda Dewell reported that Water Permit No. 6662-3, Vannorsdel's Inc. and Water Right No. 2041-3, City of Viborg, authorize appropriations from the Upper Vermillion Missouri: West Aquifer.

There are currently three applications requesting appropriation from this aquifer that are in deferred status based on concerns regarding water availability which will be considered by the Board later in the day's meeting.

Ms. Dewell stated that the Water Rights Program is seeing potential issues with the hydrologic budget in that aquifer. There has been concern as to the observation well status, so the Water Rights Program requested that the Board add the following qualification to Water Permit No. 6662-3, Vannorsdel's Inc. and Water Right No. 2041-3, City of Viborg:

> The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Upper Vermillion Missouri: West Aquifer.

Ms. Dewell stated that these are currently the only two non-irrigation permits out of that aquifer that aren't reporting to the Water Rights Program.

Motion by Comes, seconded by Freeman, to add the mandatory reporting qualification to Water Permit No. 6662-3, Vannorsdel's Inc. and Water Right No. 2041-3, City of Viborg. The motion carried unanimously.

Ms. Dewell requested that the Board take no action on Water Right Nos. 4053A-3 and 5520-3 for the Town of South Shore today due to an error in the public notice.

No Board action was taken.

RECONSIDER DEFERRED WATER PERMIT APPLICATION NO. 8763-3, B & K DAIRY FARMS LLC, WATER PERMIT APPLICATION NO. 8797-3, DONALD BENSON, AND WATER PERMIT APPLICATION NO. 8817-3, MERLIN VANNORSDEL: Adam Mathiowetz, Acting Chief Engineer, reported that these three applications were originally deferred for up to two years at the March and May 2024 Water Management Board meetings. All three applications are for water from the Upper Vermillion Missouri: West Aquifer.

In response to questions from Ms. Greco, Mr. Mathiowetz testified that when these applications were received in 2023 and 2024, he wrote the reports on the technical aspects of the availability of unappropriated water and the potential for unlawful impairment. When he started the report for these three applications in April 2026, he had not yet been appointed as Acting Chief Engineer. He finished the report and the recommendation during his time as Acting Chief Engineer. Other Water Rights Program staff reviewed the report and recommendation from both a technical and administrative aspect.

Mr. Mathiowetz's recommendation for all three applications was for deferral for up to five years to allow for additional monitoring of water levels in observation wells completed into the Upper Vermillion Missouri:West Aquifer. He noted that Application No. 8817-3, Merlin Vannorsdel, was contested, and was also contested when the application was originally deferred.

Ms. Greco asked what the priority dates are for these applications. Mr. Mathiowetz answered that he did not have the priority dates available at this time, but the priority order is No. 8763-3 being the most senior, then No. 8797-3, and No. 8817-3 is the newest priority.

Ms. Greco asked why these applications were recommended for deferral in 2024. Mr. Mathiowetz answered that when looking at the observation data available there was a steep decline in the two observation wells completed into the aquifer at that time. There was no apparent stabilization of those water levels. There were also several other applications that had yet to be developed at all, whether putting systems in place of putting water to beneficial use with in-place systems.

Mr. Mathiowetz stated that in 2026, besides further reviewing the hydrogeology because there is an ongoing South Dakota Geological Survey study to further refine the information regarding this management unit that was not as detailed in the earlier aquifer study, he reviewed the additional withdrawals that occurred since that initial deferral, observation well data, and also did a review of the potential for unlawful impairment. There was, on average, a slight decrease in withdrawals using 10-year averages, which is something the Water Rights Program regularly does to better account for changes in irrigation systems, but also in terms of making sure account for changes in how many permits there are within an aquifer. The average over that time period was a 15- or 20-acre-feet decrease in irrigation, however, that is only over those two years. There was one drier year and one slightly wetter year.

Ms. Greco asked if all the permits authorized to withdraw from this aquifer been developed. Mr. Mathiowetz answered no. There is one that was a transfer of acres and diversion rate that was approved earlier this year. They had not developed at their previous site, so they haven't had the

opportunity to irrigate this year. There is another one that had reported no irrigation, however the system is in place.

Ms. Greco asked what the estimated average annual recharge is. Mr. Mathiowetz stated that from the mathematics of using an updated area, along with an in-progress area from the South Dakota Geological Survey, the estimated average annual recharge when using the range from Hedges and others for buried confined aquifers is approximately 172 to 344 acre-feet per year.

Ms. Greco asked if Mr. Mathiowetz calculated an approximate aquifer outflow. Mr. Mathiowetz said the withdrawal numbers have historically been above 344 acre-feet without decline in the observation wells, which indicates that the average in that broad range is low. In 2012 and 2014 his predecessor did an outflow calculation. Mr. Mathiowetz has since updated that using better and more data, and the well casing tops have been surveyed for as much accuracy as possible. He also refined the methodology, improving upon the formatting his predecessor used for their calculations.

The estimated outflow from the aquifer, using the updated survey, ranges from 1,216 acre-feet per year to 1,984 acre-feet per year, depending on which observation well data is used, and the entire period of record, or if only the last 10 years of available data is being considered.

Mr. Mathiowetz stated that, in general, the observation well data showed that there has been some stabilization of the water levels since 2023, which was the end of the sharp decline. There is one new observation well that was brought online in 2025, and it does mirror the other two, in broad terms. The aquifer is starting to see some stabilization, however, with only three years of data and considering the relatively small size of the aquifer, with the total withdrawals on average being in the 1,650 acre-feet per year range, means that the aquifer could be more reactive to any increase in pumping. Therefore, that shorter period of stabilization is not necessarily fully indicative of whether the aquifer is over-appropriated or not.

Mr. Mathiowetz concluded that at this time, with the information available, he could not say that there is a reasonable probability there is unappropriated water available, therefore, he recommended continued deferral of these three applications for five years. The five-year deferral for these applications was recommended to align with the five-year deferral period for the fully-appropriated Tulare aquifers, and also to give the new observation well time to go through a wet and dry cycle. That is especially valuable because pressure transducers and data loggers have been installed in all three of the observation wells that staff are absolutely certain have been completed into that aquifer.

Regarding the potential for unlawful impairment, Mr. Mathiowetz stated that he looked at the distance between the proposed well locations and the nearby appropriative wells within the aquifer as well as domestic wells on file. The nearest to either an appropriative well or a domestic well is Application No. 8817-3; the nearest appropriative well is Vannorsdel Inc. and it is one-half mile away. The nearest domestic well on file is approximately .03 miles away. For both of the other applications the appropriative and domestic wells are further away from the proposed well locations. When considering the confined condition of the Upper Vermillion

Missouri:West Aquifer, even with those relatively close distances, the aquifer is highly transmissive. There are other areas where there was even more concentration of appropriative wells that are not necessarily causing well interference. The Water Rights Program received one complaint in the past, however, in dealing with that potential complaint it was determined that the pump setting in the affected well was at 60 feet, but based on the Water Rights Program's nearby observation well, they would expect the top of the aquifer to be quite a bit deeper. That also includes the nearby lithologic logs. The well that had issues was near the edge of the aquifer so when there is drawdown near the edge of an aquifer there is reflected drawdown. Essentially, that boundary condition increases the drawdown in your own well, so it ended up being a pump placement issue. There was the notable decline in those two observation wells with an overall lowering of the water level in the aquifer, particularly if it gets to dewatering and desaturating the saturated portions, which at this time it isn't, but that could be considered an unlawful impairment.

Mr. Mathiowetz concluded that there would be no unlawful impairment from the pumping of any one individual permit on another permit or another adequate domestic well, however, the concern about the overall lowering of the aquifer, as seen in both observation wells that are far enough apart that they would be representative of most of the aquifer, did lead to concern. He couldn't conclude that there would not be potential for unlawful impairment.

The South Dakota Geological Survey is in the process of wrapping up their study.

The final recommendation is to defer the three permits for five years to continue monitoring the water levels in the three observation wells and to allow the one permit that has not been developed and the one well that had not pumped water time to potentially place water to use.

Mr. Mathiowetz stated that Scott Vannorsdel submitted comments that he is using a 360 Rain system, which is an autonomous irrigation system that is more efficient than a standard center pivot based on their documentation. When he reviewed Mr. Vannorsdel's data he looked at the total, and his per acre inches was less than his neighbors. Because the system essentially applies the water at the land surface through drag tubes there is less loss to evaporation . Even if there are drop tubes on the center pivot sometimes the drop tubes and nozzles or sprinklers are still several feet off the ground.

Mr. Mathiowetz said his analysis is based on the total aquifer and total water use, and primarily, because there are no future use permits in this aquifer, the Water Rights Program observation wells are a direct reflection of the water being used in the aquifer.

Scott Vannorsdel, the petitioner, stated that he is being told to use more water on less acres. All he is asking for is to use the water as it is supposed to be on more acres. He has a significant investment. Another permit that was just issued to Vannorsdel changed acreage size and location, and they are using less acres. He said he is asking to use less water but being told to use more water on less acres. He said deferral of five years is too long. Mr. Vannorsdel said he talked to his district representative, Mr. Richard Vasgaard , asking for help with the situation, but Mr. Vasgaard passed away last fall. Mr. Vannorsdel said he spoke to the gentleman that took

Mr. Vasgaard 's position, and he fully understands what Mr. Vannorsdel is trying to do and is willing to work with Mr. Vannorsdel.

Mr. Comes asked Mr. Vannorsdel if he had access to Mr. Mathiowetz's report, and if he heard Mr. Mathiowetz's testimony. Mr. Vannorsdel answered that he did.

Mr. Comes said the Board is tasked with looking at the aquifer as a whole, as has been presented by Mr. Mathiowetz.

Mr. Mathiowetz stated that one of the things Mr. Vannorsdel said is that he wants to put on less water than he is being asked to use. Mr. Mathiowetz said a more accurate way of saying that is more water than his current permit allows. Permits are based on diversion rate, which is the maximum pump rate, and the number of acres. For irrigation, unless noted in some of the older permits, a permit holder is allowed to pump up to 2 acre-feet of water per acre, per year. It is known that most irrigators do not apply that much water, with the exception of golf courses and some other turf operations. However, when the Water Rights Program looks at the hydrologic budget, the average of what the permit holders actually pump is considered.

Mr. Vannorsdel said he will never use the amount of water that is allowed in the permit; he will use one-third of what is allowed, even on the total 91 acres if he would be granted that. He said he doesn't know how to get the permit re-worded or amended, if that is even possible. He said a five-year deferral is absurd. Two years of deferral is long enough. He asked if there is any way for his permit to be amended for a less usage rate, but he wasn't sure he even wants to give that up if the water is so tight.

Chairman Larson said Mr. Vannorsdel could file a new application. Mr. Vannorsdel said that is what he has been trying to do the last two times he has met with the Board.

Chairman Larson said the Acting Chief Engineer has testified that there is not sufficient water to grant Mr. Vannorsdel's request.

Mr. Vannorsdel said he is not asking to pump more water; he is asking to pump less water on more acres.

Mr. Hepler stated that Mr. Vannorsdel is asking a viable question. He asked if the Water Rights Program has worked with Mr. Vannorsdel to try to resolve what he is working toward.

Ms. Greco said SDCL 46-1-14 states, "The Water Management Board may issue any permit or license subject to terms, conditions, restrictions, qualifications, quantifications, or limitations on perpetuity consistent with this chapter which it considers necessary to protect the public interest and which are related to matters within the jurisdiction of the board. Water rights issued pursuant to this section may be amended by the board and priority is retained upon amendment. Upon amendment the board may alter terms, conditions, restrictions, qualifications, or quantifications consistent with this chapter."

Ms. Greco stated that, under that authority, she believes the Board may be able to issue a permit that is less than what the applicant is requesting.

Mr. Mathiowetz stated that while under the current permit Mr. Vannorsdel's Rain 360 system will use less water on the same acreage, however, if he adds two acres, he is potentially using more water than he is using today. Mr. Mathiowetz said when he looks at the observation wells, which are reflective of the actual pumpage, he is uncertain of available water.

Regarding changing the deferral period from two years to five years, Mr. Mathiowetz said when he wrote the reports and did the analysis for these applications in 2024 and again in 2026, it was determined that this aquifer is either very quickly approaching or at full appropriation, and therefore, with the fully appropriated Tulare aquifers, the standard is a five-year review in statute. That is how staff came to a five-year deferral period for these applications. This will also provide five years of additional data.

Chairman Larson said if the applications were deferred for two years, there would be four years of additional data.

Motion by Helper, seconded by Comes, to defer Water Permit Application No. 8763-3, B & K Dairy Farms LLC, Water Permit Application No. 8797-3, Donald Benson, and Water Permit Application No. 8817-3, Merlin Vannorsdel, for two more years. A roll call vote was taken, and the motion carried unanimously.

CONSIDER HELD TULARE: WESTERN SPINK HITCHCOCK APPLICATIONS: Kim Drennon was administered the oath by the court reporter.

Ms. Greco offered Exhibit 1, a table created by Ms. Drennon summarizing the 27 Tulare: Western Spink-Hitchcock Aquifer water permit applications that have been on hold since 2015.

Ms. Drennon testified that in December 2025 the Water Management Board determined that there was unappropriated water available in the Tulare: Western Spink-Hitchcock Aquifer. Since then, Ms. Drennon has followed the applicable statutes and laws in processing the 27 water permit applications. The final technical aspect of review would be the possibility of unlawful impairment on existing water rights. The Tulare: Western Spink-Hitchcock Aquifer is a glacial aquifer in Spink, Beadle, and potentially Hand County between Huron and Redfield.

The average annual estimated recharge, based on a study in 1984, is 18,000 acre-feet per year. The average annual withdrawal, based on Ms. Drennon's analysis in 2025, is approximately 12,000 acre-feet per year. Assuming the 27 applications that are being considered before the Water Management Board now irrigate similar to other water permits in the aquifer, they would withdraw approximately 2,300 acre-feet per year. Looking at each application, it appears that there is a likelihood that they call all develop without unlawful impairment of existing water rights. There are numerous wells completed into the aquifer in a very short distance, but there are no complaints on file in Spink and Beadle County regarding unlawful impairment.

Motion by Hepler, seconded by Comes, to approve the following water permit applications subject to the qualifications set forth by the Acting Chief Engineer:

8084-3 Riverside Hutterian Brethren
8085-3, Riverside Hutterian Brethren
8099-3, Bixler Farms
8100-3, Bixler Farms
8101-3, Bixler Farms
8102-3, Bixler Land
8103-3, Bixler Land
8104-3, Bixler Farms
8105-3, Bixler Land
8106-3, Bixler Land
8107-3, Bixler Farms
8108-3, Van Buskirk Farms, LLP
8109-3, Van Buskirk Farms, LLP
8110-3, Van Buskirk Farms, LLP
8111-3, Van Buskirk Farms, LLP
8120-3, Martin Anderson
8121-3, Allen and Jeffrey Gatzke
8122-3, Allen and Jeffrey Gatzke
8128-3, Riverside Hutterian Brethren
8129-3, Jeff Hamilton
8130-3, Jeff Hamilton
8131-3, Scott Hamilton/Hamilton Family LLC
8132-3, Scott Hamilton/Hamilton Family LLC
8133-3, Scott Hamilton/Hamilton Family LLC
8135-3, Loren or Cynthia Marzahn
8137-3, Ken and Jodi Hofer
8138-3, Ken and Jodi Hofer

The motion carried unanimously.

DISCUSSION REGARDING THE APPROPRIATIVE STATUS OF THE TULARE: WESTERN SPINK HITCHCOCK AQUIFER: Acting Chief Engineer Mathiowetz stated that 25 new water permit applications have been received by the Water Rights Program since the December 2025 meeting when the Board determined that water is available for appropriation from the aquifer.

Mr. Mathiowetz said there was discussion at the December meeting, by the Board, regarding a level of apprehension in approving permits that would use up the entire 6,000 acre-feet of recharge that was in excess of withdrawals at that time. The 27 applications that were just approved, plus the 25 new applications brings the amount to approximately 4,000 acre-feet, which is approximately two-thirds of the 6,000 acre-feet, as discussed by the Board in December.

Assuming the technical reports, which Ms. Drennon is writing, find no unlawful impairment issues that would suggest that an application should be denied or deferred, Mr. Mathiowetz said he would intend to recommend approval of those 25 new applications and suggest deferral of other applications for the Board's consideration since that two-thirds number was discussed; however he would prefer direction from the Board on how the Water Rights staff should proceed with the 25 pending new applications and any other applications for the aquifer going forward.

Chairman Larson said previously this aquifer was deemed fully appropriated. He asked where the water to fulfil the appropriations requested by these applications would come from. Mr. Mathiowetz stated that Ms. Drennon did an analysis on average using a much more labor-intensive methodology, and the observation well data still showed stable water levels since the last five-year review. Some of the water levels were rising in the uncontained portion of the aquifer, which means that the original estimates were essentially incorrect.

Chairman Larson asked if staff was requesting the Board to grant the 25 new applications today. Mr. Mathiowetz answered that he is not asking the Board to grant the 25 new permit applications. He has not made a recommendation on the applications because he would like direction from the board regarding the two-thirds number the Board discussed at its December meeting.

Mr. Freeman stated that the Board is charged with utilizing the waters of the state. If water is available, the Board is supposed to put it to beneficial use.

Mr. Larson asked if staff intended to do further evaluation to ensure that there is sufficient water for these 25 additional applications. Mr. Mathiowetz said that was part of Ms. Drennon's analysis. She put in a great deal of effort, which was peer reviewed by multiple staff. Staff concurs with her methodology that there is an average of 6,000 acre-feet of recharge in excess of withdrawals.

Mr. Mathiowetz noted that if the Board approves these 25 application in the future, there would still be approximately 2,000 acre-feet. If the Board does not give him direction, his intent would be that when application number 26 is received, it would be long form noticed for approval by the Board, assuming there is no unlawful impairment issue.

Mr. Comes said he agrees with the Board following the statute and putting all the water to beneficial use; but he would not say the water allocations need to be limited to two-thirds.

Chairman Larson asked if the Water Rights Program has received any objections or opposition to any of these 25 applications.

Mr. Mathiowetz answered that there was no opposition to any of the held applications. Some of the new applications have been public noticed, and no objections have been submitted. With the Tulare: Western Spink-Hitchcock Aquifer, the objections in the past have been regarding the Chief Engineer's recommendation, which was for denial until the statute developing the held list came in place.

Board discussion took place.

Motion by Freeman, seconded by Comes, to follow the normal procedure for granting or denying the 25 new permits for the Tulare: Western Spink-Hitchcock Aquifer up to 4,000 acre-feet or two-thirds of the available water. Additional permit applications for the remaining 2,000 acre-feet will be handled through staff recommendations to the Board for final determination. A roll call vote was taken, and the motion carried unanimously.

CONSIDER PETITION SUBMITTED BY SIX MILE CREEK GOLF COURSE, WATER RIGHT NOS. 6073-3 & 6441-3: Ms. Dewell reported that in March 2026 staff reviewed the 2025 irrigation questionnaires that were not returned. Staff made every effort to get the questionnaires to the permit holders, including Certified Mail with signatures required.

The previous superintendent for Six Mile Creek Golf Course is no longer the superintendent, and the mail was subsequently not being given to the current staff. When the golf course staff learned of the suspension of Water Right Nos. 6073-3 and 6441-3, a Six Mile Creek Golf Course Board member contacted Ms. Dewell. The irrigation questionnaire information and the contact information for their new staff was submitted the same day. Six Mile Creek Golf Course then submitted this petition requesting that the suspension of their water rights be reconsidered.

Motion by Freeman, seconded by Hepler, to lift suspension of Water Night Nos. 6073-3 and 6441-3. The motion carried unanimously.

CONSIDER WITHDRAWAL OF HELD APPLICATION NOS. 8088-3 & 8089-3, COLLINS HUTTERIAN BRETHREN: Ms. Dewell stated that before staff brought the Board the results of the five-year review of water availability in the Tulare: Western Spink Hitchcock Aquifer and the Tulare: East James Aquifer, statute required that all of the applicants be contacted to confirm that they did want their applications to be considered. The Water Rights Program received confirmation in the affirmative from all of the applicants.

After those reviews were complete and the Board determined that there was not available water for appropriation in the East James Management Unit all of the applicants were contacted letting them know of the Board's decision and that per statute 46-2A-7.5, ten percent of the original application fee needed to be submitted to retain their eligibility for the next five-year review.

Out of all the Tulare: East James applicants, Collins Colony was only one that did not remit their fees. Notice was sent to the colony letting them know that those fees were due and failure to submit those constitutes withdrawal of their held application, per statute. The Water Rights Program provided the colony with notice of the hearing, informing them that the Board would have option to withdraw their application, defer action, or take action.

Ms. Dewell noted that she also called and spoke with Mr. Wipf informing him of today's hearing and she provided the information for joining the Board meeting. She also advised him that the colony would likely need to submit the payment at the time of the hearing.

Motion by Freeman, seconded by Dixon, to withdraw held Application Nos. 8088-3 and 8089-3, Collins Hutterian Brethren. Motion carried unanimously.

CONSIDER APPLICATION NO. 9019-3, JIM OR DAN THYEN: Mr. Mathiowetz reported that this is an irrigation application to appropriate water from the Antelope Valley Aquifer. This application and one that has been recommended for deferral in part because there is a future use application that has been contested and will be heard by the Water Management Board in July with senior priority to this application. The outcome of that hearing would affect Mr. Mathiowetz's recommendation on this application. Furthermore, there is another subsequent application in a different name but by the same operation, Mr. Jim Thyen, that was also deferred for the Antelope Valley Aquifer because of that future use application that is to be heard by the Board.

Mr. Mathiowetz said he spoke with Mr. Thyen and informed him what possible recommendations could come out, depending on the hearing. He discussed both potentials with Mr. Thyen, who seemed very reasonable. Mr. Mathiowetz explained the other application as well that is scheduled for the July meeting. The preceding future use application was auto delayed from the May meeting to the July meeting.

Mr. Mathiowetz recommended that this application be deferred to the July meeting.

Motion by Freeman, seconded by Hepler, to defer Water Permit Application No. 9019-3, Jim or Dan Thyen, until July. Motion carried unanimously.

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

Mr. Hepler thanked DANR staff for all the work they do.

A court reporter was present, and a transcript of the proceedings may be obtained by contacting Carla Bachand, Capital Reporting Services, PO Box 903, Pierre SD 57501, telephone number (605) 222-4235; pcbachand@pie.midco.net.

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 July 8, 2026.

Water Management Board

WATER MANAGEMENT BOARD MEETING
May 6, 2026

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
2900-2	Rapid Valley Sanitary Dist.	Rapid City	PE	932 AF	Future Use	Madison	3 special
2901-2	SD Dept. of the Military	Rapid City	PE	0.223 cfs	IRR(106 acres)	1 well – Minnelusa	wi, iq, 1 special
2903-2	SnowBird HideAway	Hill City	PE	12.9 AF	WDS	4 wells – Crystalline Rock	wi, 2 special
2904-2	H & H Land Co. #2 LLC	Rapid City	PE	46 AF	WDS	1 well – Inyan Kara	wi, 2 special
9009-3	Craig Arthur	Watertown	CD	1.89 cfs	IRR(255 acres)	1 well – Prairie Coteau	wi, wcr, iq
9012-3	Roger Sieck	Spearfish	TU	1.78 cfs	IRR(160 acres)	1 well – Upper Vermillion Missouri: North	wi, wcr, iq

Future Use Reviews

No.	Name	Address	County	Amount Remaining in Reserve	Use	Source	Qualifications
135-3	City of Pierre	Pierre	HU	3,374 AF	MUN	Pierre	1 special
217-3	City of Brookings	Brookings	BG	1,612 AF	MUN	Big Sioux: Aurora	1 special
549-3	City of Milbank	Milbank	GT	808 AF	MUN	Veblen	1 special
1780-2	City of New Underwood	New Underwood	PE	142 AF	MUN	Fall River	2 special
4927-3	Clark Rural Water System	Clark	CK	221 AF	RWS	Vermillion East Fork & Antelope	3 special
5003-3	City of Pierre	Pierre	HU	3,374 AF	MUN	Pierre	3 special