

Duvall, Ron

From: DANRnoreply <DANRnoreply@state.sd.us>
Sent: Monday, February 9, 2026 1:45 PM
To: Duvall, Ron; Dewell, Amanda
Subject: [EXT] Comment on No. 8990-3, City of Milbank, Steve Pendergrass

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Comment On:
No. 8990-3, City of Milbank, Steve Pendergrass

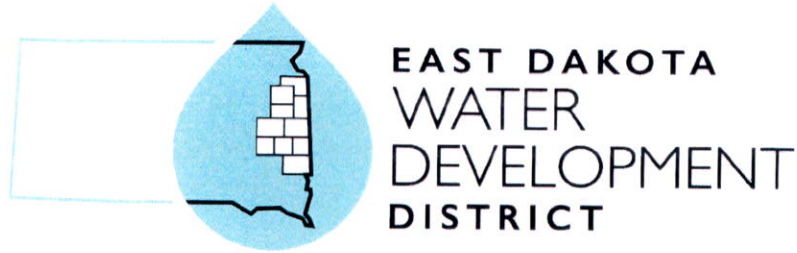
Comment Deadline Date:
02/09/2026

Date Comment Filed:
02/09/2026 13:45:01

Commenter Info:
Jay Gilbertson
132B Airport Avenue
Brookings SD, 57006

Comment:
See attached letter.

Attachment:
/Comment Attachments/2026 Milbank Future Use.pdf



February 9, 2026

Mark Mayer, Acting Chief Engineer
SD DANR Water Rights Program
523 East Capitol Avenue
Pierre, South Dakota 57501-3182

Dear Mr. Mayer:

On behalf of the East Dakota Water Development District, I wish to offer comments on Future Use Water Permit Application No. 8990-3. I have reservations about the information presented in the Report to the Chief Engineer on this matter, which is presented as the foundation for the formal Recommendation you have issued. Specifically, I question the assertion that there is a “reasonable probability that there is unappropriated water available for the applicants’s proposed use..”

1. On page 3 of 10 of the report, under the heading *Hydrologic Budget - Recharge*, average annual recharge to the entire Antelope Valley aquifer is calculated by uniformly applying a recharge rate of 2.3 inches per year over the identified areal extent of the aquifer, approximately 35,000 acres. This simple model results in an estimated annual recharge rate to the entire aquifer of 6,700 acre-feet per year (ac-ft/yr) from water that falls directly onto the aquifer surface.

However, what about the impact of other precipitation that falls within the ‘watershed’ of the valley in which the aquifer is found? The aquifer consists of sands and gravels that were deposited in the low areas (the valley) between two roughly parallel glacial ridges. These ridges consist of largely impermeable glacial till, and as such, precipitation falling onto these areas would be expected to flow overland (runoff) to the valley bottom. As such, this runoff will also contribute to the annual recharge of the aquifer. This overland flow is not accounted for in the recharge calculations included in the report.

2. On page 3 of 10 of the report, under the heading *Hydrologic Budget - Discharge*, Reference is made to natural discharge from the Antelope Valley aquifer. Evapotranspiration and outflow from surface water bodies connected to the aquifer are given as examples. However, no accounting for this form of discharge is mentioned in the summary of the hydrologic budget presented at the top of page 6 of 10.

As shown on Figure 1 of the staff report, Round Lake in northeastern Deuel County functions as the headwaters for Willow Creek which flows SW toward the Big Sioux River. Just east of the same lake, the headwaters of the South Fork of the Yellow Bank

River are shown originating within the extent of the aquifer. The North Fork of the Yellow Bank River originates in Round Lake (this one is NE of South Shore on the figure). And finally, the figure shows that the South Fork of the Whetstone River originates in Myers Lake on the north side of the proposed future use area. In each case, water within the aquifer is presumed to be flowing out of the area via these streams, yet none of this outflow is mentioned or accounted for in the section discussing discharge.

3. Figure 4 of the staff report (page 7 of 10) shows the water table elevations of the four observation wells maintained by the Water Rights Program in the Antelope Valley aquifer. While it appears that the figure and accompanying discussion are included to satisfy the requirements of the Administrative Rules of South Dakota 74:02:05:07, I would note that the information presented clearly indicates that there is a pronounced northwest to southeast slope to the water table of the aquifer, with the average elevation dropping progressively from well GT-76D to GT-77G to CD-76G to GT-81A. This trend has persisted from the time the wells were installed until today.

Although additional observation well data would be needed to create a detailed map, the limited data presented on Figure 4 strongly suggests that groundwater flow in the Antelope Valley aquifer is from the northwest to the southeast. As such, it is highly unlikely that “recharge” to the aquifer in the southern part of the aquifer (Figure 1) would actually be available for withdrawal in the northern end of the aquifer, although this is the clear implication of the simple recharge calculation presented in the text. For that to happen, this groundwater would have to flow uphill, against the water table gradient, in order to ‘replace’ water extracted. In that the majority of current permits appear to have been issued (to date) for the northern third of the aquifer, this could be a problem for yet another well in this region.

On a similar vein, the water elevation in the lakes located within the aquifer area, as shown on Figure 1, would be presumed to represent the water table elevation of the aquifer to which they are connected. If this is the case, then there are even bigger problems with the simplified model presented. Based on the latest information available on the DANR Measured Lakes database, both Punished Woman Lake and Round Lake (Codington County) near South Shore have water surface elevations below 1,850 feet msl. This is well below the water table elevations measured in Water Rights wells CD-76G to the north and GT-81A to the south. This suggests that the two lakes represent a practical barrier to any ground water flow from south of State Highway 20. Under these circumstances, little if anything that transpires within the Antelope Valley aquifer south of South Shore would have any practical impact to the north, greatly reducing potential aquifer recharge.

Given the aforementioned items, it is unclear as to how it can be determined that there is a “reasonable probability that there is unappropriated water available for the applicants’s proposed use..” Overall aquifer recharge appears to have been under-estimated by failing to account for runoff from land surrounding the deposit. Discharge is under-estimated by failing to acknowledge the natural discharge. Finally, the water table information, either from established

observation wells, or using lakes levels as proxies, indicates that rather than function as a simple bowl, the aquifer likely should be divided into two (or more) management units to best account for existing conditions. In any case, water level data strongly argue against any meaningful contribution of "recharge" from the south to the proposed area of interest identified in the report.

I would encourage you and the Water Management Board to defer action on this request until such time as a more thorough investigation of the hydrogeologic conditions can be conducted. I would note that a similar approach was recently undertaken following a request from Plainview Dairy LLC (Permit 8768-3) to utilize water from the Toronto aquifer. At the time of Plainview's initial request, there was insufficient data available to make an informed decision. The Geological Survey Program was tasked with studying the situation, which included the drilling of test holes and installing observation wells to better define the local conditions. I believe a similar approach would be in order.

Lastly, I want to note that the comments contained herein do not in anyway reflect opposition to the City of Milbank seeking to secure additional water resources. The District has long encouraged public water supplies to consider not just their current and near term water needs, but to consider securing reserves through future use permits to address the entities long-term needs.

If you have any questions, or require clarification of anything I have presented, please do not hesitate to contact me. Thank you for your consideration of my comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jay P. Gilbertson", with a long horizontal flourish extending to the right.

Jay P. Gilbertson
Manager/Treasurer

Dewell, Amanda

From: DANRnoreply <DANRnoreply@state.sd.us>
Sent: Sunday, February 8, 2026 11:25 PM
To: Duvall, Ron; Dewell, Amanda
Subject: [EXT] Comment on No. 8990-3, City of Milbank, Steve Pendergrass

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Comment On:

No. 8990-3, City of Milbank, Steve Pendergrass

Comment Deadline Date:

02/09/2026

Date Comment Filed:

02/08/2026 23:24:34

Commenter Info:

Brent Hoffmann
1205 S Dakota St
Milbank SD, 57252

Comment:

It is with great concern that I write to ask that the State Water Management Board vote NOT to approve the Future Use Water Permit 8990-3. There are so many holes in the science that was used to come to the approval conclusion, it would be unfair to both the applicant and current water rights holders within the Antelope Valley Aquifer. To start, as recently as 2025 and permit application number 8915-3 the average recharge rate to the aquifer was 5,500 ac-ft/yr. With 30+ water rights permits in the northern 1/3 of the aquifer and an aquifer that is flowing from NW to SE generally, it would seem problematic to have another permit for 1 MGD approved in the northern 1/3 of this aquifer. When looking at the observation wells data, one can easily conclude that there has already been a drop of almost 10 feet in the average depth to the top of the aquifer in CD-76G. A cursory look on Google Earth will show you that in 1991 there was 14 pivots in the aquifer watering roughly 1800 acers of ground. In 2025 that number is now 18 pivots and approximately 2350 acres of irrigated ground. It also would tell you that from Observation well CD-76G, there is an almost 40 foot drop in the elevation of the aquifer in the 2 miles that it would be to Punished Woman Lake (PWL) which is considered the top of the aquifer at that point. This precipitous drop in the aquifer may need more investigation, as to how large of an area is actually drained by PWL. PWL is at an elevation of 1846 feet and little Round Lake across the road is at an elevation of 1839. There is a spillway that generally does not flow water over it during the summer months between these two lakes. One can then see that GT-81A has an elevation to the top of the aquifer of about 1865 feet. This would indicate that at some point the water in the Antelope Valley aquifer flows 2 different directions, as

some of the areas around and south of South Shore no doubt flow north back into PWL and little Round Lake. Stating as the report does, that there is 35,000 acres of ground that supply water to recharge the aquifer, the annual recharge is estimated at 6,700 ac-ft/yr or 5.22 acres per acre foot of water in the aquifer. In 2025 there were 28,700 acres of land covering the aquifer and 5,500 ac-ft available or approximately 5.22 acres per ac-ft of water again. With that knowledge it is our opinion that only the areal extent of the aquifer in Grant County from the applicants stated position and north or northwest should be considered when looking at the application and not the entirety of the aquifer. To think that this aquifer acts like a swimming pool and flows to where the water is needed north of Punished Woman's Lake, and that it might come from as far south as Wigdale Lake or even further south is madness. We have 6 wells currently in our system, and there is anywhere from 60 to 90 feet of water in the aquifer depending on where the well was drilled. Location being everything, it is concerning that when irrigation pivots are running in the summer, it appears as if almost half of the available water in the aquifer is being drawn out. At what point is there too much and is another million gallons a day every day of the year going to be the tipping point for too much withdrawal? Our wells currently have anywhere from 60-90 feet of water bearing material in our well field, and seasonally, parts of the well field have much less than that. We have wells within a mile of CD-76G and see the same precipitous drop in the amount of water in the aquifer when the pivots are in use. We have been lucky that the last decade or so has been fairly wet, or at least a dry summer has been followed by a wet fall or winter, but it may only take one bad year to see a significant and long term drop in the aquifer volume. Having another million gallons a day taken out before it ever reaches our well field could be catastrophic. GRRWS provides water to over 5,000 people in five counties and by 2028 will be delivering water to 11 different communities in our local area. The only community we won't be delivering water to is the one that is refusing to engage in meaningful talks about any interconnect, and now wants to secure future water rights in the aquifer 4 miles upstream from our wells and some 15 miles from their city. It is equally interesting that the water right they are requesting is in the Antelope Valley Aquifer when the Revillo Aquifer, which they are currently tapped into has an estimated 1 million ac-ft of water in storage right underneath them. There are so many large holes in the data and issues with the science that you could drive a proverbial truck through them. For this reason alone, the Water Board should delay if not outright deny the approval of this future use permit. Knowing that water flows with gravity, and seeing that drop in elevation through the aquifer from GT-76D to GT-77G and the CD-76G and our wells in our aquifer and then on down to Punished Woman Lake, we feel that the areal extent of the aquifer that should be used for determining water rights for this application should only be the few thousand (~3400) acres from their request to the northwest and the "top" of the aquifer. Once the water has moved past them downhill so to speak, there isn't a high likelihood that it will be flowing back north uphill to their proposed well sites. Not to mention that the sites are more than likely mainly clay materials in that area and not aquifer-bearing material in our opinion. The aquifer runs parallel and along the west side of the pothole-filled region at the "top" of the Coteau from the south end of Twin Lakes down to near US Hwy 212, with such a strong correlation to that physical structure on the surface, adding a lobe into the pothole region just so that permit 8990-3 has enough Areal acres to be approved really doesn't pass even the most cursory of initial looks. If using the state of SD well logs as the source, I would suggest someone at the State do a deep dive as I can see several issues with the logs and their locations. Some are off by 6 miles or more. Others that might be used for this report and as a reference for first report of materials from 1988 for a Joe Arthur are off by more than a mile. His farm is located in the NW 1/4 NW 1/4 not the NE 1/4 NE 1/4 as the well log states and the position of the well log dot on your web site shows. The same goes for the Jeff Booze wells south of Joe Arthur's; they have the correct Township and Section, but incorrect Range. These are absolutely wrong as Mr. Arthur is a neighbor and former customer of ours and Mr. Booze is currently a customer and has lived West of our plant 5 miles the entire time he has been a customer of ours which he moved into

his house in 2003. All this points to some seriously flawed data that is being used to approve this application and why we feel it should be denied pending further investigation.

Attachment: