

Boyce

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June 29, 2026

Emily Greco
Assistant Attorney General
1302 East Highway 14, Suite 1
Pierre, SD 57501

Reed Mahlke
Helsper, McCarty & Rasmussen PC
1441 6th Street, Suite 200
Brookings, SD 57006

Craig or Joe Arthur
16116 456th Avenue
Watertown, SD 57201

Adam Mathiowetz, Chief Engineer
DANR – Water Management Board
Joe Foss Building
523 East Capitol Avenue
Pierre, SD 57501

David M. McVey
Assistant Attorney General
1302 East SD Highway 1889, Suite 1
Pierre, SD 57501-8501

Re: In the Matter of Water Permit Application No. 8990-3, City of Milbank
Our File No.: 18310.001

To Whom It May Concern:

Enclosed and intended as service upon you is City of Milbank, Pre-Hearing Submission in the above-referenced matter.

Sincerely,

BOYCE LAW FIRM, L.L.P.



Paul W. Tschetter

Enclosures

STATE OF SOUTH DAKOTA
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
WATER MANAGEMENT BOARD

IN THE MATTER OF WATER PERMIT
APPLICATION NO. 8990-3,
CITY OF MILBANK

**APPLICANT'S DISCLOSURE OF
WITNESSES AND EXHIBITS**

Pursuant to the South Dakota Management Board's Procedural and Scheduling Order dated June 15, 2026, Applicant City of Milbank ("City") submits the following for this matter before the Water Management Board on July 8, 2026.

A. City Intends to Call the Following Expert Witnesses:

Sara Pankonin, PE
Banner Associates

Ms. Pankonin is an expert and will provide opinion testimony regarding the City's planned future water use, including the reasonable probability of available water for appropriation, beneficial use, and public interest of such future use.

Kristin Bisgard, PE
Banner Associates

Ms. Bisgard is an expert and will provide opinion testimony regarding the City's planned future water use and need, future water systems, and the beneficial use and public interest of such future use.

Kelli Buscher, PE
Banner Associates

Ms. Buscher is an expert and will provide opinion testimony regarding the City's planned future water use and need, future water systems, and the beneficial use and public interest of such future use.

City reserves the right to call and examine any other witness identified by any other party as is necessary to rebut evidence presented by any other party in this proceeding or for impeachment purposes. Applicant specifically reserves the right to call a Department of Agriculture and Natural Resources ("DANR") representative other than Kimberly C. Drennon,

E.I., Engineer III, including Mark Mayer, PE, Director of Office of Water and Acting Chief Engineer, in the event DANR designates an alternative representative.

B. City Intends to Call the Following Fact Witnesses:

Darin Theile

Public Works Coordinator, City of Milbank

Mr. Theile will provide testimony regarding the City's current and anticipated water needs and systems, including the beneficial use and public interest of such future use related to the application.

Jeremy Breon

Water Lead, City of Milbank

Mr. Breon will provide testimony regarding the City's current and anticipated water needs and systems, including the beneficial use and public interest of such future use related to the application.

Steve Pendergrass

City Administrator, City of Milbank

Mr. Pendergrass will provide testimony consistent with the application submitted in this matter, including the beneficial use and public interest related to the application.

City reserves the right to call and examine any other witness identified by any other party as is necessary to rebut evidence presented by any other party in this proceeding or for impeachment purposes.

C. City Intends to Offer the Following Exhibits:

101: Application for Permit to Appropriate Water 8990-3

102: Recommendation of Acting Chief Engineer for Future Use, Water Permit Application No. 8990-3 dated January 20, 2026, including Report to the Chief Engineer by Kimberly C. Drennon, E.I. dated January 7, 2026

103: Educational background and professional experience summaries of Pankonin, Bisgard, and Buscher

104: Banner Presentation

City reserves the right to offer any document marked by any party as a hearing exhibit and additional exhibits as is necessary to rebut evidence presented by any other party in this proceeding or for impeachment purposes. Paper copies of the City's exhibits will be provided at the hearing and will be submitted electronically prior to the hearing consistent with the Water Management Board's Scheduling Order.

City further reserves to provide supplemental witness and exhibit disclosures by July 1, 2026 consistent with the extension agreed to by counsel.

Dated this 29th day of June 2026.



Paul W. Tschetter
Joseph M. Dylla
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P.O. Box 5015
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pwtschetter@boycelaw.com
jmdylla@boycelaw.com
Attorneys for Applicant

CERTIFICATE OF SERVICE

I, Paul W. Tschetter, hereby certify that I am a member of Boyce Law Firm, L.L.P., and that on the 29th day of June 2026, a true and correct copy of the foregoing was served by First-Class Mail upon the following:

Emily Greco
Assistant Attorney General
1302 East Highway 14, Suite 1
Pierre, SD 57501

Reed Mahlke
Helsper, McCarty & Rasmussen PC
1441 6th Street, Suite 200
Brookings, SD 57006

Craig or Joe Arthur
16116 456th Avenue
Watertown, SD 57201

Adam Mathiowetz, Chief Engineer
DANR – Water Management Board
Joe Foss Building
523 East Capitol Avenue
Pierre, SD 57501

David M. McVey
Assistant Attorney General
1302 East SD Highway 1889, Suite 1
Pierre, SD 57501-8501

And served on June 29, 2026, by email upon the following:

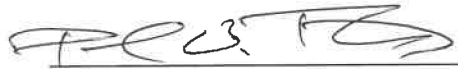
Adam Mathiowetz, Chief Engineer
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523 East Capitol Avenue
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Adam.Mathiowetz@state.sd.us

Amanda Dewell
Permitting Administrator, Water Rights Program
Amanda.dewell@state.sd.us

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Paul W. Tschetter

FILE COPY

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8990-3</u> Hydrologic Unit <u>07020001</u>
	Basin <u>Minnesota</u>
	Newspaper <u>Milbank/Grant County Review</u> <u>Watertown Public Opinion</u> (office use only)

RECEIVED

SEP 18 2025

Water Rights
Program

Application for Permit to Appropriate Water in South Dakota

Check use(s) of water:

☒
☐
☐

Municipal
Rural Water System
Domestic (over 18 gpm)

☒
☐
☐

Water Distribution System
Commercial
Industrial

☐
☐
☐

Recreational
Fish & Wildlife
Other

☐
☐

Institutional
Geothermal

Type of Application:
(check one)

☐
☐
☐

New ☐ Vested Right (Use predates Mar 2, 1955)

☒

Future Use Reservation

Place to Beneficial Use Water Reserved by Future Use Permit No. _____

Amendment/Correction to Permit No. _____

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

Request a future use permit to address the anticipated growth in the City of Milbank

1. Name to Appear on Water Permit City of Milbank

Mailing Address 1001 E 4th Avenue, Suite 301

(Address)

Milbank

(City)

SD

(State)

57252-2657

(Zip Code)

Phone (605) 432-9575

Mobile 605-949-2748

Email cityadministrator@milbanksd.com

2. Amount of water claimed 1.55 *CFS or 1.120 **GPM and 1.120 ***AF or 1 MGD Gallons
Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use)

3. Source of water supply Groundwater - Antelope Valley aquifer

4. Location of point of diversion Sections 21 and 22, Township 120 North, Range 51 West County Grant

(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☐ No

If "Yes," where will water be used? _____

(example - NW1/4 section 12-T104N-R53W)

5. County or counties where water will be used Grant County

6. Annual period during which water is to be used January 1 - December 31

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

City of Milbank is seeking an additional water source to blend with their existing source, which has high total dissolved solids.

I, Steve Pendergrass

Name of Person

City Administrator

Title (if applicable)

, the applicant, certify under

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

2021-08

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

45-18875/-96.95151

Supplemental Information
(type or print)

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SEP 18 2025

Water Rights
Program

1. Well Information (check one or both as applicable)

☒ Drilling new well(s) ☐ Using existing well(s)

- a) If new wells, how many Unk. Have test holes been drilled? ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)
- b) If existing wells, how many _____ Provide copy of log(s), if available. Drilled by _____

For either existing or proposed wells:

- c) Well Depth (required) 20-60' Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____
- d) Distance to nearest domestic well on applicant's property _____ Property owned by others _____

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

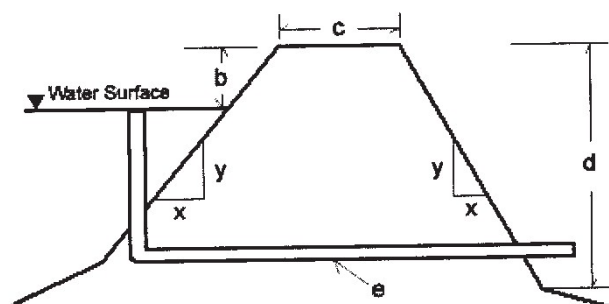
3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address: _____



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
Upstream _____
Downstream _____
- h) Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

Future Use Application

Milbank Water Treatment PER
Grant County, South Dakota

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OCT 16 2025

OFFICE OF
WATER

09 120N 51W

10 120N
51W

16 120N 51W

15 120N 51W



Myers
Lake

South Fork White Stone River

21 120N 51W

22 120N 51W



152 St

28 120N 51W

27 120N 51W

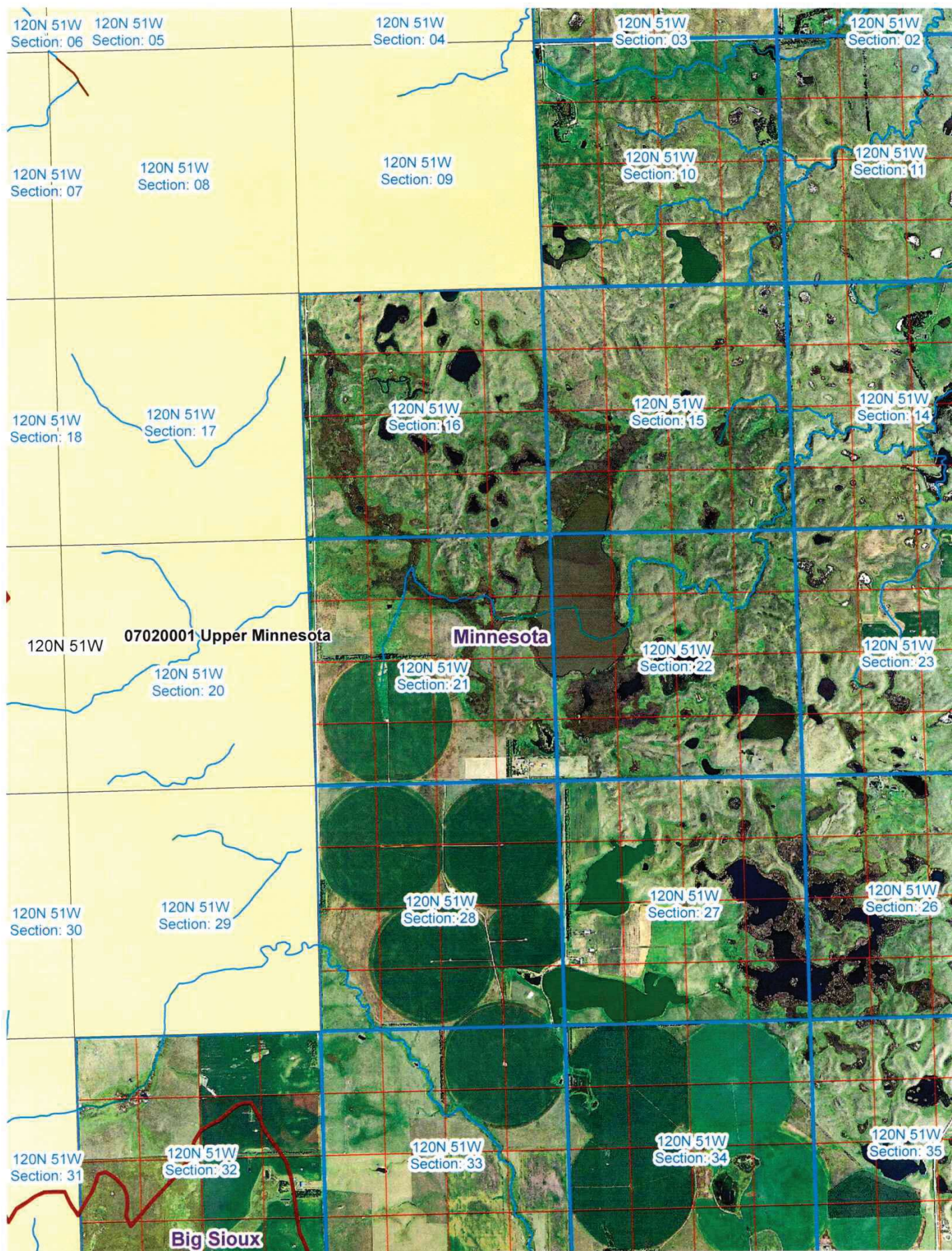
462 Ave

463 Ave



Legend
PLSS Sections

0 600 1,200 1,800 2,400
US Feet





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

**RECOMMENDATION OF ACTING CHIEF ENGINEER FOR FUTURE USE
WATER PERMIT APPLICATION NO. 8990-3, City of Milbank**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Acting Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Future Use Water Permit Application No. 8990-3, City of Milbank, 1001 East 4th Avenue, Suite 301, Milbank SD 57252-2657.

The Chief Engineer is recommending APPROVAL of Application No. 8990-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the City of Milbank has demonstrated a reasonable need for the water reserved, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. Future Use Permit No. 8990-3 reserves 1,120 acre-feet of water annually from the Antelope Valley Aquifer.
2. Future Use Permit No. 8990-3 is approved with the stipulation that this Permit is subject to review by the Water Management Board as to accomplishment in developing reserved water upon expiration of seven (7) years. This Permit shall be subject to cancellation if the Water Management Board determines during the review that the holder cannot demonstrate a reasonable need for the Permit.
3. The future use area approved under this Permit encompasses other wells which obtain water from the same aquifer. Any future water withdrawals from this reservation shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate existing wells for other water rights in place at the time an application to construct and place reserved water is filed.
4. At such time as definite plans are made to construct works and put the water reserved by this Permit to beneficial use, specific application for all or any part of the reserved water must be submitted prior to construction of facilities pursuant to SDCL 46-5-38.1.

See report on application for additional information.

Mark Mayer, PE
Director of Office of Water
January 20, 2026

NOTE: Approval of Future Use Permit No. 8990-3 does not preclude approval of subsequent appropriations by other persons within the future use area identified on No. 8990-3. Approval of any such appropriations will have a priority date junior to No. 8990-3. However, future siting of wells by the City of Milbank to place water to beneficial use within the future use area will be subject to review during the application process regarding the likelihood of well interference between proposed city wells and existing wells of other users within the future use area.

**Report to the Chief Engineer on
Water Permit Application No. 8990-3
City of Milbank
7 January, 2026**

Water Permit Application No. 8990-3 proposes to reserve for future use 1,120 acre-feet of water annually (ac-ft/yr) from the Antelope Valley aquifer. The area of the future use reservation is Sections 21 and 22 in T120N-R51W. The water is to be reserved as a future water supply for municipal and water distribution system use by the City of Milbank in Grant County. Approval of this application would not authorize construction of works or application of water to beneficial use. This site is located approximately 15 miles southwest of Milbank, South Dakota, surrounding Myers Lake.

Aquifer: Antelope Valley (AV)

Hydrogeologic Characteristics

The Antelope Valley aquifer is a shallow, Quaternary-aged sand and gravel outwash aquifer underlying portions of Grant, Deuel, and Codington Counties. It underlies the divide between the Big Sioux River watershed to the west and the Minnesota River watershed to the east. Hedges, et al. [1] delineated an area of 28,700 acres and estimated the amount of recoverable water stored in the aquifer was approximately 64,580 acre-feet. Using aquifer materials maps [2] [3] [4], county studies released after the Hedges, et al [1] study [5] [6], sand and gravel resource studies [7] [8], lithologic logs [9], observation wells [10], and well completion report data [11], Water Rights Staff delineated a new area for the Antelope Valley aquifer (shown in Figure 1 on page 2), with an area of approximately 35,000 acres. The Antelope Valley aquifer is generally under unconfined conditions, meaning water levels in the aquifer do not rise above the top of the formation. There are also areas where sand and gravel outwash is encountered below the elevation of the surficial outwash [9] [11], which could be described as an intermediate layer. Some water right permits [12] and observation wells [10] are completed into that layer of sand and gravel and are on file as completed into the Antelope Valley aquifer, although the extent of the intermediate layer and area of aquifer under confined conditions are unknown.

Applicable South Dakota Codified Law (SDCL)

Pursuant to SDCL 46-2A-10 a reservation of water for future use may be approved only if there is a reasonable probability that unappropriated water is available for this application, that the quantity of water will be needed by the entity, and that the proposed use will be a beneficial use and in the public interest. The applicant has submitted documents that supply reasoning for the quantity of water requested. This report will address the availability of unappropriated water only.

Pursuant to SDCL 46-6-3.1, no application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of the water to the groundwater source. An exception allows water distribution systems to withdraw from groundwater sources older or stratigraphically lower than the Greenhorn Formation regardless of the results of a hydrologic budget. The applicant is a water

distribution system as defined in SDCL 46-1-6(17), but the Antelope Valley aquifer is younger and stratigraphically higher than the Greenhorn Formation. Therefore, the Water Management Board must find that recharge to the aquifer exceeds withdrawals to approve this application.

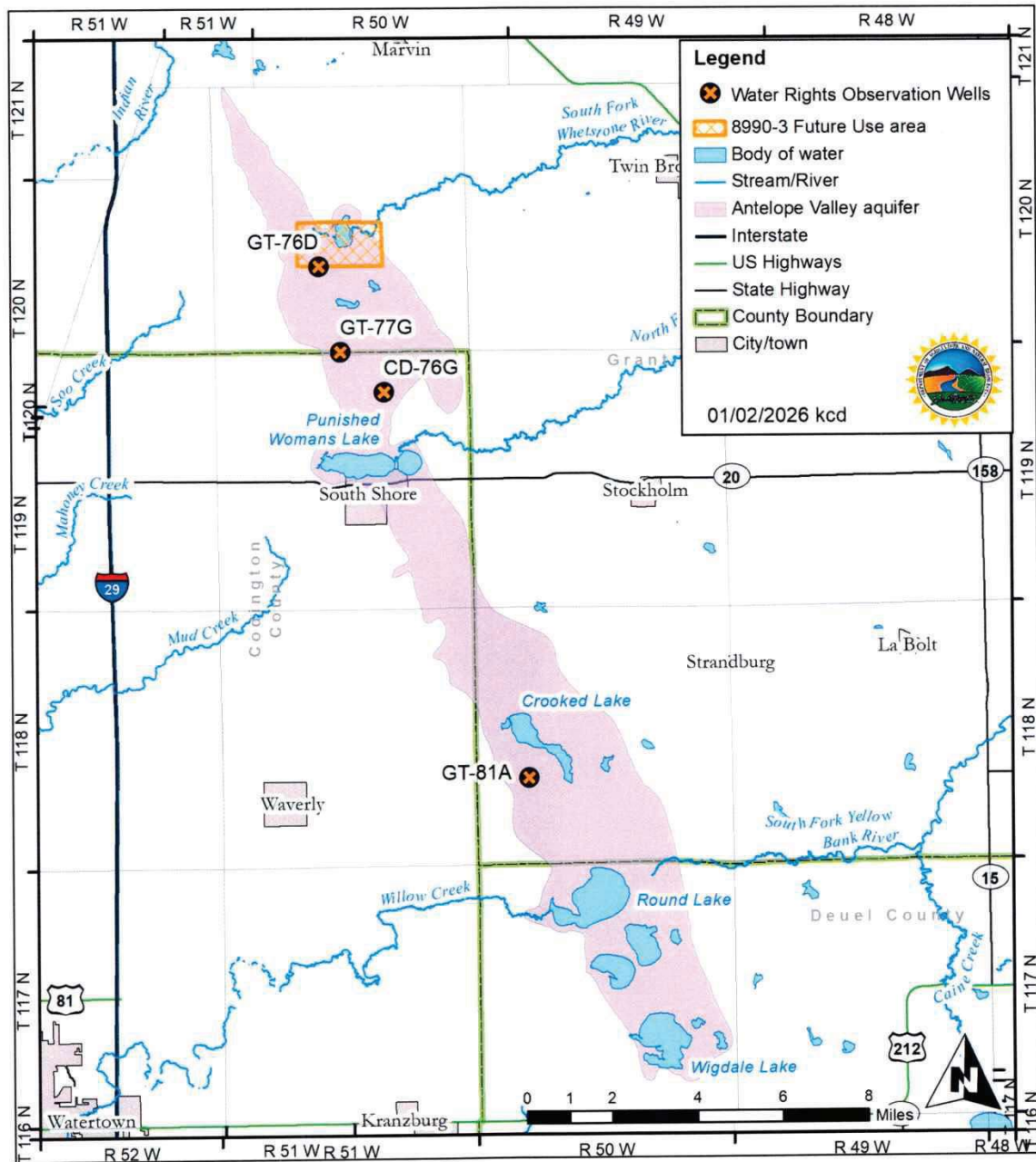


Figure 1: Antelope Valley aquifer, Observation Well locations, and proposed Future Use area [2-11]

Availability of Water

Hydrologic Budget

Recharge

Recharge to the Antelope Valley aquifer is mainly by infiltration of precipitation and groundwater inflow from surface water features where the surface water features contact the aquifer [6]. Hedges, Allen, and Holly [13] used observation well analysis to estimate recharge to the Antelope Valley aquifer was approximately 2.3 inches per year. Applied over the approximately 35,000 acres of aquifer, the estimated average annual recharge to the aquifer is 6,700 ac-ft/yr.

Discharge

Natural discharge from the Antelope Valley aquifer is by evapotranspiration where the aquifer is near land surface and may be by outflow to surface water features when the stage of the surface water is below the water table of the aquifer [6]. Artificial discharge from the aquifer is by appropriative withdrawals [12] and domestic self-supply. Given the prevalence of rural water systems and other water distribution systems, domestic self-supply is likely to be a negligible portion of the hydrologic budget. There are 16 water right permits on file as currently authorized to withdraw water from the Antelope Valley aquifer [12]. Of those, 13 are for irrigation, 2 for municipal use for the Town of South Shore, and one for Grant-Roberts Rural Water System. Figure 2 shows the irrigation reported from the Antelope Valley aquifer from the period of record of 1979 through 2024 [14]. The average irrigation reported over the entire period of record was 1,118 ac-ft/yr. The average reported over the last ten years of record (2015 through 2024) was 1,348 ac-ft/yr. There is one irrigation permit withdrawing from the Antelope Valley aquifer which is too new to have reported any withdrawals. That permit is for irrigation of 160 acres. Assuming they apply 10 inches of water per acre, their estimated average annual use is 133 ac-ft/yr. This estimate is likely to be higher than the actual average annual use, based on Water Rights Staff experience for irrigation permits east of the Missouri River. Figure 3 shows non-irrigation withdrawals from the Antelope Valley aquifer reported to the Water Rights Program [15]. The average withdrawal reported by Grant-Roberts Rural Water System over the period of record of 2003 through 2024 was 948 ac-ft/yr. Their average reported withdrawal over the last 10 years of record was 1,069 ac-ft/yr. The Town of South Shore is not required to report its withdrawals to the Water Rights Program, but their semi-annual Drinking Water System report indicates they withdraw on average 13,500 gallons per day [16], or approximately 15 acre-feet per year. For both the irrigation water rights and Grant-Roberts Rural Water System, the average from the last 10 years of record will be considered the best available estimate of average annual withdrawals. There are also three Future Use permits reserving a combined total of 959 ac-ft/yr from the Antelope Valley aquifer [12].

Irrigation Reported from Antelope Valley aquifer

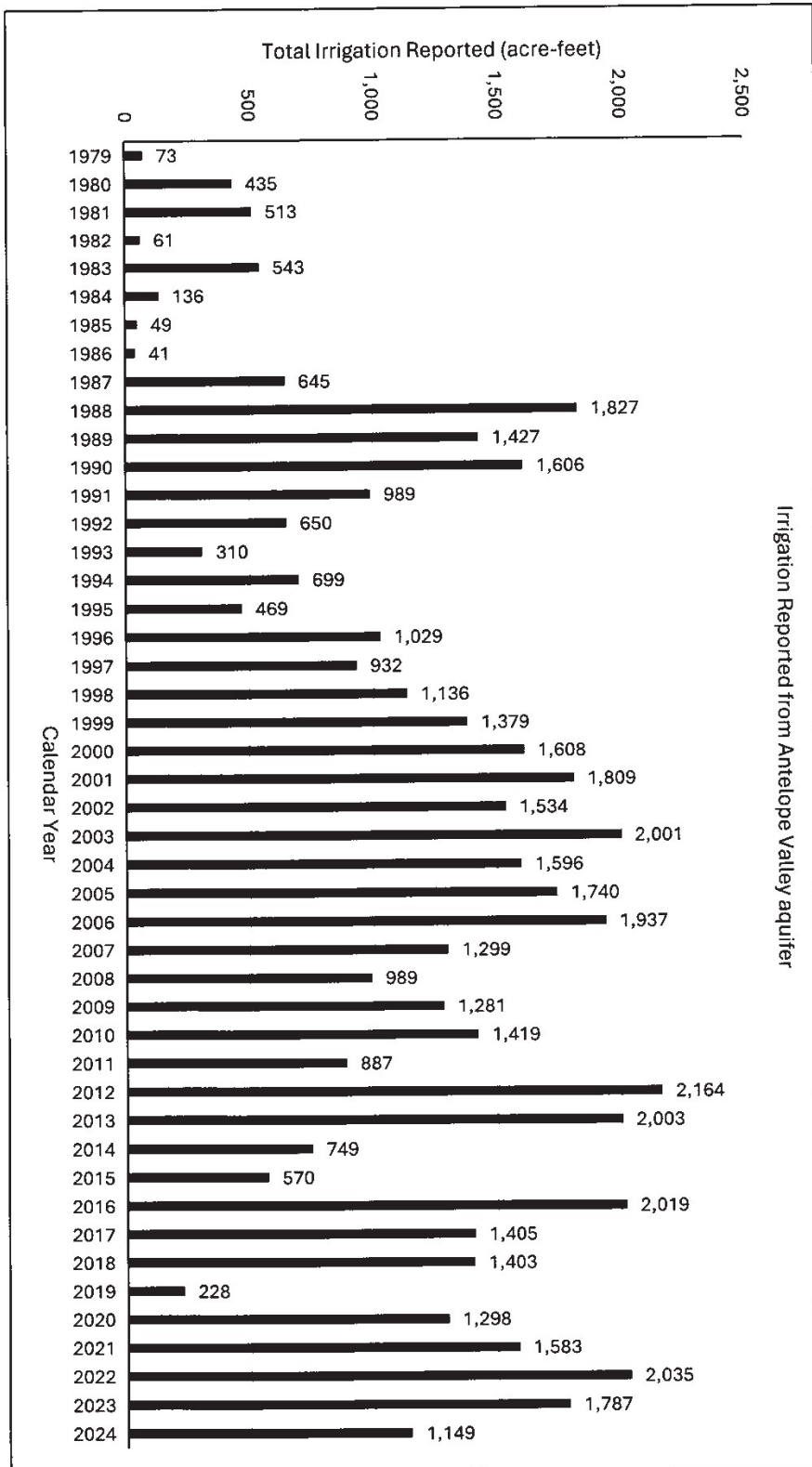


Figure 2: Irrigation reported from the Antelope Valley aquifer [14]

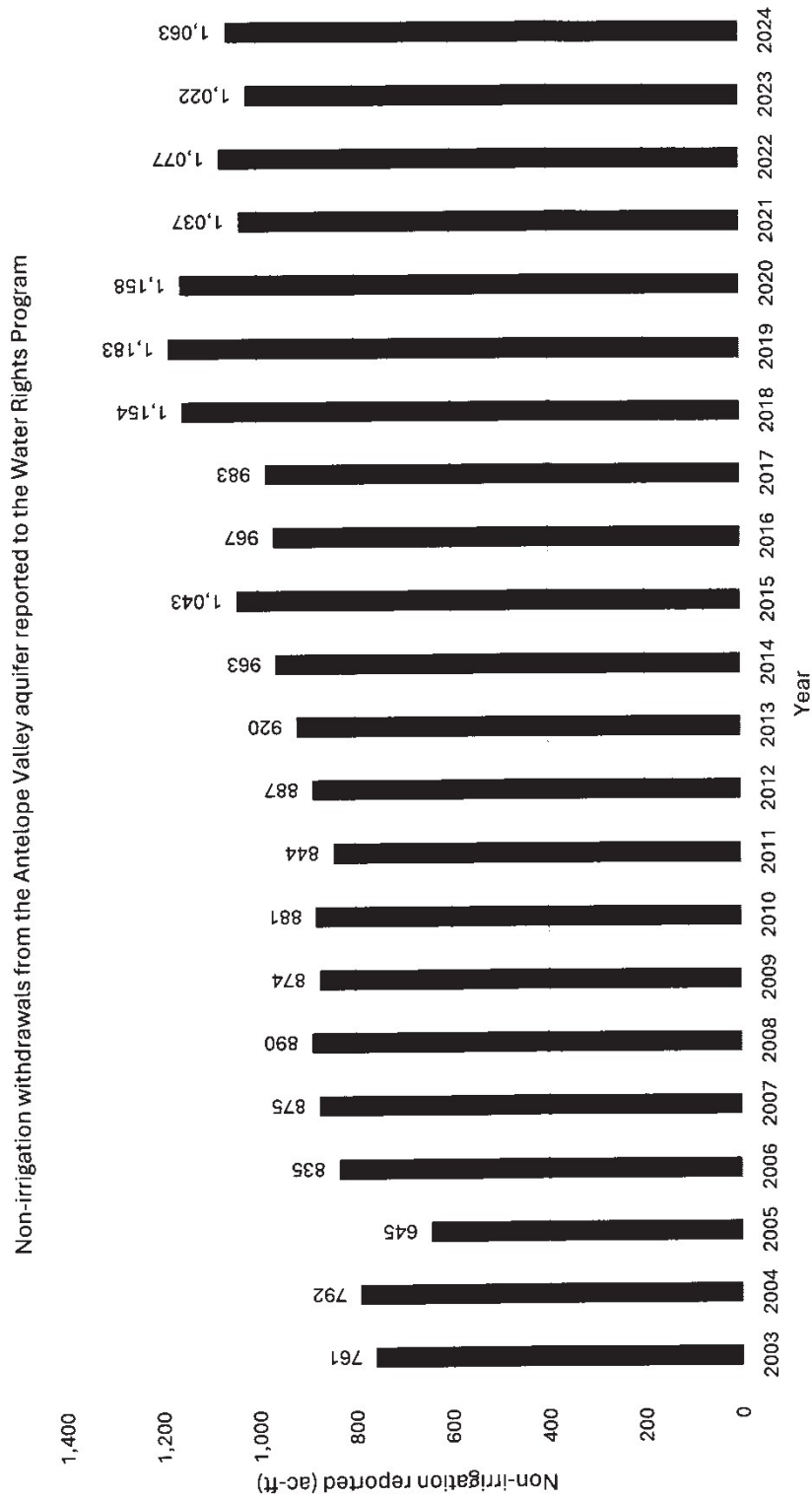


Figure 3: Non-irrigation withdrawals from the Antelope Valley aquifer reported to the Water Rights Program [15]

Summary of Hydrologic Budget

The estimated average annual recharge to the Antelope Valley aquifer is approximately 6,700 ac-ft/yr. The estimated withdrawals from the aquifer are shown in Table 1 below. The estimated average annual withdrawal of water right permits authorized to withdraw is 2,565 ac-ft/yr. Including the existing reservations for future use, the total estimated appropriation from the aquifer is 3,524 ac-ft/yr. This application proposes to appropriate 1,120 ac-ft/yr. Therefore, based on the hydrologic budget, unappropriated water is available for this application.

Table 1: Summary of estimated withdrawals and appropriations from the Antelope Valley aquifer

Estimation Method	Number	Est. Avg. Withdrawal (ac-ft/yr)
Irrigation	12	1,348
Irrigation, too new to report	1	133
Report to Chief Engineer	1	1,069
Report to Drinking Water Program	2	15
<i>Subtotal, authorized to withdraw</i>	<i>16</i>	<i>2,565</i>
Future Use	3	959
Grand Total	19	3,524

Observation Wells

Administrative Rule of South Dakota 74:02:05:07 requires that the Water Management Board rely upon the record of observation wells, in addition to other information, to determine that recharge exceeds withdrawals. The Water Rights Program maintains four observation wells completed into the Antelope Valley aquifer [10]. Figure 4 shows the water level elevations in the four observation wells. Three of the observation wells, GT-81A, GT-76D, and GT-77G, are under unconfined conditions. The other observation well, CD-76G, is under confined conditions. In general, water levels in all four wells rise during periods of higher-than-average precipitation and decline during periods of lower-than-average precipitation [17]. Observation Well CD-76G also shows seasonal declines during the summer when irrigation is most intense, but water levels recover each spring. The three unconfined observation wells show a slight increasing trend over the period of record, while the one confined well shows a slight decreasing trend over the period of record. Declines in water levels in confined wells indicate decreases in average pressure in the aquifer, and not significant decreases in storage. Increases in water levels in unconfined wells indicate increases in storage in the aquifer. Additionally, the fluctuation of observation well water levels reflective of the climactic fluctuations indicates water is naturally discharging from the aquifer. The Water Management Board considers natural discharge available for capture. Therefore, there is reasonable probability unappropriated water is available for this application.

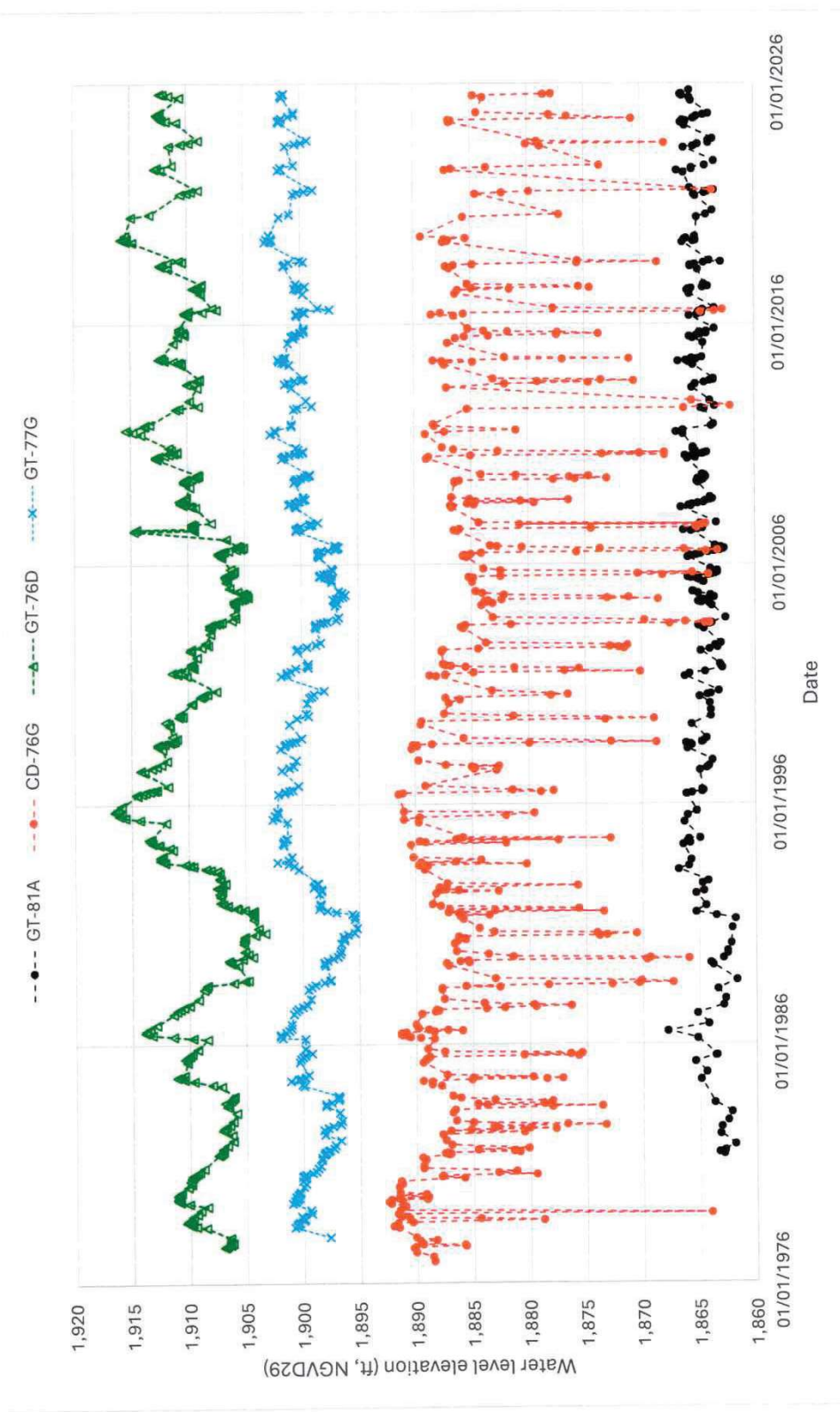


Figure 4: Water levels in Antelope Valley aquifer observation wells [10]

Nearby Water Right Permits

The proposed future use area overlies Water Right No. 5173A-3 and is within a mile of several other water rights in the Antelope Valley aquifer. Figure 5 shows water rights within and near the area for this application, as well as DANR Observation Well GT-76D in relation to the area. Table 2 lists the water rights shown in Figure 5. If this application is approved, a more specific review of the possibility of unlawful impairment of existing water rights based on the proposed well location(s) must be performed when the applicant requests to place the reserved water to beneficial use.

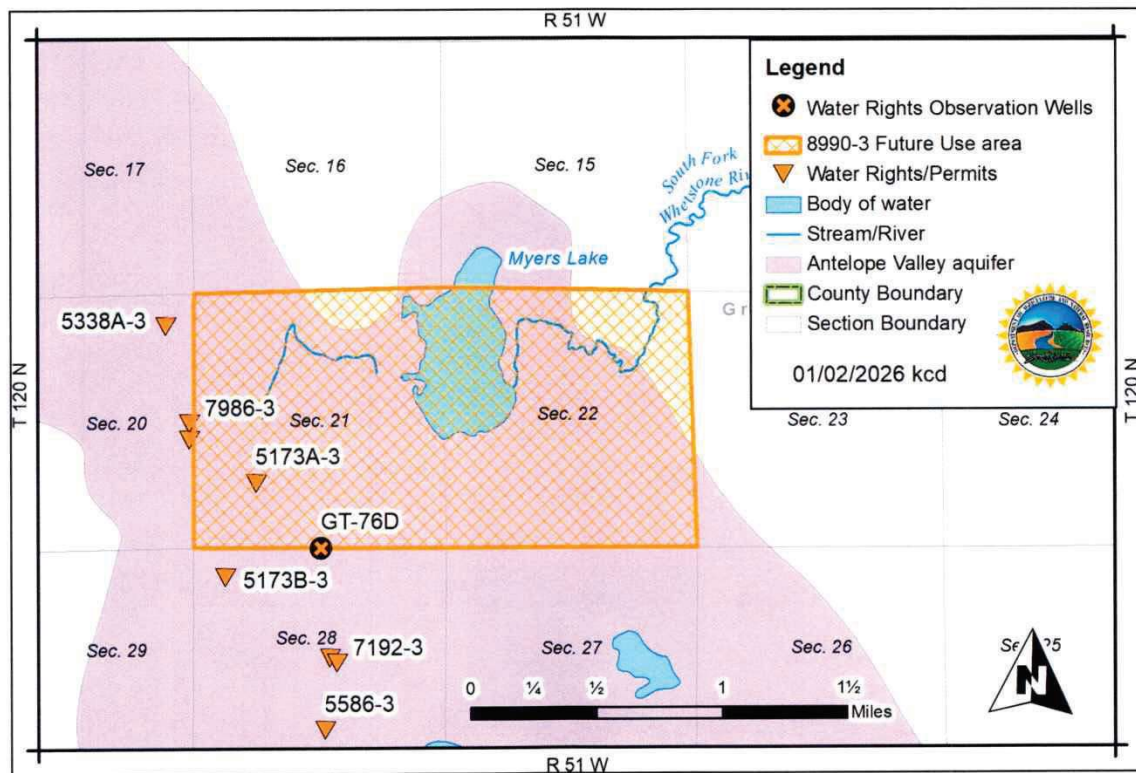


Figure 5: Water right permits near the proposed future use area [12] [10]

Table 2: Water right permits shown in figure above [12]

Permit No.	Name/Business	Priority	Status	Use Type	Licensed CFS	Licensed Acres
5173A-3	Willow Run Farms FLP	03/03/1987	License	Irrigation	2.44	166
5173B-3	Willow Run Farms FLP	03/03/1987	License	Irrigation	1.78	136
5338A-3	Willow Run Farms FLP	07/03/1989	License	Irrigation	1.78	130
5586-3	Willow Run Farms FLP	02/18/1975	License	Irrigation	6.00	420
7192-3	Willow Run Farms FLP	04/05/2010	License	Irrigation	1.00	49
7986-3	Paul Fehr	03/27/2014	Permit*	Irrigation	1.93	135
Total	--	--	--	--	14.93	1,036

* As of 1/16/2026, this is in the database as License, but licensing documentation is not in the file

Conclusions

1. Water Permit Application No. 8990-3 proposes to reserve 1,120 ac-ft/yr from the Antelope Valley aquifer. The area of the future use reservation is Sections 21 and 22 T120N-R51W. The water is to be reserved as a future water supply for municipal and water distribution system use by the City of Milbank in Grant County.
2. Based on the hydrologic budget and observation well analysis, there is reasonable probability unappropriated water is available for this application.
3. This application does not authorize construction of works or application of water to beneficial use.



Kimberly C. Drennon, E.I.
Engineer III – DANR Water Rights Program

References

- [1] L. S. Hedges, S. L. Burch, D. L. Iles, R. A. Barari and R. A. Schoon, "Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa Tasks 1-4," US Army Corps of Engineers, Omaha, Nebraska, 1982.
- [2] A. R. Jensen, "First Occurrence of Aquifer Materials in Deuel County, South Dakota," SD DANR Geological Survey Program, Vermillion, South Dakota, 2001.
- [3] A. R. Jensen, "First Occurrence of Aquifer Materials in Codington County, South Dakota," SD DANR Geological Survey Program, Vermillion, South Dakota, 2003.
- [4] A. R. Jensen, "First Occurrence of Aquifer Materials in Grant County, South Dakota," SD DANR Geological Survey Program, Vermillion, South Dakota, 2004.
- [5] D. R. Biessel and J. P. Gilbertson, "Geology and Water resources of Deuel and Hamlin Counties, South Dakota Part 1: Geology," SD DANR Geological Survey Program, 1987, 1987.
- [6] D. S. Hansen, "Water resources of Codington and Grant Counties, South Dakota," United States Geological Survey, Huron, South Dakota, 1990.
- [7] L. D. Schulz, "Sand and Gravel Resources in Codington County, South Dakota," SD DANR Geological Survey Program, Vermillion, South Dakota, 1991.
- [8] M. J. Jarrett, "Sand and gravel resources in Grant County, South Dakota," SD DANR Geological Survey Program, Vermillion, South Dakota, 1986.

Report on Water Permit App. No. 8990-3

- [9] SD DANR Geological Survey Program, "Lithologic Logs," Vermillion, South Dakota, 2025.
- [10] SD DANR Water Rights Program, "Observation Wells," SD DANR Water Rights Program, Pierre, South Dakota, 2025.
- [11] Water Rights Program, "Well Completion Reports," S.D. Dept. of Ag. and Nat. Resources, Pierre, South Dakota, 2025.
- [12] Water Rights Program, "Water Right Permit Files," S.D. Dept. of Ag. and Nat. Resources, Pierre, South Dakota, 2025.
- [13] L. S. Hedges, J. Allen and D. E. Holly, "Evaluation of ground-water resources eastern South Dakota and upper Big Sioux River South Dakota and Iowa," U.S. Army Corps of Engineers, Omaha, Nebraska, 1985.
- [14] Water Rights Program, "Irrigation Questionnaire Summaries," S.D. Dept. of Ag. and Nat. Resources, Joe Foss Bldg, Pierre, South Dakota, 2025.
- [15] Water Rights Program, "Non-Irrigation Yearly Questionnaires," S.D. Dept. of Ag. and Nat. Resources, Joe Foss Bldg., Pierre, South Dakota, 2025.
- [16] Drinking Water Program, "Drinking Water Reports," SD DANR, Joe Foss Bldg. Pierre, South Dakota, 2024.
- [17] NOAA, "Climate at a Glance: Divisional Time Series," NOAA National Centers for Environmental Information, 1 December 2025. [Online]. [Accessed 30 December 2025].

**SARA PANKONIN, PE**

PROJECT ENGINEER

EDUCATION

MS, Agricultural & Biosystems Engineering, South Dakota State University, 2006

BS, Agricultural & Biosystems Engineering, South Dakota State University, 2005

REGISTRATIONS

PE, SD, #10976
PE, MN, #49946

Sara Pankonin has 15 years of civil engineering experience with an emphasis in water and wastewater infrastructure. She has served in key design and project management roles for municipal water system improvements, including the 2023 Milbank Water Supply Improvements and the Milbank Water Treatment Plant Preliminary Engineering Report in 2026. Her technical experience also includes serving as designer for the Lewis and Clark Regional Water System Lime Drying Beds, supporting practical and reliable solutions for regional water infrastructure needs. Sara has also supported client and public engagement through presentations to the Milbank City Council, including meeting and public hearing presentations in September 2025 and December 2025.

**KRISTIN BISGARD, PE**

DRINKING WATER PROJECT MANAGER

EDUCATION

MS, Civil/Sanitary Engineering, South Dakota State University, 1998

BS, Civil/Sanitary Engineering, South Dakota State University, 1996

REGISTRATIONS

PE, SD, #6987
PE, MN, #48845

Kristin Bisgard brings more than 27 years of experience in drinking water systems to every project she leads. Her expertise spans water treatment, well fields, pump stations, water distribution and storage facilities, and wastewater collection systems. Kristin is a skilled project manager with deep experience managing multiple water treatment facilities that use lime softening, membrane, and conventional sedimentation processes. She has led projects involving pump stations, metering buildings, water towers, and storage reservoirs across the region. She currently serves as lead engineer for the Lewis and Clark Regional Water System, where she liaises monthly with the Board of Directors and coordinates operations and funding efforts with local staff and federal agencies.

**KELLI D. BUSCHER, PE**

ENVIRONMENTAL PROJECT MANAGER

EDUCATION

BS, Civil Engineering, University of Wyoming, 1991

REGISTRATION

PE, SD, #6122

Kelli D. Buscher, PE, is an Environmental Project Manager with more than 30 years of experience in environmental permitting, water quality protection, stormwater compliance, environmental review, and agency coordination. She has extensive experience working with the South Dakota Department of Agriculture and Natural Resources (DANR), including prior leadership of DANR's Water Quality Program and ongoing coordination with DANR Environmental Funding Program staff on environmental assessments, Findings of No Significant Impact, funding-related environmental documentation, stormwater permitting, water quality certification, and infrastructure compliance reviews.



CITY OF MILBANK FUTURE USE PERMIT JULY 8, 2026



Presented by Banner Associates | Sara Pankonin and Kristin Bisgard

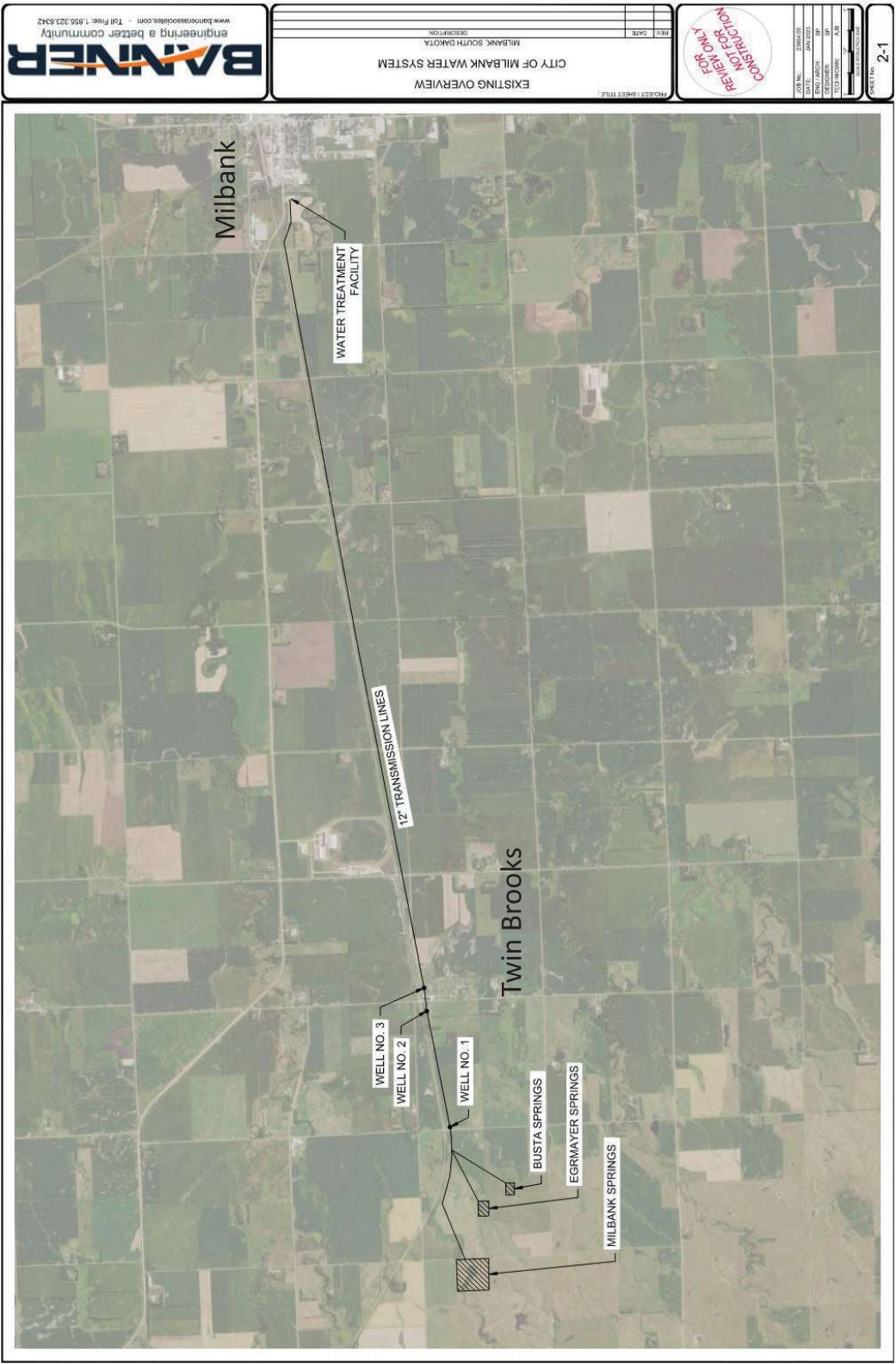


Milbank Future Use Permit Hearing

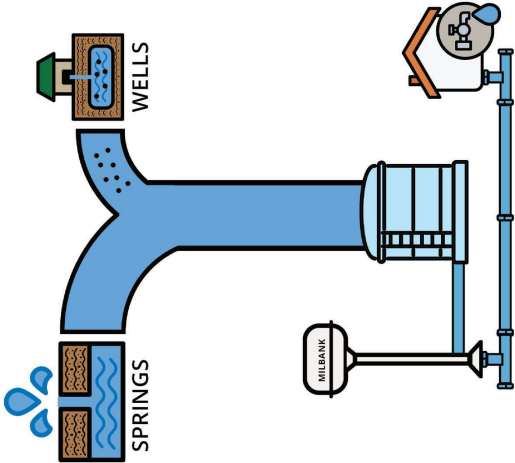


- Introduction:**
- Milbank's Drinking Water Quality
 - Treatment Options Considered
 - Source Water Alternatives



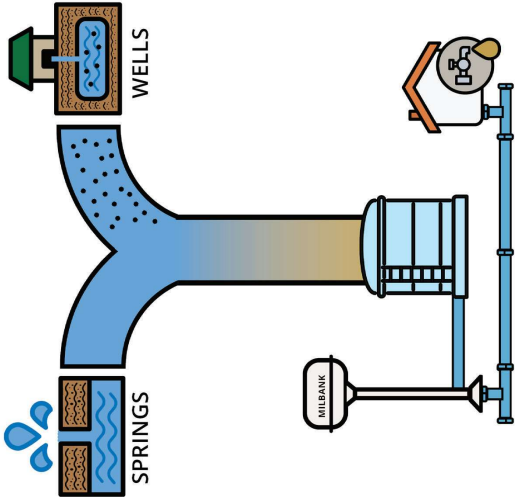


MOSTLY SPRING WATER



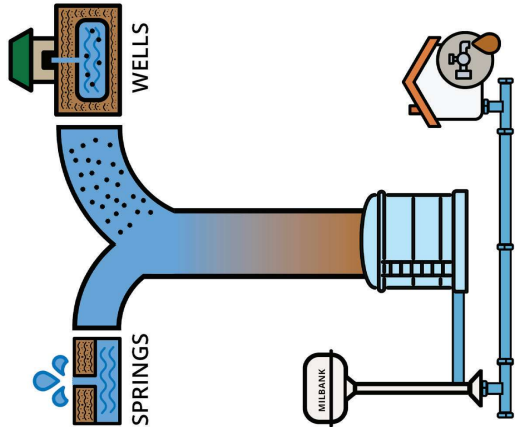
PAST

BLENDED SPRING & WELL WATER

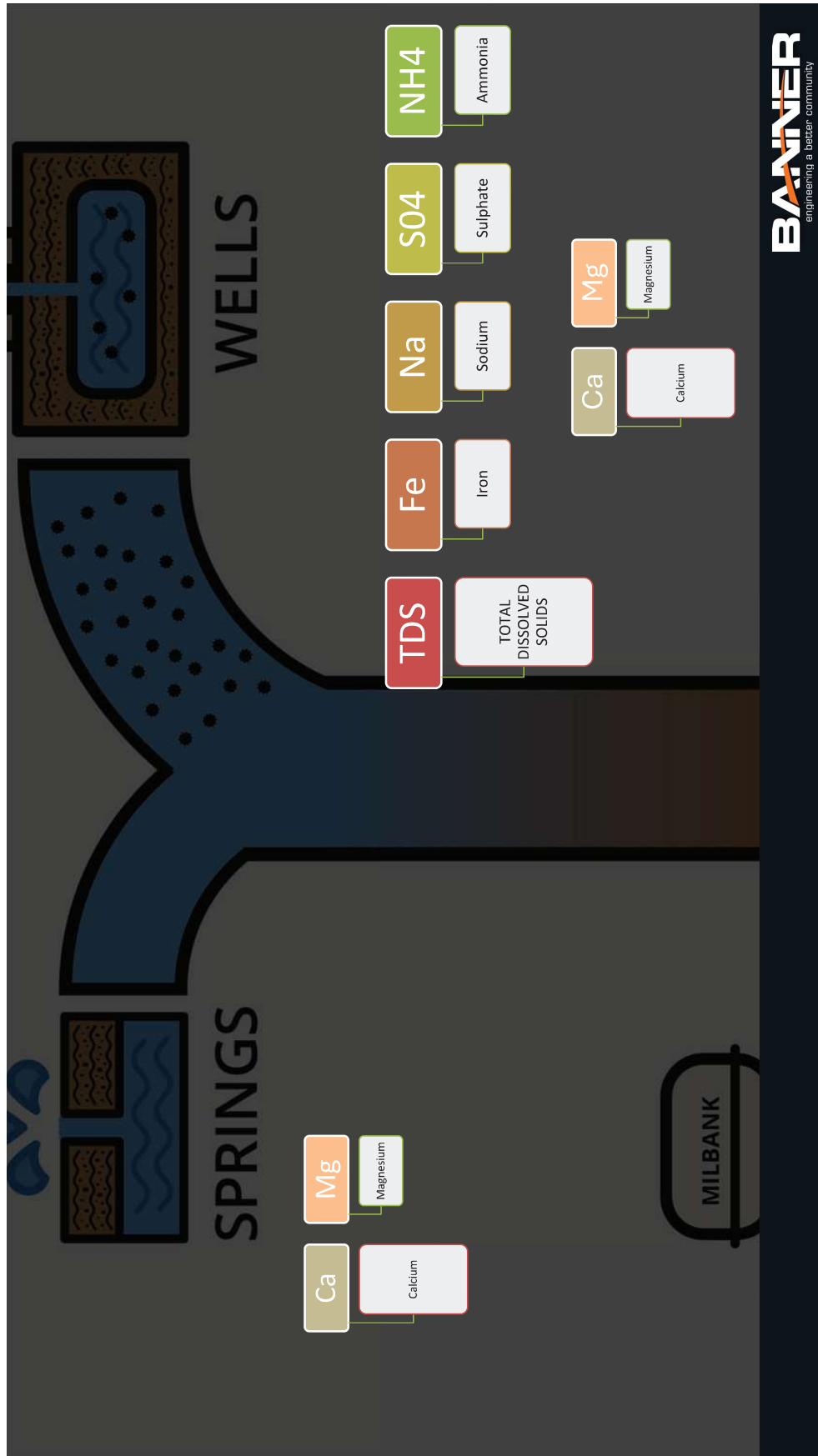


CURRENT

MOSTLY WELL WATER



FUTURE

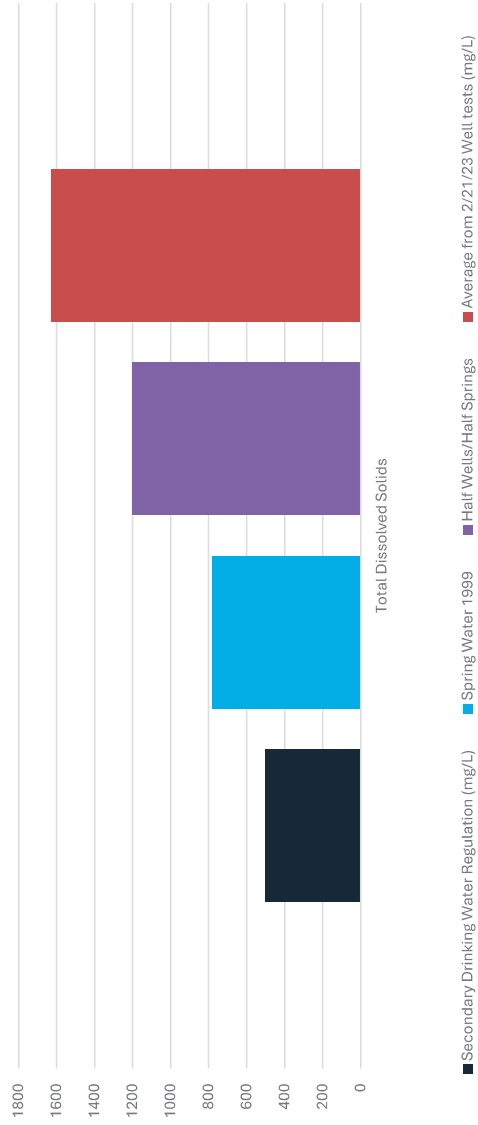


TOTAL DISSOLVED SOLIDS (TDS)



City of Milbank
Water System Update

Total Dissolved Solids (TDS)



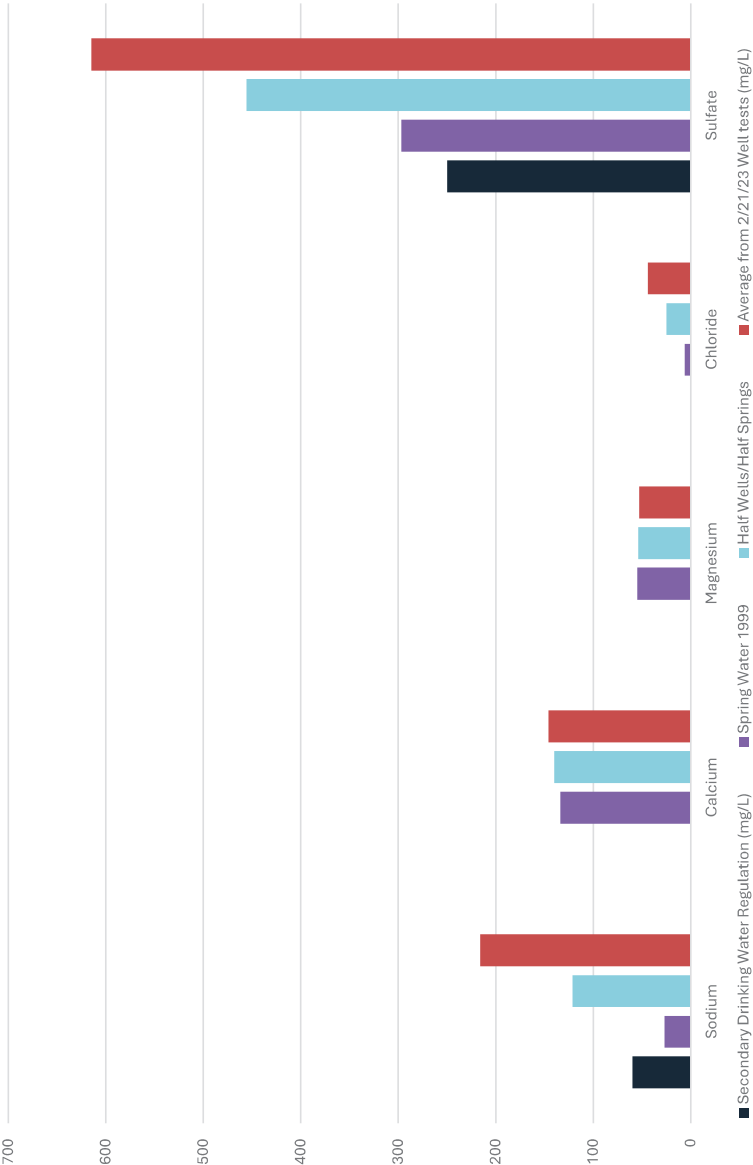
Cations and Anions



City of Milbank
Water System Update



Cations and Anions



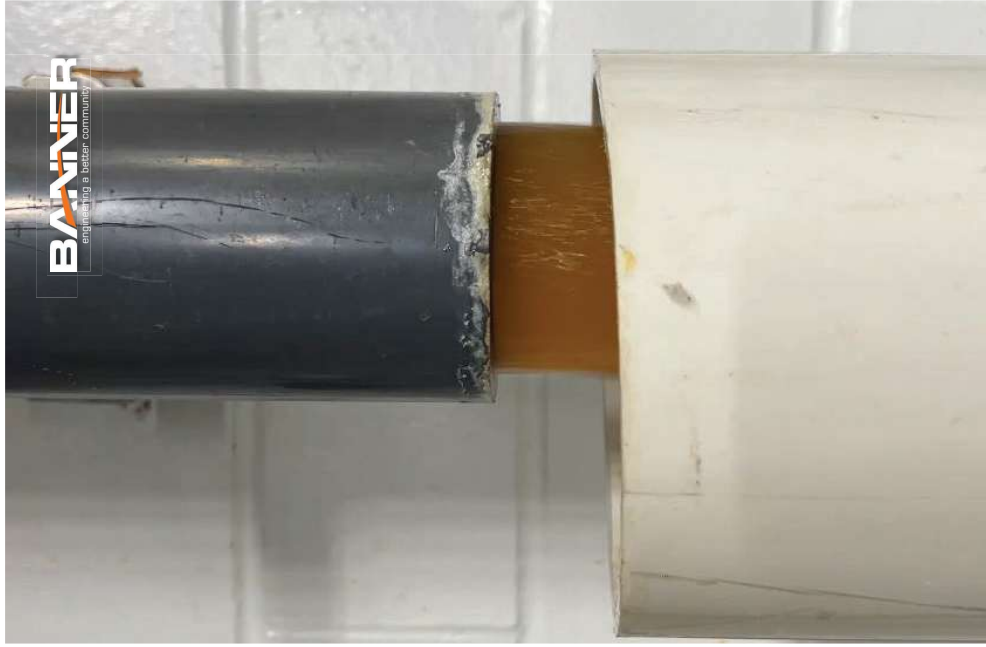


Industrial User Iron Problems

February 2025



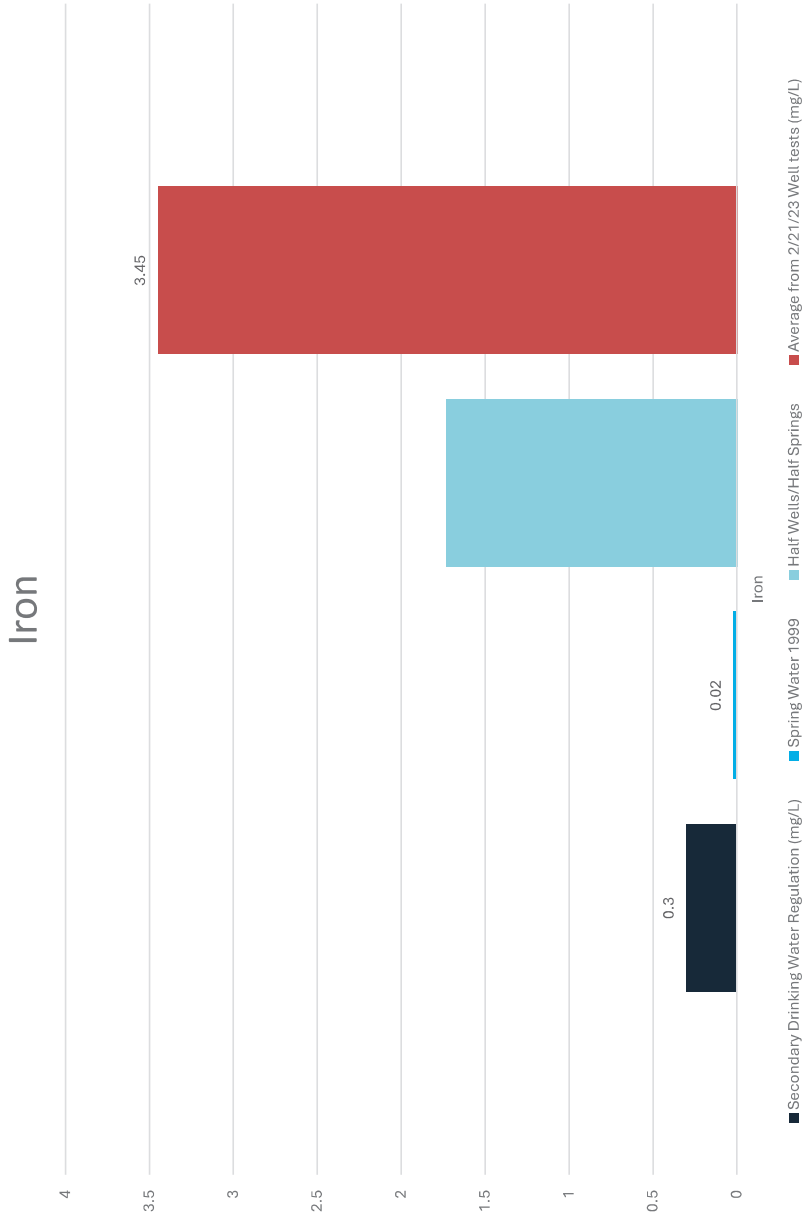
City of Milbank
Water System Update



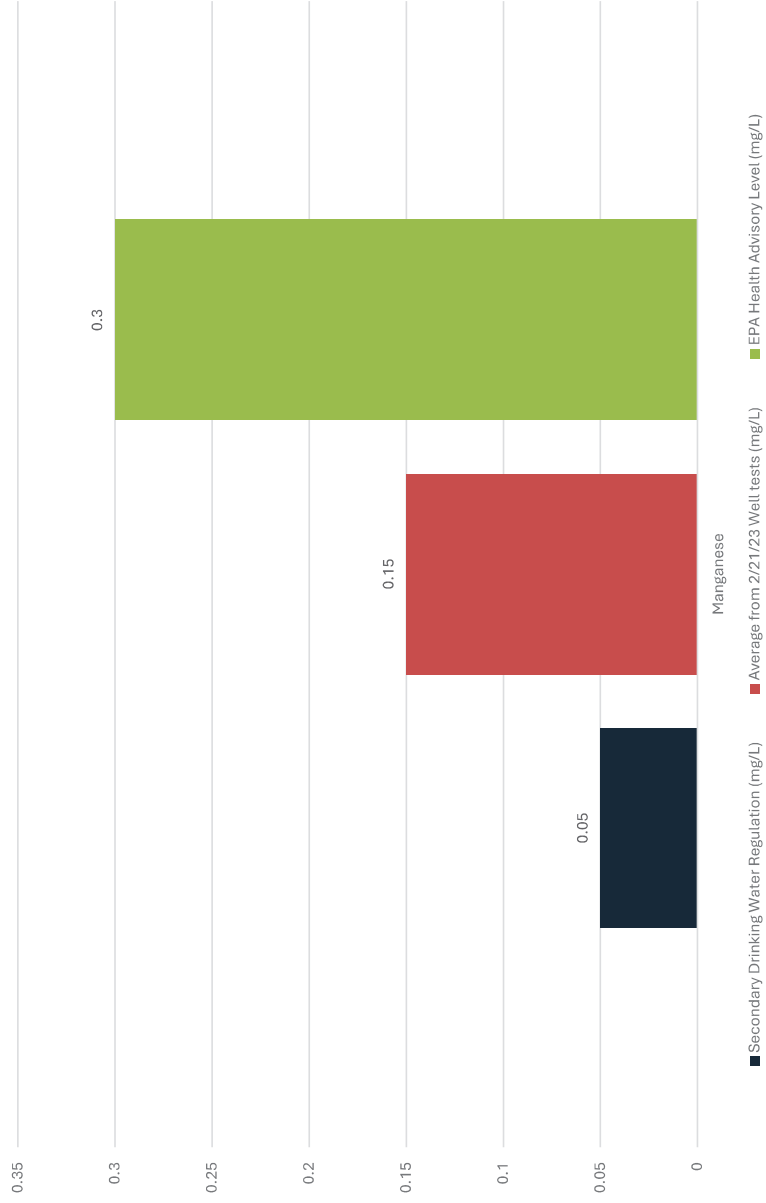
Iron Filter
Backwash
Industries Iron
Pressure Filter
in 2025



City of Milbank
Water System Update



Manganese



Manganese



City of Milbank
Water System Update

Ammonia in Wells



City of Milbank
Water System Update

February 2023 Ammonia Test Results

- Well 1 - 4.56 mg/L as NH_3
- Well 2 - 5.02 mg/L as NH_3
- Well 3 - 5.42 mg/L as NH_3

City has been
monitoring
for nitrite in
2024

Conductivity shut down the hospital's Dialysis Unit in 2025



City of Milbank
Water System Update



WATER



WASTEWATER
TREATMENT
FACILITY



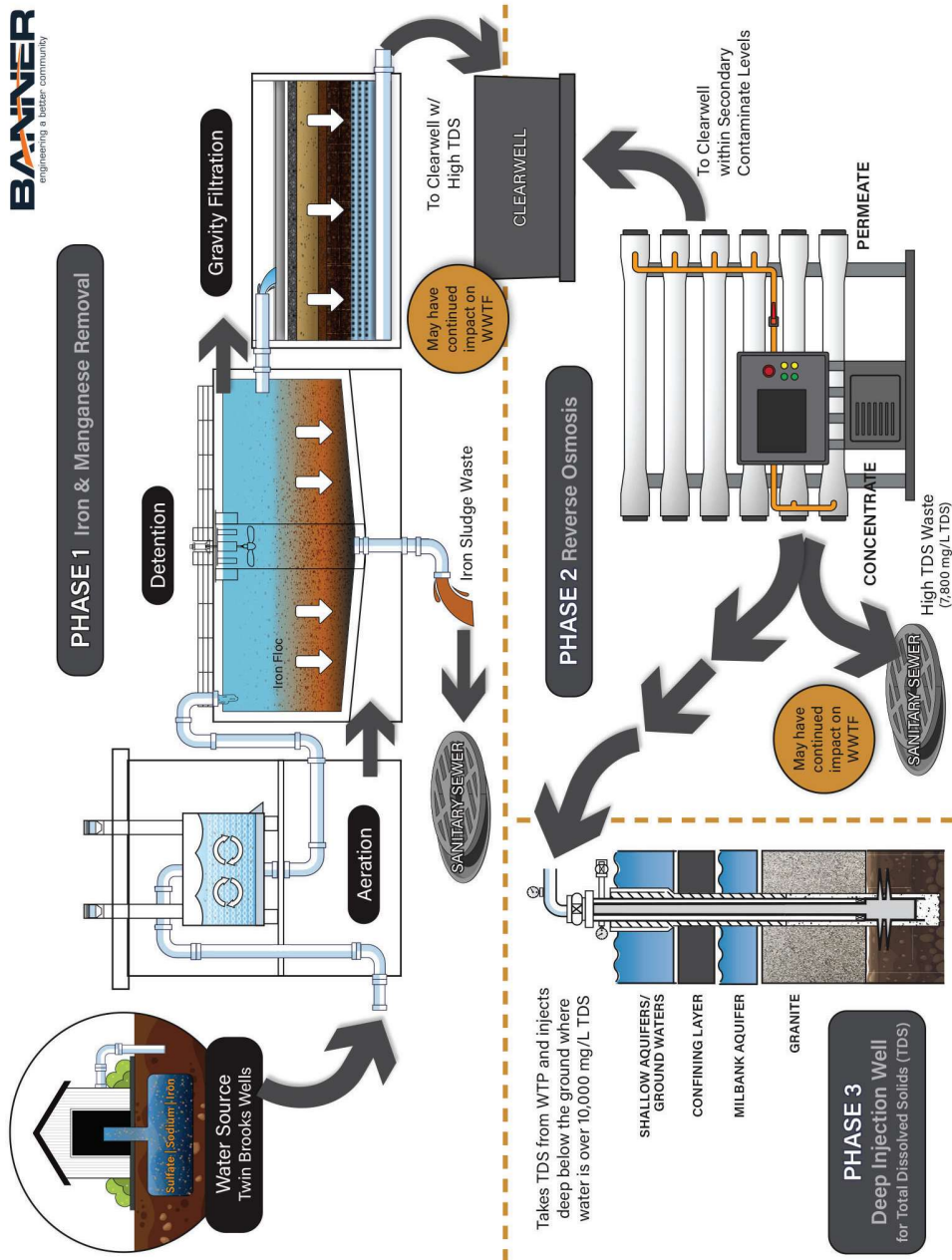
City of Milbank
Water System Update

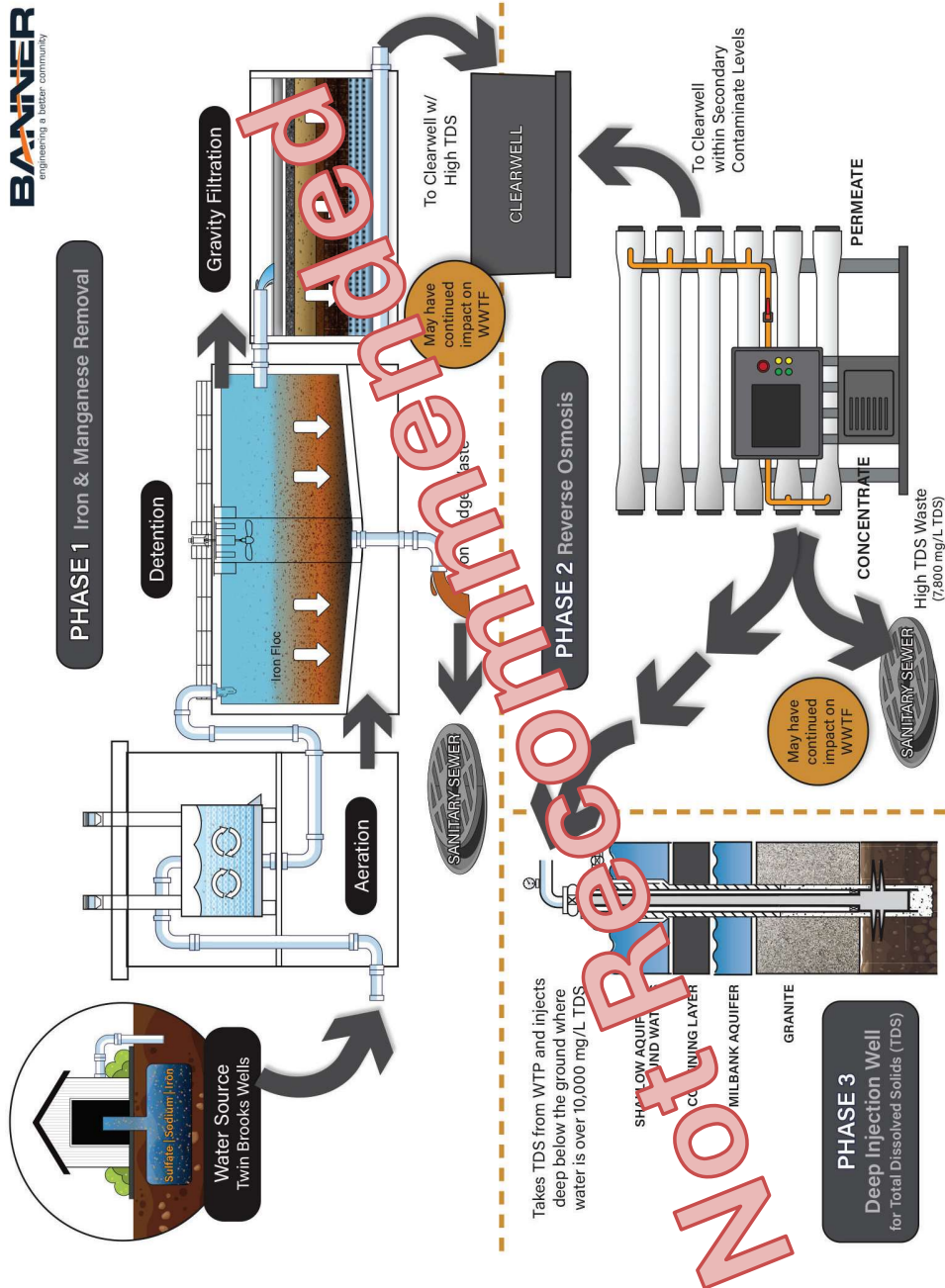
2023 Well Water calculated conductivity 1,590 TO 1,960 before softeners and private filters

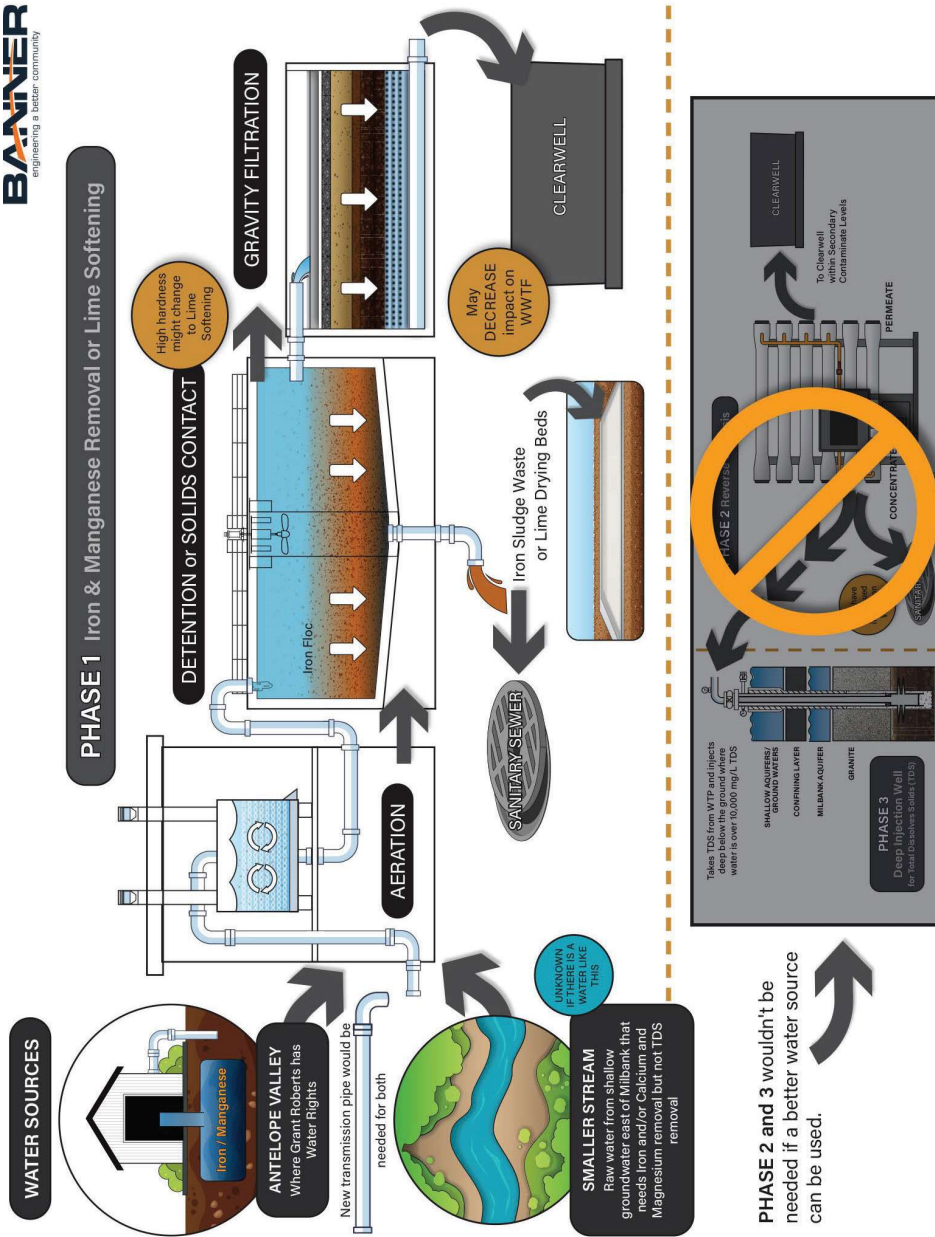
Wastewater discharge permit monitoring has been ranging 2,800 TO 3,600 (Extended permit since 2009)

Beneficial uses of surface waters conductivity range 2,500/4,375 (Irrigation) 4,000/7,000 (Fish & Wildlife) (ARSD 74:51:01)









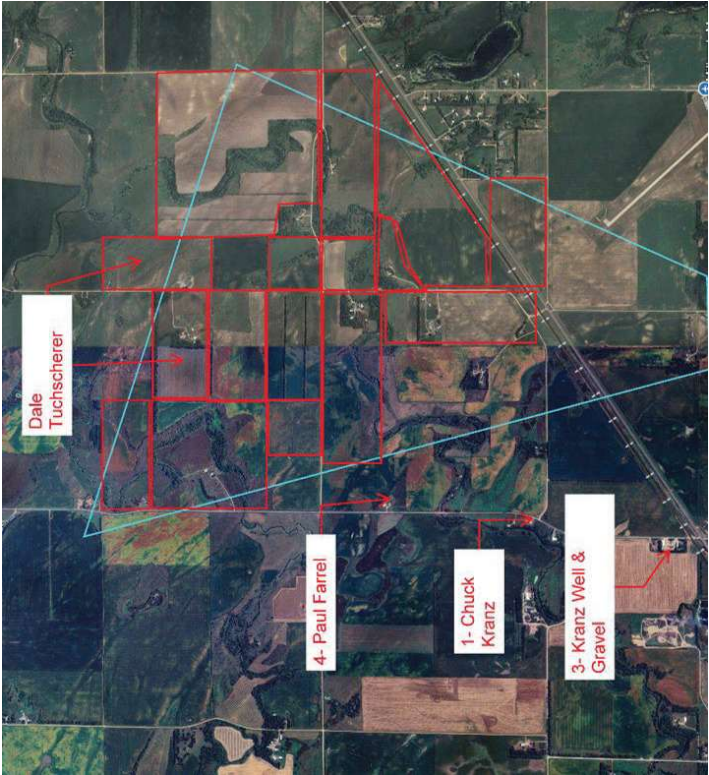
PHASE 2 and 3 wouldn't be needed if a better water source can be used.

CITY OF
ILBANK
Southlake



EAST OF MILBANK | BETTER WATER SOURCE?

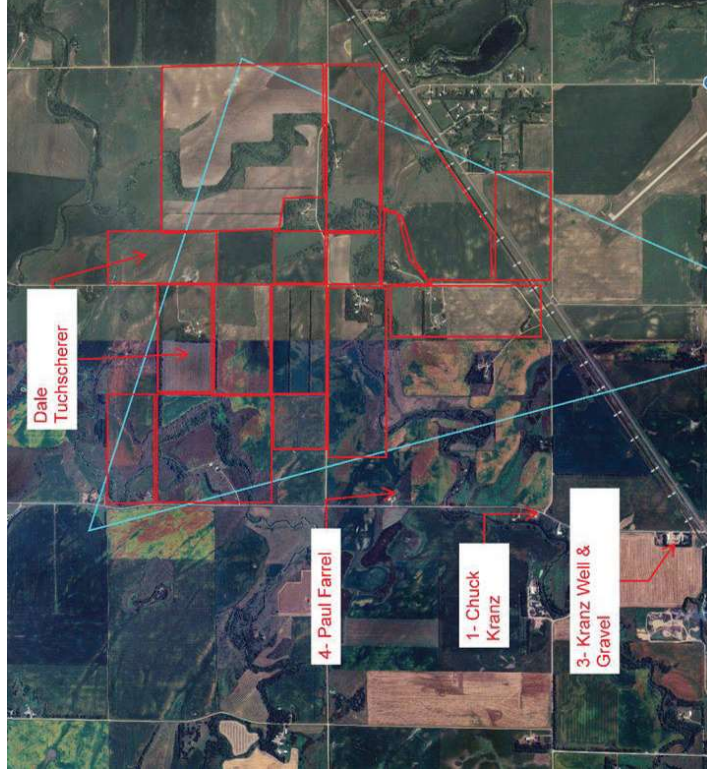
	1 Chuck Kranz	2 Dale Tusherer	3 Kranz Well & Gravel	4 Paul Farrel
Calcium (mg/L)	312.7	240.4	28.12	61.26
Magnesium (mg/L)	101.98	67.64	14.68	29.45
Iron (mg/L)	5.35	1.81	0.011	0.747
Chlorides (mg/L)	5.04	56	561.2	71.2
Sulfates (mg/L)	899	451.91	790	686
TDS (mg/L)	1962.8	1390.7	2900.6	1723.8



EAST OF MILBANK | BETTER WATER SOURCE?

“You need to look for an underground basin of water, [not just an underground lens/vein].”

– Jay Gilbertson



City of Milbank | Water System Update

BANNER
engineering • better community



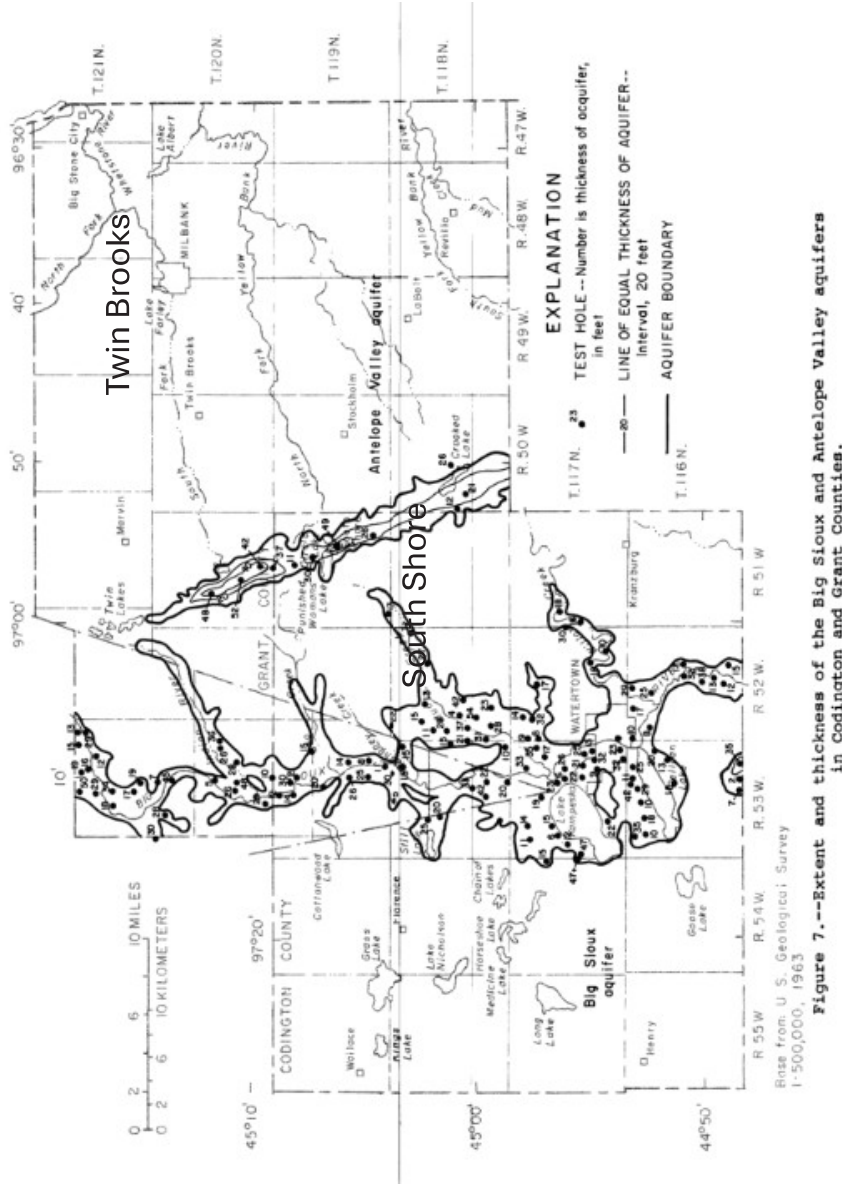
Antelope Valley Aquifer

Sits ~ 700 feet higher than Milbank and ~ 600 feet higher than Twin Brooks

2023 Treated Water:

Sulfate = 195 mg/L

TDS = 579 mg/L



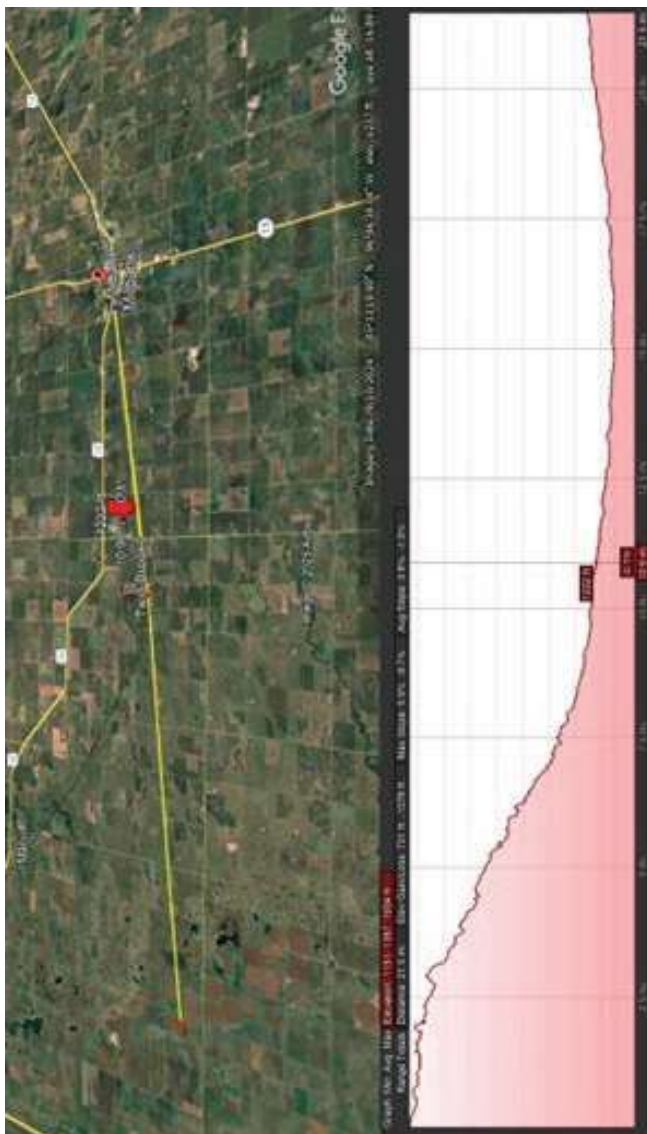
Antelope Valley Aquifer

Sits ~ 700 feet higher than
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2023 Treated Water:

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City of Milbank | Water System Update



SUMMARY

- More Well Water is Being Used than Decades ago as Demand has Increased
- Water Quality Problems increased over time in Well Water:
 - Iron, Manganese, Ammonia, Hardness, Sodium, Sulfate, TDS
- Alternatives Considered to Remove TDS - Not Feasible
- Wastewater Treatment Plant - Potential to Violate Water Quality Standards
- Alternative Source Waters Considered
 - East of Milbank Water - Same Elevated Levels of Sulfate and TDS
 - Apply for Future Water Right in Antelope Valley