

August 16, 2021

North Dakota Department of Environmental Quality  
Division of Water Quality  
918 East Divide Avenue  
Bismarck, ND 58501-1947

RE: July 2021 Devils Lake Outlets Monthly Discharge and Water Quality Report

Division of Water Quality:

The monthly discharge report for the Devils Lake Outlets for the month of July 2021 is enclosed. The West Outlet discharged the entire month and operated at an average rate of 117 cubic feet per second (cfs). The East Outlet was operated twice, July 15 and 29, for testing. A total of 6,410 acre-feet were discharged in July.

The attached tables contain average daily outlet discharges and water quality results from samples collected from the outlets and the corresponding upstream and downstream locations. Also included are average daily stream flow data and conductivity data obtained from the USGS gaging stations located upstream and downstream of the outlets.

If you have any questions, please contact me at (701) 328-4948.

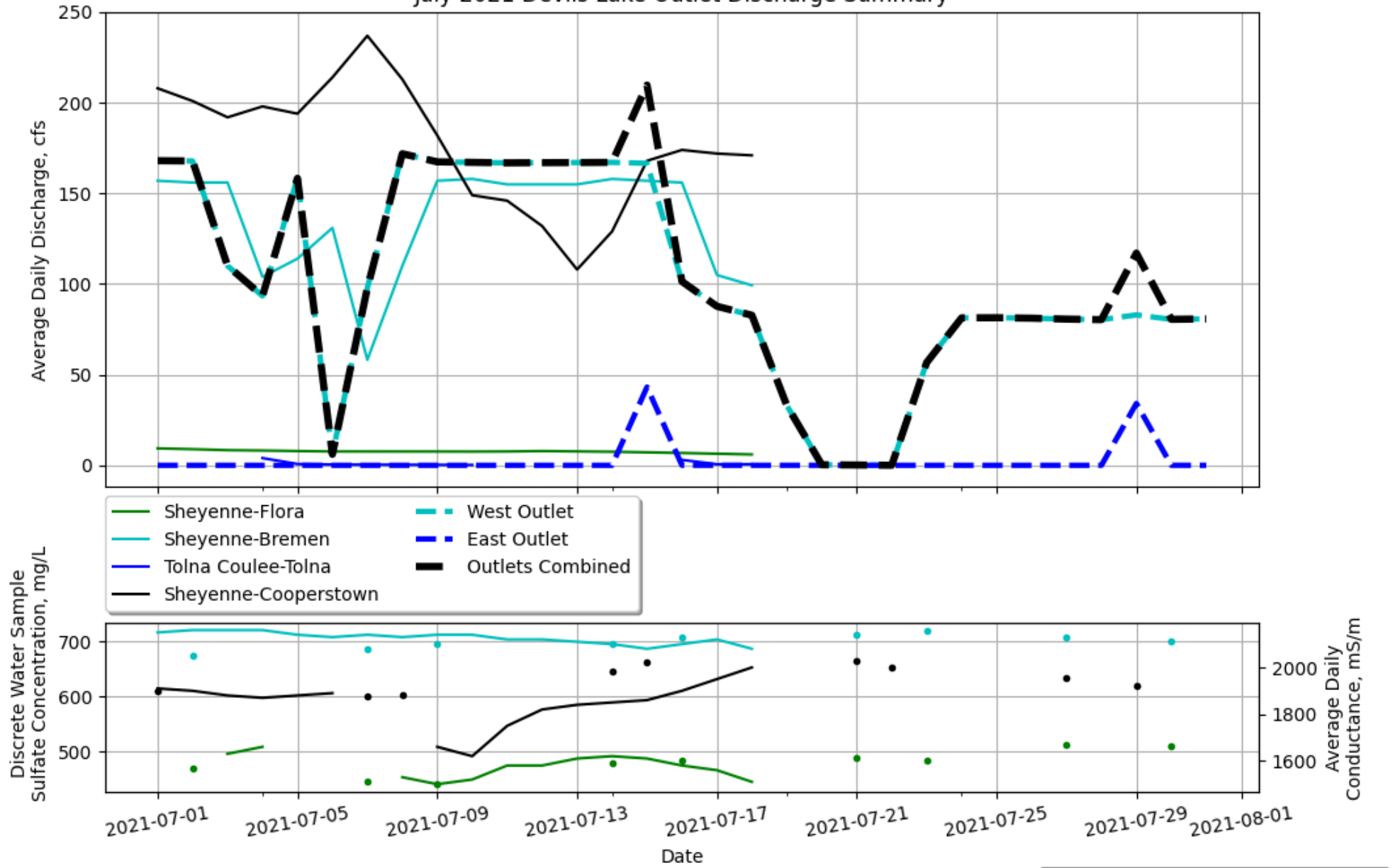
Sincerely,



Jonathan Kelsch P.E.  
Director of Water Development

JK:DG/416-10  
Enclosure

### July 2021 Devils Lake Outlet Discharge Summary



Sulfate		Conductance	
• Flora	— Flora	— Flora	— Flora
• Bremen	— Bremen	— Bremen	— Bremen
• Pekin	— Cooperstown	— Cooperstown	— Cooperstown

	Monthly Discharge Vol., ac-ft
West End Outlet	6,256
East End Outlet	153
Combined Total	6,410

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission  
 ADDRESS: 900 E Boulevard Avenue,  
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT

LOCATION: WEST END OUTLET

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
7/1/21	7/31/21

LOCATION: Benson Co, ND

Devils Lake West Outlet discharged 6,256 ac-ft over 31 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	0.00	8.78	7.27	SU	2 x Week	GRAB
SULFATE	688	705	697	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	686	702	695	mg/L	Average	GRAB
OUTLET DISCHARGE	0	172	117	cfs	Continuous	Recorder
SIGNATURE				8/16/21	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, DIRECTOR, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

A summary of individual sample results and flow data for both outlets, and upstream & downstream monitoring locations is attached.

Notes:

- ac-ft - Acre feet
- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- NA - Not available

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission  
 ADDRESS: 900 E Boulevard Avenue,  
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT

LOCATION: EAST END OUTLET

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
7/1/21	7/31/21

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 153 ac-ft over 3 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.25	8.82	8.54	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1910	1910	1910	µS/cm	Continuous	Recorder
SULFATE	1060	1070	1065	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	1060	1070	1065	mg/L	Average	GRAB
OUTLET DISCHARGE	0	43	2	cfs	Continuous	Recorder
SIGNATURE				8/16/21	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, DIRECTOR, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

Notes:

- ac-ft - Acre feet
- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- NA - Not available

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission  
 ADDRESS: 900 E Boulevard Avenue,  
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT

LOCATION: UPSTREAM OF THE WEST END OUTLET (FLORA)

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
7/1/21	7/31/21

LOCATION: Benson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	0.00	8.64	7.57	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,500	1,690	1,584	µS/cm	Continuous	Recorder
SULFATE	441	512	480	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	444	511	477	mg/L	Average	GRAB
FLOW, INSTREAM	6	9	8	cfs	Continuous	Recorder
SIGNATURE				8/16/21	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, DIRECTOR, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

A summary of individual sample results and flow data for both outlets, and upstream & downstream monitoring location is attached.

Notes:

- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- USGS streamflow and specific conductance data courtesy of the USGS
- USGS data are provisional and subject to revision

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission  
 ADDRESS: 900 E Boulevard Avenue,  
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT

LOCATION: DOWNSTREAM OF THE WEST END OUTLET (BREMEN)  
 UPSTREAM OF THE EAST END OUTLET

FACILITY: Devils Lake Outlet Project

LOCATION: Eddy Co, ND

MONITORING PERIOD	
START DATE	END DATE
7/1/21	7/31/21

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	0.00	8.95	7.82	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	2,080	2,160	2,127	µS/cm	Continuous	Recorder
SULFATE	674	721	700	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	672	717	699	mg/L	Average	GRAB
FLOW, INSTREAM	58	158	136	cfs	Continuous	Recorder
SIGNATURE				8/16/21	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, DIRECTOR, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

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- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- USGS streamflow and specific conductance data courtesy of the USGS
- USGS data are provisional and subject to revision

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission  
 ADDRESS: 900 E Boulevard Avenue,  
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT

LOCATION: DOWNSTREAM OF BOTH OUTLETS (PEKIN)

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
7/1/21	7/31/21

LOCATION: Nelson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	0.00	8.73	7.64	SU	2 x Week	GRAB
SULFATE	600	665	633	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	602	664	634	mg/L	Average	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE				8/16/21	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, DIRECTOR, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	
COMMENT AND EXPLANATION OF ANY VIOLATIONS						
A summary of individual sample results and flow data for both outlets, and upstream & downstream monitoring locations is attached.						

Notes:

- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- NA - Not available

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission  
 ADDRESS: 900 E Boulevard Avenue,  
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT

LOCATION: DOWNSTREAM OF BOTH OUTLETS (COOPERSTOWN)

FACILITY: Devils Lake Outlet Project

LOCATION: Griggs Co, ND

MONITORING PERIOD	
START DATE	END DATE
7/1/21	7/31/21

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.51	8.63	8.56	SU	Weekly	GRAB
SPECIFIC CONDUCTANCE	1,620	2,000	1,849	µS/cm	Continuous	Recorder
SULFATE	567	641	608	mg/L	Weekly	GRAB
7 DAY AVERAGE OF SULFATE	567	641	611	mg/L	Average	GRAB
FLOW, INSTREAM	108	237	177	cfs	Continuous	Recorder
SIGNATURE				8/16/21	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, DIRECTOR, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

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- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- NA - Not available



Date	Above West End Outlet - Sheyenne River near Flora		West End Outlet		Below West End Outlet/Above East End Outlet -Sheyenne River near Bremen		East End Outlet		Below East End Outlet - Tolna Coulee near Tolna		Below East End Outlet - Sheyenne River near Cooperstown		Sum of Outlets	
	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)	Average Daily Outlet Discharge (cfs)	Total Daily Volume (ft <sup>3</sup> )	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)	Average Daily Outlet Discharge (cfs)	Total Daily Volume (ft <sup>3</sup> )	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)	Average Daily Outlet Discharge (cfs)	Total Daily Volume (ft <sup>3</sup> )
7/1/21	9.35	1690	168.055556	14520000	157	2150	0	0	0.29	1080	208	1910	168.055556	14520000
7/2/21	8.9		167.916667	14508000	156	2160	0	0		1080	201	1900	167.916667	14508000
7/3/21	8.36	1630	110.0810185	9511000	156	2160	0	0		1110	192	1880	110.0810185	9511000
7/4/21	8.16	1660	93.42592593	8072000	104	2160	0	0	3.99	913	198	1870	93.42592593	8072000
7/5/21	7.86		158.3449074	13681000	114	2140	0	0	0.72	900	194	1880	158.3449074	13681000
7/6/21	7.63		6.076388889	525000	131	2130	0	0	0.44	881	214	1890	6.076388889	525000
7/7/21	7.62		97.84722222	8454000	58.2	2140	0	0	0.38	873	237	97.84722222	8454000	
7/8/21	7.61	1530	171.9097222	14853000	110	2130	0	0	0.33	839	213	171.9097222	14853000	
7/9/21	7.6	1500	167.4189815	14465000	157	2140	0	0	0.29	812		1660	167.4189815	14465000
7/10/21	7.57	1520	167.1412037	14441000	158	2140	0	0	0.22	812	149	1620	167.1412037	14441000
7/11/21	7.63	1580	166.8865741	14419000	155	2120	0	0		814	146	1750	166.8865741	14419000
7/12/21	7.86	1580	166.9791667	14427000	155	2120	0	0		811	132	1820	166.9791667	14427000
7/13/21	7.67	1610	167.0486111	14433000	155	2110	0	0		804	108	1840	167.0486111	14433000
7/14/21	7.48	1620	167.1412037	14441000	158	2100	0	0		805	129	1850	167.1412037	14441000
7/15/21	7.16	1610	166.6203704	14396000	157	2080	43.1712963	3730000		1970	168	1860	166.6203704	14396000
7/16/21	6.8	1580	101.4236111	8763000	156	2100	0	0	2.98	3090	174	1900	101.4236111	8763000
7/17/21	6.39	1560	87.71990741	7579000	105	2120	0	0	0.59	3090	172	1950	87.71990741	7579000
7/18/21	6	1510	82.80092593	7154000	99.3	2080	0	0	0.63	3090	171	2000	82.80092593	7154000
7/19/21	-		33.00925926	2852000			0	0					33.00925926	2852000
7/20/21	-		0.300925926	26000			0	0					0.300925926	26000
7/21/21	-		0.162037037	14000			0	0					0.162037037	14000
7/22/21	-		0.023148148	2000			0	0					0.023148148	2000
7/23/21	-		56.68981481	4898000			0	0					56.68981481	4898000
7/24/21	-		81.34259259	7028000			0	0					81.34259259	7028000
7/25/21	-		81.41203704	7034000			0	0					81.41203704	7034000
7/26/21	-		81.16898148	7013000			0	0					81.16898148	7013000
7/27/21	-		80.6712963	6970000			0	0					80.6712963	6970000
7/28/21	-		80.37037037	6944000			0	0					80.37037037	6944000
7/29/21	-		82.96296296	7168000			34.12037037	2948000					82.96296296	7168000
7/30/21	-		80.53240741	6958000			0.023148148	2000					80.53240741	6958000
7/31/21	-		80.77546296	6979000			0	0					80.77546296	6979000
<b>Minimum</b>	6	1,500	0	2,000	58	2,080	0	0	0	804	108	1,620	0	2,000
<b>Maximum</b>	9	1,690	172	14,853,000	158	2,160	43	3,730,000	4	3,090	237	2,000	210	18,126,000
<b>Average</b>	8	1,584	117	9,615,273	136	2,127	2	169,545	1	1,321	177	1,849	113	9,784,818
			<b>Total (Mgal)</b>	2,039			<b>Total (Mgal)</b>	50				<b>Total (Mgal)</b>	2,088	
			<b>Total (Ac-ft)</b>	6,256			<b>Total (Ac-ft)</b>	153				<b>Total (Ac-ft)</b>	6,410	

Notes:  
cfs - cubic feet per second  
µS/cm - Microsiemens per Centimeter at 25 degrees Celsius  
ft<sup>3</sup> - cubic feet  
Mgal - Millions of Gallons  
Ac ft - Acre Feet  
USGS streamflow and specific conductance data are preliminary and courtesy of the USGS  
NC - Not calculated

**Sheyenne River Upstream of West End Outlet Near Flora  
Monthly Water Quality Summary  
Devils Lake Outlet Discharge Report**

Date	Time	Specific Conductance USGS Gage ( $\mu$ S/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	Number of Samples included in 7- day Average
7/1/21	-	-	-	-	-	-	-
7/2/21	7:25	1,690	8.46	470	471	NA	2
7/3/21	-	-	-	-	-	-	-
7/4/21	-	-	-	-	-	-	-
7/5/21	-	-	-	-	-	-	-
7/6/21	-	-	-	-	-	-	-
7/7/21	8:05	0	8.60	446	458	NA	2
7/8/21	-	-	-	-	-	-	-
7/9/21	7:50	1,500	0.00	441	444	NA	2
7/10/21	-	-	-	-	-	-	-
7/11/21	-	-	-	-	-	-	-
7/12/21	-	-	-	-	-	-	-
7/13/21	-	-	-	-	-	-	-
7/14/21	8:05	1,660	8.45	480	461	23	2
7/15/21	-	-	-	-	-	-	-
7/16/21	7:50	1,440	8.40	483	482	NA	2
7/17/21	-	-	-	-	-	-	-
7/18/21	-	-	-	-	-	-	-
7/19/21	-	-	-	-	-	-	-
7/20/21	-	-	-	-	-	-	-
7/21/21	8:05	0	8.51	489	486	NA	2
7/22/21	-	-	-	-	-	-	-
7/23/21	7:15	1,840	8.43	485	487	NA	2
7/24/21	-	-	-	-	-	-	-
7/25/21	-	-	-	-	-	-	-
7/26/21	-	-	-	-	-	-	-
7/27/21	7:35	1,850	8.64	512	495	NA	3
7/28/21	-	-	-	-	-	-	-
7/29/21	-	-	-	-	-	-	-
7/30/21	8:35	1,820	8.61	510	511	NA	2
7/31/21	-	-	-	-	-	-	-
<b>Minimum</b>		0	0.00	441	444	23	
<b>Maximum</b>		1,850	8.64	512	511	23	
<b>Average</b>		1,311	7.57	480	477	23	

**Notes:**

- $\mu$ S/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- NA - Not Analyzed
- USGS specific conductance data courtesy of the USGS
- USGS data are provisional and subject to revision
- Italic font denotes preliminary result

**West End Outlet  
Monthly Water Quality Summary  
Devils Lake Outlet Discharge Report**

Date	Time	Specific Conductance from Telemetry System (µS/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	Number of Samples included in 7- day Average
7/1/21	-	-	-	-	-	-	-
7/2/21	7:15	-	8.73	688	686	NA	2
7/3/21	-	-	-	-	-	-	-
7/4/21	-	-	-	-	-	-	-
7/5/21	-	-	-	-	-	-	-
7/6/21	-	-	-	-	-	-	-
7/7/21	-	-	-	-	-	-	-
7/8/21	-	-	-	-	-	-	-
7/9/21	8:00	-	0.00	691	691	NA	1
7/10/21	-	-	-	-	-	-	-
7/11/21	-	-	-	-	-	-	-
7/12/21	-	-	-	-	-	-	-
7/13/21	-	-	-	-	-	-	-
7/14/21	8:15	-	8.73	699	695	9	2
7/15/21	-	-	-	-	-	-	-
7/16/21	7:40	-	8.78	705	702	NA	2
7/17/21	-	-	-	-	-	-	-
7/18/21	-	-	-	-	-	-	-
7/19/21	-	-	-	-	-	-	-
7/20/21	-	-	-	-	-	-	-
7/21/21	-	-	-	-	-	-	-
7/22/21	-	-	-	-	-	-	-
7/23/21	-	-	-	-	-	-	-
7/24/21	-	-	-	-	-	-	-
7/25/21	-	-	-	-	-	-	-
7/26/21	-	-	-	-	-	-	-
7/27/21	8:10	-	8.68	699	699	NA	1
7/28/21	-	-	-	-	-	-	-
7/29/21	-	-	-	-	-	-	-
7/30/21	8:25	-	8.70	701	700	NA	2
7/31/21	-	-	-	-	-	-	-
<b>Minimum</b>			0.00	688	686	9	
<b>Maximum</b>			8.78	705	702	9	
<b>Average</b>			7.27	697	695	9	

**Notes:**  
 mg/L - Milligrams per liter or parts per million  
 NA - Not Analyzed  
 Italic font denotes preliminary result

**Sheyenne River Downstream of West End Outlet/Upstream of East End Outlet (Bremen)**  
**Monthly Water Quality Summary**  
**Devils Lake Outlet Discharge Report**

Date	Time	Specific Conductance USGS Gage ( $\mu$ S/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	Number of samples included in 7- day Average
7/1/21	-	-	-	-	-	-	-
7/2/21	7:45	2,220	8.66	674	672	NA	2
7/3/21	-	-	-	-	-	-	-
7/4/21	-	-	-	-	-	-	-
7/5/21	-	-	-	-	-	-	-
7/6/21	-	-	-	-	-	-	-
7/7/21	7:35	2,200	8.77	687	681	NA	2
7/8/21	-	-	-	-	-	-	-
7/9/21	7:30	2,230	0.00	695	691	NA	2
7/10/21	-	-	-	-	-	-	-
7/11/21	-	-	-	-	-	-	-
7/12/21	-	-	-	-	-	-	-
7/13/21	-	-	-	-	-	-	-
7/14/21	7:36	2,210	8.75	695	695	52	2
7/15/21	-	-	-	-	-	-	-
7/16/21	8:15	2,210	8.77	709	702	NA	2
7/17/21	-	-	-	-	-	-	-
7/18/21	-	-	-	-	-	-	-
7/19/21	-	-	-	-	-	-	-
7/20/21	-	-	-	-	-	-	-
7/21/21	7:36	2,200	8.85	712	711	NA	2
7/22/21	-	-	-	-	-	-	-
7/23/21	7:40	2,250	8.74	721	717	NA	2
7/24/21	-	-	-	-	-	-	-
7/25/21	-	-	-	-	-	-	-
7/26/21	-	-	-	-	-	-	-
7/27/21	7:35	2,120	8.95	709	714	NA	3
7/28/21	-	-	-	-	-	-	-
7/29/21	-	-	-	-	-	-	-
7/30/21	9:00	2,120	8.88	701	705	NA	2
7/31/21	-	-	-	-	-	-	-
<b>Minimum</b>		2,120	0.00	674	672	52	
<b>Maximum</b>		2,250	8.95	721	717	52	
<b>Average</b>		2,196	7.82	700	699	52	

**Notes:**

$\mu$ S/cm - Microsiemens per Centimeter at 25 degrees Celsius  
mg/L - Milligrams per liter or parts per million  
NA - Not Analyzed  
USGS specific conductance data courtesy of the USGS  
USGS data are provisional and subject to revision  
Italic font denotes preliminary result

**East End Outlet  
Monthly Water Quality Summary  
Devils Lake Discharge Report**

Date	Time	Specific Conductance USGS Gage ( $\mu$ S/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	Number of samples included in 7- day Average
7/1/21	-	-	-	-	-	-	-
7/2/21	-	-	-	-	-	-	-
7/3/21	-	-	-	-	-	-	-
7/4/21	-	-	-	-	-	-	-
7/5/21	-	-	-	-	-	-	-
7/6/21	-	-	-	-	-	-	-
7/7/21	-	-	-	-	-	-	-
7/8/21	-	-	-	-	-	-	-
7/9/21	-	-	-	-	-	-	-
7/10/21	-	-	-	-	-	-	-
7/11/21	-	-	-	-	-	-	-
7/12/21	-	-	-	-	-	-	-
7/13/21	-	-	-	-	-	-	-
7/14/21	-	-	-	-	-	-	-
7/15/21	9:15	-	8.25	1070	1070	NA	1
7/16/21	-	-	-	-	-	-	-
7/17/21	-	-	-	-	-	-	-
7/18/21	-	-	-	-	-	-	-
7/19/21	-	-	-	-	-	-	-
7/20/21	-	-	-	-	-	-	-
7/21/21	-	-	-	-	-	-	-
7/22/21	-	-	-	-	-	-	-
7/23/21	-	-	-	-	-	-	-
7/24/21	-	-	-	-	-	-	-
7/25/21	-	-	-	-	-	-	-
7/26/21	-	-	-	-	-	-	-
7/27/21	-	-	-	-	-	-	-
7/28/21	-	-	-	-	-	-	-
7/29/21	12:30	1910	8.82	1060	1060	NA	1
7/30/21	-	-	-	-	-	-	-
7/31/21	-	-	-	-	-	-	-
<b>Minimum</b>		1910	8.25	1060	1060	0	
<b>Maximum</b>		1910	8.82	1070	1070	0	
<b>Average</b>		1910	8.54	1065	1065	#DIV/0!	

**Notes:**

mg/L - Milligrams per liter or parts per million  
 NA - Not Analyzed  
 Italic font denotes preliminary result

**Sheyenne River Downstream of Both Outlets near Pekin  
Monthly Water Quality Summary  
Devils Lake Outlet Discharge Report**

Date	Time	Specific Conductance Laboratory Analysis (µS/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	Number of samples included in 7- day Average
7/1/21	11:30	-	8.39	610	621	NA	3
7/2/21	-	-	-	-	-	-	-
7/3/21	-	-	-	-	-	-	-
7/4/21	-	-	-	-	-	-	-
7/5/21	-	-	-	-	-	-	-
7/6/21	-	-	-	-	-	-	-
7/7/21	9:25	-	8.56	600	605	NA	2
7/8/21	10:45	-	0.00	603	602	NA	2
7/9/21	-	-	-	-	-	-	-
7/10/21	-	-	-	-	-	-	-
7/11/21	-	-	-	-	-	-	-
7/12/21	-	-	-	-	-	-	-
7/13/21	-	-	-	-	-	-	-
7/14/21	10:00	-	8.55	647	625	92	2
7/15/21	9:30	-	8.53	662	655	NA	2
7/16/21	-	-	-	-	-	-	-
7/17/21	-	-	-	-	-	-	-
7/18/21	-	-	-	-	-	-	-
7/19/21	-	-	-	-	-	-	-
7/20/21	-	-	-	-	-	-	-
7/21/21	9:35	-	8.67	665	664	NA	2
7/22/21	12:15	-	8.64	653	659	NA	2
7/23/21	-	-	-	-	-	-	-
7/24/21	-	-	-	-	-	-	-
7/25/21	-	-	-	-	-	-	-
7/26/21	-	-	-	-	-	-	-
7/27/21	9:40	-	8.67	635	651	NA	3
7/28/21	-	-	-	-	-	-	-
7/29/21	12:00	-	8.73	620	628	NA	2
7/30/21	-	-	-	-	-	-	-
<b>Minimum</b>			0.00	600	602	92	
<b>Maximum</b>			8.73	665	664	92	
<b>Average</b>			7.64	633	634	92	

**Notes:**

mg/L - Milligrams per liter or parts per million

NA - Not Analyzed

Italic font denotes preliminary result

**Bold font denotes sample sulfate concentration exceeds 750 mg/L**

**Sheyenne River Downstream of Both Outlets near Cooperstown  
Monthly Water Quality Summary  
Devils Lake Outlet Discharge Report**

Date	Time	Specific Conductance USGS Gage (µS/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	Number of samples included in 7- day Average
7/1/21	-	-	-	-	-	-	-
7/2/21	-	-	-	-	-	-	-
7/3/21	-	-	-	-	-	-	-
7/4/21	-	-	-	-	-	-	-
7/5/21	-	-	-	-	-	-	-
7/6/21	-	-	-	-	-	-	-
7/7/21	10:25	1,910	8.51	608	608	NA	1
7/8/21	-	-	-	-	-	-	-
7/9/21	-	-	-	-	-	-	-
7/10/21	-	-	-	-	-	-	-
7/11/21	-	-	-	-	-	-	-
7/12/21	-	-	-	-	-	-	-
7/13/21	-	-	-	-	-	-	-
7/14/21	10:45	1,860	8.51	567	567	84	1
7/15/21	-	-	-	-	-	-	-
7/16/21	-	-	-	-	-	-	-
7/17/21	-	-	-	-	-	-	-
7/18/21	-	-	-	-	-	-	-
7/19/21	-	-	-	-	-	-	-
7/20/21	-	-	-	-	-	-	-
7/21/21	10:25	2,050	8.60	641	641	NA	1
7/22/21	-	-	-	-	-	-	-
7/23/21	-	-	-	-	-	-	-
7/24/21	-	-	-	-	-	-	-
7/25/21	-	-	-	-	-	-	-
7/26/21	-	-	-	-	-	-	-
7/27/21	10:30	1,980	8.63	617	629	NA	2
7/28/21	-	-	-	-	-	-	-
7/29/21	-	-	-	-	-	-	-
7/30/21	-	-	-	-	-	-	-
<b>Minimum</b>		1,860	8.51	567	567	84	
<b>Maximum</b>		2,050	8.63	641	641	84	
<b>Average</b>		1,950	8.56	608	611	84	

**Notes:**

mg/L - Milligrams per liter or parts per million

NA - Not Analyzed

Italic font denotes preliminary result

**Bold font denotes sample sulfate concentration exceeds 750 mg/L**