

July 16, 2021

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

Re: June 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 June 2021 is enclosed. The West Outlet began discharging on June 3rd and operated at an average rate of 139 cubic feet per second (cfs) after that time. The East Outlet was tested briefly on June 15th and 16th but did not operate steadily because of the downstream water quality limitation. The East Outlet at County Road 4 monitoring site was not sampled because of negligible discharge. A total of 7,767 acre-feet were discharged in June.

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:TD/416-10
Enclosure

June 2021 Devils Lake Outlet Discharge Summary

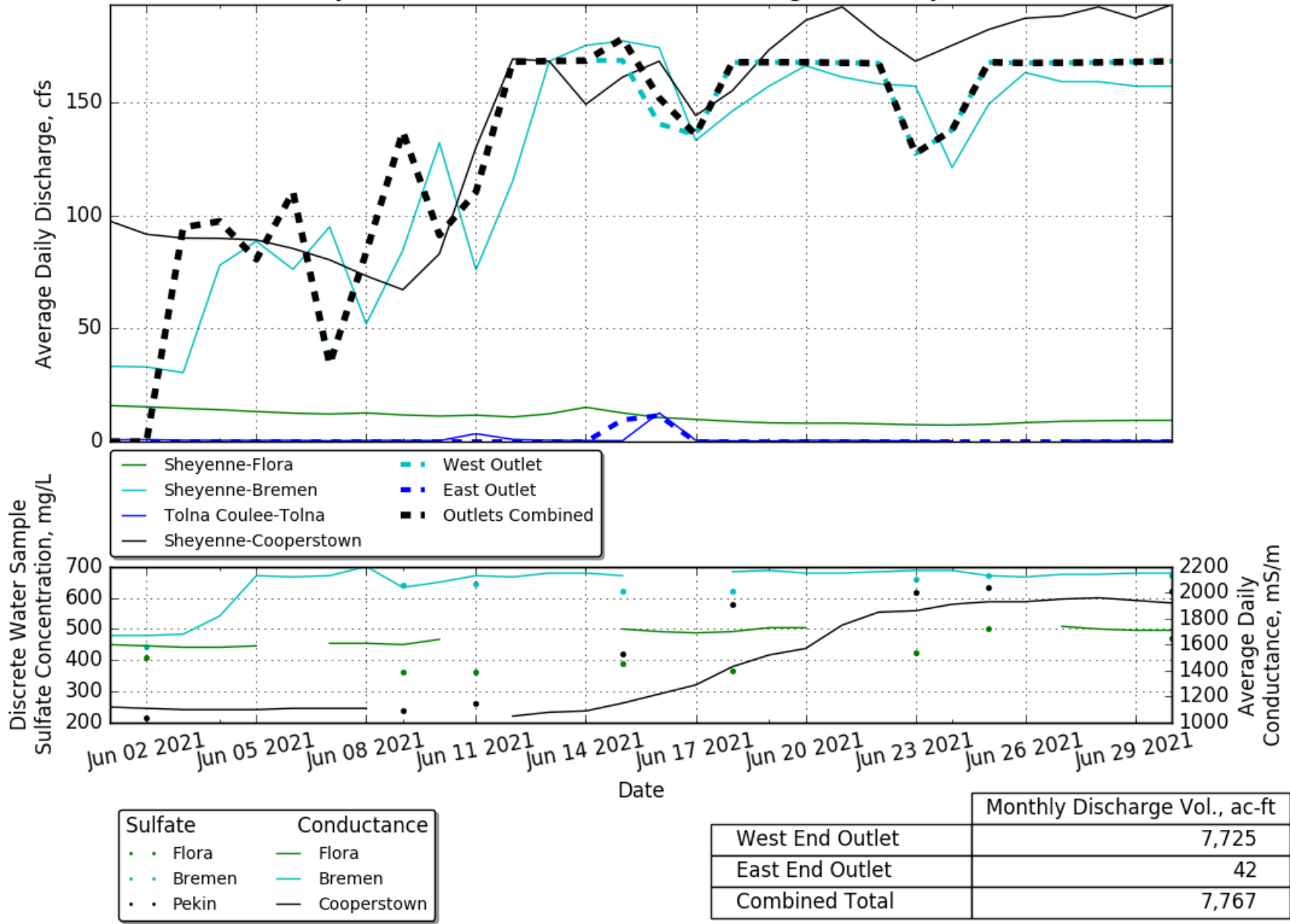


Figure 1: Devils Lake Outlet Discharge Summary

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
6/1/21	6/30/21

LOCATION: Benson Co, ND

Devils Lake West Outlet discharged 7,725 ac-ft over 28 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.58	8.78	8.68	SU	2 x Week	GRAB
SULFATE	648	686	661	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	648	685	658	mg/L	Average	GRAB
OUTLET DISCHARGE	0	168	117	cfs	Continuous	Recorder
SIGNATURE				7/16/21	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
6/1/21	6/30/21

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 42 ac-ft over 2 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	0.00	0.00	#DIV/0!	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	0	0	#DIV/0!	µS/cm	Continuous	Recorder
SULFATE	0	0	#DIV/0!	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	0	0	#DIV/0!	mg/L	Average	GRAB
OUTLET DISCHARGE	0	12	1	cfs	Continuous	Recorder
SIGNATURE				7/16/21	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, DIRECTOR, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

The East End Outlet at County Road 4 monitoring station was not sampled in June 2021 because of negligible discharge.

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
6/1/21	6/30/21

LOCATION: Benson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.38	8.55	8.46	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,580	1,740	1,661	µS/cm	Continuous	Recorder
SULFATE	362	502	411	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	363	487	404	mg/L	Average	GRAB
FLOW, INSTREAM	7	16	11	cfs	Continuous	Recorder
SIGNATURE				7/16/21	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

MONITORING PERIOD	
START DATE	END DATE
6/1/21	6/30/21

LOCATION: Eddy Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.41	8.67	8.56	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,670	2,200	2,078	µS/cm	Continuous	Recorder
SULFATE	442	671	621	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	442	671	620	mg/L	Average	GRAB
FLOW, INSTREAM	31	177	124	cfs	Continuous	Recorder
SIGNATURE				7/16/21	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
- 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
6/1/21	6/30/21

LOCATION: Nelson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.26	8.45	8.37	SU	2 x Week	GRAB
SULFATE	214	634	448	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	214	627	420	mg/L	Average	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE				7/16/21	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

MONITORING PERIOD	
START DATE	END DATE
6/1/21	6/30/21

LOCATION: Griggs Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.22	8.45	8.38	SU	Weekly	GRAB
SPECIFIC CONDUCTANCE	1,050	1,960	1,454	µS/cm	Continuous	Recorder
SULFATE	230	579	377	mg/L	Weekly	GRAB
7 DAY AVERAGE OF SULFATE	230	579	377	mg/L	Average	GRAB
FLOW, INSTREAM	67	193	143	cfs	Continuous	Recorder
SIGNATURE				7/16/21	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

Daily Outlet Discharge and Upstream and Downstream Flows Devils Lake Outlets

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 ³)	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)	Average Daily Outlet Discharge (cfs)	Total Daily Volume (ft ³)	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 ³)
6/1/21	16	1,600	0	0	33	1,670	0	0	1	-	97	1,120	0	0
6/2/21	15	1,590	0	0	33	1,670	0	0	1	-	92	1,110	0	0
6/3/21	15	1,580	95	8,176,000	31	1,680	0	0	1	-	90	1,100	95	8,176,000
6/4/21	14	1,580	97	8,408,000	78	1,820	0	0	1	-	90	1,100	97	8,408,000
6/5/21	13	1,590	81	6,959,000	89	2,130	0	0	1	-	89	1,100	81	6,959,000
6/6/21	13	-	110	9,540,000	76	2,120	0	0	1	-	85	1,110	110	9,540,000
6/7/21	12	1,610	34	2,948,000	95	2,130	0	0	0	931	80	1,110	34	2,948,000
6/8/21	13	1,610	84	7,227,000	52	2,200	0	0	1	857	73	1,110	84	7,227,000
6/9/21	12	1,600	137	11,832,000	85	2,040	0	0	1	793	67	-	137	11,832,000
6/10/21	11	1,640	91	7,882,000	132	2,080	0	0	0	1,020	83	-	91	7,882,000
6/11/21	12	-	110	9,536,000	76	2,130	0	0	4	1,090	130	-	110	9,536,000
6/12/21	11	-	168	14,496,000	115	2,120	0	0	1	981	169	1,050	168	14,496,000
6/13/21	12	-	168	14,523,000	168	2,150	0	0	1	914	168	1,080	168	14,523,000
6/14/21	15	-	168	14,542,000	175	2,150	0	0	0	907	149	1,090	168	14,542,000
6/15/21	13	1,720	168	14,548,000	177	2,130	10	831,000	0	914	161	1,150	178	15,379,000
6/16/21	11	1,700	140	12,124,000	174	-	12	996,000	13	2,160	168	1,220	152	13,120,000
6/17/21	10	1,690	136	11,712,000	133	-	0	0	1	2,980	144	1,290	136	11,712,000
6/18/21	9	1,700	168	14,472,000	146	2,160	0	0	0	2,910	155	1,430	168	14,472,000
6/19/21	8	1,730	168	14,479,000	157	2,170	0	0	0	2,870	173	1,520	168	14,479,000
6/20/21	8	1,730	168	14,475,000	166	2,150	0	0	1	2,630	186	1,570	168	14,475,000
6/21/21	8	-	167	14,454,000	161	2,150	0	0	1	2,270	192	1,750	167	14,454,000
6/22/21	8	-	167	14,438,000	158	2,160	0	0	0	2,030	179	1,850	167	14,438,000
6/23/21	7	-	127	10,994,000	157	2,170	0	0	0	1,950	168	1,860	127	10,994,000
6/24/21	7	-	138	11,889,000	121	2,170	0	0	0	1,910	175	1,910	138	11,889,000
6/25/21	8	-	168	14,475,000	149	2,130	0	0	-	-	182	1,930	168	14,475,000
6/26/21	8	-	167	14,450,000	163	2,120	0	0	-	-	187	1,930	167	14,450,000
6/27/21	9	1,740	167	14,458,000	159	2,140	0	0	1	1,230	188	1,950	167	14,458,000
6/28/21	9	1,720	167	14,470,000	159	2,140	0	0	1	1,170	192	1,960	167	14,470,000
6/29/21	9	1,710	168	14,491,000	157	2,150	0	0	0	1,130	187	1,940	168	14,491,000
6/30/21	9	1,710	168	14,513,000	157	2,150	0	0	0	1,110	193	1,920	168	14,513,000
Minimum	7	1,580	0	0	31	1,670	0	0	0	793	67	1,050	0	0
Maximum	16	1,740	168	14,548,000	177	2,200	12	996,000	13	2,980	193	1,960	178	15,379,000
Average	11	1,661	117	10,307,773	124	2,078	1	83,045	1	1,580	143	1,454	120	10,390,818
			Total (Mgal)	2,517				Total (Mgal)	14				Total (Mgal)	2,531
			Total (Ac-ft)	7,725				Total (Ac-ft)	42				Total (Ac-ft)	7,767

Notes:

- cfs - cubic feet per second
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- ft³ - 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 (μ 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
6/1/21	-	-	-	-	-	-	-
6/2/21	7:50	1,590	8.54	408	408	NA	1
6/3/21	-	-	-	-	-	-	-
6/4/21	-	-	-	-	-	-	-
6/5/21	-	-	-	-	-	-	-
6/6/21	-	-	-	-	-	-	-
6/7/21	-	-	-	-	-	-	-
6/8/21	-	-	-	-	-	-	-
6/9/21	8:00	1,590	8.42	364	364	NA	1
6/10/21	-	-	-	-	-	-	-
6/11/21	8:40	1,610	8.38	362	363	NA	2
6/12/21	-	-	-	-	-	-	-
6/13/21	-	-	-	-	-	-	-
6/14/21	-	-	-	-	-	-	-
6/15/21	13:55	1,730	8.51	388	371	47	3
6/16/21	-	-	-	-	-	-	-
6/17/21	-	-	-	-	-	-	-
6/18/21	8:00	1,690	8.39	365	377	NA	2
6/19/21	-	-	-	-	-	-	-
6/20/21	-	-	-	-	-	-	-
6/21/21	-	-	-	-	-	-	-
6/22/21	-	-	-	-	-	-	-
6/23/21	8:00	1,780	8.55	426	396	NA	2
6/24/21	-	-	-	-	-	-	-
6/25/21	9:15	1,730	8.48	502	464	NA	2
6/26/21	-	-	-	-	-	-	-
6/27/21	-	-	-	-	-	-	-
6/28/21	-	-	-	-	-	-	-
6/29/21	-	-	-	-	-	-	-
6/30/21	7:55	1,710	8.44	472	487	NA	2
Minimum		1,590	8.38	362	363	47	
Maximum		1,780	8.55	502	487	47	
Average		1,679	8.46	411	404	47	

Notes:

- μ 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
6/1/21	-	-	-	-	-	-	-
6/2/21	-	-	-	-	-	-	-
6/3/21	-	-	-	-	-	-	-
6/4/21	-	-	-	-	-	-	-
6/5/21	-	-	-	-	-	-	-
6/6/21	-	-	-	-	-	-	-
6/7/21	-	-	-	-	-	-	-
6/8/21	-	-	-	-	-	-	-
6/9/21	8:15	-	8.58	648	648	NA	1
6/10/21	-	-	-	-	-	-	-
6/11/21	8:50	-	8.68	650	649	NA	2
6/12/21	-	-	-	-	-	-	-
6/13/21	-	-	-	-	-	-	-
6/14/21	-	-	-	-	-	-	-
6/15/21	14:10	-	8.78	648	649	9	3
6/16/21	-	-	-	-	-	-	-
6/17/21	-	-	-	-	-	-	-
6/18/21	7:50	-	8.64	653	651	NA	2
6/19/21	-	-	-	-	-	-	-
6/20/21	-	-	-	-	-	-	-
6/21/21	-	-	-	-	-	-	-
6/22/21	-	-	-	-	-	-	-
6/23/21	8:10	-	8.65	658	656	NA	2
6/24/21	-	-	-	-	-	-	-
6/25/21	9:25	-	8.73	686	672	NA	2
6/26/21	-	-	-	-	-	-	-
6/27/21	-	-	-	-	-	-	-
6/28/21	-	-	-	-	-	-	-
6/29/21	-	-	-	-	-	-	-
6/30/21	8:10	-	8.68	683	685	NA	2
Minimum			8.58	648	648	9	
Maximum			8.78	686	685	9	
Average			8.68	661	658	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 (μ 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
6/1/21	-	-	-	-	-	-	-
6/2/21	7:24	1,660	8.48	442	442	NA	1
6/3/21	-	-	-	-	-	-	-
6/4/21	-	-	-	-	-	-	-
6/5/21	-	-	-	-	-	-	-
6/6/21	-	-	-	-	-	-	-
6/7/21	-	-	-	-	-	-	-
6/8/21	-	-	-	-	-	-	-
6/9/21	7:30	2,090	8.41	642	642	NA	1
6/10/21	-	-	-	-	-	-	-
6/11/21	8:10	2,080	8.47	643	643	NA	2
6/12/21	-	-	-	-	-	-	-
6/13/21	-	-	-	-	-	-	-
6/14/21	-	-	-	-	-	-	-
6/15/21	13:23	2,140	8.62	622	636	128	3
6/16/21	-	-	-	-	-	-	-
6/17/21	-	-	-	-	-	-	-
6/18/21	8:20	2,120	8.55	620	621	NA	2
6/19/21	-	-	-	-	-	-	-
6/20/21	-	-	-	-	-	-	-
6/21/21	-	-	-	-	-	-	-
6/22/21	-	-	-	-	-	-	-
6/23/21	7:30	2,160	8.65	659	640	NA	2
6/24/21	-	-	-	-	-	-	-
6/25/21	8:55	2,140	8.67	671	665	NA	2
6/26/21	-	-	-	-	-	-	-
6/27/21	-	-	-	-	-	-	-
6/28/21	-	-	-	-	-	-	-
6/29/21	-	-	-	-	-	-	-
6/30/21	7:30	2,150	8.65	670	671	NA	2
Minimum		1,660	8.41	442	442	128	
Maximum		2,160	8.67	671	671	128	
Average		2,068	8.56	621	620	128	

Notes:

μ 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 (μ 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
6/1/21	-	-	-	-	-	-	-
6/2/21	-	-	-	-	-	-	-
6/3/21	-	-	-	-	-	-	-
6/4/21	-	-	-	-	-	-	-
6/5/21	-	-	-	-	-	-	-
6/6/21	-	-	-	-	-	-	-
6/7/21	-	-	-	-	-	-	-
6/8/21	-	-	-	-	-	-	-
6/9/21	-	-	-	-	-	-	-
6/10/21	-	-	-	-	-	-	-
6/11/21	-	-	-	-	-	-	-
6/12/21	-	-	-	-	-	-	-
6/13/21	-	-	-	-	-	-	-
6/14/21	-	-	-	-	-	-	-
6/15/21	-	-	-	-	-	-	-
6/16/21	-	-	-	-	-	-	-
6/17/21	-	-	-	-	-	-	-
6/18/21	-	-	-	-	-	-	-
6/19/21	-	-	-	-	-	-	-
6/20/21	-	-	-	-	-	-	-
6/21/21	-	-	-	-	-	-	-
6/22/21	-	-	-	-	-	-	-
6/23/21	-	-	-	-	-	-	-
6/24/21	-	-	-	-	-	-	-
6/25/21	-	-	-	-	-	-	-
6/26/21	-	-	-	-	-	-	-
6/27/21	-	-	-	-	-	-	-
6/28/21	-	-	-	-	-	-	-
6/29/21	-	-	-	-	-	-	-
6/30/21	-	-	-	-	-	-	-
7/1/21	-	-	-	-	-	-	-
Minimum		0	0.00	0	0	0	
Maximum		0	0.00	0	0	0	
Average		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

Notes:

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

The East End Outlet at County Road 4 monitoring station was not sampled in June 2021 because of negligible discharge.

**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
6/1/21	-	-	-	-	-	-	-
6/2/21	9:16	-	8.38	214	214	NA	1
6/3/21	-	-	-	-	-	-	-
6/4/21	-	-	-	-	-	-	-
6/5/21	-	-	-	-	-	-	-
6/6/21	-	-	-	-	-	-	-
6/7/21	-	-	-	-	-	-	-
6/8/21	-	-	-	-	-	-	-
6/9/21	9:40	-	8.34	239	239	NA	1
6/10/21	-	-	-	-	-	-	-
6/11/21	7:10	-	8.31	261	250	NA	2
6/12/21	-	-	-	-	-	-	-
6/13/21	-	-	-	-	-	-	-
6/14/21	-	-	-	-	-	-	-
6/15/21	15:45	-	8.45	419	306	198	3
6/16/21	-	-	-	-	-	-	-
6/17/21	-	-	-	-	-	-	-
6/18/21	9:20	-	8.26	579	499	NA	2
6/19/21	-	-	-	-	-	-	-
6/20/21	-	-	-	-	-	-	-
6/21/21	-	-	-	-	-	-	-
6/22/21	-	-	-	-	-	-	-
6/23/21	9:40	-	8.40	616	598	NA	2
6/24/21	-	-	-	-	-	-	-
6/25/21	7:45	-	8.36	634	625	NA	2
6/26/21	-	-	-	-	-	-	-
6/27/21	-	-	-	-	-	-	-
6/28/21	-	-	-	-	-	-	-
6/29/21	-	-	-	-	-	-	-
6/30/21	9:30	-	8.42	620	627	NA	2
Minimum			8.26	214	214	198	
Maximum			8.45	634	627	198	
Average			8.37	448	420	198	

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 (μ 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
6/1/21	-	-	-	-	-	-	-
6/2/21	10:10	1,110	8.45	260	260	NA	1
6/3/21	-	-	-	-	-	-	-
6/4/21	-	-	-	-	-	-	-
6/5/21	-	-	-	-	-	-	-
6/6/21	-	-	-	-	-	-	-
6/7/21	-	-	-	-	-	-	-
6/8/21	-	-	-	-	-	-	-
6/9/21	10:30	1,080	8.44	230	230	NA	1
6/10/21	-	-	-	-	-	-	-
6/11/21	-	-	-	-	-	-	-
6/12/21	-	-	-	-	-	-	-
6/13/21	-	-	-	-	-	-	-
6/14/21	-	-	-	-	-	-	-
6/15/21	-	-	-	-	-	-	-
6/16/21	8:15	1,220	8.22	282	282	146	1
6/17/21	-	-	-	-	-	-	-
6/18/21	-	-	-	-	-	-	-
6/19/21	-	-	-	-	-	-	-
6/20/21	-	-	-	-	-	-	-
6/21/21	-	-	-	-	-	-	-
6/22/21	-	-	-	-	-	-	-
6/23/21	10:28	1,860	8.40	532	532	NA	1
6/24/21	-	-	-	-	-	-	-
6/25/21	-	-	-	-	-	-	-
6/26/21	-	-	-	-	-	-	-
6/27/21	-	-	-	-	-	-	-
6/28/21	-	-	-	-	-	-	-
6/29/21	-	-	-	-	-	-	-
6/30/21	10:25	1,920	8.40	579	579	NA	1
Minimum		1,080	8.22	230	230	146	
Maximum		1,920	8.45	579	579	146	
Average		1,438	8.38	377	377	146	

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