

September 17, 2020

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

Re: August 2020 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 August 2020 is enclosed. The West Outlet operated steadily at an average rate of 248 cubic feet per second (cfs) over the month. The East Outlet operated steadily at an average rate of 126 cfs with the exception of a temporary shutdown to complete a project downstream along the Tolna Coulee. The total outlet discharge in August was 23,040 acre-feet which brings the season total 52,152 acre-feet.

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

### August 2020 Devils Lake Outlet Discharge Summary

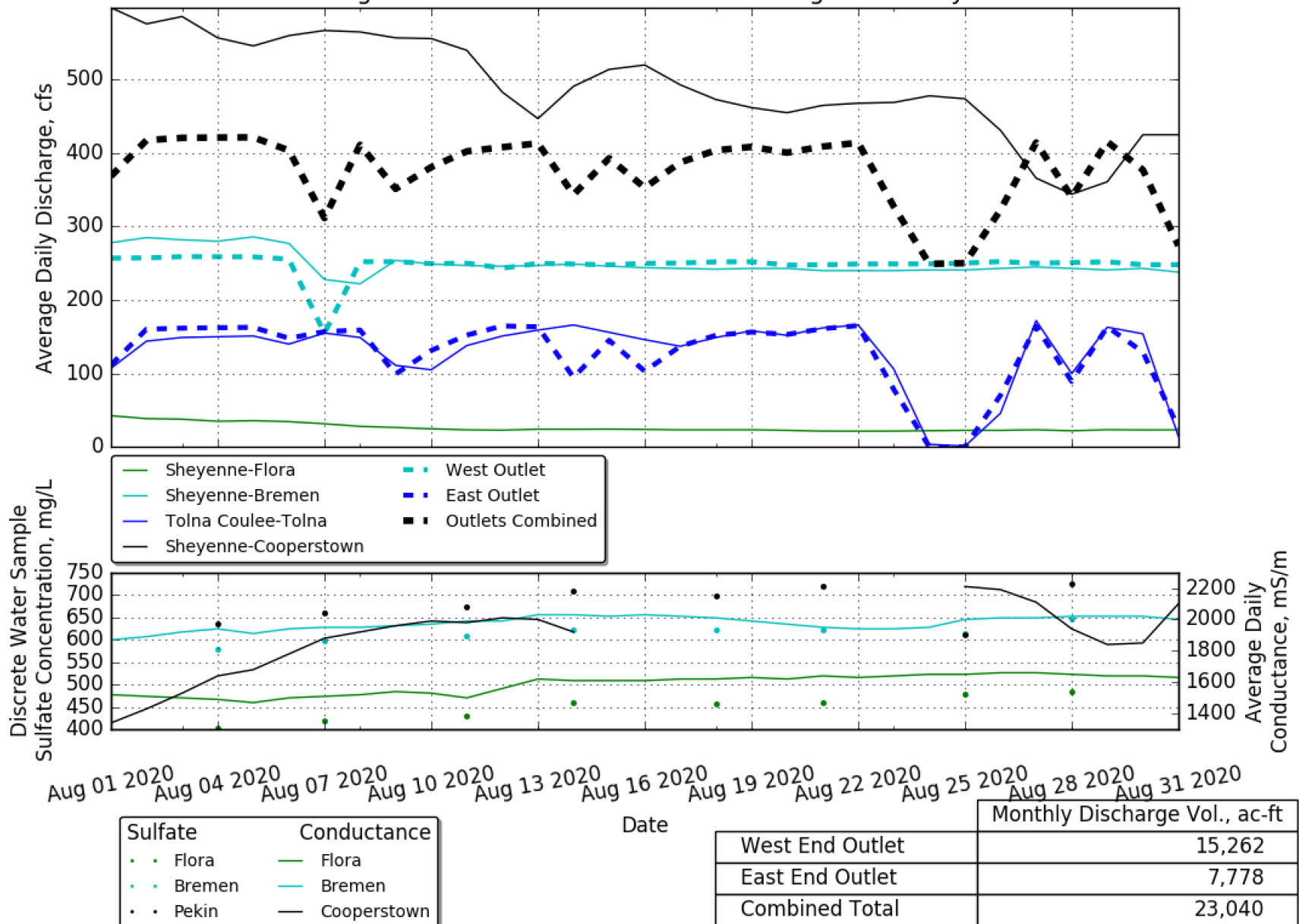


Figure 1: Devils Lake Outlet Discharge Summary

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
8/1/20	8/31/20

LOCATION: Benson Co, ND

Devils Lake West Outlet discharged 15,262 ac-ft over 31 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.68	8.89	8.77	SU	2 x Week	GRAB
SULFATE	608	633	622	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	604	630	620	mg/L	Average	GRAB
OUTLET DISCHARGE	155	259	248	cfs	Continuous	Recorder
SIGNATURE				9/17/20	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
8/1/20	8/31/20

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 7,778 ac-ft over 29 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.48	8.81	8.70	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	2480	2960	2871	µS/cm	Continuous	Recorder
SULFATE	963	995	976	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	967	984	976	mg/L	Average	GRAB
OUTLET DISCHARGE	0	165	126	cfs	Continuous	Recorder
SIGNATURE	<i>Jon Kelsch</i>			9/17/20	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

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

LOCATION: Benson Co, ND

MONITORING PERIOD	
START DATE	END DATE
8/1/20	8/31/20

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.23	8.54	8.42	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,470	1,660	1,586	µS/cm	Continuous	Recorder
SULFATE	404	483	449	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	398	481	443	mg/L	Average	GRAB
FLOW, INSTREAM	21	43	26	cfs	Continuous	Recorder
SIGNATURE	<i>Jon Kelsch</i>			9/17/20	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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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
8/1/20	8/31/20

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.62	8.83	8.73	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,870	2,030	1,975	µS/cm	Continuous	Recorder
SULFATE	578	647	614	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	558	631	607	mg/L	Average	GRAB
FLOW, INSTREAM	222	286	250	cfs	Continuous	Recorder
SIGNATURE				9/17/20	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
8/1/20	8/31/20

LOCATION: Nelson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.44	8.65	8.56	SU	2 x Week	GRAB
SULFATE	611	725	679	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	545	708	662	mg/L	Average	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE				9/17/20	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
8/1/20	8/31/20

LOCATION: Griggs Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.40	8.50	8.47	SU	Weekly	GRAB
SPECIFIC CONDUCTANCE	1,340	2,210	1,871	µS/cm	Continuous	Recorder
SULFATE	499	681	617	mg/L	Weekly	GRAB
7 DAY AVERAGE OF SULFATE	499	681	617	mg/L	Average	GRAB
FLOW, INSTREAM	344	598	492	cfs	Continuous	Recorder
SIGNATURE				9/17/20	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 <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> )
8/1/20	43	1,520	257	22,205,000	278	1,870	112	9,643,000	104	2,950	598	1,340	369	31,848,000
8/2/20	39	1,510	257	22,233,000	285	1,890	160	13,851,000	140	2,930	576	1,430	418	36,084,000
8/3/20	38	1,500	259	22,385,000	282	1,920	162	13,968,000	145	2,960	586	1,530	421	36,353,000
8/4/20	35	1,490	259	22,373,000	280	1,940	162	14,022,000	146	2,960	557	1,640	421	36,395,000
8/5/20	36	1,470	259	22,356,000	286	1,910	163	14,064,000	147	2,960	546	1,680	422	36,420,000
8/6/20	34	1,500	256	22,092,000	277	1,940	148	12,783,000	136	2,970	560	1,780	404	34,875,000
8/7/20	32	1,510	155	13,359,000	228	1,950	157	13,558,000	150	2,960	567	1,880	312	26,917,000
8/8/20	28	1,520	252	21,787,000	222	1,950	159	13,746,000	145	2,960	565	1,920	411	35,533,000
8/9/20	26	1,540	252	21,790,000	254	1,960	99	8,569,000	108	2,960	557	1,960	351	30,359,000
8/10/20	25	1,530	250	21,565,000	249	1,970	131	11,345,000	102	2,930	556	1,990	381	32,910,000
8/11/20	23	1,500	250	21,617,000	247	1,990	152	13,150,000	134	2,950	540	1,980	402	34,767,000
8/12/20	23	1,560	243	21,029,000	246	1,990	165	14,226,000	147	2,950	483	2,010	408	35,255,000
8/13/20	24	1,620	250	21,594,000	247	2,030	163	14,122,000	-	-	448	2,000	413	35,716,000
8/14/20	24	1,610	249	21,515,000	249	2,030	95	8,169,000	-	2,900	491	1,920	344	29,684,000
8/15/20	24	1,610	248	21,420,000	246	2,020	145	12,542,000	-	2,930	514	-	393	33,962,000
8/16/20	24	1,610	250	21,592,000	244	2,030	103	8,903,000	-	2,940	520	-	353	30,495,000
8/17/20	23	1,620	250	21,632,000	243	2,020	137	11,840,000	-	2,900	493	-	387	33,472,000
8/18/20	23	1,620	252	21,764,000	242	2,010	152	13,130,000	145	2,700	473	-	404	34,894,000
8/19/20	23	1,630	252	21,786,000	243	1,990	156	13,505,000	153	2,710	462	-	408	35,291,000
8/20/20	23	1,620	248	21,389,000	243	1,970	153	13,226,000	148	2,800	455	-	401	34,615,000
8/21/20	22	1,640	248	21,423,000	240	1,950	161	13,910,000	157	2,770	465	-	409	35,333,000
8/22/20	21	1,630	249	21,516,000	240	1,940	165	14,262,000	161	2,820	468	-	414	35,778,000
8/23/20	22	1,640	249	21,521,000	240	1,940	78	6,759,000	103	2,840	469	-	327	28,280,000
8/24/20	22	1,650	249	21,532,000	241	1,950	0	0	3	-	478	-	249	21,532,000
8/25/20	23	1,650	250	21,619,000	241	2,000	0	0	1	-	474	2,210	250	21,619,000
8/26/20	23	1,660	252	21,801,000	243	2,010	70	6,088,000	45	2,460	431	2,190	323	27,889,000
8/27/20	23	1,660	250	21,615,000	245	2,010	164	14,192,000	167	2,610	366	2,110	414	35,807,000
8/28/20	22	1,650	251	21,689,000	243	2,020	89	7,703,000	97	2,810	344	1,940	340	29,392,000
8/29/20	23	1,640	252	21,771,000	241	2,020	164	14,129,000	158	2,840	361	1,840	416	35,900,000
8/30/20	23	1,640	248	21,428,000	243	2,020	129	11,164,000	149	2,870	425	1,850	377	32,592,000
8/31/20	23	1,630	248	21,436,000	238	2,000	26	2,231,000	14	2,690	425	2,100	274	23,667,000
<b>Minimum</b>	21	1,470	155	13,359,000	222	1,870	0	0	1	2,460	344	1,340	249	21,532,000
<b>Maximum</b>	43	1,660	259	22,385,000	286	2,030	165	14,262,000	167	2,970	598	2,210	422	36,420,000
<b>Average</b>	26	1,586	248	21,446,258	250	1,975	126	10,929,032	119	2,858	492	1,871	375	32,375,290
			<b>Total (Mgal)</b>	4,973			<b>Total (Mgal)</b>	2,534					<b>Total (Mgal)</b>	7,507
			<b>Total (Ac-ft)</b>	15,262			<b>Total (Ac-ft)</b>	7,778					<b>Total (Ac-ft)</b>	23,040

**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
8/1/20	-	-	-	-	-	-	-
8/2/20	-	-	-	-	-	-	-
8/3/20	-	-	-	-	-	-	-
8/4/20	8:00	1,490	8.36	404	398	14	2
8/5/20	-	-	-	-	-	-	-
8/6/20	-	-	-	-	-	-	-
8/7/20	10:00	1,500	8.23	418	411	NA	2
8/8/20	-	-	-	-	-	-	-
8/9/20	-	-	-	-	-	-	-
8/10/20	-	-	-	-	-	-	-
8/11/20	7:55	1,510	8.39	430	424	NA	2
8/12/20	-	-	-	-	-	-	-
8/13/20	-	-	-	-	-	-	-
8/14/20	9:20	1,620	8.45	459	445	NA	2
8/15/20	-	-	-	-	-	-	-
8/16/20	-	-	-	-	-	-	-
8/17/20	-	-	-	-	-	-	-
8/18/20	7:35	1,620	8.43	458	459	17	2
8/19/20	-	-	-	-	-	-	-
8/20/20	-	-	-	-	-	-	-
8/21/20	10:00	1,640	8.53	460	459	NA	2
8/22/20	-	-	-	-	-	-	-
8/23/20	-	-	-	-	-	-	-
8/24/20	-	-	-	-	-	-	-
8/25/20	7:45	1,660	8.42	478	469	NA	2
8/26/20	-	-	-	-	-	-	-
8/27/20	-	-	-	-	-	-	-
8/28/20	9:40	1,640	8.54	483	481	NA	2
8/29/20	-	-	-	-	-	-	-
8/30/20	-	-	-	-	-	-	-
8/31/20	-	-	-	-	-	-	-
<b>Minimum</b>		1,490	8.23	404	398	14	
<b>Maximum</b>		1,660	8.54	483	481	17	
<b>Average</b>		1,585	8.42	449	443	16	

**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
8/1/20	-	-	-	-	-	-	-
8/2/20	-	-	-	-	-	-	-
8/3/20	-	-	-	-	-	-	-
8/4/20	8:15	-	8.75	608	604	19	2
8/5/20	-	-	-	-	-	-	-
8/6/20	-	-	-	-	-	-	-
8/7/20	10:15	-	8.76	612	610	NA	2
8/8/20	-	-	-	-	-	-	-
8/9/20	-	-	-	-	-	-	-
8/10/20	-	-	-	-	-	-	-
8/11/20	8:10	-	8.68	626	619	NA	2
8/12/20	-	-	-	-	-	-	-
8/13/20	-	-	-	-	-	-	-
8/14/20	9:35	-	8.85	620	623	NA	2
8/15/20	-	-	-	-	-	-	-
8/16/20	-	-	-	-	-	-	-
8/17/20	-	-	-	-	-	-	-
8/18/20	7:50	-	8.73	629	625	11	2
8/19/20	-	-	-	-	-	-	-
8/20/20	-	-	-	-	-	-	-
8/21/20	10:10	-	8.89	622	626	NA	2
8/22/20	-	-	-	-	-	-	-
8/23/20	-	-	-	-	-	-	-
8/24/20	-	-	-	-	-	-	-
8/25/20	8:00	-	8.68	627	625	NA	2
8/26/20	-	-	-	-	-	-	-
8/27/20	-	-	-	-	-	-	-
8/28/20	9:55	-	8.83	633	630	NA	2
8/29/20	-	-	-	-	-	-	-
8/30/20	-	-	-	-	-	-	-
8/31/20	-	-	-	-	-	-	-
<b>Minimum</b>			8.68	608	604	11	
<b>Maximum</b>			8.89	633	630	19	
<b>Average</b>			8.77	622	620	0	

**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
8/1/20	-	-	-	-	-	-	-
8/2/20	-	-	-	-	-	-	-
8/3/20	-	-	-	-	-	-	-
8/4/20	7:45	1,940	8.69	578	558	21	2
8/5/20	-	-	-	-	-	-	-
8/6/20	-	-	-	-	-	-	-
8/7/20	9:30	1,940	8.71	598	588	NA	2
8/8/20	-	-	-	-	-	-	-
8/9/20	-	-	-	-	-	-	-
8/10/20	-	-	-	-	-	-	-
8/11/20	7:30	1,980	8.69	609	604	NA	2
8/12/20	-	-	-	-	-	-	-
8/13/20	-	-	-	-	-	-	-
8/14/20	8:50	2,040	8.81	623	616	NA	2
8/15/20	-	-	-	-	-	-	-
8/16/20	-	-	-	-	-	-	-
8/17/20	-	-	-	-	-	-	-
8/18/20	9:35	2,020	8.62	621	622	21	2
8/19/20	-	-	-	-	-	-	-
8/20/20	-	-	-	-	-	-	-
8/21/20	9:30	1,950	8.83	621	621	NA	2
8/22/20	-	-	-	-	-	-	-
8/23/20	-	-	-	-	-	-	-
8/24/20	-	-	-	-	-	-	-
8/25/20	7:20	2,000	8.63	615	618	NA	2
8/26/20	-	-	-	-	-	-	-
8/27/20	-	-	-	-	-	-	-
8/28/20	9:10	2,020	8.83	647	631	NA	2
8/29/20	-	-	-	-	-	-	-
8/30/20	-	-	-	-	-	-	-
8/31/20	-	-	-	-	-	-	-
<b>Minimum</b>		1,940	8.62	578	558	21	
<b>Maximum</b>		2,040	8.83	647	631	21	
<b>Average</b>		1,986	8.73	614	607	21	

**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
8/1/20	-	-	-	-	-	-	-
8/2/20	-	-	-	-	-	-	-
8/3/20	-	-	-	-	-	-	-
8/4/20	9:20	2960	8.70	963	967	11	2
8/5/20	-	-	-	-	-	-	-
8/6/20	-	-	-	-	-	-	-
8/7/20	8:00	2960	8.81	990	977	NA	2
8/8/20	-	-	-	-	-	-	-
8/9/20	-	-	-	-	-	-	-
8/10/20	-	-	-	-	-	-	-
8/11/20	9:30	2960	8.75	965	978	NA	2
8/12/20	-	-	-	-	-	-	-
8/13/20	-	-	-	-	-	-	-
8/14/20	8:00	2960	8.76	995	980	NA	2
8/15/20	-	-	-	-	-	-	-
8/16/20	-	-	-	-	-	-	-
8/17/20	-	-	-	-	-	-	-
8/18/20	9:10	2480	8.70	972	984	9	2
8/19/20	-	-	-	-	-	-	-
8/20/20	-	-	-	-	-	-	-
8/21/20	7:30	2960	8.72	980	976	NA	2
8/22/20	-	-	-	-	-	-	-
8/23/20	-	-	-	-	-	-	-
8/24/20	-	-	-	-	-	-	-
8/25/20	-	-	-	-	-	-	-
8/26/20	-	-	-	-	-	-	-
8/27/20	-	-	-	-	-	-	-
8/28/20	7:50	2820	8.48	969	969	NA	1
8/29/20	-	-	-	-	-	-	-
8/30/20	-	-	-	-	-	-	-
8/31/20	-	-	-	-	-	-	-
<b>Minimum</b>		2480	8.48	963	967	9	
<b>Maximum</b>		2960	8.81	995	984	11	
<b>Average</b>		2871	8.70	976	976	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
8/1/20	-	-	-	-	-	-	-
8/2/20	-	-	-	-	-	-	-
8/3/20	-	-	-	-	-	-	-
8/4/20	9:40	-	8.50	636	545	67	2
8/5/20	-	-	-	-	-	-	-
8/6/20	-	-	-	-	-	-	-
8/7/20	8:30	-	8.44	660	648	NA	2
8/8/20	-	-	-	-	-	-	-
8/9/20	-	-	-	-	-	-	-
8/10/20	-	-	-	-	-	-	-
8/11/20	9:55	-	8.54	674	667	NA	2
8/12/20	-	-	-	-	-	-	-
8/13/20	-	-	-	-	-	-	-
8/14/20	7:40	-	8.64	709	692	NA	2
8/15/20	-	-	-	-	-	-	-
8/16/20	-	-	-	-	-	-	-
8/17/20	-	-	-	-	-	-	-
8/18/20	9:45	-	8.54	697	703	52	2
8/19/20	-	-	-	-	-	-	-
8/20/20	-	-	-	-	-	-	-
8/21/20	8:00	-	8.65	719	708	NA	2
8/22/20	-	-	-	-	-	-	-
8/23/20	-	-	-	-	-	-	-
8/24/20	-	-	-	-	-	-	-
8/25/20	9:25	-	8.52	611	665	NA	2
8/26/20	-	-	-	-	-	-	-
8/27/20	-	-	-	-	-	-	-
8/28/20	7:30	-	8.65	725	668	NA	2
8/29/20	-	-	-	-	-	-	-
8/30/20	-	-	-	-	-	-	-
8/31/20	-	-	-	-	-	-	-
<b>Minimum</b>			8.44	611	545	52	
<b>Maximum</b>			8.65	725	708	67	
<b>Average</b>			8.56	679	662	60	

**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
8/1/20	-	-	-	-	-	-	-
8/2/20	-	-	-	-	-	-	-
8/3/20	-	-	-	-	-	-	-
8/4/20	10:15	1,590	8.40	499	499	115	1
8/5/20	-	-	-	-	-	-	-
8/6/20	-	-	-	-	-	-	-
8/7/20	-	-	-	-	-	-	-
8/8/20	-	-	-	-	-	-	-
8/9/20	-	-	-	-	-	-	-
8/10/20	-	-	-	-	-	-	-
8/11/20	10:45	1,940	8.49	629	629	NA	1
8/12/20	-	-	-	-	-	-	-
8/13/20	-	-	-	-	-	-	-
8/14/20	-	-	-	-	-	-	-
8/15/20	-	-	-	-	-	-	-
8/16/20	-	-	-	-	-	-	-
8/17/20	-	-	-	-	-	-	-
8/18/20	10:40	1,890	8.49	658	658	95	1
8/19/20	-	-	-	-	-	-	-
8/20/20	-	-	-	-	-	-	-
8/21/20	-	-	-	-	-	-	-
8/22/20	-	-	-	-	-	-	-
8/23/20	-	-	-	-	-	-	-
8/24/20	-	-	-	-	-	-	-
8/25/20	10:15	2,060	8.50	681	681	NA	1
8/26/20	-	-	-	-	-	-	-
8/27/20	-	-	-	-	-	-	-
8/28/20	-	-	-	-	-	-	-
8/29/20	-	-	-	-	-	-	-
8/30/20	-	-	-	-	-	-	-
8/31/20	-	-	-	-	-	-	-
<b>Minimum</b>		1,590	8.40	499	499	95	
<b>Maximum</b>		2,060	8.50	681	681	115	
<b>Average</b>		1,870	8.47	617	617	105	

**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**