



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
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WATER DEVELOPMENT DIVISION
(701) 328-2752

October 10, 2017

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

RE: September 2017 Devils Lake Outlets Monthly Discharge and Water Quality Report

Division of Water Quality:

Enclosed is the monthly discharge report for the Devils Lake Outlets for the month of September 2017. Both outlets discharged continuously with the exception of temporary maintenance shut-downs. September combined discharge averaged 378 cfs and a total of 22,468 acre-feet were discharged which brings the 2017 discharge total to 110,741 ac-ft (**Figure 1**).

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.
Section Chief of Construction

JK:TD/416-10
Enclosure

September 2017 Devils Lake Outlet Discharge Summary

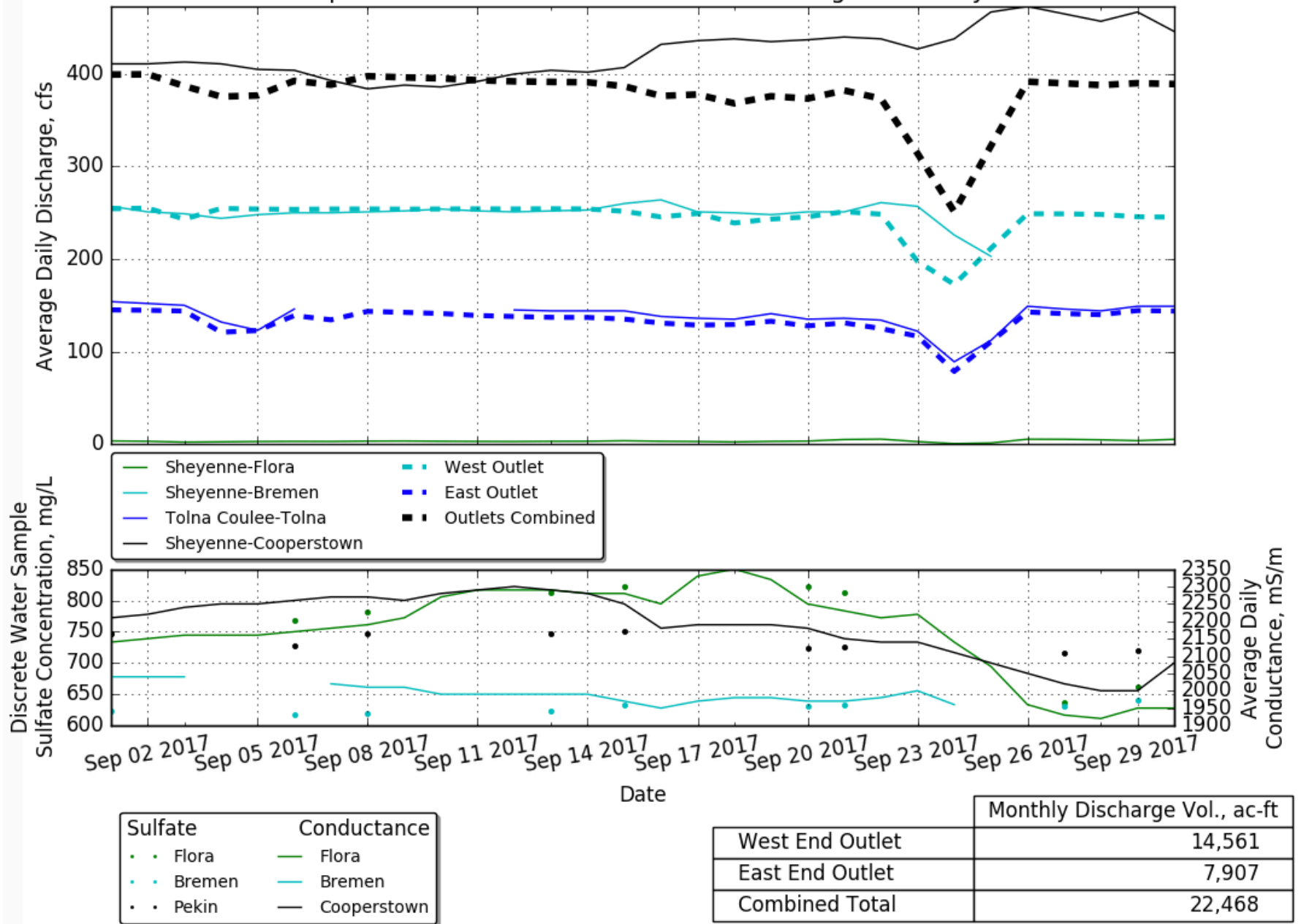


Figure 1: Devils Lake Outlet Discharge Summary

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
9/1/17	9/30/17

LOCATION: Benson Co, ND

Devils Lake West Outlet discharged 14,561 ac-ft over 30 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.55	8.84	8.71	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	615	640	625	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	618	635	624	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	173	255	245	cfs	Continuous	Recorder
SIGNATURE				10/10/17	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			DATE	TELEPHONE NUMBER	
COMMENT AND EXPLANATION OF ANY VIOLATIONS						
Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations 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
9/1/17	9/30/17

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 7,907 ac-ft over 30 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.69	8.89	8.75	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	2730	2840	2810	µS/cm	Continuous	Recorder
SULFATE	993	1050	1014	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	990	1024	1011	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	79	145	133	cfs	Continuous	Recorder
SIGNATURE				10/10/17	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			DATE	TELEPHONE NUMBER	
COMMENT AND EXPLANATION OF ANY VIOLATIONS						
Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations 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: UPSTREAM OF THE WEST END OUTLET (FLORA)

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
9/1/17	9/30/17

LOCATION: Benson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.35	8.59	8.44	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,920	2,350	2,177	µS/cm	Continuous	Recorder
SULFATE	637	822	763	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	649	822	764	mg/L	2 x Week	GRAB
FLOW, INSTREAM	1	5	3	cfs	Continuous	Recorder
SIGNATURE				10/10/17	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			DATE	TELEPHONE NUMBER	
COMMENT AND EXPLANATION OF ANY VIOLATIONS						
Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations 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
9/1/17	9/30/17

LOCATION: Eddy Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.57	8.89	8.73	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,950	2,040	1,992	µS/cm	Continuous	Recorder
SULFATE	618	641	628	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	618	636	626	mg/L	2 x Week	GRAB
FLOW, INSTREAM	203	264	249	cfs	Continuous	Recorder
SIGNATURE				10/10/17	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			DATE	TELEPHONE NUMBER	
COMMENT AND EXPLANATION OF ANY VIOLATIONS						
Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations 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 EAST END OUTLET (PEKIN)

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
9/1/17	9/30/17

LOCATION: Nelson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.54	8.74	8.66	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	716	750	734	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	718	749	733	mg/L	2 x Week	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE				10/10/17	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			DATE	TELEPHONE NUMBER	
COMMENT AND EXPLANATION OF ANY VIOLATIONS						
Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations 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 - Shyenne River near Flora		West End Outlet		Below West End Outlet/Above East End Outlet -Shyenne River near Bremen		East End Outlet		Below East End Outlet - Toina Coulee near Toina		Below East End Outlet - Shyenne 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)
9/1/17	3	2,140	254	21,980,000	257	2,040	145	12,532,000	154	-	411	2,210	399	34,512,000
9/2/17	3	2,150	255	22,035,000	251	2,040	145	12,499,000	152	-	411	2,220	400	34,534,000
9/3/17	2	2,160	243	21,009,000	249	2,040	144	12,425,000	150	-	413	2,240	387	33,434,000
9/4/17	2	2,160	255	22,005,000	244	-	121	10,447,000	132	-	411	2,250	376	32,452,000
9/5/17	3	2,160	254	21,951,000	248	-	123	10,605,000	123	2,840	405	2,250	377	32,556,000
9/6/17	3	2,170	254	21,924,000	250	-	139	12,004,000	146	-	404	2,260	393	33,928,000
9/7/17	3	2,180	254	21,951,000	250	2,020	134	11,605,000	-	2,850	393	2,270	388	33,556,000
9/8/17	3	2,190	254	21,959,000	251	2,010	143	12,397,000	-	-	384	2,270	398	34,356,000
9/9/17	3	2,210	254	21,940,000	252	2,010	142	12,301,000	-	-	388	2,260	396	34,241,000
9/10/17	3	2,270	254	21,955,000	254	1,990	141	12,197,000	-	-	386	2,280	395	34,152,000
9/11/17	3	2,290	254	21,971,000	252	1,990	139	12,008,000	-	-	392	2,290	393	33,979,000
9/12/17	3	2,290	254	21,959,000	251	1,990	138	11,916,000	145	-	400	2,300	392	33,875,000
9/13/17	3	2,290	254	21,981,000	252	1,990	137	11,842,000	144	-	404	2,290	391	33,823,000
9/14/17	3	2,280	254	21,959,000	253	1,990	137	11,829,000	144	-	402	2,280	391	33,788,000
9/15/17	4	2,280	252	21,740,000	260	1,970	135	11,676,000	144	-	407	2,250	387	33,416,000
9/16/17	3	2,250	246	21,214,000	264	1,950	131	11,299,000	138	-	432	2,180	376	32,513,000
9/17/17	3	2,330	249	21,536,000	251	1,970	129	11,112,000	136	-	436	2,190	378	32,648,000
9/18/17	2	2,350	239	20,649,000	250	1,980	129	11,170,000	135	-	438	2,190	368	31,819,000
9/19/17	3	2,320	243	21,014,000	248	1,980	133	11,473,000	141	2,840	435	2,190	376	32,487,000
9/20/17	3	2,250	246	21,229,000	251	1,970	128	11,038,000	135	2,810	437	2,180	373	32,267,000
9/21/17	5	2,230	251	21,705,000	251	1,970	131	11,321,000	136	2,820	440	2,150	382	33,026,000
9/22/17	5	2,210	249	21,471,000	261	1,980	125	10,794,000	134	2,770	438	2,140	373	32,265,000
9/23/17	3	2,220	198	17,065,000	257	2,000	117	10,072,000	122	2,720	427	2,140	314	27,137,000
9/24/17	1	2,140	173	14,918,000	226	1,960	79	6,791,000	89	2,680	438	2,110	251	21,709,000
9/25/17	1	2,070	212	18,278,000	203	-	111	9,563,000	112	2,730	467	2,080	322	27,841,000
9/26/17	5	1,960	249	21,513,000	-	-	143	12,333,000	149	2,730	473	2,050	392	33,846,000
9/27/17	5	1,930	249	21,502,000	-	-	141	12,186,000	146	2,800	465	2,020	390	33,688,000
9/28/17	5	1,920	248	21,447,000	-	-	140	12,083,000	144	2,780	457	2,000	388	33,530,000
9/29/17	4	1,950	246	21,228,000	-	-	144	12,473,000	149	2,750	467	2,000	390	33,701,000
9/30/17	5	1,950	245	21,197,000	-	-	144	12,425,000	149	2,720	446	2,080	389	33,622,000
Minimum	1	1,920	173	14,918,000	203	1,950	79	6,791,000	89	2,680	384	2,000	251	21,709,000
Maximum	5	2,350	255	22,035,000	264	2,040	145	12,532,000	154	2,850	473	2,300	400	34,534,000
Average	3	2,177	245	21,142,833	249	1,992	133	11,480,533	138	2,774	424	2,187	378	32,623,367
			Total (Mgal)	4,744			Total (Mgal)	2,576					Total (Mgal)	7,321
			Total (Ac-ft)	14,561			Total (Ac-ft)	7,907					Total (Ac-ft)	22,468

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
9/1/17	9:15	2,070	8.59	747	718	NA	2
9/2/17	-	-	-	-	-	-	-
9/3/17	-	-	-	-	-	-	-
9/4/17	-	-	-	-	-	-	-
9/5/17	-	-	-	-	-	-	-
9/6/17	8:15	2,090	8.41	769	758	45	2
9/7/17	-	-	-	-	-	-	-
9/8/17	9:10	2,100	8.47	782	776	NA	2
9/9/17	-	-	-	-	-	-	-
9/10/17	-	-	-	-	-	-	-
9/11/17	-	-	-	-	-	-	-
9/12/17	-	-	-	-	-	-	-
9/13/17	8:05	2,180	8.48	812	797	NA	2
9/14/17	-	-	-	-	-	-	-
9/15/17	9:35	2,180	8.52	822	817	NA	2
9/16/17	-	-	-	-	-	-	-
9/17/17	-	-	-	-	-	-	-
9/18/17	-	-	-	-	-	-	-
9/19/17	-	-	-	-	-	-	-
9/20/17	8:10	2,120	8.35	822	822	35	2
9/21/17	9:10	2,220	8.42	812	819	NA	3
9/22/17	-	-	-	-	-	-	-
9/23/17	-	-	-	-	-	-	-
9/24/17	-	-	-	-	-	-	-
9/25/17	-	-	-	-	-	-	-
9/26/17	-	-	-	-	-	-	-
9/27/17	8:05	1,790	8.36	637	725	NA	2
9/28/17	-	-	-	-	-	-	-
9/29/17	9:35	1,940	8.40	661	649	NA	2
9/30/17	-	-	-	-	-	-	-
Minimum		1,790	8.35	637	649	35	
Maximum		2,220	8.59	822	822	45	
Average		2,077	8.44	763	764	40	

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
9/1/17	9:25	-	8.83	622	619	NA	2
9/2/17	-	-	-	-	-	-	-
9/3/17	-	-	-	-	-	-	-
9/4/17	-	-	-	-	-	-	-
9/5/17	-	-	-	-	-	-	-
9/6/17	8:20	-	8.68	621	622	25	2
9/7/17	-	-	-	-	-	-	-
9/8/17	9:20	-	8.71	631	626	NA	2
9/9/17	-	-	-	-	-	-	-
9/10/17	-	-	-	-	-	-	-
9/11/17	-	-	-	-	-	-	-
9/12/17	-	-	-	-	-	-	-
9/13/17	8:05	-	8.70	622	627	NA	2
9/14/17	-	-	-	-	-	-	-
9/15/17	9:50	-	8.84	629	626	NA	2
9/16/17	-	-	-	-	-	-	-
9/17/17	-	-	-	-	-	-	-
9/18/17	-	-	-	-	-	-	-
9/19/17	-	-	-	-	-	-	-
9/20/17	8:25	-	8.60	640	635	23	2
9/21/17	9:25	-	8.77	621	630	NA	3
9/22/17	-	-	-	-	-	-	-
9/23/17	-	-	-	-	-	-	-
9/24/17	-	-	-	-	-	-	-
9/25/17	-	-	-	-	-	-	-
9/26/17	-	-	-	-	-	-	-
9/27/17	8:20	-	8.55	615	618	NA	2
9/28/17	-	-	-	-	-	-	-
9/29/17	9:50	-	8.72	622	619	NA	2
9/30/17	-	-	-	-	-	-	-
Minimum		NA	8.55	615	618	23	
Maximum		NA	8.84	640	635	25	
Average		NA	8.71	625	624	24	

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
9/1/17	8:45	2,030	8.89	624	618	NA	2
9/2/17	-	-	-	-	-	-	-
9/3/17	-	-	-	-	-	-	-
9/4/17	-	-	-	-	-	-	-
9/5/17	-	-	-	-	-	-	-
9/6/17	7:40	2,040	8.73	618	621	33	2
9/7/17	-	-	-	-	-	-	-
9/8/17	8:30	1,990	8.81	619	619	NA	2
9/9/17	-	-	-	-	-	-	-
9/10/17	-	-	-	-	-	-	-
9/11/17	-	-	-	-	-	-	-
9/12/17	-	-	-	-	-	-	-
9/13/17	7:35	1,990	8.66	623	621	NA	2
9/14/17	-	-	-	-	-	-	-
9/15/17	9:10	1,980	8.78	632	628	NA	2
9/16/17	-	-	-	-	-	-	-
9/17/17	-	-	-	-	-	-	-
9/18/17	-	-	-	-	-	-	-
9/19/17	-	-	-	-	-	-	-
9/20/17	7:35	1,960	8.64	631	632	33	2
9/21/17	8:40	1,970	8.78	633	632	NA	3
9/22/17	-	-	-	-	-	-	-
9/23/17	-	-	-	-	-	-	-
9/24/17	-	-	-	-	-	-	-
9/25/17	-	-	-	-	-	-	-
9/26/17	-	-	-	-	-	-	-
9/27/17	7:35	1,970	8.57	631	632	NA	2
9/28/17	-	-	-	-	-	-	-
9/29/17	9:10	1,970	8.70	641	636	NA	2
9/30/17	-	-	-	-	-	-	-
Minimum		1,960	8.57	618	618	33	
Maximum		2,040	8.89	641	636	33	
Average		1,989	8.73	628	626	33	

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
9/1/17	7:35	2840	8.75	993	990	NA	2
9/2/17	-	-	-	-	-	-	-
9/3/17	-	-	-	-	-	-	-
9/4/17	-	-	-	-	-	-	-
9/5/17	-	-	-	-	-	-	-
9/6/17	9:36	2830	8.70	995	994	22	2
9/7/17	-	-	-	-	-	-	-
9/8/17	7:30	2840	8.77	1040	1018	NA	2
9/9/17	-	-	-	-	-	-	-
9/10/17	-	-	-	-	-	-	-
9/11/17	-	-	-	-	-	-	-
9/12/17	-	-	-	-	-	-	-
9/13/17	9:30	-	8.69	1000	1020	NA	2
9/14/17	-	-	-	-	-	-	-
9/15/17	7:50	-	8.79	1030	1015	NA	2
9/16/17	-	-	-	-	-	-	-
9/17/17	-	-	-	-	-	-	-
9/18/17	-	-	-	-	-	-	-
9/19/17	-	-	-	-	-	-	-
9/20/17	9:35	2810	8.70	1010	1020	29	2
9/21/17	7:25	2810	8.89	1010	1017	NA	3
9/22/17	-	-	-	-	-	-	-
9/23/17	-	-	-	-	-	-	-
9/24/17	-	-	-	-	-	-	-
9/25/17	-	-	-	-	-	-	-
9/26/17	-	-	-	-	-	-	-
9/27/17	9:35	2810	8.69	998	1004	NA	2
9/28/17	-	-	-	-	-	-	-
9/29/17	7:45	2730	8.80	1050	1024	NA	2
9/30/17	-	-	-	-	-	-	-
Minimum		2730	8.69	993	990	22	
Maximum		2840	8.89	1050	1024	29	
Average		2810	8.75	1014	1011	26	

Notes:

mg/L - Milligrams per liter or parts per million

NA - Not Analyzed

Italic font denotes preliminary result

**Sheyenne River Downstream of East End Outlet 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
9/1/17	7:55	-	8.74	747	723	NA	2
9/2/17	-	-	-	-	-	-	-
9/3/17	-	-	-	-	-	-	-
9/4/17	-	-	-	-	-	-	-
9/5/17	-	-	-	-	-	-	-
9/6/17	10:05	-	8.63	728	738	56	2
9/7/17	-	-	-	-	-	-	-
9/8/17	7:50	-	-	746	737	NA	2
9/9/17	-	-	-	-	-	-	-
9/10/17	-	-	-	-	-	-	-
9/11/17	-	-	-	-	-	-	-
9/12/17	-	-	-	-	-	-	-
9/13/17	10:05	-	8.65	747	747	NA	2
9/14/17	-	-	-	-	-	-	-
9/15/17	8:15	-	8.70	750	749	NA	2
9/16/17	-	-	-	-	-	-	-
9/17/17	-	-	-	-	-	-	-
9/18/17	-	-	-	-	-	-	-
9/19/17	-	-	-	-	-	-	-
9/20/17	10:10	-	8.58	724	737	41	2
9/21/17	7:50	-	8.71	725	733	NA	3
9/22/17	-	-	-	-	-	-	-
9/23/17	-	-	-	-	-	-	-
9/24/17	-	-	-	-	-	-	-
9/25/17	-	-	-	-	-	-	-
9/26/17	-	-	-	-	-	-	-
9/27/17	10:05	-	8.54	716	721	NA	2
9/28/17	-	-	-	-	-	-	-
9/29/17	8:15	-	8.74	719	718	NA	2
9/30/17	-	-	-	-	-	-	-
Minimum			8.54	716	718	41	
Maximum			8.74	750	749	56	
Average			8.66	734	733	49	

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