

North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701)-328-2750 • TTY 1-800-366-6888 • FAX (701)-328-3696 • <http://swc.nd.gov>

WATER DEVELOPMENT DIVISION
(701) 328-2752

July 11, 2016

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

RE: June 2016 Devils Lake Outlets Monthly Discharge and Water Quality Report

Dear Division of Water Quality:

Enclosed are the monthly discharge reports for the Devils Lake Outlets for the month of June 2016. The West Outlet discharged steadily throughout the month at an average rate of 221 cfs. The East Outlet was shut down for 3 days to provide capacity in the Sheyenne and discharged an average of 177 cfs over the month. **(Figure 1)**. A total of 23,728 acre-feet were discharged in June 2016.

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. One sample gathered at Pekin on June 29th exceeded 750 mg/L of sulfate. 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

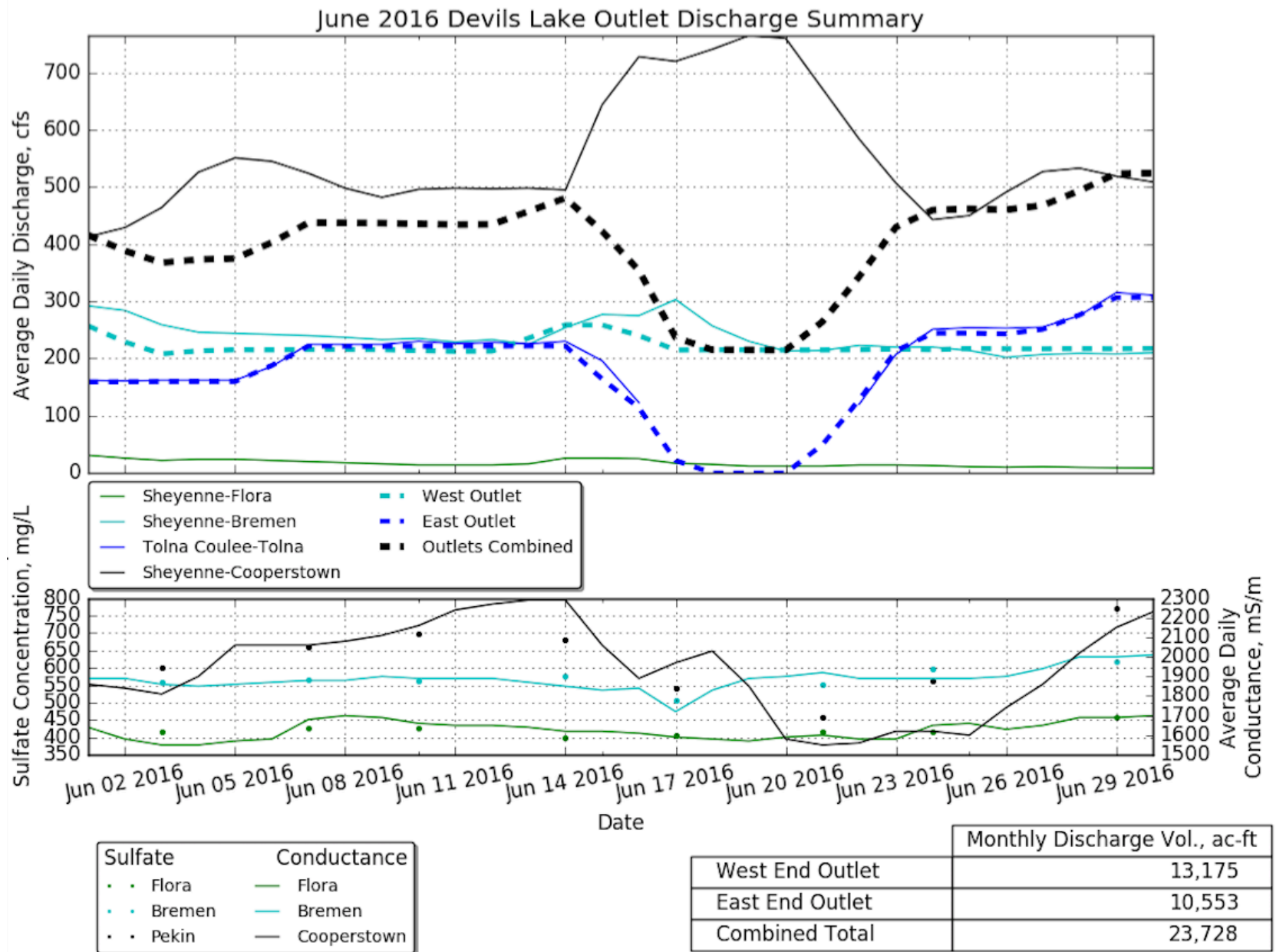


Figure 1: Devils Lake Outlet Discharge Summary

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
6/1/16	6/30/16

LOCATION: Benson Co, ND

Devils Lake West Outlet discharged 13,175 ac-ft over 30 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.57	8.74	8.64	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	563	617	592	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	575	617	591	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	208	259	221	cfs	Continuous	Recorder
SIGNATURE				7/11/16	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
6/1/16	6/30/16

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 10,553 ac-ft over 27 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.48	8.83	8.67	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	932	1010	970	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	946	1010	971	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	0	307	177	cfs	Continuous	Recorder
SIGNATURE				7/11/16	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

LOCATION: Benson Co, ND

MONITORING PERIOD	
START DATE	END DATE
6/1/16	6/30/16

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.40	8.58	8.47	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,550	1,700	1,625	µS/cm	Continuous	Recorder
SULFATE	399	457	421	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	402	461	424	mg/L	2 x Week	GRAB
FLOW, INSTREAM	9	31	17	cfs	Continuous	Recorder
SIGNATURE				7/11/16	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
6/1/16	6/30/16

LOCATION: Eddy Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.51	8.72	8.60	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,720	2,010	1,887	µS/cm	Continuous	Recorder
SULFATE	505	618	567	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	528	608	565	mg/L	2 x Week	GRAB
FLOW, INSTREAM	202	303	238	cfs	Continuous	Recorder
SIGNATURE				7/11/16	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
6/1/16	6/30/16

LOCATION: Nelson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.34	8.61	8.46	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	459	772	622	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	500	690	606	mg/L	2 x Week	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE	 JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			7/11/16	701-328-4948	
NAME AND TITLE				DATE		
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

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 - Toina Coulee near Toina		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)
6/1/16	31	1,640	257	22,206,000	292	1,890	159	13,726,000	162	2,860	413	1,860	416	35,932,000
6/2/16	26	1,580	229	19,775,000	284	1,890	159	13,774,000	161	2,900	429	1,840	388	33,549,000
6/3/16	22	1,550	208	17,972,000	259	1,860	160	13,791,000	162	2,890	464	1,810	368	31,763,000
6/4/16	24	1,550	213	18,432,000	246	1,850	160	13,802,000	162	2,900	526	1,900	373	32,234,000
6/5/16	24	1,570	215	18,598,000	244	1,860	160	13,801,000	162	2,890	551	2,060	375	32,399,000
6/6/16	22	1,580	215	18,585,000	242	1,870	188	16,223,000	186	2,890	545	2,060	403	34,808,000
6/7/16	20	1,680	216	18,633,000	240	1,880	222	19,166,000	225	2,890	524	2,060	437	37,799,000
6/8/16	18	1,700	216	18,638,000	237	1,880	221	19,134,000	225	2,880	498	2,080	437	37,772,000
6/9/16	16	1,690	215	18,615,000	233	1,900	221	19,121,000	225	2,880	482	2,110	437	37,736,000
6/10/16	14	1,660	214	18,479,000	235	1,890	222	19,144,000	230	2,840	496	2,160	435	37,623,000
6/11/16	14	1,650	213	18,363,000	229	1,890	222	19,160,000	226	2,840	498	2,240	434	37,523,000
6/12/16	14	1,650	213	18,405,000	233	1,890	222	19,152,000	228	2,840	497	2,270	435	37,557,000
6/13/16	16	1,640	236	20,372,000	225	1,870	222	19,162,000	226	2,860	498	2,290	458	39,534,000
6/14/16	26	1,620	259	22,370,000	254	1,850	222	19,157,000	230	2,830	495	2,290	481	41,527,000
6/15/16	26	1,620	259	22,345,000	277	1,830	164	14,170,000	196	2,700	644	2,060	423	36,515,000
6/16/16	25	1,610	240	20,751,000	275	1,840	114	9,837,000	123	2,840	728	1,890	354	30,588,000
6/17/16	17	1,590	215	18,557,000	303	1,720	22	1,889,000	-	-	720	1,970	237	20,446,000
6/18/16	15	1,580	215	18,595,000	257	1,830	0	0	-	-	741	2,030	215	18,595,000
6/19/16	12	1,570	215	18,576,000	230	1,890	0	0	-	-	765	1,850	215	18,576,000
6/20/16	12	1,590	215	18,561,000	213	1,900	0	0	-	-	760	1,580	215	18,561,000
6/21/16	12	1,600	215	18,570,000	214	1,920	49	4,267,000	-	-	672	1,550	264	22,837,000
6/22/16	14	1,580	215	18,601,000	223	1,890	128	11,055,000	120	2,870	584	1,560	343	29,656,000
6/23/16	14	1,580	216	18,693,000	220	1,890	213	18,431,000	207	2,900	507	1,620	430	37,124,000
6/24/16	13	1,650	215	18,603,000	220	1,890	244	21,111,000	251	2,900	443	1,620	460	39,714,000
6/25/16	11	1,660	217	18,789,000	214	1,890	244	21,109,000	254	2,910	450	1,600	462	39,898,000
6/26/16	10	1,630	217	18,747,000	202	1,900	243	21,007,000	253	2,910	491	1,740	460	39,754,000
6/27/16	11	1,650	217	18,738,000	207	1,940	251	21,687,000	255	2,860	527	1,860	468	40,425,000
6/28/16	10	1,690	217	18,771,000	209	2,000	276	23,859,000	275	2,900	533	2,020	493	42,630,000
6/29/16	9	1,690	217	18,739,000	208	2,000	306	26,473,000	315	2,650	519	2,150	523	45,212,000
6/30/16	9	1,700	218	18,813,000	210	2,010	307	26,485,000	311	2,780	509	2,230	524	45,298,000
Minimum	9	1,550	208	17,972,000	202	1,720	0	0	120	2,650	413	1,550	215	18,561,000
Maximum	31	1,700	259	22,370,000	303	2,010	307	26,485,000	315	2,910	765	2,290	524	45,298,000
Average	17	1,625	221	19,129,733	238	1,887	177	15,323,100	215	2,856	550	1,945	399	34,452,833
			Total (Mgal)	4,293			Total (Mgal)	3,439					Total (Mgal)	7,731
			Total (Ac-ft)	13,175			Total (Ac-ft)	10,553					Total (Ac-ft)	23,728

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 (µS/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total Samples included in 7- day Average
6/1/16	-	-	-	-	-	-	-
6/2/16	-	-	-	-	-	-	-
6/3/16	10:15	1,560	8.51	417	461	NA	2
6/4/16	-	-	-	-	-	-	-
6/5/16	-	-	-	-	-	-	-
6/6/16	-	-	-	-	-	-	-
6/7/16	11:56	1,690	8.44	425	421	NA	2
6/8/16	-	-	-	-	-	-	-
6/9/16	-	-	-	-	-	-	-
6/10/16	10:20	1,670	8.55	428	427	NA	2
6/11/16	-	-	-	-	-	-	-
6/12/16	-	-	-	-	-	-	-
6/13/16	-	-	-	-	-	-	-
6/14/16	8:00	1,620	8.43	399	414	90	2
6/15/16	-	-	-	-	-	-	-
6/16/16	-	-	-	-	-	-	-
6/17/16	10:15	1,570	8.40	405	402	NA	2
6/18/16	-	-	-	-	-	-	-
6/19/16	-	-	-	-	-	-	-
6/20/16	-	-	-	-	-	-	-
6/21/16	8:00	1,590	8.46	417	411	NA	2
6/22/16	-	-	-	-	-	-	-
6/23/16	-	-	-	-	-	-	-
6/24/16	10:15	1,630	8.42	417	417	NA	2
6/25/16	-	-	-	-	-	-	-
6/26/16	-	-	-	-	-	-	-
6/27/16	-	-	-	-	-	-	-
6/28/16	-	-	-	-	-	-	-
6/29/16	8:15	1,700	8.58	457	437	40	2
6/30/16	-	-	-	-	-	-	-
Minimum		1,560	8.40	399	402	40	
Maximum		1,700	8.58	457	461	90	
Average		1,629	8.47	421	424	65	

Notes:

µS/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)	Total Samples included in 7- day Average
6/1/16	-	-	-	-	-	-	-
6/2/16	-	-	-	-	-	-	-
6/3/16	10:30	-	8.74	581	586	NA	2
6/4/16	-	-	-	-	-	-	-
6/5/16	-	-	-	-	-	-	-
6/6/16	-	-	-	-	-	-	-
6/7/16	8:15	-	8.57	589	585	NA	2
6/8/16	-	-	-	-	-	-	-
6/9/16	-	-	-	-	-	-	-
6/10/16	10:35	-	8.74	587	588	NA	2
6/11/16	-	-	-	-	-	-	-
6/12/16	-	-	-	-	-	-	-
6/13/16	-	-	-	-	-	-	-
6/14/16	8:10	-	8.58	563	575	11	2
6/15/16	-	-	-	-	-	-	-
6/16/16	-	-	-	-	-	-	-
6/17/16	10:30	-	8.59	586	575	NA	2
6/18/16	-	-	-	-	-	-	-
6/19/16	-	-	-	-	-	-	-
6/20/16	-	-	-	-	-	-	-
6/21/16	13:15	-	8.59	598	592	NA	2
6/22/16	-	-	-	-	-	-	-
6/23/16	-	-	-	-	-	-	-
6/24/16	10:30	-	8.62	617	608	NA	2
6/25/16	-	-	-	-	-	-	-
6/26/16	-	-	-	-	-	-	-
6/27/16	-	-	-	-	-	-	-
6/28/16	-	-	-	-	-	-	-
6/29/16	8:30	-	8.68	617	617	10	2
6/30/16	-	-	-	-	-	-	-
Minimum		NA	8.57	563	575	10	
Maximum		NA	8.74	617	617	11	
Average		NA	8.64	592	591	11	

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)	Total samples included in 7- day Average
6/1/16	-	-	-	-	-	-	-
6/2/16	-	-	-	-	-	-	-
6/3/16	9:40	1,860	8.67	559	570	NA	2
6/4/16	-	-	-	-	-	-	-
6/5/16	-	-	-	-	-	-	-
6/6/16	-	-	-	-	-	-	-
6/7/16	7:40	1,880	8.51	567	563	NA	2
6/8/16	-	-	-	-	-	-	-
6/9/16	-	-	-	-	-	-	-
6/10/16	9:55	1,880	8.72	562	565	NA	2
6/11/16	-	-	-	-	-	-	-
6/12/16	-	-	-	-	-	-	-
6/13/16	-	-	-	-	-	-	-
6/14/16	7:35	1,850	8.52	577	570	124	2
6/15/16	-	-	-	-	-	-	-
6/16/16	-	-	-	-	-	-	-
6/17/16	9:45	1,640	8.56	505	541	NA	2
6/18/16	-	-	-	-	-	-	-
6/19/16	-	-	-	-	-	-	-
6/20/16	-	-	-	-	-	-	-
6/21/16	7:35	1,900	8.56	551	528	NA	2
6/22/16	-	-	-	-	-	-	-
6/23/16	-	-	-	-	-	-	-
6/24/16	9:45	1,880	8.56	597	574	NA	2
6/25/16	-	-	-	-	-	-	-
6/26/16	-	-	-	-	-	-	-
6/27/16	-	-	-	-	-	-	-
6/28/16	-	-	-	-	-	-	-
6/29/16	7:40	2,000	8.66	618	608	88	2
6/30/16	-	-	-	-	-	-	-
Minimum		1,640	8.51	505	528	88	
Maximum		2,000	8.72	618	608	124	
Average		1,861	8.60	567	565	106	

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 from Telemetry System (µS/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	Total samples included in 7- day average
6/1/16	-	-	-	-	-	-	-
6/2/16	-	-	-	-	-	-	-
6/3/16	8:20	-	8.74	946	946	NA	1
6/4/16	-	-	-	-	-	-	-
6/5/16	-	-	-	-	-	-	-
6/6/16	-	-	-	-	-	-	-
6/7/16	9:30	-	8.62	979	963	NA	2
6/8/16	-	-	-	-	-	-	-
6/9/16	-	-	-	-	-	-	-
6/10/16	8:15	-	8.83	941	960	NA	2
6/11/16	-	-	-	-	-	-	-
6/12/16	-	-	-	-	-	-	-
6/13/16	-	-	-	-	-	-	-
6/14/16	9:20	-	8.65	970	956	15	2
6/15/16	-	-	-	-	-	-	-
6/16/16	-	-	-	-	-	-	-
6/17/16	8:15	-	8.48	932	951	NA	2
6/18/16	-	-	-	-	-	-	-
6/19/16	-	-	-	-	-	-	-
6/20/16	-	-	-	-	-	-	-
6/21/16	-	-	-	-	-	-	-
6/22/16	-	-	-	-	-	-	-
6/23/16	-	-	-	-	-	-	-
6/24/16	8:15	-	8.63	<i>1010</i>	1010	NA	1
6/25/16	-	-	-	-	-	-	-
6/26/16	-	-	-	-	-	-	-
6/27/16	-	-	-	-	-	-	-
6/28/16	-	-	-	-	-	-	-
6/29/16	9:45	-	8.76	<i>1010</i>	1010	18	2
6/30/16	-	-	-	-	-	-	-
Minimum		NA	8.48	932	946	15	
Maximum		NA	8.83	1010	1010	18	
Average		NA	8.67	970	971	17	

Notes:

mg/L - Milligrams per liter or parts per million
 NA - Not Analyzed due to operation constraints
 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)	Total samples included in 7- day Average
6/1/16	-	-	-	-	-	-	-
6/2/16	-	-	-	-	-	-	-
6/3/16	7:45	-	8.51	601	558	NA	2
6/4/16	-	-	-	-	-	-	-
6/5/16	-	-	-	-	-	-	-
6/6/16	-	-	-	-	-	-	-
6/7/16	10:00	0	8.44	661	631	NA	2
6/8/16	-	-	-	-	-	-	-
6/9/16	-	-	-	-	-	-	-
6/10/16	7:40	-	8.46	699	680	NA	2
6/11/16	-	-	-	-	-	-	-
6/12/16	-	-	-	-	-	-	-
6/13/16	-	-	-	-	-	-	-
6/14/16	9:55	0	8.53	680	690	70	2
6/15/16	-	-	-	-	-	-	-
6/16/16	-	-	-	-	-	-	-
6/17/16	7:45	0	8.40	540	610	NA	2
6/18/16	-	-	-	-	-	-	-
6/19/16	-	-	-	-	-	-	-
6/20/16	-	-	-	-	-	-	-
6/21/16	9:50	-	8.34	459	500	NA	2
6/22/16	-	-	-	-	-	-	-
6/23/16	-	-	-	-	-	-	-
6/24/16	7:45	-	8.39	563	511	NA	2
6/25/16	-	-	-	-	-	-	-
6/26/16	-	-	-	-	-	-	-
6/27/16	-	-	-	-	-	-	-
6/28/16	-	-	-	-	-	-	-
6/29/16	10:15	0	8.61	772	668	52	2
6/30/16	-	-	-	-	-	-	-
Minimum			8.34	459	500	52	
Maximum			8.61	772	690	70	
Average			8.46	622	606	61	

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