



North Dakota State Water Commission

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

July 31, 2014

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

RE: June 2014 Devils Lake Outlets Monthly Discharge and Water Quality Report

Enclosed are the monthly discharge reports for the Devils Lake Outlets for the month of June 2014 and summaries of water quality sample results and flow data. Both the East End and West End Outlets were shutdown for multiple days due to high baseflow in the Sheyenne River (**Figure 1**). When operating, discharges from the outlets were limited.

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.
Head, Construction Section
JK:MSW:416-10

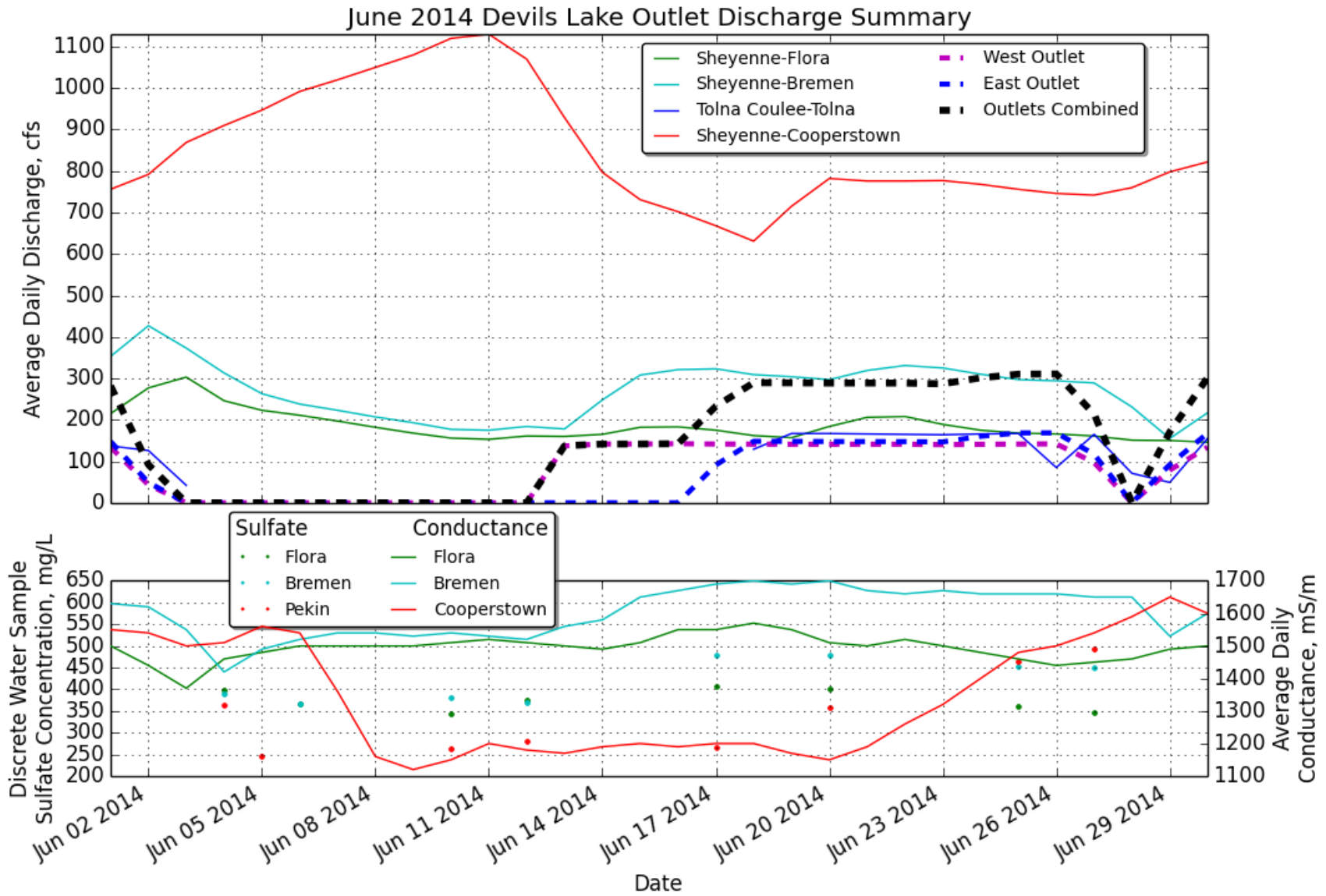


Figure 1: Devils Lake Outlet Discharge Summary

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
6/1/14	6/30/14

LOCATION: Benson Co, ND

Devils Lake West Outlet discharged 4,884 ac-ft over 30 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.48	8.59	8.55	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	548	556	553	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	551	556	553	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	0	142	82	cfs	Continuous	Recorder
SIGNATURE				7/31/14	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
6/1/14	6/30/14

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 4,061 ac-ft over 30 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.46	8.60	8.53	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	901	919	911	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	901	916	908	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	0	169	68	cfs	Continuous	Recorder
SIGNATURE				7/31/14	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
6/1/14	6/30/14

LOCATION: Benson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.11	8.36	8.25	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,370	1,570	1,494	µS/cm	Continuous	Recorder
SULFATE	344	406	375	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	354	403	379	mg/L	2 x Week	GRAB
FLOW, INSTREAM	146	303	186	cfs	Continuous	Recorder
SIGNATURE				7/31/14	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
6/1/14	6/30/14

LOCATION: Eddy Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.09	8.46	8.31	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,420	1,700	1,603	µS/cm	Continuous	Recorder
SULFATE	367	478	421	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	372	478	421	mg/L	2 x Week	GRAB
FLOW, INSTREAM	155	427	273	cfs	Continuous	Recorder
SIGNATURE				7/31/14	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
6/1/14	6/30/14

LOCATION: Nelson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	7.89	8.43	8.24	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	245	492	342	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	272	478	350	mg/L	2 x Week	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE				7/31/14	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 - 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)
6/1/14	215	1,500	134	11,596,000	353	1,630	148	12,755,000	137	-	756	1,550	282	24,351,000
6/2/14	277	1,440	43	3,723,000	427	1,620	49	4,212,000	126	-	792	1,540	92	7,935,000
6/3/14	303	1,370	0	0	373	1,550	0	0	42	2,330	869	1,500	0	0
6/4/14	246	1,460	0	0	313	1,420	0	0	-	-	910	1,510	0	0
6/5/14	223	1,480	0	0	263	1,490	0	9,000	-	-	947	1,560	0	9,000
6/6/14	211	1,500	0	0	238	1,520	0	0	-	-	992	1,540	0	0
6/7/14	197	1,500	0	0	223	1,540	0	0	-	-	1020	1,360	0	0
6/8/14	182	1,500	0	0	207	1,540	0	0	-	-	1050	1,160	0	0
6/9/14	168	1,500	0	0	193	1,530	0	0	-	-	1080	1,120	0	0
6/10/14	156	1,510	0	0	177	1,540	0	0	-	-	1120	1,150	0	0
6/11/14	153	1,520	0	0	175	1,530	0	0	-	-	1130	1,200	0	0
6/12/14	161	1,510	0	0	184	1,520	0	0	-	-	1070	1,180	0	0
6/13/14	160	1,500	137	11,853,000	178	1,560	0	0	-	-	929	1,170	137	11,853,000
6/14/14	165	1,490	142	12,239,000	248	1,580	0	0	-	-	797	1,190	142	12,239,000
6/15/14	182	1,510	142	12,248,000	308	1,650	0	0	-	-	731	1,200	142	12,248,000
6/16/14	183	1,550	142	12,311,000	321	1,670	0	0	-	-	702	1,190	142	12,311,000
6/17/14	175	1,550	142	12,238,000	323	1,690	91	7,864,000	-	-	668	1,200	233	20,102,000
6/18/14	162	1,570	141	12,209,000	309	1,700	148	12,805,000	129	2,650	631	1,200	290	25,014,000
6/19/14	157	1,550	141	12,191,000	304	1,690	148	12,795,000	167	2,700	715	1,170	289	24,986,000
6/20/14	184	1,510	141	12,189,000	297	1,700	148	12,756,000	167	2,730	782	1,150	289	24,945,000
6/21/14	206	1,500	141	12,196,000	319	1,670	148	12,751,000	166	2,740	776	1,190	289	24,947,000
6/22/14	208	1,520	141	12,200,000	331	1,660	147	12,735,000	165	2,740	776	1,260	289	24,935,000
6/23/14	189	1,500	140	12,111,000	325	1,670	147	12,678,000	164	2,750	777	1,320	287	24,789,000
6/24/14	175	1,480	141	12,180,000	310	1,660	160	13,853,000	166	2,750	768	1,400	301	26,033,000
6/25/14	168	1,460	142	12,228,000	297	1,660	168	14,558,000	167	2,750	756	1,480	310	26,786,000
6/26/14	166	1,440	142	12,273,000	294	1,660	169	14,563,000	85	-	746	1,500	311	26,836,000
6/27/14	161	1,450	97	8,370,000	289	1,650	117	10,104,000	165	2,750	742	1,540	214	18,474,000
6/28/14	151	1,460	0	0	231	1,650	0	0	71	2,720	760	1,590	0	0
6/29/14	150	1,490	79	6,796,000	155	1,530	92	7,951,000	49	2,690	798	1,650	171	14,747,000
6/30/14	146	1,500	134	11,578,000	217	1,600	168	14,488,000	155	2,720	822	1,600	302	26,066,000
Minimum	146	1370	0	0	155	1420	0	0	42	2330	631	1120	0	0
Maximum	303	1570	142	12,311,000	427	1700	169	14,563,000	167	2750	1130	1650	311	26,836,000
Average	186	1494	82	7,090,967	273	1603	68	5,895,900	133	2694	847	1346	150	12,986,867
			Total (Mgal)	1,591				Total (Mgal)	1,323				Total (Mgal)	2,914
			Total (Ac-ft)	4,884				Total (Ac-ft)	4,061				Total (Ac-ft)	8,944

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)	No. of days included in the 7 day Rolling Average
6/1/14	-	-	-	-	-	-	-
6/2/14	-	-	-	-	-	-	-
6/3/14	-	-	-	-	-	-	-
6/4/14	7:55	1,460	8.30	397	392	55	7
6/5/14	-	-	-	-	-	-	-
6/6/14	8:18	1,500	8.11	367	382	NA	7
6/7/14	-	-	-	-	-	-	-
6/8/14	-	-	-	-	-	-	-
6/9/14	-	-	-	-	-	-	-
6/10/14	8:15	1,510	8.36	344	369	NA	7
6/11/14	-	-	-	-	-	-	-
6/12/14	12:00	1,510	8.17	376	362	NA	7
6/13/14	-	-	-	-	-	-	-
6/14/14	-	-	-	-	-	-	-
6/15/14	-	-	-	-	-	-	-
6/16/14	-	-	-	-	-	-	-
6/17/14	7:55	1,540	8.32	406	391	83	7
6/18/14	-	-	-	-	-	-	-
6/19/14	-	-	-	-	-	-	-
6/20/14	9:45	1,520	8.18	400	403	NA	-
6/21/14	-	-	-	-	-	-	-
6/22/14	-	-	-	-	-	-	-
6/23/14	-	-	-	-	-	-	-
6/24/14	-	-	-	-	-	-	-
6/25/14	8:05	1,460	8.35	360	380	NA	7
6/26/14	-	-	-	-	-	-	-
6/27/14	10:00	1,440	8.19	348	354	NA	7
6/28/14	-	-	-	-	-	-	-
6/29/14	-	-	-	-	-	-	-
6/30/14	-	-	-	-	-	-	-
Minimum		1,440	8.11	344	354	55	
Maximum		1,540	8.36	406	403	83	
Average		1,493	8.25	375	379	69	

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	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	No. of days included in the 7 day Rolling Average
6/1/14	-	-	-	-	-	-
6/2/14	-	-	-	-	-	-
6/3/14	-	-	-	-	-	-
6/4/14	-	-	-	-	-	-
6/5/14	-	-	-	-	-	-
6/6/14	-	-	-	-	-	-
6/7/14	-	-	-	-	-	-
6/8/14	-	-	-	-	-	-
6/9/14	-	-	-	-	-	-
6/10/14	-	-	-	-	-	-
6/11/14	-	-	-	-	-	-
6/12/14	-	-	-	-	-	-
6/13/14	-	-	-	-	-	-
6/14/14	-	-	-	-	-	-
6/15/14	-	-	-	-	-	-
6/16/14	-	-	-	-	-	-
6/17/14	8:10	8.57	556	556	25	7
6/18/14	-	-	-	-	-	-
6/19/14	-	-	-	-	-	-
6/20/14	10:05	8.48	548	552	NA	7
6/21/14	-	-	-	-	-	-
6/22/14	-	-	-	-	-	-
6/23/14	-	-	-	-	-	-
6/24/14	-	-	-	-	-	-
6/25/14	8:20	8.59	553	551	NA	7
6/26/14	-	-	-	-	-	-
6/27/14	10:10	8.57	555	554	NA	7
6/28/14	-	-	-	-	-	-
6/29/14	-	-	-	-	-	-
6/30/14	-	-	-	-	-	-
Minimum		8.48	548	551	25	
Maximum		8.59	556	556	25	
Average		8.55	553	553	25	

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 near Bremen
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)	No. of days included in the 7 day Rolling Average
6/1/14	-	-	-	-	-	-	-
6/2/14	-	-	-	-	-	-	-
6/3/14	-	-	-	-	-	-	-
6/4/14	7:25	1,400	8.27	389	421	94	7
6/5/14	-	-	-	-	-	-	-
6/6/14	7:51	1,510	8.09	367	378	NA	7
6/7/14	-	-	-	-	-	-	-
6/8/14	-	-	-	-	-	-	-
6/9/14	-	-	-	-	-	-	-
6/10/14	7:55	1,540	8.38	380	379	NA	7
6/11/14	-	-	-	-	-	-	-
6/12/14	12:20	1,490	8.22	369	372	NA	7
6/13/14	-	-	-	-	-	-	-
6/14/14	-	-	-	-	-	-	-
6/15/14	-	-	-	-	-	-	-
6/16/14	-	-	-	-	-	-	-
6/17/14	7:25	1,680	8.39	478	424	92	7
6/18/14	-	-	-	-	-	-	-
6/19/14	-	-	-	-	-	-	-
6/20/14	9:22	1,700	8.29	478	478	NA	7
6/21/14	-	-	-	-	-	-	-
6/22/14	-	-	-	-	-	-	-
6/23/14	-	-	-	-	-	-	-
6/24/14	-	-	-	-	-	-	-
6/25/14	7:35	1,660	8.46	454	466	NA	7
6/26/14	-	-	-	-	-	-	-
6/27/14	9:30	1,650	8.34	449	452	NA	7
6/28/14	-	-	-	-	-	-	-
6/29/14	-	-	-	-	-	-	-
6/30/14	-	-	-	-	-	-	-
Minimum		1,400	8.09	367	372	92	
Maximum		1,700	8.46	478	478	94	
Average		1,579	8.31	421	421	93	

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 Outlet Discharge Report**

Date	Time	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	No. of days included in the 7 day Rolling Average
6/1/14	-	-	-	-	-	-
6/2/14	-	-	-	-	-	-
6/3/14	-	-	-	-	-	-
6/4/14	-	-	-	-	-	-
6/5/14	-	-	-	-	-	-
6/6/14	-	-	-	-	-	-
6/7/14	-	-	-	-	-	-
6/8/14	-	-	-	-	-	-
6/9/14	-	-	-	-	-	-
6/10/14	-	-	-	-	-	-
6/11/14	-	-	-	-	-	-
6/12/14	-	-	-	-	-	-
6/13/14	-	-	-	-	-	-
6/14/14	-	-	-	-	-	-
6/15/14	-	-	-	-	-	-
6/16/14	-	-	-	-	-	-
6/17/14	-	-	-	-	-	-
6/18/14	-	-	-	-	-	-
6/19/14	-	-	-	-	-	-
6/20/14	8:17	8.46	901	901	NA	7
6/21/14	-	-	-	-	-	-
6/22/14	-	-	-	-	-	-
6/23/14	-	-	-	-	-	-
6/24/14	-	-	-	-	-	-
6/25/14	9:24	8.60	913	907	NA	7
6/26/14	-	-	-	-	-	-
6/27/14	8:00	8.54	919	916	NA	7
6/28/14	-	-	-	-	-	-
6/29/14	-	-	-	-	-	-
6/30/14	-	-	-	-	-	-
Minimum		8.46	901	901	-	
Maximum		8.60	919	916	-	
Average		8.53	911	908	-	

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	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	No. of days included in the 7 day Rolling Average
6/1/14	-	-	-	-	-	-
6/2/14	-	-	-	-	-	-
6/3/14	-	-	-	-	-	-
6/4/14	9:25	8.32	364	407	69	7
6/5/14	10:45	7.89	245	353	NA	7
6/6/14	-	-	-	-	-	-
6/7/14	-	-	-	-	-	-
6/8/14	-	-	-	-	-	-
6/9/14	-	-	-	-	-	-
6/10/14	9:45	8.30	263	291	NA	7
6/11/14	-	-	-	-	-	-
6/12/14	14:00	8.17	281	272	NA	7
6/13/14	-	-	-	-	-	-
6/14/14	-	-	-	-	-	-
6/15/14	-	-	-	-	-	-
6/16/14	-	-	-	-	-	-
6/17/14	9:30	8.32	265	273	102	7
6/18/14	-	-	-	-	-	-
6/19/14	-	-	-	-	-	-
6/20/14	7:50	8.25	358	312	NA	-
6/21/14	-	-	-	-	-	-
6/22/14	-	-	-	-	-	-
6/23/14	-	-	-	-	-	-
6/24/14	-	-	-	-	-	-
6/25/14	9:50	8.43	464	411	NA	7
6/26/14	-	-	-	-	-	-
6/27/14	7:30	8.27	492	478	NA	7
6/28/14	-	-	-	-	-	-
6/29/14	-	-	-	-	-	-
6/30/14	-	-	-	-	-	-
Minimum		7.89	245	272	69	
Maximum		8.43	492	478	102	
Average		8.24	342	350	86	

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

