

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>

September 22, 2014

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

RE: August 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 August 2014 and summaries of water quality sample results and flow data. Operation of the West End Outlet was limited during early August for routine maintenance. Operation of the East End Outlet was affected by an unscheduled power outage during early August. By the end of the month, both outlets were operating at capacity (**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.
Head, Construction Section
JK:MSW:416-10

August 2014 Devils Lake Outlet Discharge Summary

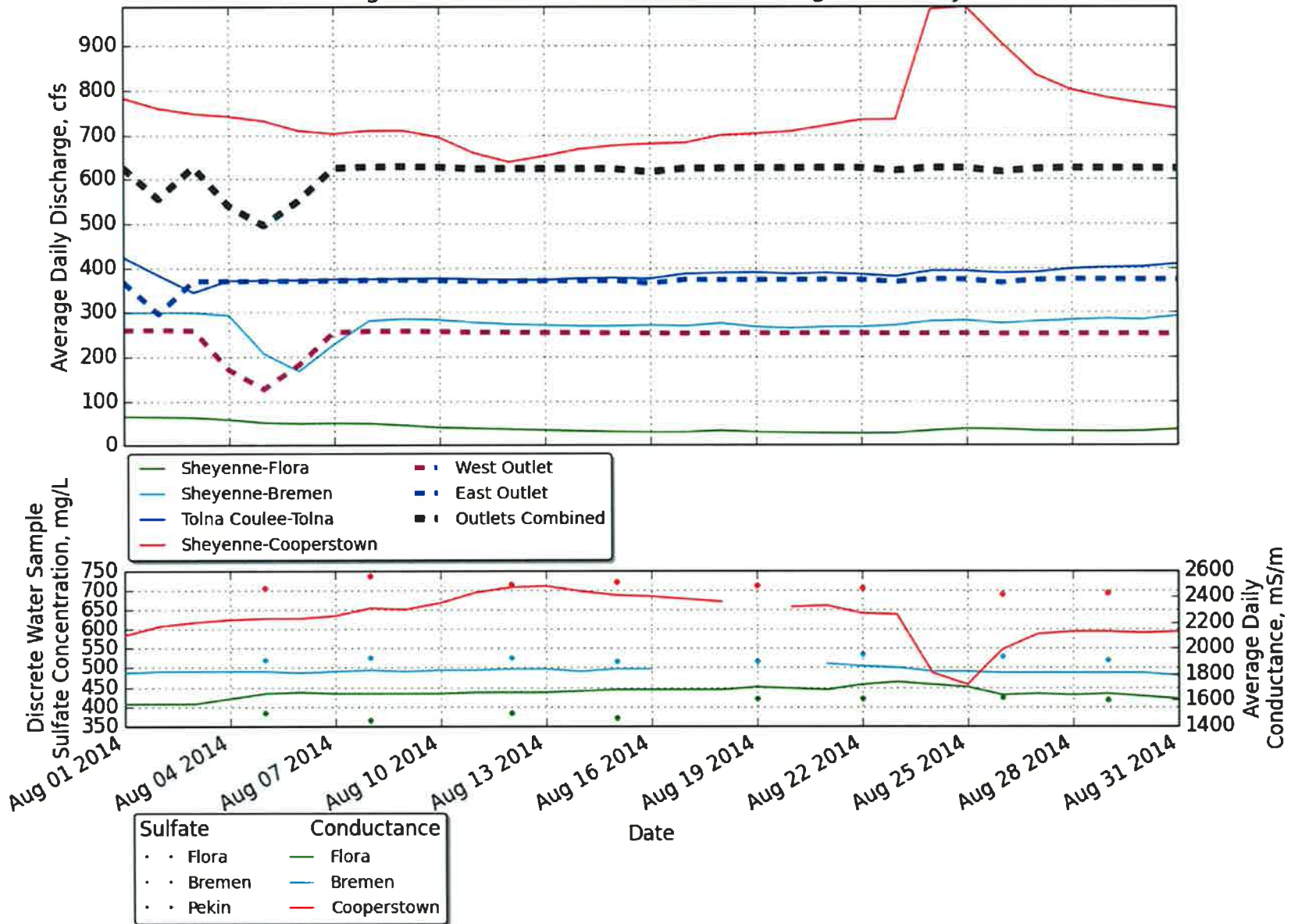


Figure 1: Devils Lake Outlet Discharge Summary

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
8/1/14	8/31/14

LOCATION: Benson Co, ND

Devils Lake West Outlet discharged 15,002 ac-ft over 31 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.66	8.81	8.73	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	538	553	544	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	539	553	544	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	126	259	244	cfs	Continuous	Recorder
SIGNATURE				8/19/14	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
8/1/14	8/31/14

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 22,613 ac-ft over 31 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.59	8.81	8.68	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	903	930	913	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	904	922	912	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	295	373	368	cfs	Continuous	Recorder
SIGNATURE				8/19/14	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
8/1/14	8/31/14

LOCATION: Benson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.27	8.44	8.34	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,570	1,740	1,657	µS/cm	Continuous	Recorder
SULFATE	346	423	392	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	357	422	390	mg/L	2 x Week	GRAB
FLOW, INSTREAM	26	65	39	cfs	Continuous	Recorder
SIGNATURE				8/19/14	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
8/1/14	8/31/14

LOCATION: Eddy Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.58	8.71	8.65	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,790	1,880	1,825	µS/cm	Continuous	Recorder
SULFATE	512	536	523	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	515	532	522	mg/L	2 x Week	GRAB
FLOW, INSTREAM	167	299	270	cfs	Continuous	Recorder
SIGNATURE				8/19/14	701-328-4948	
NAME AND TITLE				JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION		
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

LOCATION: Nelson Co, ND

MONITORING PERIOD	
START DATE	END DATE
8/1/14	8/31/14

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.48	8.57	8.53	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	689	738	708	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	682	727	707	mg/L	2 x Week	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE				8/19/14	701-328-4948	
NAME AND TITLE				JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION		

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 (ft³)	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)	Average Daily Outlet Discharge (cfs)	Total Daily Volume (ft³)	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 (ft³)
8/1/14	65	1,570	259	22,339,000	298	1,810	367	31,680,000	423	2,730	782	2,100	625	54,019,000
8/2/14	64	1,570	259	22,373,000	299	1,820	295	25,502,000	382	2,750	759	2,170	554	47,875,000
8/3/14	63	1,570	258	22,272,000	298	1,820	369	31,848,000	343	-	747	2,200	626	54,120,000
8/4/14	58	1,610	170	14,707,000	292	1,820	368	31,833,000	370	-	741	2,220	539	46,540,000
8/5/14	51	1,650	126	10,854,000	206	1,820	369	31,878,000	370	2,760	731	2,230	495	42,732,000
8/6/14	49	1,660	181	15,639,000	167	1,810	369	31,908,000	371	2,760	709	2,230	550	47,547,000
8/7/14	50	1,650	254	21,962,000	227	1,820	370	31,957,000	373	2,760	702	2,250	624	53,919,000
8/8/14	49	1,650	256	22,146,000	280	1,830	371	32,012,000	373	2,760	709	2,310	627	54,158,000
8/9/14	45	1,650	256	22,149,000	284	1,820	371	32,069,000	374	2,760	709	2,300	628	54,218,000
8/10/14	40	1,650	256	22,089,000	282	1,830	370	31,989,000	375	2,770	694	2,350	626	54,078,000
8/11/14	38	1,660	254	21,955,000	276	1,830	368	31,798,000	373	2,780	658	2,430	622	53,753,000
8/12/14	36	1,660	254	21,948,000	272	1,840	369	31,863,000	372	2,780	638	2,470	623	53,811,000
8/13/14	34	1,660	253	21,864,000	270	1,840	369	31,922,000	371	2,780	651	2,480	623	53,786,000
8/14/14	32	1,670	253	21,867,000	268	1,820	369	31,920,000	375	2,770	667	2,440	623	53,787,000
8/15/14	30	1,680	252	21,791,000	268	1,840	370	31,957,000	376	2,770	675	2,410	622	53,748,000
8/16/14	29	1,680	252	21,730,000	270	1,840	364	31,413,000	374	2,770	679	2,400	615	53,143,000
8/17/14	29	1,680	251	21,706,000	268	-	372	32,127,000	385	-	681	2,380	623	53,833,000
8/18/14	33	1,680	252	21,751,000	274	-	371	32,093,000	387	-	698	2,360	623	53,844,000
8/19/14	29	1,700	252	21,803,000	266	-	372	32,108,000	388	-	702	-	624	53,911,000
8/20/14	28	1,690	252	21,769,000	263	-	372	32,125,000	385	2,780	707	2,320	624	53,894,000
8/21/14	27	1,680	252	21,797,000	266	1,880	372	32,177,000	387	2,780	720	2,330	625	53,974,000
8/22/14	26	1,720	252	21,793,000	266	1,860	372	32,136,000	384	2,790	733	2,270	624	53,929,000
8/23/14	27	1,740	251	21,708,000	270	1,850	367	31,724,000	379	2,770	734	2,260	618	53,432,000
8/24/14	33	1,720	251	21,727,000	279	1,820	373	32,253,000	392	2,730	981	1,810	625	53,980,000
8/25/14	37	1,700	252	21,744,000	281	1,820	373	32,188,000	392	-	988	1,720	624	53,932,000
8/26/14	36	1,840	251	21,660,000	274	1,810	365	31,549,000	387	-	908	1,990	616	53,209,000
8/27/14	33	1,650	251	21,655,000	279	1,810	372	32,125,000	389	2,800	835	2,110	622	53,780,000
8/28/14	32	1,640	251	21,689,000	282	1,810	373	32,256,000	397	2,790	801	2,130	624	53,945,000
8/29/14	31	1,650	251	21,684,000	285	1,810	373	32,220,000	400	2,790	783	2,130	624	53,904,000
8/30/14	32	1,630	251	21,690,000	283	1,810	373	32,192,000	401	2,800	770	2,120	624	53,882,000
8/31/14	36	1,610	250	21,639,000	291	1,790	373	32,201,000	408	2,770	759	2,130	623	53,840,000
Minimum	26	1570	126	10,854,000	167	1790	295	25,502,000	343	2730	638	1720	495	42,732,000
Maximum	65	1740	259	22,373,000	299	1880	373	32,256,000	423	2800	988	2480	628	54,218,000
Average	39	1657	244	21,080,645	270	1825	368	31,774,935	382	2771	744	2235	612	52,855,581
			Total (Mgal)	4,888				Total (Mgal)	7,368				Total (Mgal)	12,256
			Total (Ac-ft)	15,002				Total (Ac-ft)	22,613				Total (Ac-ft)	37,615

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)	No. of days included in the 7 day Rolling Average
8/1/14	9:45	1,560	8.35	346	357	NA	7
8/2/14	-	-	-	-	-	-	-
8/3/14	-	-	-	-	-	-	-
8/4/14	-	-	-	-	-	-	-
8/5/14	8:00	1,650	8.44	383	365	NA	7
8/6/14	-	-	-	-	-	-	-
8/7/14	-	-	-	-	-	-	-
8/8/14	9:35	1,640	8.38	364	374	NA	7
8/9/14	-	-	-	-	-	-	-
8/10/14	-	-	-	-	-	-	-
8/11/14	-	-	-	-	-	-	-
8/12/14	8:00	1,660	8.38	384	374	60	7
8/13/14	-	-	-	-	-	-	-
8/14/14	-	-	-	-	-	-	-
8/15/14	8:00	1,670	8.32	371	378	NA	7
8/16/14	-	-	-	-	-	-	-
8/17/14	-	-	-	-	-	-	-
8/18/14	-	-	-	-	-	-	-
8/19/14	7:50	1,680	8.28	422	397	NA	-
8/20/14	-	-	-	-	-	-	-
8/21/14	-	-	-	-	-	-	-
8/22/14	8:40	1,710	8.27	420	421	NA	7
8/23/14	-	-	-	-	-	-	-
8/24/14	-	-	-	-	-	-	-
8/25/14	-	-	-	-	-	-	-
8/26/14	8:20	1,660	8.35	423	422	98	7
8/27/14	-	-	-	-	-	-	-
8/28/14	-	-	-	-	-	-	-
8/29/14	10:55	1,660	8.30	417	420	NA	7
8/30/14	-	-	-	-	-	-	-
8/31/14	-	-	-	-	-	-	-
Minimum		1,560	8.27	346	357	60	
Maximum		1,710	8.44	423	422	98	
Average		1,654	8.34	392	390	79	

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	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
8/1/14	10:05	8.81	553	552	NA	7
8/2/14	-	-	-	-	-	-
8/3/14	-	-	-	-	-	-
8/4/14	-	-	-	-	-	-
8/5/14	8:15	8.74	552	553	NA	7
8/6/14	-	-	-	-	-	-
8/7/14	-	-	-	-	-	-
8/8/14	9:50	8.75	544	548	NA	7
8/9/14	-	-	-	-	-	-
8/10/14	-	-	-	-	-	-
8/11/14	-	-	-	-	-	-
8/12/14	8:10	8.68	545	545	33	7
8/13/14	-	-	-	-	-	-
8/14/14	-	-	-	-	-	-
8/15/14	7:45	8.73	541	543	NA	7
8/16/14	-	-	-	-	-	-
8/17/14	-	-	-	-	-	-
8/18/14	-	-	-	-	-	-
8/19/14	8:00	8.68	538	540	NA	7
8/20/14	-	-	-	-	-	-
8/21/14	-	-	-	-	-	-
8/22/14	8:30	8.76	539	539	NA	7
8/23/14	-	-	-	-	-	-
8/24/14	-	-	-	-	-	-
8/25/14	-	-	-	-	-	-
8/26/14	8:30	8.66	542	541	35	7
8/27/14	-	-	-	-	-	-
8/28/14	-	-	-	-	-	-
8/29/14	11:10	8.77	540	541	NA	7
8/30/14	-	-	-	-	-	-
8/31/14	-	-	-	-	-	-
Minimum		8.66	538	539	33	
Maximum		8.81	553	553	35	
Average		8.73	544	544	34	

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 ($\mu\text{S}/\text{cm}$)	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
8/1/14	9:20	1,800	8.71	512	515	NA	7
8/2/14	-	-	-	-	-	-	-
8/3/14	-	-	-	-	-	-	-
8/4/14	-	-	-	-	-	-	-
8/5/14	7:30	1,830	8.67	521	517	NA	7
8/6/14	-	-	-	-	-	-	-
8/7/14	-	-	-	-	-	-	-
8/8/14	9:15	1,820	8.66	526	524	NA	7
8/9/14	-	-	-	-	-	-	-
8/10/14	-	-	-	-	-	-	-
8/11/14	-	-	-	-	-	-	-
8/12/14	7:30	1,840	8.60	527	527	72	7
8/13/14	-	-	-	-	-	-	-
8/14/14	-	-	-	-	-	-	-
8/15/14	8:40	1,810	8.70	516	522	NA	7
8/16/14	-	-	-	-	-	-	-
8/17/14	-	-	-	-	-	-	-
8/18/14	-	-	-	-	-	-	-
8/19/14	7:25	0	8.58	517	517	NA	7
8/20/14	-	-	-	-	-	-	-
8/21/14	-	-	-	-	-	-	-
8/22/14	9:00	1,870	8.64	536	527	NA	7
8/23/14	-	-	-	-	-	-	-
8/24/14	-	-	-	-	-	-	-
8/25/14	-	-	-	-	-	-	-
8/26/14	8:00	1,810	8.60	528	532	48	7
8/27/14	-	-	-	-	-	-	-
8/28/14	-	-	-	-	-	-	-
8/29/14	10:35	1,800	8.66	520	524	NA	7
8/30/14	-	-	-	-	-	-	-
8/31/14	-	-	-	-	-	-	-
Minimum		0	8.58	512	515	48	
Maximum		1,870	8.71	536	532	72	
Average		1,620	8.65	523	522	60	

Notes:

$\mu\text{S}/\text{cm}$ - 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
8/1/14	8:10	8.81	913	912	NA	7
8/2/14	-	-	-	-	-	-
8/3/14	-	-	-	-	-	-
8/4/14	-	-	-	-	-	-
8/5/14	9:20	8.63	930	922	NA	7
8/6/14	-	-	-	-	-	-
8/7/14	-	-	-	-	-	-
8/8/14	8:10	8.67	907	919	NA	7
8/9/14	-	-	-	-	-	-
8/10/14	-	-	-	-	-	-
8/11/14	-	-	-	-	-	-
8/12/14	9:15	8.69	926	917	12	7
8/13/14	-	-	-	-	-	-
8/14/14	-	-	-	-	-	-
8/15/14	10:44	8.68	904	915	NA	7
8/16/14	-	-	-	-	-	-
8/17/14	-	-	-	-	-	-
8/18/14	-	-	-	-	-	-
8/19/14	9:15	8.69	903	904	NA	7
8/20/14	-	-	-	-	-	-
8/21/14	-	-	-	-	-	-
8/22/14	10:45	8.73	911	907	NA	7
8/23/14	-	-	-	-	-	-
8/24/14	-	-	-	-	-	-
8/25/14	-	-	-	-	-	-
8/26/14	9:48	8.59	905	908	17	7
8/27/14	-	-	-	-	-	-
8/28/14	-	-	-	-	-	-
8/29/14	7:45	8.66	914	910	NA	7
8/30/14	-	-	-	-	-	-
8/31/14	-	-	-	-	-	-
Minimum		8.59	903	904	-	
Maximum		8.81	930	922	-	
Average		8.68	913	912	-	

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
8/1/14	7:35	8.54	697	682	NA	7
8/2/14	-	-	-	-	-	-
8/3/14	-	-	-	-	-	-
8/4/14	-	-	-	-	-	-
8/5/14	9:50	8.53	706	702	NA	7
8/6/14	-	-	-	-	-	-
8/7/14	-	-	-	-	-	-
8/8/14	7:30	8.55	738	722	NA	7
8/9/14	-	-	-	-	-	-
8/10/14	-	-	-	-	-	-
8/11/14	-	-	-	-	-	-
8/12/14	9:40	8.52	715	726.5	40	7
8/13/14	-	-	-	-	-	-
8/14/14	-	-	-	-	-	-
8/15/14	10:15	8.52	721	718	NA	7
8/16/14	-	-	-	-	-	-
8/17/14	-	-	-	-	-	-
8/18/14	-	-	-	-	-	-
8/19/14	9:45	8.51	713	717	NA	-
8/20/14	-	-	-	-	-	-
8/21/14	-	-	-	-	-	-
8/22/14	11:15	8.57	705	709	NA	7
8/23/14	-	-	-	-	-	-
8/24/14	-	-	-	-	-	-
8/25/14	-	-	-	-	-	-
8/26/14	10:20	8.48	689	697	47	7
8/27/14	-	-	-	-	-	-
8/28/14	-	-	-	-	-	-
8/29/14	8:35	8.53	692	691	NA	7
8/30/14	-	-	-	-	-	-
8/31/14	-	-	-	-	-	-
Minimum		8.48	689	682	40	
Maximum		8.57	738	727	47	
Average		8.53	708	707	44	

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