



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>

WATER DEVELOPMENT DIVISION
(701) 328-2752

October 13, 2015

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

RE: September 2015 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 September 2015. Discharges from the East Outlet remained reduced to limit sulfate concentrations in the Sheyenne River. Discharges from the West Outlet were limited due to maintenance at the end of the month. The water quality standard for sulfate was exceeded at the Pekin monitoring site. A graph of the outlet discharges, streamflows, conductance, and preliminary sulfate sample results is shown in **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.

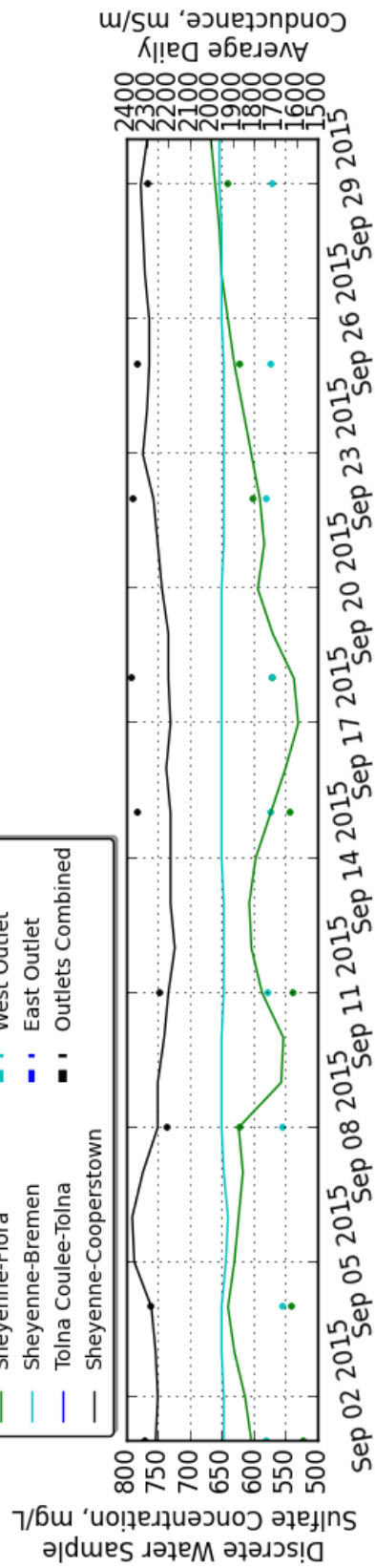
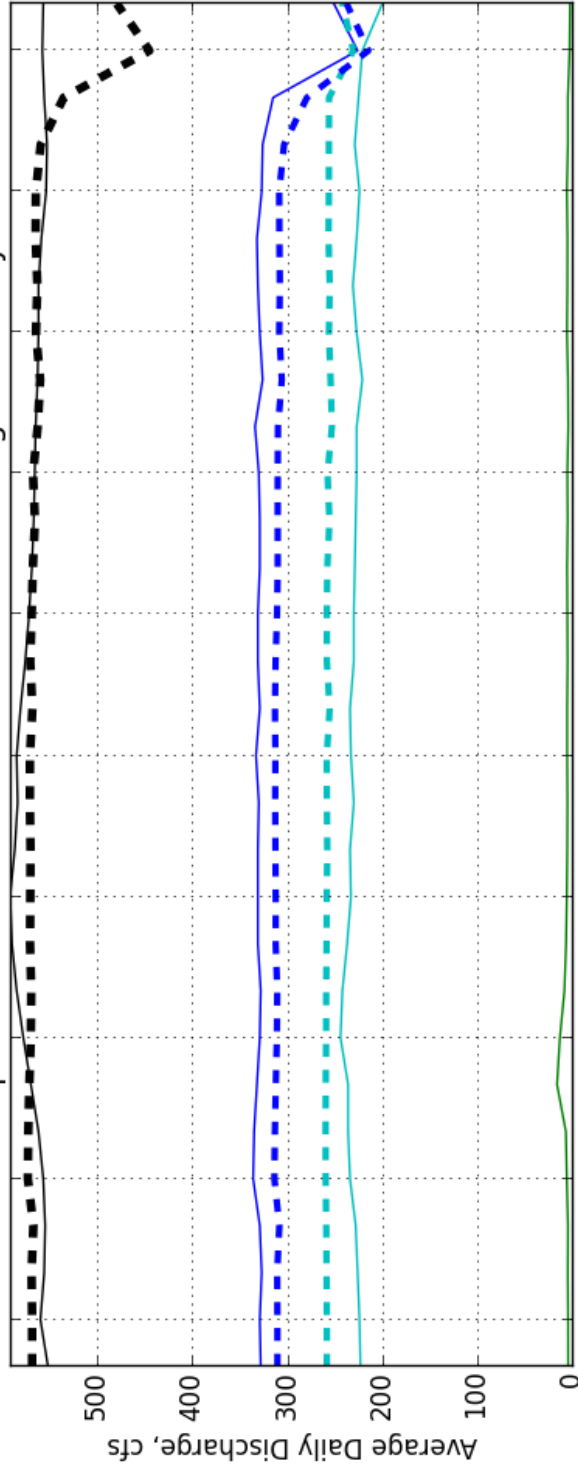
If you have any questions, please contact me at (701) 328-4948.

Sincerely,

Jonathan Kelsch P.E.
Section Chief of Construction

JK:MW/416-10
Enclosure

September 2015 Devils Lake Outlet Discharge Summary



Outlet	Monthly Discharge Vol., ac-ft
West End Outlet	15,239
East End Outlet	18,076
Combined Total	33,315



North Dakota
State Water Commission

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

LOCATION: Benson Co, ND

MONITORING PERIOD	
START DATE	END DATE
9/1/15	9/30/15

Devils Lake West Outlet discharged 15,239 ac-ft over 30 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.69	8.89	8.78	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	557	586	571	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	564	577	569	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	231	260	256	cfs	Continuous	Recorder
SIGNATURE				10/13/15	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:

- 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
9/1/15	9/30/15

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 18,076 ac-ft over 30 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.72	8.84	8.78	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	845	1010	957	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	908	981	956	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	215	314	304	cfs	Continuous	Recorder
SIGNATURE				10/13/15	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
9/1/15	9/30/15

LOCATION: Benson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.35	8.64	8.53	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,590	2,000	1,813	µS/cm	Continuous	Recorder
SULFATE	523	642	579	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	533	633	577	mg/L	2 x Week	GRAB
FLOW, INSTREAM	2	16	6	cfs	Continuous	Recorder
SIGNATURE				10/13/15	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
9/1/15	9/30/15

LOCATION: Eddy Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.60	8.82	8.73	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,920	1,960	1,945	µS/cm	Continuous	Recorder
SULFATE	555	582	572	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	556	578	571	mg/L	2 x Week	GRAB
FLOW, INSTREAM	200	244	229	cfs	Continuous	Recorder
SIGNATURE				10/13/15	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

MONITORING PERIOD	
START DATE	END DATE
9/1/15	9/30/15

LOCATION: Nelson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.59	8.78	8.66	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	736	792	770	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	742	791	771	mg/L	2 x Week	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE				10/13/15	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 (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)
9/1/15	4	1,810	258	22,322,000	223	1,940	310	26,818,000	328	-	552	2,260	569	49,140,000
9/2/15	4	1,840	258	22,319,000	224	1,940	310	26,820,000	329	-	560	2,250	569	49,139,000
9/3/15	5	1,890	259	22,351,000	226	1,950	311	26,841,000	327	-	556	2,260	569	49,192,000
9/4/15	5	1,920	259	22,377,000	228	1,950	308	26,645,000	329	-	555	2,280	567	49,022,000
9/5/15	6	1,890	260	22,431,000	234	1,930	314	27,097,000	336	-	557	2,360	573	49,528,000
9/6/15	7	1,870	260	22,437,000	236	1,920	313	27,050,000	335	-	562	2,370	573	49,487,000
9/7/15	16	1,850	260	22,424,000	236	1,940	312	26,967,000	332	-	570	2,320	572	49,391,000
9/8/15	13	1,870	259	22,386,000	244	1,950	311	26,869,000	329	-	578	2,250	570	49,255,000
9/9/15	8	1,670	259	22,381,000	242	1,950	311	26,836,000	328	2,820	585	2,250	570	49,217,000
9/10/15	7	1,660	259	22,349,000	237	1,950	312	26,978,000	331	-	590	2,220	571	49,327,000
9/11/15	6	1,760	258	22,328,000	233	1,940	312	26,975,000	331	-	592	2,200	571	49,303,000
9/12/15	5	1,810	258	22,281,000	234	1,940	313	27,002,000	331	-	587	2,170	570	49,283,000
9/13/15	5	1,820	258	22,318,000	230	1,940	313	27,025,000	330	-	584	2,190	571	49,343,000
9/14/15	5	1,790	258	22,332,000	233	1,950	313	27,006,000	333	-	585	2,190	571	49,338,000
9/15/15	5	1,720	255	22,067,000	234	1,950	313	27,045,000	329	-	581	2,190	568	49,112,000
9/16/15	5	1,650	258	22,320,000	230	1,950	312	26,988,000	331	-	576	2,210	571	49,308,000
9/17/15	5	1,590	258	22,321,000	230	1,950	311	26,857,000	331	-	572	2,190	569	49,178,000
9/18/15	5	1,610	258	22,283,000	229	1,950	310	26,790,000	329	-	569	2,200	568	49,073,000
9/19/15	5	1,710	256	22,084,000	228	1,950	310	26,793,000	329	-	567	2,200	566	48,877,000
9/20/15	5	1,780	258	22,265,000	227	1,950	310	26,792,000	330	-	566	2,230	568	49,057,000
9/21/15	4	1,750	253	21,861,000	227	1,940	310	26,769,000	334	-	565	2,250	563	48,630,000
9/22/15	5	1,770	254	21,985,000	221	1,940	306	26,421,000	326	2,870	563	2,270	560	48,406,000
9/23/15	6	1,810	256	22,136,000	227	1,940	309	26,656,000	329	2,860	562	2,320	565	48,792,000
9/24/15	5	1,850	255	22,058,000	231	1,940	308	26,602,000	331	2,860	562	2,300	563	48,660,000
9/25/15	5	1,890	257	22,173,000	227	1,940	308	26,644,000	332	2,860	559	2,290	565	48,817,000
9/26/15	6	1,920	256	22,140,000	224	1,950	309	26,661,000	327	2,870	554	2,290	565	48,801,000
9/27/15	5	1,950	256	22,140,000	229	1,950	303	26,217,000	326	2,890	553	2,310	560	48,357,000
9/28/15	5	1,960	256	22,124,000	225	1,950	279	24,139,000	315	2,870	556	2,320	535	46,263,000
9/29/15	3	1,980	231	19,921,000	221	1,960	215	18,546,000	226	-	558	2,330	445	38,467,000
9/30/15	2	2,000	242	20,910,000	200	1,960	238	20,532,000	251	2,870	557	2,300	480	41,442,000
Minimum	2	1,590	231	19,921,000	200	1,920	215	18,546,000	226	2,820	552	2,170	445	38,467,000
Maximum	16	2,000	260	22,437,000	244	1,960	314	27,097,000	336	2,890	592	2,370	573	49,528,000
Average	6	1,813	256	22,127,467	229	1,945	304	26,246,033	324	2,863	568	2,259	560	48,373,500
Notes:			Total (Mgal)	4,965			Total (Mgal)	5,890					Total (Mgal)	10,855
			Total (Ac-ft)	15,239			Total (Ac-ft)	18,076					Total (Ac-ft)	33,315

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
9/1/15	8:00	1,810	8.55	523	561	NA	7
9/2/15	-	-	-	-	-	-	-
9/3/15	-	-	-	-	-	-	-
9/4/15	9:10	1,920	8.58	542	533	NA	7
9/5/15	-	-	-	-	-	-	-
9/6/15	-	-	-	-	-	-	-
9/7/15	-	-	-	-	-	-	-
9/8/15	8:05	1,890	8.46	623	583	96	7
9/9/15	-	-	-	-	-	-	-
9/10/15	-	-	-	-	-	-	-
9/11/15	8:50	1,750	8.35	540	582	NA	7
9/12/15	-	-	-	-	-	-	-
9/13/15	-	-	-	-	-	-	-
9/14/15	-	-	-	-	-	-	-
9/15/15	8:00	1,730	8.50	545	543	NA	7
9/16/15	-	-	-	-	-	-	-
9/17/15	-	-	-	-	-	-	-
9/18/15	8:50	1,590	8.58	573	559	NA	7
9/19/15	-	-	-	-	-	-	-
9/20/15	-	-	-	-	-	-	-
9/21/15	-	-	-	-	-	-	-
9/22/15	8:00	1,770	8.50	601	587	20	7
9/23/15	-	-	-	-	-	-	-
9/24/15	-	-	-	-	-	-	-
9/25/15	8:40	1,880	8.62	623	612	NA	7
9/26/15	-	-	-	-	-	-	-
9/27/15	-	-	-	-	-	-	-
9/28/15	-	-	-	-	-	-	-
9/29/15	8:00	1,970	8.64	642	633	NA	7
9/30/15	-	-	-	-	-	-	-
Minimum		1,590	8.35	523	533	20	
Maximum		1,970	8.64	642	633	96	
Average		1,812	8.53	579	577	58	

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
9/1/15	8:14	8.76	573	565	NA	7
9/2/15	-	-	-	-	-	-
9/3/15	-	-	-	-	-	-
9/4/15	9:20	8.89	567	570	NA	7
9/5/15	-	-	-	-	-	-
9/6/15	-	-	-	-	-	-
9/7/15	-	-	-	-	-	-
9/8/15	8:20	8.73	586	577	29	7
9/9/15	-	-	-	-	-	-
9/10/15	-	-	-	-	-	-
9/11/15	9:12	8.80	567	577	NA	7
9/12/15	-	-	-	-	-	-
9/13/15	-	-	-	-	-	-
9/14/15	-	-	-	-	-	-
9/15/15	8:15	8.78	561	564	NA	7
9/16/15	-	-	-	-	-	-
9/17/15	-	-	-	-	-	-
9/18/15	8:30	8.84	569	565	NA	7
9/19/15	-	-	-	-	-	-
9/20/15	-	-	-	-	-	-
9/21/15	-	-	-	-	-	-
9/22/15	13:38	8.71	575	572	21	7
9/23/15	-	-	-	-	-	-
9/24/15	-	-	-	-	-	-
9/25/15	8:50	8.80	557	566	NA	7
9/26/15	-	-	-	-	-	-
9/27/15	-	-	-	-	-	-
9/28/15	-	-	-	-	-	-
9/29/15	8:10	8.69	582	570	NA	7
9/30/15	-	-	-	-	-	-
Minimum		8.69	557	564	21	
Maximum		8.89	586	577	29	
Average		8.78	571	569	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
9/1/15	7:40	1,930	8.76	581	573	NA	7
9/2/15	-	-	-	-	-	-	-
9/3/15	-	-	-	-	-	-	-
9/4/15	8:40	1,960	8.82	556	569	NA	7
9/5/15	-	-	-	-	-	-	-
9/6/15	-	-	-	-	-	-	-
9/7/15	-	-	-	-	-	-	-
9/8/15	7:45	1,940	8.69	555	556	41	7
9/9/15	-	-	-	-	-	-	-
9/10/15	-	-	-	-	-	-	-
9/11/15	8:15	1,940	8.74	578	567	NA	7
9/12/15	-	-	-	-	-	-	-
9/13/15	-	-	-	-	-	-	-
9/14/15	-	-	-	-	-	-	-
9/15/15	7:40	1,950	8.73	575	577	NA	7
9/16/15	-	-	-	-	-	-	-
9/17/15	-	-	-	-	-	-	-
9/18/15	9:25	1,950	8.60	571	573	NA	7
9/19/15	-	-	-	-	-	-	-
9/20/15	-	-	-	-	-	-	-
9/21/15	-	-	-	-	-	-	-
9/22/15	7:36	1,940	8.72	582	577	37	7
9/23/15	-	-	-	-	-	-	-
9/24/15	-	-	-	-	-	-	-
9/25/15	8:12	1,940	8.78	574	578	NA	7
9/26/15	-	-	-	-	-	-	-
9/27/15	-	-	-	-	-	-	-
9/28/15	-	-	-	-	-	-	-
9/29/15	7:30	1,960	8.70	573	574	NA	7
9/30/15	-	-	-	-	-	-	-
Minimum		1,930	8.60	555	556	37	
Maximum		1,960	8.82	582	578	41	
Average		1,946	8.73	572	571	39	

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
9/1/15	9:20	8.79	952	953	NA	7
9/2/15	-	-	-	-	-	-
9/3/15	-	-	-	-	-	-
9/4/15	12:20	8.80	1010	981	NA	7
9/5/15	-	-	-	-	-	-
9/6/15	-	-	-	-	-	-
9/7/15	-	-	-	-	-	-
9/8/15	9:35	8.80	845	928	26	7
9/9/15	-	-	-	-	-	-
9/10/15	-	-	-	-	-	-
9/11/15	12:10	8.78	970	908	NA	7
9/12/15	-	-	-	-	-	-
9/13/15	-	-	-	-	-	-
9/14/15	-	-	-	-	-	-
9/15/15	9:42	8.76	960	965	NA	7
9/16/15	-	-	-	-	-	-
9/17/15	-	-	-	-	-	-
9/18/15	10:45	8.84	969	965	NA	7
9/19/15	-	-	-	-	-	-
9/20/15	-	-	-	-	-	-
9/21/15	-	-	-	-	-	-
9/22/15	9:30	8.72	967	968	55	7
9/23/15	-	-	-	-	-	-
9/24/15	-	-	-	-	-	-
9/25/15	10:50	8.81	963	965	NA	7
9/26/15	-	-	-	-	-	-
9/27/15	-	-	-	-	-	-
9/28/15	-	-	-	-	-	-
9/29/15	9:20	8.73	974	969	NA	7
9/30/15	-	-	-	-	-	-
Minimum		8.72	845	908	26	
Maximum		8.84	1010	981	55	
Average		8.78	957	956	41	

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
9/1/15	9:50	8.62	771	778	NA	7
9/2/15	-	-	-	-	-	-
9/3/15	-	-	-	-	-	-
9/4/15	12:50	8.78	763	767	NA	7
9/5/15	-	-	-	-	-	-
9/6/15	-	-	-	-	-	-
9/7/15	-	-	-	-	-	-
9/8/15	9:55	8.60	736	750	35	7
9/9/15	-	-	-	-	-	-
9/10/15	-	-	-	-	-	-
9/11/15	12:38	8.59	748	742	NA	7
9/12/15	-	-	-	-	-	-
9/13/15	-	-	-	-	-	-
9/14/15	-	-	-	-	-	-
9/15/15	10:10	8.68	783	766	NA	7
9/16/15	-	-	-	-	-	-
9/17/15	-	-	-	-	-	-
9/18/15	10:20	8.72	792	788	NA	7
9/19/15	-	-	-	-	-	-
9/20/15	-	-	-	-	-	-
9/21/15	-	-	-	-	-	-
9/22/15	9:57	8.64	789	791	33	7
9/23/15	-	-	-	-	-	-
9/24/15	-	-	-	-	-	-
9/25/15	11:20	8.70	783	786	NA	7
9/26/15	-	-	-	-	-	-
9/27/15	-	-	-	-	-	-
9/28/15	-	-	-	-	-	-
9/29/15	9:50	8.60	767	775	NA	7
9/30/15	-	-	-	-	-	-
Minimum		8.59	736	742	33	
Maximum		8.78	792	791	35	
Average		8.66	770	771	34	

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