

July 26, 2022

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

RE: June 2022 Devils Lake Outlets Monthly Discharge and Water Quality Report

Division of Water Quality:

The monthly discharge report for the Devils Lake Outlets for the month of June 2022 is enclosed. Both the West Outlet and East Outlet began discharging on June 9th and operated at an average rate of 80 cubic feet per second (cfs) for the first week. Due to consistent rain events the outlets were run intermittently after the 15th. A total of 2,254 acre-feet were discharged in June.

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.

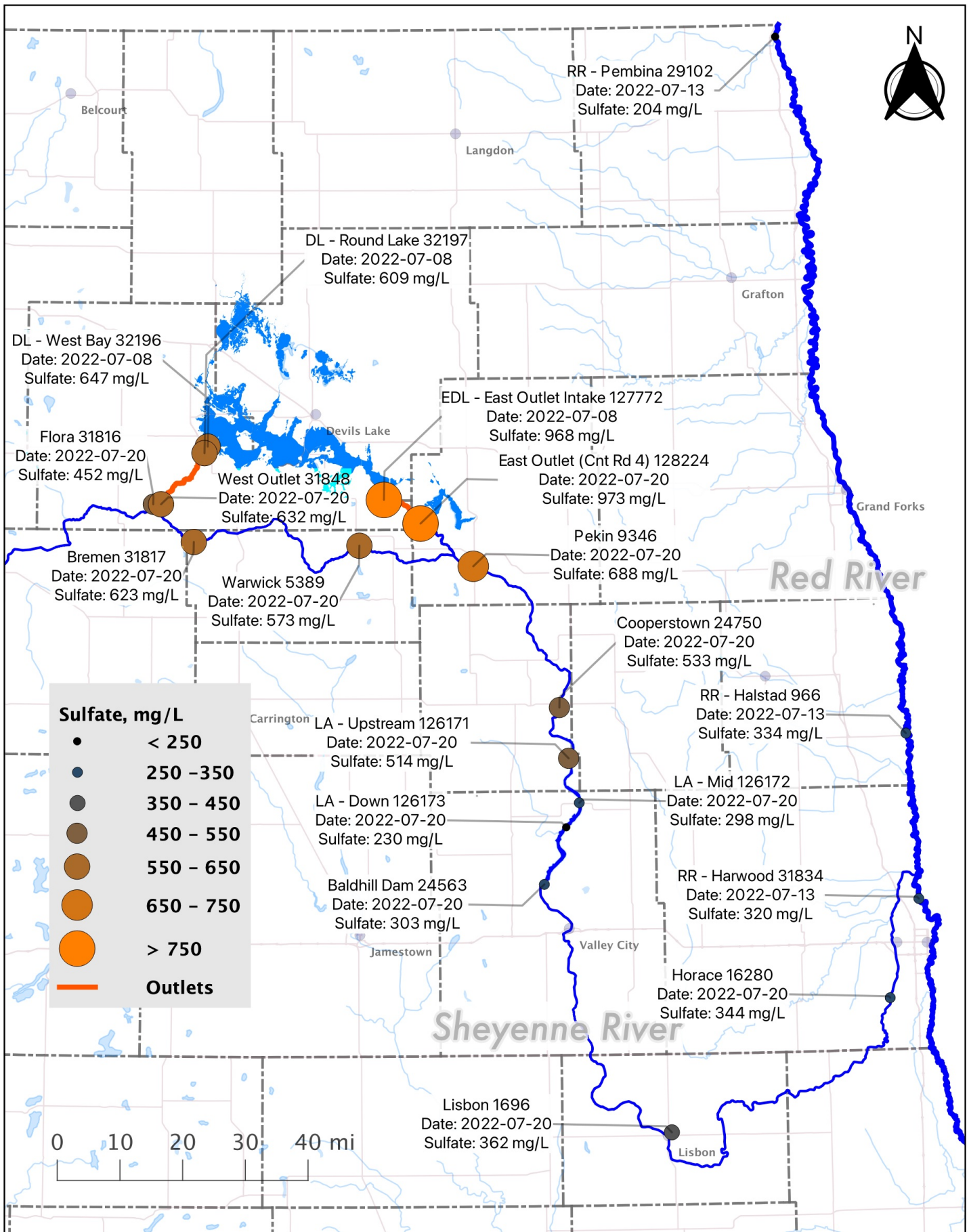
If you have any questions, please contact me at (701) 328-2762.

Sincerely,

Chris Korkowski

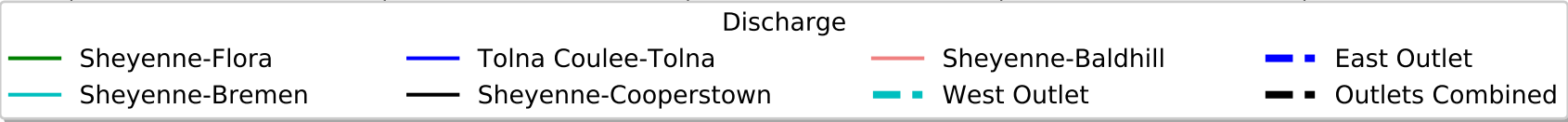
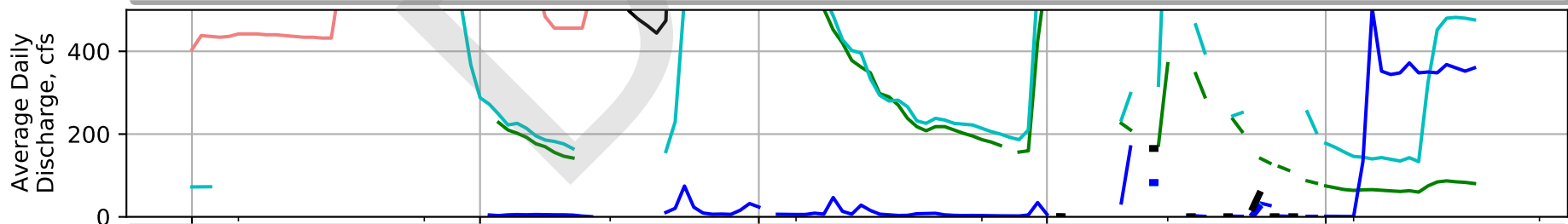
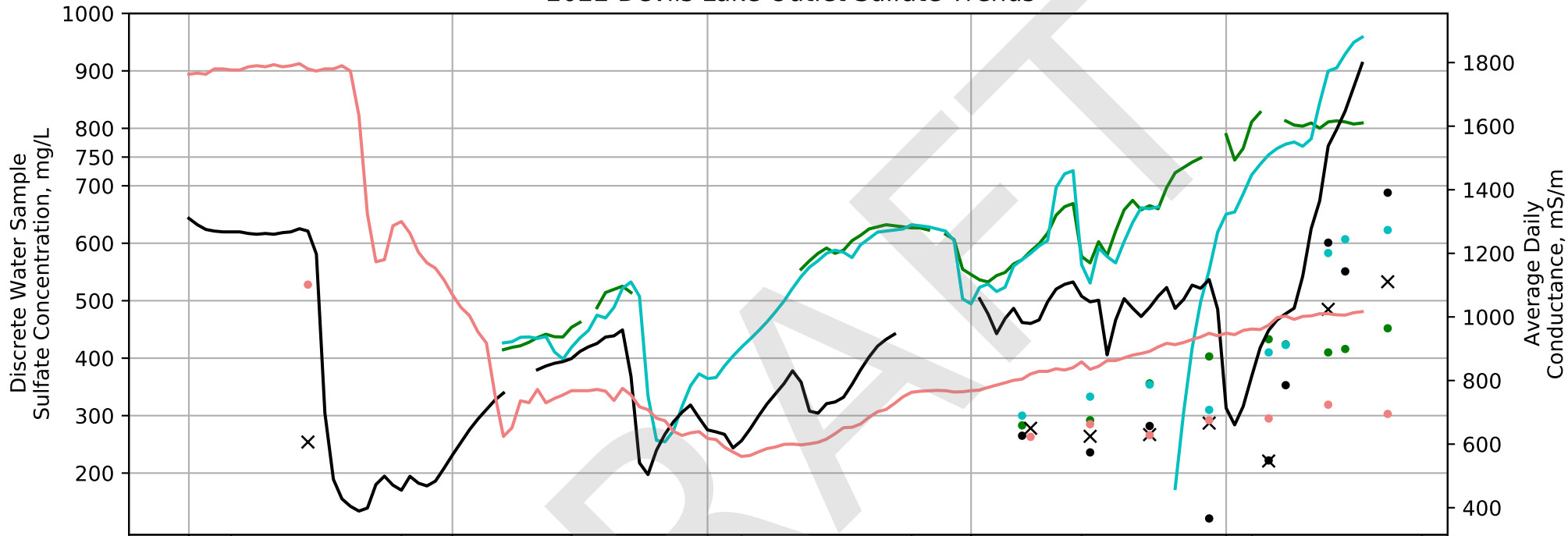
Christopher Korkowski, P.E.
Chief of the Investigations Section, Water Development

CK:DG:pp/416-10
Enclosure



**Devils Lake Outlet Operations
Preliminary Sulfate Concentrations
07/25/2022**

2022 Devils Lake Outlet Sulfate Trends



Date

2022-03
2022-04
2022-05
2022-06
2022-07

OUTLET OPERATOR NAME/ADDRESS

NAME: ND Dept. of Water Resources
 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
6/1/22	6/30/22

LOCATION: Benson Co, ND

Devils Lake West Outlet discharged 1,157 ac-ft over 10 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.34	8.34	8.34	SU	2 x Week	GRAB
SULFATE	570	570	570	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	570	570	570	mg/L	Average	GRAB
OUTLET DISCHARGE	0	82	25	cfs	Continuous	Recorder
SIGNATURE	<i>Chris Korkowski</i>			7/26/22	701-328-2762	
NAME AND TITLE	CHRISTOPHER KORKOWSKI, CHIEF OF INVESTIGATIONS SECTION, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

A summary of individual sample results and flow data for both outlets, and upstream & downstream monitoring locations is 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 Dept. of Water Resources
 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
6/1/22	6/30/22

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 1,097 ac-ft over 10 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.46	8.46	8.46	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	0	0	#DIV/0!	µS/cm	Continuous	Recorder
SULFATE	915	915	915	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	915	915	915	mg/L	Average	GRAB
OUTLET DISCHARGE	0	83	25	cfs	Continuous	Recorder
SIGNATURE	<i>Chris Korkowski</i>			7/26/22	701-328-2762	
NAME AND TITLE	CHRISTOPHER KORKOWSKI, CHIEF OF INVESTIGATIONS SECTION, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	
COMMENT AND EXPLANATION OF ANY VIOLATIONS						

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 Dept. of Water Resources
 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
6/1/22	6/30/22

LOCATION: Benson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.17	8.38	8.26	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,110	1,500	1,279	µS/cm	Continuous	Recorder
SULFATE	283	403	334	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	283	403	334	mg/L	Average	GRAB
FLOW, INSTREAM	81	592	257	cfs	Continuous	Recorder
SIGNATURE	<i>Chris Korkowski</i>			7/26/22	701-328-2762	
NAME AND TITLE	CHRISTOPHER KORKOWSKI, CHIEF OF INVESTIGATIONS SECTION, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	
COMMENT AND EXPLANATION OF ANY VIOLATIONS						
A summary of individual sample results and flow data for both outlets, and upstream & downstream monitoring location is 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 Dept. of Water Resources
 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

LOCATION: Eddy Co, ND

MONITORING PERIOD	
START DATE	END DATE
6/1/22	6/30/22

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.14	8.40	8.28	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	460	1,460	1,161	µS/cm	Continuous	Recorder
SULFATE	300	354	324	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	300	354	324	mg/L	Average	GRAB
FLOW, INSTREAM	204	2200	501	cfs	Continuous	Recorder
SIGNATURE	<i>Chris Korkowski</i>			7/26/22	701-328-2762	
NAME AND TITLE	CHRISTOPHER KORKOWSKI, CHIEF OF INVESTIGATIONS SECTION, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

A summary of individual sample results and flow data for both outlets, and upstream & downstream monitoring locations is attached.

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- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
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- USGS streamflow and specific conductance data courtesy of the USGS
- USGS data are provisional and subject to revision

OUTLET OPERATOR NAME/ADDRESS

NAME: ND Dept. of Water Resources
 ADDRESS: 900 E Boulevard Avenue,
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT

LOCATION: DOWNSTREAM OF BOTH OUTLETS (PEKIN)

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
6/1/22	6/30/22

LOCATION: Nelson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	7.92	8.42	8.17	SU	2 x Week	GRAB
SULFATE	121	282	226	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	121	282	226	mg/L	Average	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE	<i>Chris Korkowski</i>			7/26/22	701-328-2762	
NAME AND TITLE	CHRISTOPHER KORKOWSKI, CHIEF OF INVESTIGATIONS SECTION, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	
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A summary of individual sample results and flow data for both outlets, and upstream & downstream monitoring locations is 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

OUTLET OPERATOR NAME/ADDRESS

NAME: ND Dept. of Water Resources
 ADDRESS: 900 E Boulevard Avenue,
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT

LOCATION: DOWNSTREAM OF BOTH OUTLETS (COOPERSTOWN)

FACILITY: Devils Lake Outlet Project

LOCATION: Griggs Co, ND

MONITORING PERIOD	
START DATE	END DATE
6/1/22	6/30/22

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.16	8.35	8.28	SU	Weekly	GRAB
SPECIFIC CONDUCTANCE	881	1,118	1,037	µS/cm	Continuous	Recorder
SULFATE	264	287	274	mg/L	Weekly	GRAB
7 DAY AVERAGE OF SULFATE	264	287	274	mg/L	Average	GRAB
FLOW, INSTREAM	1,078	1,948	1,499	cfs	Continuous	Recorder
SIGNATURE	<i>Chris Korkowski</i>			7/26/22	701-328-2762	
NAME AND TITLE	CHRISTOPHER KORKOWSKI, CHIEF OF INVESTIGATIONS SECTION, WATER DEVELOPMENT DIVISION			DATE	TELEPHONE NUMBER	
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- 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 - 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)
6/1/22	592	1133.33333	0	0	698	1041	6.5625	567000	6.22	804.333333	1548	-	6.5625	567000
6/2/22	566	1116.66667	0	0	644	1093.33333	0.68287037	59000	4.18	854	1610	1057.5	0.68287037	59000
6/3/22	468	1110	0	0	526	1103.33333	0	0	2.68	785.666667	1678	1009.25	0	0
6/4/22	386	1130	0	0	418	1080	0	0	2.36	876.666667	1722	947.25	0	0
6/5/22	328	1140	0	0	348	1093.33333	0	0	2.02	1046.66667	1756	995	0	0
6/6/22	298	1166.66667	0	0	302	1160	0	0	1.96	1090.33333	1770	1027	0	0
6/7/22	278	1180	0	0	272	1180	0	0	1.96	945.666667	1732	982.5	0	0
6/8/22	250	1206.66667	0	0	252	1200	0	0	1.82	1075	1604	979.5	0	0
6/9/22	226	1230	47.7777778	4128000	234	1223.33333	44.6180556	3855000	33.6	1692.66667	1430	990.5	92.3958333	7983000
6/10/22	210	1263.33333	81.3078704	7025000	298	1240	82.2337963	7105000	169	2850	1262	1047.5	163.541667	14130000
6/11/22	208	1320	81.1805556	7014000	334	1406.66667	83.0324074	7174000	177.2	2860	1164	1087.5	164.212963	14188000
6/12/22	196	1346.66667	82.2453704	7106000	322	1450	83.0324074	7174000	179.6	2856.66667	1078	1102.5	165.277778	14280000
6/13/22	173.2	1356.66667	82.1875	7101000	318	1460	83.0671296	7177000	177.4	2856.66667	1084	1110	165.25463	14278000
6/14/22	370	1190	82.0601852	7090000	856	1164.33333	69.0740741	5968000	-	2456.66667	1200	1065	151.134259	13058000
6/15/22	362	1170	70.2083333	6066000	858	1106.66667	72.1875	6237000	179.8	2760	1234	1047.5	142.395833	12303000
6/16/22	362	1236.66667	0	0	630	1216.66667	0	0	42.2	2693.33333	1428	1052.5	0	0
6/17/22	346	1193.33333	0	0	464	1190	0	0	2.5	2473.33333	1668	880.75	0	0
6/18/22	290	1270	0	0	396	1170	0	0	1.12	2300	1772	990	0	0
6/19/22	222	1336.66667	8.46064815	731000	316	1236.66667	0	0	0.98	2210	1842	1057.5	8.46064815	731000
6/20/22	206	1366.66667	0	0	258	1296.66667	0	0	1.14	2030	1912	1027.5	0	0
6/21/22	236	1336.66667	0	0	244	1343.33333	0	0	1.64	1883.33333	1948	1001.25	0	0
6/22/22	206	1350	0	0	252	1340	0	0	1.18	1750	1826	1030	0	0
6/23/22	161.8	1340	14.5486111	1257000	224	1346.66667	0	0	0.96	1540	1508	1065	14.5486111	1257000
6/24/22	141	1406.66667	33.3564815	2882000	934	-	28.7731481	2486000	33.2	1960	1230	1092.5	62.1296296	5368000
6/25/22	129.8	1453.33333	0	0	2200	460.333333	0	0	27.6	2530	1322	1027	0	0
6/26/22	121.6	1470	0	0	1134	700.666667	0	0	2.02	2263.33333	1244	1055	0	0
6/27/22	112.6	1486.66667	0	0	526	902	0	0	1.36	2246.66667	1226	1100	0	0
6/28/22	95.6	1500	0	0	324	1047.33333	0	0	1.16	2110	1184	1090	0	0
6/29/22	87	-	0	0	254	1146.66667	0	0	1.2	1973.33333	1380	1117.5	0	0
6/30/22	81.4	-	0	0	204	1266.66667	0	0	1.24	1843.33333	1616	1024.5	0	0
Minimum	81	1,110	0	0	204	460	0	0	1	786	1,078	881	0	0
Maximum	592	1,500	82	7,106,000	2,200	1,460	83	7,177,000	180	2,860	1,948	1,118	165	14,280,000
Average	257	1,279	25	2,102,773	501	1,161	25	2,059,818	37	1,921	1,499	1,037	48	4,162,591
			Total (Mgal)	377			Total (Mgal)	358				Total (Mgal)	735	
			Total (Ac-ft)	1,157			Total (Ac-ft)	1,097				Total (Ac-ft)	2,254	

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
6/1/22	-	-	-	-	-	-	-
6/2/22	-	-	-	-	-	-	-
6/3/22	-	-	-	-	-	-	-
6/4/22	-	-	-	-	-	-	-
6/5/22	-	-	-	-	-	-	-
6/6/22	-	-	-	-	-	-	-
6/7/22	13:00	0	8.38	283	283	32	1
6/8/22	-	-	-	-	-	-	-
6/9/22	-	-	-	-	-	-	-
6/10/22	-	-	-	-	-	-	-
6/11/22	-	-	-	-	-	-	-
6/12/22	-	-	-	-	-	-	-
6/13/22	-	-	-	-	-	-	-
6/14/22	-	-	-	-	-	-	-
6/15/22	7:38	0	8.17	292	292	NA	1
6/16/22	-	-	-	-	-	-	-
6/17/22	-	-	-	-	-	-	-
6/18/22	-	-	-	-	-	-	-
6/19/22	-	-	-	-	-	-	-
6/20/22	-	-	-	-	-	-	-
6/21/22	-	-	-	-	-	-	-
6/22/22	8:00	0	8.20	356	356	NA	1
6/23/22	-	-	-	-	-	-	-
6/24/22	-	-	-	-	-	-	-
6/25/22	-	-	-	-	-	-	-
6/26/22	-	-	-	-	-	-	-
6/27/22	-	-	-	-	-	-	-
6/28/22	-	-	-	-	-	-	-
6/29/22	8:00	0	8.30	403	403	27	1
6/30/22	-	-	-	-	-	-	-
7/1/22	-	-	-	-	-	-	-
Maximum		0	8.38	403	403	32	
Average		0	8.26	334	334	30	

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
6/2/22	-	-	-	-	-	-	-
6/3/22	-	-	-	-	-	-	-
6/4/22	-	-	-	-	-	-	-
6/5/22	-	-	-	-	-	-	-
6/6/22	-	-	-	-	-	-	-
6/7/22	-	-	-	-	-	-	-
6/8/22	-	-	-	-	-	-	-
6/9/22	-	-	-	-	-	-	-
6/10/22	-	-	-	-	-	-	-
6/11/22	-	-	-	-	-	-	-
6/12/22	-	-	-	-	-	-	-
6/13/22	-	-	-	-	-	-	-
6/14/22	-	-	-	-	-	-	-
6/15/22	7:50	-	8.34	570	570	NA	1
6/16/22	-	-	-	-	-	-	-
6/17/22	-	-	-	-	-	-	-
6/18/22	-	-	-	-	-	-	-
6/19/22	-	-	-	-	-	-	-
6/20/22	-	-	-	-	-	-	-
6/21/22	-	-	-	-	-	-	-
6/22/22	-	-	-	-	-	-	-
6/23/22	-	-	-	-	-	-	-
6/24/22	-	-	-	-	-	-	-
6/25/22	-	-	-	-	-	-	-
6/26/22	-	-	-	-	-	-	-
6/27/22	-	-	-	-	-	-	-
6/28/22	-	-	-	-	-	-	-
6/29/22	-	-	-	-	-	-	-
6/30/22	-	-	-	-	-	-	-
7/1/22	-	-	-	-	-	-	-
Maximum			8.34	570	570	0	
Average			8.34	570	570	#DIV/0!	

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
6/3/22	-	-	-	-	-	-	-
6/4/22	-	-	-	-	-	-	-
6/5/22	-	-	-	-	-	-	-
6/6/22	-	-	-	-	-	-	-
6/7/22	12:40	0	8.40	300	300	40	1
6/8/22	-	-	-	-	-	-	-
6/9/22	-	-	-	-	-	-	-
6/10/22	-	-	-	-	-	-	-
6/11/22	-	-	-	-	-	-	-
6/12/22	-	-	-	-	-	-	-
6/13/22	-	-	-	-	-	-	-
6/14/22	-	-	-	-	-	-	-
6/15/22	7:15	0	8.14	333	333	NA	1
6/16/22	-	-	-	-	-	-	-
6/17/22	-	-	-	-	-	-	-
6/18/22	-	-	-	-	-	-	-
6/19/22	-	-	-	-	-	-	-
6/20/22	-	-	-	-	-	-	-
6/21/22	-	-	-	-	-	-	-
6/22/22	7:30	0	8.33	354	354	NA	1
6/23/22	-	-	-	-	-	-	-
6/24/22	-	-	-	-	-	-	-
6/25/22	-	-	-	-	-	-	-
6/26/22	-	-	-	-	-	-	-
6/27/22	-	-	-	-	-	-	-
6/28/22	-	-	-	-	-	-	-
6/29/22	7:32	0	8.25	310	310	42	1
6/30/22	-	-	-	-	-	-	-
7/1/22	-	-	-	-	-	-	-
Minimum		0	8.14	300	300	40	
Average		0	8.28	324	324	41	

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
6/2/22	-	-	-	-	-	-	-
6/3/22	-	-	-	-	-	-	-
6/4/22	-	-	-	-	-	-	-
6/5/22	-	-	-	-	-	-	-
6/6/22	-	-	-	-	-	-	-
6/7/22	-	-	-	-	-	-	-
6/8/22	-	-	-	-	-	-	-
6/9/22	-	-	-	-	-	-	-
6/10/22	-	-	-	-	-	-	-
6/11/22	-	-	-	-	-	-	-
6/12/22	-	-	-	-	-	-	-
6/13/22	-	-	-	-	-	-	-
6/14/22	-	-	-	-	-	-	-
6/15/22	9:05	-	8.46	915	915	NA	1
6/16/22	-	-	-	-	-	-	-
6/17/22	-	-	-	-	-	-	-
6/18/22	-	-	-	-	-	-	-
6/19/22	-	-	-	-	-	-	-
6/20/22	-	-	-	-	-	-	-
6/21/22	-	-	-	-	-	-	-
6/22/22	-	-	-	-	-	-	-
6/23/22	-	-	-	-	-	-	-
6/24/22	-	-	-	-	-	-	-
6/25/22	-	-	-	-	-	-	-
6/26/22	-	-	-	-	-	-	-
6/27/22	-	-	-	-	-	-	-
6/28/22	-	-	-	-	-	-	-
6/29/22	-	-	-	-	-	-	-
6/30/22	-	-	-	-	-	-	-
7/1/22	-	-	-	-	-	-	-
Maximum		0	8.46	915	915	0	
Average		#DIV/0!	8.46	915	915	#DIV/0!	

Notes:

mg/L - Milligrams per liter or parts per million

NA - Not Analyzed

Italic font denotes preliminary result

**Sheyenne River Downstream of Both Outlets 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
6/2/22	-	-	-	-	-	-	-
6/3/22	-	-	-	-	-	-	-
6/4/22	-	-	-	-	-	-	-
6/5/22	-	-	-	-	-	-	-
6/6/22	-	-	-	-	-	-	-
6/7/22	14:30	-	8.42	265	265	56	1
6/8/22	-	-	-	-	-	-	-
6/9/22	-	-	-	-	-	-	-
6/10/22	-	-	-	-	-	-	-
6/11/22	-	-	-	-	-	-	-
6/12/22	-	-	-	-	-	-	-
6/13/22	-	-	-	-	-	-	-
6/14/22	-	-	-	-	-	-	-
6/15/22	9:45	-	8.18	236	236	NA	1
6/16/22	-	-	-	-	-	-	-
6/17/22	-	-	-	-	-	-	-
6/18/22	-	-	-	-	-	-	-
6/19/22	-	-	-	-	-	-	-
6/20/22	-	-	-	-	-	-	-
6/21/22	-	-	-	-	-	-	-
6/22/22	9:20	-	8.14	282	282	NA	1
6/23/22	-	-	-	-	-	-	-
6/24/22	-	-	-	-	-	-	-
6/25/22	-	-	-	-	-	-	-
6/26/22	-	-	-	-	-	-	-
6/27/22	-	-	-	-	-	-	-
6/28/22	-	-	-	-	-	-	-
6/29/22	9:30	-	7.92	121	121	42	1
6/30/22	-	-	-	-	-	-	-
7/1/22	-	-	-	-	-	-	-
Maximum			8.42	282	282	56	
Average			8.17	226	226	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

**Sheyenne River Downstream of Both Outlets near Cooperstown
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
6/2/22	-	-	-	-	-	-	-
6/3/22	-	-	-	-	-	-	-
6/4/22	-	-	-	-	-	-	-
6/5/22	-	-	-	-	-	-	-
6/6/22	-	-	-	-	-	-	-
6/7/22	-	-	-	-	-	-	-
6/8/22	8:30	0	8.35	278	278	100	1
6/9/22	-	-	-	-	-	-	-
6/10/22	-	-	-	-	-	-	-
6/11/22	-	-	-	-	-	-	-
6/12/22	-	-	-	-	-	-	-
6/13/22	-	-	-	-	-	-	-
6/14/22	-	-	-	-	-	-	-
6/15/22	10:33	0	8.28	264	264	NA	1
6/16/22	-	-	-	-	-	-	-
6/17/22	-	-	-	-	-	-	-
6/18/22	-	-	-	-	-	-	-
6/19/22	-	-	-	-	-	-	-
6/20/22	-	-	-	-	-	-	-
6/21/22	-	-	-	-	-	-	-
6/22/22	10:20	0	8.16	267	267	NA	1
6/23/22	-	-	-	-	-	-	-
6/24/22	-	-	-	-	-	-	-
6/25/22	-	-	-	-	-	-	-
6/26/22	-	-	-	-	-	-	-
6/27/22	-	-	-	-	-	-	-
6/28/22	-	-	-	-	-	-	-
6/29/22	10:30	0	8.32	287	287	100	1
6/30/22	-	-	-	-	-	-	-
7/1/22	-	-	-	-	-	-	-
Maximum		0	8.35	287	287	100	
Average		0	8.28	274	274	100	

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