

August 15, 2024

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

RE: July 2024 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 July 2024 is enclosed. The West End Outlet discharge remained at 200 cubic feet per second (cfs) until July 29th, when it was shut off for weed removal in the canal. Discharge from the West End Outlet resumed at 200 cfs on July 31st. The discharge from the East End Outlet for the month of July began on July 5th at 75 cfs due to high flows downstream on the Sheyenne River. The East End Outlet discharge was gradually increased to 275 cfs by July 23rd but was completely shutdown for two days starting on July 31st to comply with downstream water quality constraints. It resumed the 200 cfs discharge rate on August 2nd.

The table below summarizes the average discharge rate and total discharge volume for the West and East End Outlets in July.

	Average Discharge Rate (cfs)	Total Discharge Volume (acre-feet)
West End Outlet	189	11,594
East End Outlet	156	9,622
Combined Total Discharge Volume (acre-ft)		21,216

The attached figures and tables contain daily outlet discharges measured from the flow meters 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.

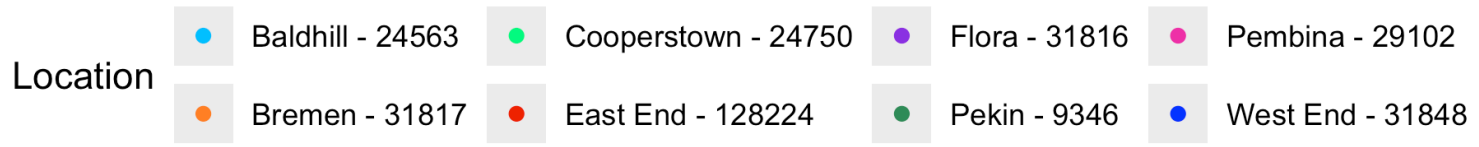
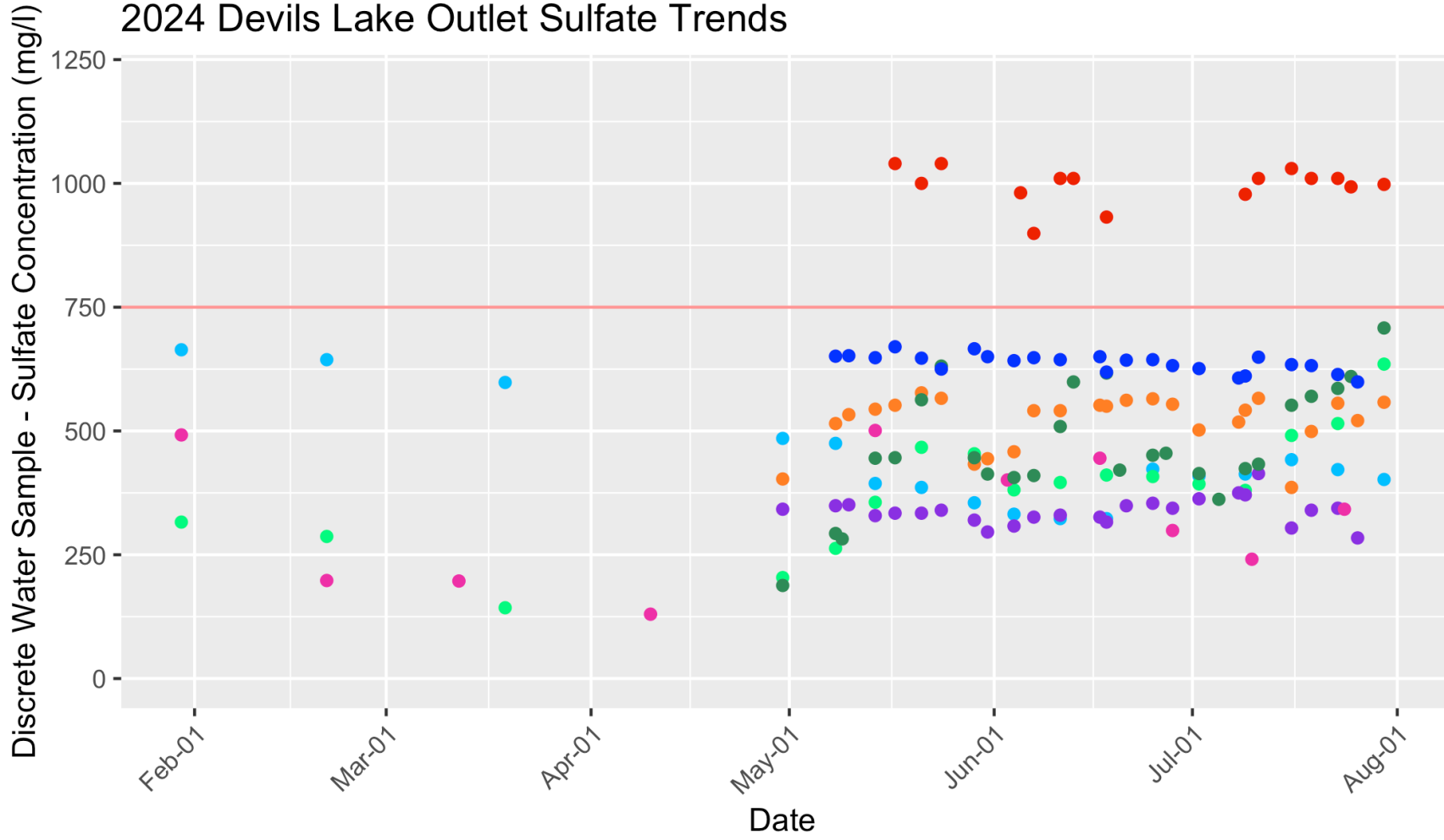
If you have any questions, please contact me at (701) 328-9049.

Sincerely,



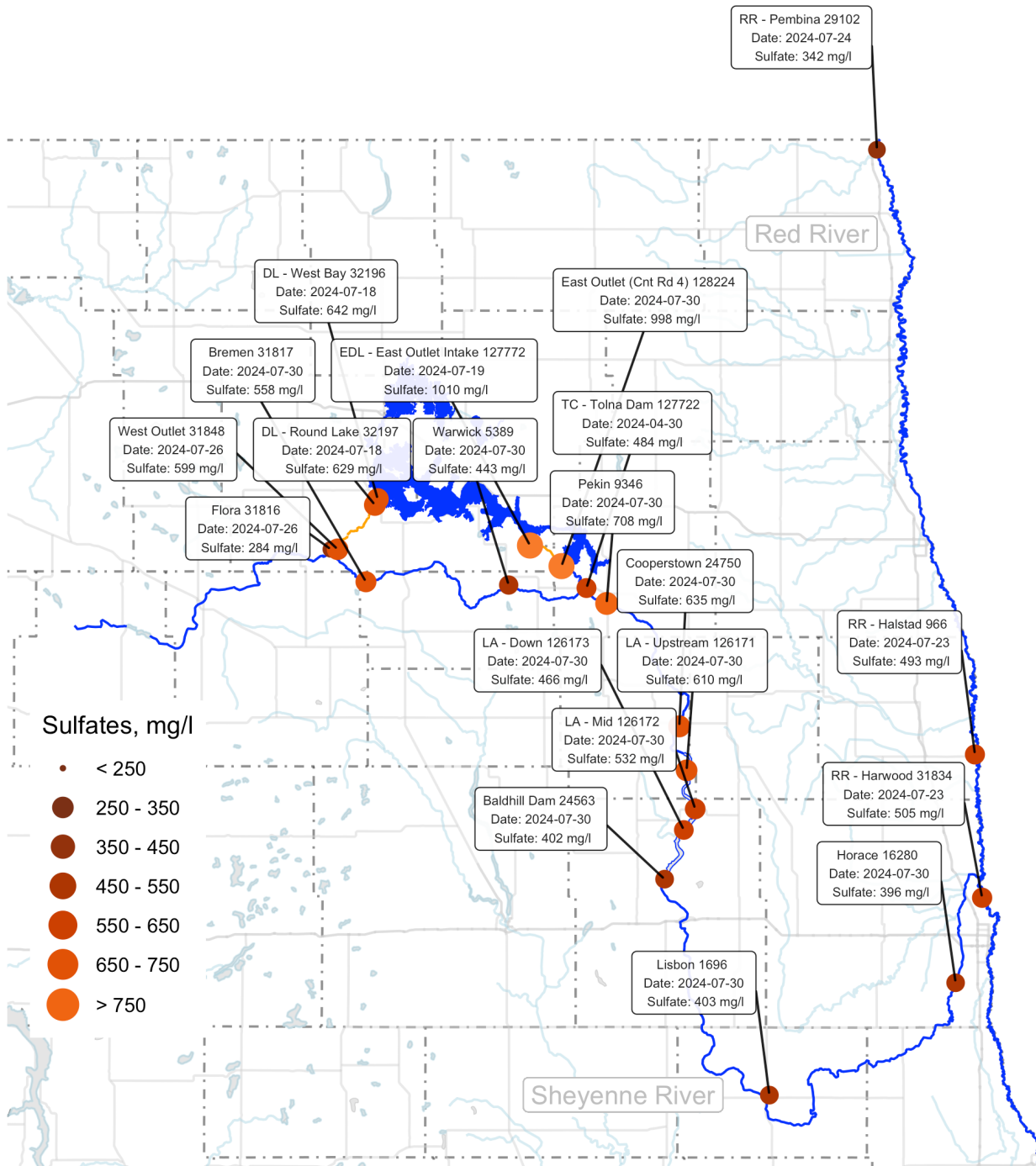
Yaping Chi, P.E.
 Water Resource Engineer, Water Development Division
 YC:/416-10
 Enclosure

2024 Devils Lake Outlet Sulfate Trends



Devils Lake Outlet Operations Sulfate Concentrations

7/31/24



OUTLET OPERATOR NAME/ADDRESS
 NAME: ND Dept. of Water Resources
 ADDRESS: 1200 Memorial Highway,
 Bismarck ND 58504

MONTHLY DISCHARGE REPORT

LOCATION: WEST END OUTLET

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
7/1/24	7/31/24

LOCATION: Benson Co, ND

Devils Lake West Outlet 11594 ac-ft over 31 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.53	8.78	8.63	SU	2 X Week	GRAB
SULFATE	599	649	622	mg/l	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	607	642	621	mg/L	Average	GRAB
OUTLET DISCHARGE	0	207	189	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			8/14/24	701-328-9049	
NAME AND TITLE	YAPING CHI, WATER RESOURCES ENGINEER, 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:

- 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

OUTLET OPERATOR NAME/ADDRESS
 NAME: ND Dept. of Water Resources
 ADDRESS: 1200 Memorial Highway,
 Bismarck ND 58504

MONTHLY DISCHARGE REPORT

LOCATION: EAST END OUTLET

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
7/1/24	7/31/24

LOCATION: Ramsey, Benson, Nelson Co, ND

Devils Lake East Outlet 9622 ac-ft over 31 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.62	8.79	8.72	SU	2 X Week	GRAB
SPECIFIC CONDUCTANCE	2810	2890	2851	µS/cm	Continuous	Recorder
SULFATE	978	1030	1004	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	978	1020	1003	mg/l	Average	GRAB
OUTLET DISCHARGE	0	289	156	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			8/14/24	701-328-9049	
NAME AND TITLE	YAPING CHI, WATER RESOURCES ENGINEER, 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

OUTLET OPERATOR NAME/ADDRESS
 NAME: ND Dept. of Water Resources
 ADDRESS: 1200 Memorial Highway,
 Bismarck ND 58504

MONTHLY DISCHARGE REPORT

LOCATION: UPSTREAM OF THE WEST END OUTLET (FLORA)

FACILITY: Devils Lake Outlet Project

LOCATION: Benson, ND

MONITORING PERIOD	
START DATE	END DATE
7/1/24	7/31/24

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.06	8.36	8.24	SU	2 X Week	GRAB
SPECIFIC CONDUCTANCE	1140	1560	1380	µS/cm	Continuous	Recorder
SULFATE	0	414	311	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	142	387	331	mg/l	Average	GRAB
FLOW, INSTREAM	20	167	76	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			8/14/24	701-328-9049	
NAME AND TITLE	YAPING CHI, WATER RESOURCES ENGINEER, 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:

- 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

OUTLET OPERATOR NAME/ADDRESS
 NAME: ND Dept. of Water Resources
 ADDRESS: 1200 Memorial Highway,
 Bismarck ND 58504

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
7/1/24	7/31/24

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.27	8.59	8.46	SU	2 X Week	GRAB
SPECIFIC CONDUCTANCE	1670	1870	1806	µS/cm	Continuous	Recorder
SULFATE	386	566	516	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	443	542	513	mg/l	Average	GRAB
FLOW, INSTREAM	97	508	298	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			8/14/24	701-328-9049	
NAME AND TITLE	YAPING CHI, WATER RESOURCES ENGINEER, 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:

- 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

OUTLET OPERATOR NAME/ADDRESS
 NAME: ND Dept. of Water Resources
 ADDRESS: 1200 Memorial Highway,
 Bismarck ND 58504

MONTHLY DISCHARGE REPORT

LOCATION: DOWNSTREAM OF BOTH OUTLETS (PEKIN)

FACILITY: Devils Lake Outlet Project

LOCATION: Nelson Co, ND

MONITORING PERIOD	
START DATE	END DATE
7/1/24	7/31/24

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.17	8.44	8.34	SU	2 X Week	GRAB
SULFATE	362	708	518	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	388	659	501	mg/L	Average	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			8/14/24	701-328-9049	
NAME AND TITLE	YAPING CHI, WATER RESOURCES ENGINEER, 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:

- 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: 1200 Memorial Highway,
 Bismarck ND 58504

MONTHLY DISCHARGE REPORT

LOCATION: DOWNSTREAM OF BOTH OUTLETS (COOPERSTOWN)

FACILITY: Devils Lake Outlet Project

LOCATION: Griggs Co, ND

MONITORING PERIOD	
START DATE	END DATE
7/1/24	7/31/24

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.35	8.42	8.37	SU	2 X Week	GRAB
SPECIFIC CONDUCTANCE	1430	2070	1684	µS/cm	Continuous	Recorder
SULFATE	380	635	483	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	380	635	483	mg/l	Average	GRAB
FLOW, INSTREAM	602	872	713	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			8/14/24	701-328-9049	
NAME AND TITLE	YAPING CHI, WATER RESOURCES ENGINEER, 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:

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

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)
7/1/2024	99	-	206	17825000	-	-	0	0	6	1130	872	1380	206	17825000
7/2/2024	110	1440	198	17134000	-	-	0	0	7	844	811	1430	198	17134000
7/3/2024	111	1390	204	17639000	-	-	0	0	2	909	760	1470	204	17639000
7/4/2024	114	1440	204	17613000	357	1700	0	0	7	934	741	1470	204	17613000
7/5/2024	105	1450	204	17649000	355	1700	47	4040000	42	2910	755	1520	251	21689000
7/6/2024	101	1380	205	17728000	346	1710	83	7171000	83	2920	786	1470	288	24899000
7/7/2024	87	1510	206	17777000	331	1710	82	7075000	81	2920	793	1450	288	24852000
7/8/2024	75	1560	204	17657000	315	1800	81	6999000	81	2850	780	1460	285	24656000
7/9/2024	72	1560	198	17072000	308	1830	80	6889000	81	2820	790	1510	277	23961000
7/10/2024	73	1540	199	17199000	305	1840	80	6937000	81	2810	803	1500	279	24136000
7/11/2024	65	1560	200	17240000	299	1840	130	11232000	123	2820	782	1500	330	28472000
7/12/2024	53	1540	175	15139000	279	1870	164	14190000	169	2940	753	1490	339	29329000
7/13/2024	49	1540	188	16280000	266	1880	155	13356000	160	2810	721	1490	343	29636000
7/14/2024	47	1570	203	17534000	276	1900	114	9872000	124	2820	699	1510	317	27406000
7/15/2024	163	1520	193	16685000	439	1830	144	12436000	131	2980	699	1650	337	29121000
7/16/2024	167	1140	205	17677000	-	-	151	13081000	173	2880	682	1690	356	30758000
7/17/2024	149	1160	206	17829000	508	1490	127	11014000	118	2780	630	1740	334	28843000
7/18/2024	112	1180	205	17727000	435	1580	185	15948000	181	2770	602	1750	390	33675000
7/19/2024	85	1240	201	17370000	370	1670	215	18611000	234	2810	638	1840	416	35981000
7/20/2024	73	1260	206	17837000	331	1720	211	18266000	233	2830	678	1830	418	36103000
7/21/2024	63	1300	207	17896000	314	1780	213	18418000	228	2800	742	1820	420	36314000
7/22/2024	58	1360	204	17662000	300	1830	215	18566000	230	2810	775	1820	419	36228000
7/23/2024	59	1370	198	17127000	294	1830	241	20819000	249	2860	779	1720	439	37946000
7/24/2024	64	1370	205	17707000	294	1840	288	24896000	337	2900	752	1780	493	42603000
7/25/2024	60	1260	206	17815000	294	1830	289	24941000	336	2890	726	1820	495	42756000
7/26/2024	50	1240	200	17301000	285	1800	288	24875000	336	2890	716	1820	488	42176000
7/27/2024	45	1240	206	17771000	275	1840	285	24641000	329	2880	732	1910	491	42412000
7/28/2024	39	1240	206	17816000	273	1830	286	24674000	327	2930	728	1940	492	42490000
7/29/2024	30	1260	74	6348000	258	1870	286	24724000	328	2940	713	2010	360	31072000
7/30/2024	21	1310	0	0	140	1870	287	24786000	328	2880	693	2070	287	24786000
7/31/2024	20	1320	127	10979000	97	1810	124	10691000	195	2900	670	2100	254	21966000
Minimum	20	1140	0	0	97	1490	0	0	2	844	602	1380	0	0
Maximum	167	1570	207	17896000	508	1900	289	24941000	337	2980	872	2100	496	42837000
Average	76	1331	189	16291387	298	1721	156	13520903	167	2536	713	1624	345	29821839
			Total (Mgal)	3778			Total (Mgal)	3135					Total (Mgal)	6913
			Total (Ac-ft)	11594			Total (Ac-ft)	9622					Total (Ac-ft)	21216

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

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
7/1/24	-	-	-	-	-	-	-
7/2/24	7:51:00	1440	8.36	363	363	NA	1
7/3/24	-	-	-	-	-	-	-
7/4/24	-	-	-	-	-	-	-
7/5/24	-	-	-	-	-	-	-
7/6/24	-	-	-	-	-	-	-
7/7/24	-	-	-	-	-	-	-
7/8/24	9:00:00	1560	8.21	375	375	NA	1
7/9/24	7:51:00	1560	8.34	371	373	31	2
7/10/24	-	-	-	-	-	-	-
7/11/24	11:25:00	1560	8.28	414	387	NA	3
7/12/24	-	-	-	-	-	-	-
7/13/24	-	-	-	-	-	-	-
7/14/24	-	-	-	-	-	-	-
7/15/24	-	-	-	-	-	-	-
7/16/24	7:50:00	1140	8.19	304	359	NA	2
7/17/24	-	-	-	-	-	-	-
7/18/24	-	-	-	-	-	-	-
7/19/24	8:25:00	1240	8.06	340	322	NA	2
7/20/24	-	-	-	-	-	-	-
7/21/24	-	-	-	-	-	-	-
7/22/24	-	-	-	-	-	-	-
7/23/24	8:00:00	1370	8.28	344	342	NA	2
7/24/24	-	-	-	-	-	-	-
7/25/24	-	-	-	-	-	-	-
7/26/24	9:45:00	1240	8.21	284	314	NA	2
7/27/24	-	-	-	-	-	-	-
7/28/24	-	-	-	-	-	-	-
7/29/24	-	-	-	-	-	-	-
7/30/24	8:05:00	1310	-	0	142	NA	2
7/31/24	-	-	-	-	-	-	-
Minimum		1140	8.06	284	142	31	
Maximum		1560	8.36	414	387	31	
Average		1380	8.24	311	331	31	

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

**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
7/1/24	-	-	-	-	-	-	-
7/2/24	8:00:00	-	8.57	626	626	NA	1
7/3/24	-	-	-	-	-	-	-
7/4/24	-	-	-	-	-	-	-
7/5/24	-	-	-	-	-	-	-
7/6/24	-	-	-	-	-	-	-
7/7/24	-	-	-	-	-	-	-
7/8/24	8:45:00	-	8.59	607	607	NA	1
7/9/24	8:10:00	-	8.53	611	609	14	2
7/10/24	-	-	-	-	-	-	-
7/11/24	11:40:00	-	8.78	649	622	NA	3
7/12/24	-	-	-	-	-	-	-
7/13/24	-	-	-	-	-	-	-
7/14/24	-	-	-	-	-	-	-
7/15/24	-	-	-	-	-	-	-
7/16/24	8:00:00	-	8.61	634	642	NA	2
7/17/24	-	-	-	-	-	-	-
7/18/24	-	-	-	-	-	-	-
7/19/24	8:10:00	-	8.65	632	633	NA	2
7/20/24	-	-	-	-	-	-	-
7/21/24	-	-	-	-	-	-	-
7/22/24	-	-	-	-	-	-	-
7/23/24	8:10:00	-	8.68	614	623	NA	2
7/24/24	-	-	-	-	-	-	-
7/25/24	-	-	-	-	-	-	-
7/26/24	9:20:00	-	8.59	599	607	NA	2
7/27/24	-	-	-	-	-	-	-
7/28/24	-	-	-	-	-	-	-
7/29/24	-	-	-	-	-	-	-
7/30/24	-	-	-	-	-	-	-
7/31/24	-	-	-	-	-	-	-
Minimum			8.53	599	607	14	
Maximum			8.78	649	642	14	
Average			8.63	622	621	14	

Notes:

µS/cm - microsiemens per Centimeter at 25 degrees Celsius
mg/L - milligrams per liter or parts per million
NA - Not analyzed

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 (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
7/1/24	-	-	-	-	-	-	-
7/2/24	7:24:00	-	8.38	502	502	NA	1
7/3/24	-	-	-	-	-	-	-
7/4/24	-	-	-	-	-	-	-
7/5/24	-	-	-	-	-	-	-
7/6/24	-	-	-	-	-	-	-
7/7/24	-	-	-	-	-	-	-
7/8/24	9:25:00	1800	8.52	518	518	NA	1
7/9/24	7:30:00	1830	8.44	542	530	56	2
7/10/24	-	-	-	-	-	-	-
7/11/24	11:00:00	1840	8.59	566	542	NA	3
7/12/24	-	-	-	-	-	-	-
7/13/24	-	-	-	-	-	-	-
7/14/24	-	-	-	-	-	-	-
7/15/24	-	-	-	-	-	-	-
7/16/24	7:25:00	-	8.27	386	476	NA	2
7/17/24	-	-	-	-	-	-	-
7/18/24	-	-	-	-	-	-	-
7/19/24	8:45:00	1670	8.41	499	443	NA	2
7/20/24	-	-	-	-	-	-	-
7/21/24	-	-	-	-	-	-	-
7/22/24	-	-	-	-	-	-	-
7/23/24	7:35:00	1830	8.55	556	528	NA	2
7/24/24	-	-	-	-	-	-	-
7/25/24	-	-	-	-	-	-	-
7/26/24	10:20:00	1800	8.58	521	539	NA	2
7/27/24	-	-	-	-	-	-	-
7/28/24	-	-	-	-	-	-	-
7/29/24	-	-	-	-	-	-	-
7/30/24	7:40:00	1870	8.43	558	540	NA	2
7/31/24	-	-	-	-	-	-	-
Minimum		1670	8.27	386	443	56	
Maximum		1870	8.59	566	542	56	
Average		1806	8.46	516	513	56	

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

**East End Outlet
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)	Number of samples included in 7-day Average
7/1/24	-	-	-	-	-	-	-
7/2/24	-	-	-	-	-	-	-
7/3/24	-	-	-	-	-	-	-
7/4/24	-	-	-	-	-	-	-
7/5/24	-	-	-	-	-	-	-
7/6/24	-	-	-	-	-	-	-
7/7/24	-	-	-	-	-	-	-
7/8/24	-	-	-	-	-	-	-
7/9/24	8:20:00	2820	8.74	978	978	23	1
7/10/24	-	-	-	-	-	-	-
7/11/24	9:00:00	2820	8.79	1010	994	NA	2
7/12/24	-	-	-	-	-	-	-
7/13/24	-	-	-	-	-	-	-
7/14/24	-	-	-	-	-	-	-
7/15/24	-	-	-	-	-	-	-
7/16/24	9:10:00	2880	8.73	1030	1020	NA	2
7/17/24	-	-	-	-	-	-	-
7/18/24	-	-	-	-	-	-	-
7/19/24	10:10:00	2810	8.7	1010	1020	NA	2
7/20/24	-	-	-	-	-	-	-
7/21/24	-	-	-	-	-	-	-
7/22/24	-	-	-	-	-	-	-
7/23/24	9:25:00	2860	8.76	1010	1010	NA	2
7/24/24	-	-	-	-	-	-	-
7/25/24	8:00:00	2890	8.62	993	1002	NA	2
7/26/24	-	-	-	-	-	-	-
7/27/24	-	-	-	-	-	-	-
7/28/24	-	-	-	-	-	-	-
7/29/24	-	-	-	-	-	-	-
7/30/24	9:20:00	2880	8.72	998	996	NA	2
7/31/24	-	-	-	-	-	-	-
Minimum		2810	8.62	978	978	23	
Maximum		2890	8.79	1030	1020	23	
Average		2851	8.72	1004	1003	23	

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

**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
7/1/24	-	-	-	-	-	-	-
7/2/24	4:20:00	-	8.36	414	414	NA	1
7/3/24	-	-	-	-	-	-	-
7/4/24	-	-	-	-	-	-	-
7/5/24	7:25:00	-	8.17	362	388	NA	2
7/6/24	-	-	-	-	-	-	-
7/7/24	-	-	-	-	-	-	-
7/8/24	-	-	-	-	-	-	-
7/9/24	9:50:00	-	8.31	424	393	63	2
7/10/24	-	-	-	-	-	-	-
7/11/24	9:35:00	-	8.32	433	429	NA	2
7/12/24	-	-	-	-	-	-	-
7/13/24	-	-	-	-	-	-	-
7/14/24	-	-	-	-	-	-	-
7/15/24	-	-	-	-	-	-	-
7/16/24	9:35:00	-	8.41	552	493	NA	2
7/17/24	-	-	-	-	-	-	-
7/18/24	-	-	-	-	-	-	-
7/19/24	10:30:00	-	8.33	570	561	NA	2
7/20/24	-	-	-	-	-	-	-
7/21/24	-	-	-	-	-	-	-
7/22/24	-	-	-	-	-	-	-
7/23/24	9:45:00	-	8.38	586	578	NA	2
7/24/24	-	-	-	-	-	-	-
7/25/24	9:45:00	-	8.33	610	598	NA	2
7/26/24	-	-	-	-	-	-	-
7/27/24	-	-	-	-	-	-	-
7/28/24	-	-	-	-	-	-	-
7/29/24	-	-	-	-	-	-	-
7/30/24	9:45:00	-	8.44	708	659	NA	2
7/31/24	-	-	-	-	-	-	-
Minimum			8.17	362	388	63	
Maximum			8.44	708	659	63	
Average			8.34	518	501	63	

Notes:

µS/cm - microsiemens per Centimeter at 25 degrees Celsius
mg/L - milligrams per liter or parts per million
NA - Not analyzed

**Sheyenne River Downstream of Both Outlets Near Cooperstown
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)	Number of samples included in 7-day Average
7/1/24	-	-	-	-	-	-	-
7/2/24	10:10:00	1430	8.35	393	393	NA	1
7/3/24	-	-	-	-	-	-	-
7/4/24	-	-	-	-	-	-	-
7/5/24	-	-	-	-	-	-	-
7/6/24	-	-	-	-	-	-	-
7/7/24	-	-	-	-	-	-	-
7/8/24	-	-	-	-	-	-	-
7/9/24	10:40:00	1510	8.36	380	380	154	1
7/10/24	-	-	-	-	-	-	-
7/11/24	-	-	-	-	-	-	-
7/12/24	-	-	-	-	-	-	-
7/13/24	-	-	-	-	-	-	-
7/14/24	-	-	-	-	-	-	-
7/15/24	-	-	-	-	-	-	-
7/16/24	10:30:00	1690	8.38	491	491	NA	1
7/17/24	-	-	-	-	-	-	-
7/18/24	-	-	-	-	-	-	-
7/19/24	-	-	-	-	-	-	-
7/20/24	-	-	-	-	-	-	-
7/21/24	-	-	-	-	-	-	-
7/22/24	-	-	-	-	-	-	-
7/23/24	10:40:00	1720	8.36	515	515	NA	1
7/24/24	-	-	-	-	-	-	-
7/25/24	-	-	-	-	-	-	-
7/26/24	-	-	-	-	-	-	-
7/27/24	-	-	-	-	-	-	-
7/28/24	-	-	-	-	-	-	-
7/29/24	-	-	-	-	-	-	-
7/30/24	10:30:00	2070	8.42	635	635	NA	1
7/31/24	-	-	-	-	-	-	-
Minimum		1430	8.35	380	380	154	
Maximum		2070	8.42	635	635	154	
Average		1684	8.37	483	483	154	

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