

July 19, 2024

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

RE: June 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 June 2024 is enclosed. The Devils Lake West End Outlet discharge was increased from 125 cubic feet per second (cfs) to its full capacity of 250 cfs on June 6th, then reduced to 200 cfs on June 27th. The East End Outlet discharge re-started at 75 cfs on June 3rd, gradually increased to 200 cfs by June 11th, and was completely stopped on June 18th. The discharges from both outlets were adjusted to comply with downstream water quantity constraint due to high flows on the Sheyenne River.

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

	Average Discharge Rate (cfs)	Total Discharge Volume (acre-feet)
West End Outlet	220	13,097
East End Outlet	71	4,232
Combined Total Discharge Volume (acre-ft)		17,329

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.

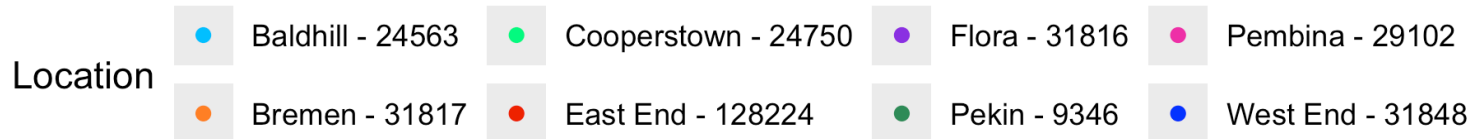
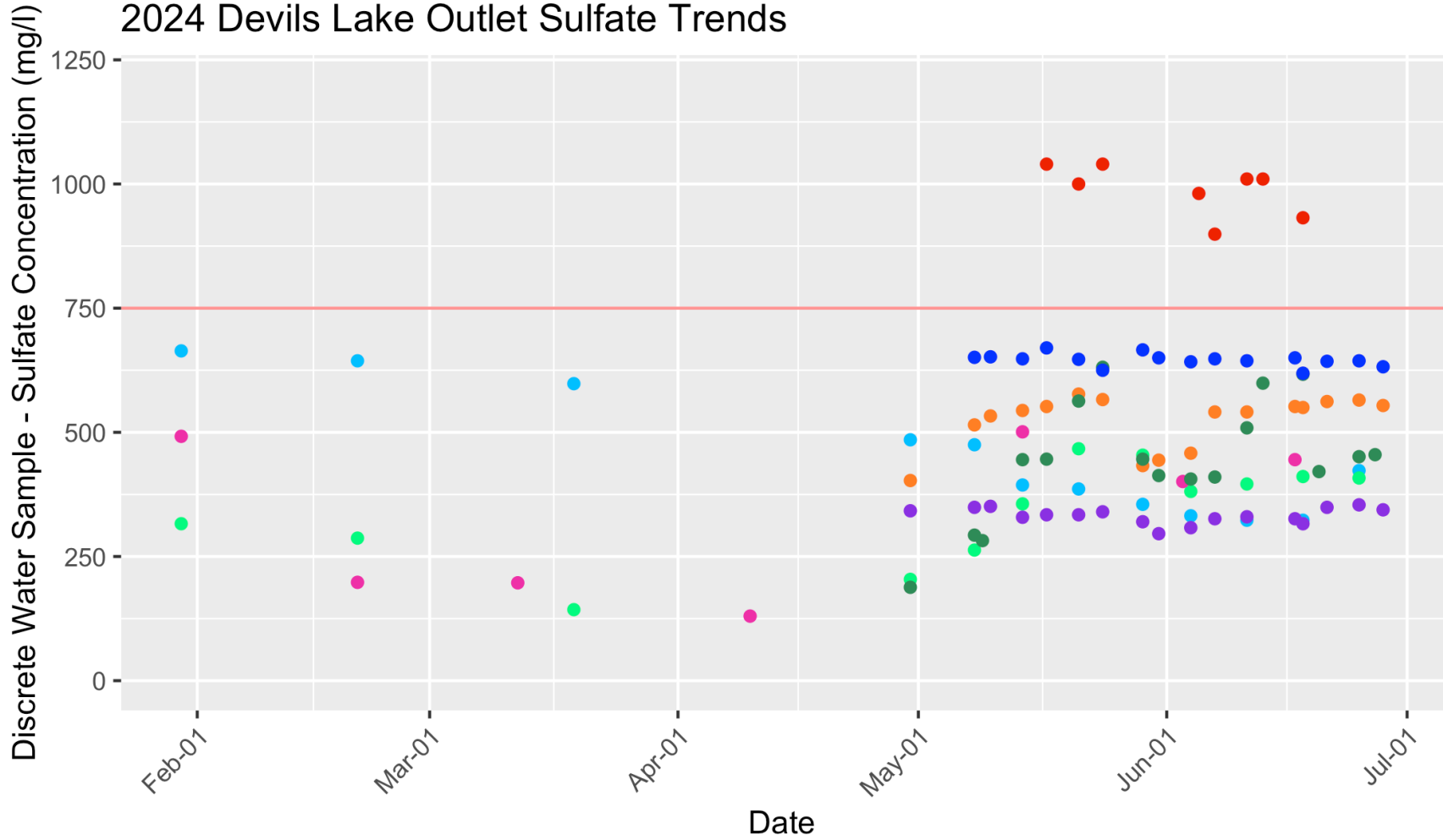
If you have any questions, please contact me at (701) 328-9049.

Sincerely,



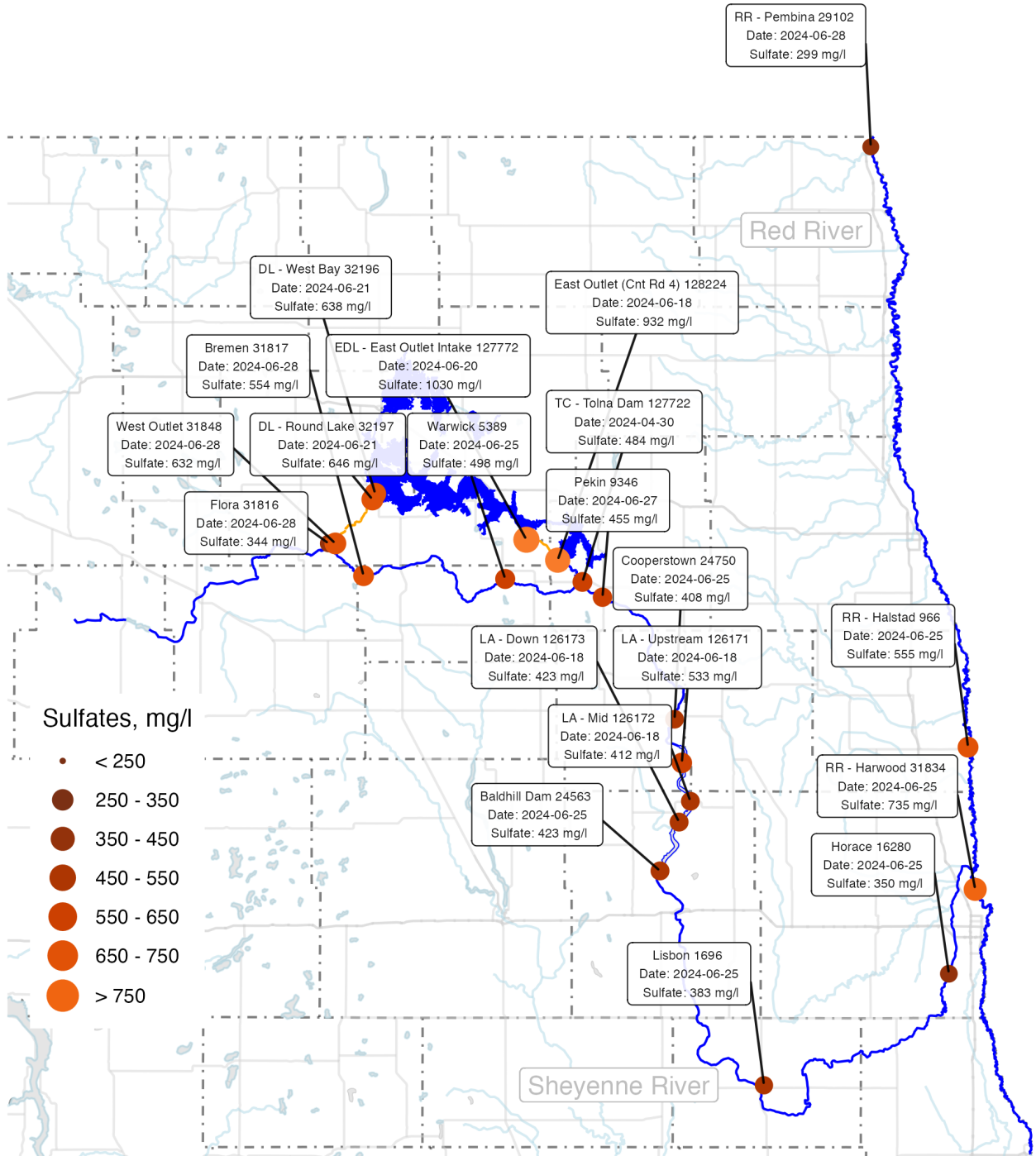
Yaping Chi, P.E.
Water Resource Engineer, Water Development Division
YC:/416-10
Enclosure

2024 Devils Lake Outlet Sulfate Trends



Devils Lake Outlet Operations Sulfate Concentrations

06/30/2024



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
6/1/24	6/30/24

LOCATION: Benson Co, ND

Devils Lake West Outlet 13097 ac-ft over 30 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.52	8.62	8.57	SU	2 X Week	GRAB
SULFATE	619	650	640	mg/l	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	635	650	642	mg/L	Average	GRAB
OUTLET DISCHARGE	127	249	220	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			7/17/24	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
6/1/24	6/30/24

LOCATION: Ramsey, Benson, Nelson Co, ND

Devils Lake East Outlet 4232 ac-ft over 15 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.41	8.66	8.58	SU	2 X Week	GRAB
SPECIFIC CONDUCTANCE	2860	3000	2968	µS/cm	Continuous	Recorder
SULFATE	899	1010	966	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	940	1010	971	mg/l	Average	GRAB
OUTLET DISCHARGE	0	222	71	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			7/17/24	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
6/1/24	6/30/24

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.14	8.36	8.27	SU	2 X Week	GRAB
SPECIFIC CONDUCTANCE	1340	1480	1423	µS/cm	Continuous	Recorder
SULFATE	308	354	332	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	308	352	329	mg/l	Average	GRAB
FLOW, INSTREAM	74	202	111	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			7/17/24	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
6/1/24	6/30/24

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.32	8.49	8.43	SU	2 X Week	GRAB
SPECIFIC CONDUCTANCE	1580	1880	1798	µS/cm	Continuous	Recorder
SULFATE	458	565	540	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	458	564	535	mg/l	Average	GRAB
FLOW, INSTREAM	314	381	332	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			7/17/24	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
6/1/24	6/30/24

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.19	8.4	8.31	SU	2 X Week	GRAB
SULFATE	406	617	484	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	406	608	481	mg/L	Average	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			7/17/24	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
6/1/24	6/30/24

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.22	8.39	8.29	SU	2 X Week	GRAB
SPECIFIC CONDUCTANCE	1490	2040	1693	µS/cm	Continuous	Recorder
SULFATE	381	411	399	mg/L	2 X Week	GRAB
7 DAY AVERAGE OF SULFATE	381	411	399	mg/l	Average	GRAB
FLOW, INSTREAM	616	1000	739	cfs	Continuous	Recorder
SIGNATURE	<i>Yaping Chi</i>			7/17/24	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)
6/1/2024	202	1260	127	10950000	319	1560	0	0	1.34	1100	788	1520	127	10950000
6/2/2024	161	1270	127	10962000	344	1560	0	0	1.72	1110	741	1500	127	10962000
6/3/2024	149	1310	127	10972000	343	1580	50.9	4400000	46.7	2970	684	1450	178	15372000
6/4/2024	147	1340	127	10970000	344	1580	82.2	7101000	87.3	2970	703	-	209	18071000
6/5/2024	139	1370	153	13261000	325	1610	76	6568000	83.8	2990	702	1380	230	19829000
6/6/2024	137	1380	218	18829000	325	1680	0	0	1.39	2840	690	1440	218	18829000
6/7/2024	142	1400	247	21333000	367	1730	53.8	4649000	49.9	2990	713	1550	301	25982000
6/8/2024	135	1430	248	21393000	381	1750	74.2	6413000	83.1	2990	719	1540	322	27806000
6/9/2024	126	1450	248	21421000	372	1780	81.1	7011000	82.6	2990	668	1520	329	28432000
6/10/2024	120	1450	248	21451000	363	1800	133	11453000	128	3000	624	1400	381	32904000
6/11/2024	117	1460	248	21443000	355	1820	198	17076000	198	3000	616	1550	446	38519000
6/12/2024	114	1470	249	21474000	347	1820	222	19182000	240	3010	624	1590	471	40656000
6/13/2024	102	1480	207	17919000	336	1830	200	17243000	240	3000	651	1670	407	35162000
6/14/2024	109	1470	249	21550000	314	1840	221	19134000	240	3010	682	1820	471	40684000
6/15/2024	108	1490	249	21551000	343	1840	221	19120000	241	3000	707	1920	471	40671000
6/16/2024	103	1480	249	21550000	337	1850	222	19139000	239	3000	731	1940	471	40689000
6/17/2024	94.4	1480	249	21522000	332	1850	222	19148000	239	3000	722	2040	471	40670000
6/18/2024	98.3	1450	217	18758000	368	1810	77.5	6693000	128	2860	884	2040	295	25451000
6/19/2024	108	1460	246	21277000	351	1810	0	0	2.62	2060	927	1760	246	21277000
6/20/2024	108	1460	247	21337000	359	1820	0	0	1.41	1520	976	1750	247	21337000
6/21/2024	105	1460	247	21318000	353	1840	0	0	1.11	1380	1000	1630	247	21318000
6/22/2024	107	1420	247	21332000	348	1840	0	0	4.52	1300	980	1520	247	21332000
6/23/2024	104	1430	246	21238000	345	1840	0	0	3.5	1030	904	1450	246	21238000
6/24/2024	102	1430	246	21278000	345	1860	0	0	1.49	1080	821	1450	246	21278000
6/25/2024	95.6	1400	246	21252000	342	1870	0	0	0.96	1070	757	1490	246	21252000
6/26/2024	91.1	1400	246	21222000	333	1880	0	0	0.71	1060	700	1530	246	21222000
6/27/2024	86.3	1400	222	19171000	330	1890	0	0	0.88	1050	653	1580	222	19171000
6/28/2024	79.5	1390	208	17971000	315	1880	0	0	3.05	1080	783	-	208	17971000
6/29/2024	73.7	1400	207	17885000	-	-	0	0	1.63	1100	853	-	207	17885000
6/30/2024	78.7	1400	207	17913000	-	-	0	0	0.91	1130	917	1320	207	17913000
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Minimum	74	1260	127	10950000	314	1560	0	0	0.71	1030	616	1320	127	10950000
Maximum	202	1490	249	21551000	381	1890	222	19182000	241	3010	1000	2040	471	40733000
Average	111	1371	220	19016767	332	1718	71	6144333	75.9	2087	739	1548	291	25161100
			Total (Mgal)	4267			Total (Mgal)	1379					Total (Mgal)	5646
			Total (Ac-ft)	13097			Total (Ac-ft)	4232					Total (Ac-ft)	17329

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 (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
6/1/24	-	-	-	-	-	-	-
6/2/24	-	-	-	-	-	-	-
6/3/24	-	-	-	-	-	-	-
6/4/24	8:00:00	1340	8.28	308	308	NA	1
6/5/24	-	-	-	-	-	-	-
6/6/24	-	-	-	-	-	-	-
6/7/24	9:20:00	1400	8.32	326	317	NA	2
6/8/24	-	-	-	-	-	-	-
6/9/24	-	-	-	-	-	-	-
6/10/24	-	-	-	-	-	-	-
6/11/24	8:00:00	1460	8.34	330	328	58	2
6/12/24	-	-	-	-	-	-	-
6/13/24	-	-	-	-	-	-	-
6/14/24	-	-	-	-	-	-	-
6/15/24	-	-	-	-	-	-	-
6/16/24	-	-	-	-	-	-	-
6/17/24	9:35:00	1480	8.23	326	326	NA	1
6/18/24	8:20:00	1450	8.36	316	321	NA	2
6/19/24	-	-	-	-	-	-	-
6/20/24	-	-	-	-	-	-	-
6/21/24	8:00:00	1460	8.14	349	330	NA	3
6/22/24	-	-	-	-	-	-	-
6/23/24	-	-	-	-	-	-	-
6/24/24	-	-	-	-	-	-	-
6/25/24	8:00:00	1400	8.27	354	352	NA	2
6/26/24	-	-	-	-	-	-	-
6/27/24	-	-	-	-	-	-	-
6/28/24	9:15:00	1390	8.24	344	349	NA	2
6/29/24	-	-	-	-	-	-	-
6/30/24	-	-	-	-	-	-	-
Minimum		1340	8.14	308	308	58	
Maximum		1480	8.36	354	352	58	
Average		1423	8.27	332	329	58	

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

**West End Outlet
Monthly Water Quality Summary
Devils Lake Outlet Discharge Report**

Date	Time	Specific Conductance from Telemetry System (uS/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
6/1/24	-	-	-	-	-	-	-
6/2/24	-	-	-	-	-	-	-
6/3/24	-	-	-	-	-	-	-
6/4/24	8:10:00	-	8.52	642	642	NA	1
6/5/24	-	-	-	-	-	-	-
6/6/24	-	-	-	-	-	-	-
6/7/24	9:35:00	-	8.6	648	645	NA	2
6/8/24	-	-	-	-	-	-	-
6/9/24	-	-	-	-	-	-	-
6/10/24	-	-	-	-	-	-	-
6/11/24	8:15:00	-	8.59	644	646	11	2
6/12/24	-	-	-	-	-	-	-
6/13/24	-	-	-	-	-	-	-
6/14/24	-	-	-	-	-	-	-
6/15/24	-	-	-	-	-	-	-
6/16/24	-	-	-	-	-	-	-
6/17/24	9:20:00	-	8.59	650	650	NA	1
6/18/24	8:10:00	-	8.56	619	635	NA	2
6/19/24	-	-	-	-	-	-	-
6/20/24	-	-	-	-	-	-	-
6/21/24	7:45:00	-	8.55	643	637	NA	3
6/22/24	-	-	-	-	-	-	-
6/23/24	-	-	-	-	-	-	-
6/24/24	-	-	-	-	-	-	-
6/25/24	8:15:00	-	8.53	644	644	NA	2
6/26/24	-	-	-	-	-	-	-
6/27/24	-	-	-	-	-	-	-
6/28/24	9:00:00	-	8.62	632	638	NA	2
6/29/24	-	-	-	-	-	-	-
6/30/24	-	-	-	-	-	-	-
Minimum			8.52	619	635	11	
Maximum			8.62	650	650	11	
Average			8.57	640	642	11	

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
6/1/24	-	-	-	-	-	-	-
6/2/24	-	-	-	-	-	-	-
6/3/24	-	-	-	-	-	-	-
6/4/24	7:30:00	1580	8.32	458	458	NA	1
6/5/24	-	-	-	-	-	-	-
6/6/24	-	-	-	-	-	-	-
6/7/24	9:00:00	1730	8.45	541	500	NA	2
6/8/24	-	-	-	-	-	-	-
6/9/24	-	-	-	-	-	-	-
6/10/24	-	-	-	-	-	-	-
6/11/24	10:36:00	1820	8.45	541	541	69	2
6/12/24	-	-	-	-	-	-	-
6/13/24	-	-	-	-	-	-	-
6/14/24	-	-	-	-	-	-	-
6/15/24	-	-	-	-	-	-	-
6/16/24	-	-	-	-	-	-	-
6/17/24	9:55:00	1850	8.49	552	552	NA	1
6/18/24	7:31:00	1810	8.46	550	551	NA	2
6/19/24	-	-	-	-	-	-	-
6/20/24	-	-	-	-	-	-	-
6/21/24	8:25:00	1840	8.44	562	555	NA	3
6/22/24	-	-	-	-	-	-	-
6/23/24	-	-	-	-	-	-	-
6/24/24	-	-	-	-	-	-	-
6/25/24	7:35:00	1870	8.35	565	564	NA	2
6/26/24	-	-	-	-	-	-	-
6/27/24	-	-	-	-	-	-	-
6/28/24	9:35:00	1880	8.49	554	560	NA	2
6/29/24	-	-	-	-	-	-	-
6/30/24	-	-	-	-	-	-	-
Minimum		1580	8.32	458	458	69	
Maximum		1880	8.49	565	564	69	
Average		1798	8.43	540	535	69	

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 (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
6/1/24	-	-	-	-	-	-	-
6/2/24	-	-	-	-	-	-	-
6/3/24	-	-	-	-	-	-	-
6/4/24	-	-	-	-	-	-	-
6/5/24	0:00:00	2990	8.58	981	981	NA	1
6/6/24	-	-	-	-	-	-	-
6/7/24	7:40:00	2990	8.41	899	940	NA	2
6/8/24	-	-	-	-	-	-	-
6/9/24	-	-	-	-	-	-	-
6/10/24	-	-	-	-	-	-	-
6/11/24	9:30:00	3000	8.66	1010	955	32	2
6/12/24	-	-	-	-	-	-	-
6/13/24	11:55:00	3000	8.65	1010	1010	NA	2
6/14/24	-	-	-	-	-	-	-
6/15/24	-	-	-	-	-	-	-
6/16/24	-	-	-	-	-	-	-
6/17/24	-	-	-	-	-	-	-
6/18/24	9:25:00	2860	8.62	932	971	NA	2
6/19/24	-	-	-	-	-	-	-
6/20/24	-	-	-	-	-	-	-
6/21/24	-	-	-	-	-	-	-
6/22/24	-	-	-	-	-	-	-
6/23/24	-	-	-	-	-	-	-
6/24/24	-	-	-	-	-	-	-
6/25/24	-	-	-	-	-	-	-
6/26/24	-	-	-	-	-	-	-
6/27/24	-	-	-	-	-	-	-
6/28/24	-	-	-	-	-	-	-
6/29/24	-	-	-	-	-	-	-
6/30/24	-	-	-	-	-	-	-
Minimum		2860	8.41	899	940	32	
Maximum		3000	8.66	1010	1010	32	
Average		2968	8.58	966	971	32	

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

**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
6/1/24	-	-	-	-	-	-	-
6/2/24	-	-	-	-	-	-	-
6/3/24	-	-	-	-	-	-	-
6/4/24	9:55:00	-	8.28	406	406	NA	1
6/5/24	-	-	-	-	-	-	-
6/6/24	-	-	-	-	-	-	-
6/7/24	8:00:00	-	8.28	410	408	NA	2
6/8/24	-	-	-	-	-	-	-
6/9/24	-	-	-	-	-	-	-
6/10/24	-	-	-	-	-	-	-
6/11/24	9:55:00	-	8.40	509	460	85	2
6/12/24	-	-	-	-	-	-	-
6/13/24	12:20:00	-	8.37	599	554	NA	2
6/14/24	-	-	-	-	-	-	-
6/15/24	-	-	-	-	-	-	-
6/16/24	-	-	-	-	-	-	-
6/17/24	-	-	-	-	-	-	-
6/18/24	10:00:00	-	8.40	617	608	NA	2
6/19/24	-	-	-	-	-	-	-
6/20/24	11:35:00	-	8.19	421	519	NA	2
6/21/24	-	-	-	-	-	-	-
6/22/24	-	-	-	-	-	-	-
6/23/24	-	-	-	-	-	-	-
6/24/24	-	-	-	-	-	-	-
6/25/24	9:30:00	-	8.30	451	436	NA	2
6/26/24	-	-	-	-	-	-	-
6/27/24	12:20:00	-	8.25	455	453	NA	2
6/28/24	-	-	-	-	-	-	-
6/29/24	-	-	-	-	-	-	-
6/30/24	-	-	-	-	-	-	-
Minimum			8.19	406	406	85	
Maximum			8.40	617	608	85	
Average			8.31	484	481	85	

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
6/1/24	-	-	-	-	-	-	-
6/2/24	-	-	-	-	-	-	-
6/3/24	-	-	-	-	-	-	-
6/4/24	10:38:00	-	8.24	381	381	NA	1
6/5/24	-	-	-	-	-	-	-
6/6/24	-	-	-	-	-	-	-
6/7/24	-	-	-	-	-	-	-
6/8/24	-	-	-	-	-	-	-
6/9/24	-	-	-	-	-	-	-
6/10/24	-	-	-	-	-	-	-
6/11/24	11:00:00	1550	8.39	396	396	186	1
6/12/24	-	-	-	-	-	-	-
6/13/24	-	-	-	-	-	-	-
6/14/24	-	-	-	-	-	-	-
6/15/24	-	-	-	-	-	-	-
6/16/24	-	-	-	-	-	-	-
6/17/24	-	-	-	-	-	-	-
6/18/24	10:45:00	2040	8.22	411	411	NA	1
6/19/24	-	-	-	-	-	-	-
6/20/24	-	-	-	-	-	-	-
6/21/24	-	-	-	-	-	-	-
6/22/24	-	-	-	-	-	-	-
6/23/24	-	-	-	-	-	-	-
6/24/24	-	-	-	-	-	-	-
6/25/24	10:20:00	1490	8.29	408	408	NA	1
6/26/24	-	-	-	-	-	-	-
6/27/24	-	-	-	-	-	-	-
6/28/24	-	-	-	-	-	-	-
6/29/24	-	-	-	-	-	-	-
6/30/24	-	-	-	-	-	-	-
Minimum		1490	8.22	381	381	186	
Maximum		2040	8.39	411	411	186	
Average		1693	8.29	399	399	186	

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