

Mission: To protect and enhance the quality of water in the lakes within its jurisdiction....ensure wise decisions are made concerning the management and related land resources which impact these lakes.

PELICAN RIVER WATERSHED DISTRICT MEETING ANNOUNCEMENT Regular MONTHLY MANAGERS' MEETING

Thursday, August 22, 2019

5:00 PM

WATERSHED DISTRICT OFFICE
Wells Fargo Bank, 2nd Floor Conference Room
211 Holmes Street West, Detroit Lakes, MN
(218) 846-0436 www.prwd.org

AGENDA

5:00 PM

- 1. Call To Order
- 2. Approval of Agenda and Consent Agenda (Administrator's Report; Secretary's Report –July 18, 2019 Regular Meeting Minutes and August 8 Special Meeting Project Tour Minutes, Rules/Permitting Report; Ditch Inspector's Report)

5:10 PM

- 3. Committees and Chair appointments
 - a. Personnel, RMP/Rules, Citizen Advisory

5:15 PM

- 4. Old Business
 - a. Rice Lake Update
 - b. RMP BWSR Meeting
 - c. Readiness Response Plan Update
 - d. Project Tour and Lake Koronis Tour Recap

6:30 PM

- 5. Treasurer's Report
 - a. Approve August 2019 Bills
 - b. Approve Fund transfer
 - c. Review January-July 2019 Revenue & Expenses to be filed and subject to audit.

6:45 PM

- 6. New Business
 - a. Review 2020 Preliminary Budget, levies, assessments and fees
 - b. MAWD Resolutions
 - c. Personnel Advertise Position

7:15 PM

7. Public Forum (5 minutes)

7:20 PM

- 8. Attorney's Report
- 9. Engineer's Report
- 10. Pulled Consent Agenda Items

7:30 PM

11. Announcements – Upcoming meeting time changes: Public Hearing followed by Regular Manager meeting, Tuesday, September 10 at 5:00 PM

7:35 PM

12. Meeting Adjournment

(action items in bold face)



THE PELICAN RIVER WATERSHED DISTRICT OF BECKER AND OTTERTAIL COUNTIES

MINUTES OF THE REGULAR MEETING

Thursday, July 18, 2019

Managers Present: Kral, Imholte, Okeson, Haggart, Michaelson, Deede, Jasken

Managers Absent: None

Staff: Administrator Guetter, Alcott

Consultants: Attorney Skoyles, Engineer Mackowick- Wenck Associates, Ted Rud- Houston Engineering
Advisory Committee: None Others: Summer Interns-Raina Arntson, Warren Swenson, Connor Haugrud

The Regular Managers' meeting was called to order by President Kral at 5:01 PM.

Oath of Office: The Becker County Board of Commissioners re-appointed Dennis Kral to a three-year term (May 2022) and appointed Chris Jasken to complete the term of Brad Refsland (May 2020) who resigned in June. The "Oath of Office" was taken by Managers Kral and Jasken, attached hereto. The Managers and staff welcomed Manager Jasken to the Board.

CONSENT AGENDA. The consent agenda including the July 2019 Administrator Report, Secretary's Report – June 18, 2019 Regular Minutes; July 2019 Rules/Permitting Report, and July 2019 Ditch Inspector's Report (Okeson, Deede), carried unanimously.

COMMITTEE REPORTS.

Personnel Committee – None RMP/Rules Committee – None Citizen Advisory Committee - None.

NEW BUSINESS.

- a. Rice Lake Update Bid Opening. Ted Rud, Houston Engineering reviewed the three bids received as follows: Hough Inc at \$2,074.995 (low bid), Park Construction Company \$2,081,133,29; and Sellin Brothers Inc \$2,273,884Mr. All of the bids received were much higher than the engineer's project construction estimate of \$1.1 Million \$1.3 Million. Engineer Rud stated the June 25 2020 project completion date most likely increased the project costs due to working in a wetland area. Administrator Guetter and Rud suggested the District discuss options with BWSR and potentially apply for a grant extension date and rebid the project to be completed in 2020. Motion to reject all bids due to the low bidder (Hough Inc.) exceeding the Engineer's Estimate by 159.6% (Michaelson, Imholte) carried unanimously.
- b. Summer Tour August 8, 2019. A draft copy of the tour itinerary was enclosed with the monthly packet. The tour will include the Rice Lake Project, development projects near Floyd Lake, North and Big Floyd lake tours and water quality sampling demonstration, Zooplankton Study, and shoreline projects. Managers Michaelson, Jasken, Haggart, Kral, Imholte and Deede committed to attending the tour along with Consultants Mackowick and Skoyles
- c. **Becker COLA Lake Koronis Tour-August 15, 2019.** The tour bus will leave from the K-Mart parking lot at 8:00 AM and return approximately 4:00 PM. Administrator Guetter strongly encourages managers to attend the tour to see first- hand the impacts of the invasive Starry Stonewort.
- d. Rules-Stormwater Management Section. Guetter stated she hadn't worked on the Rules due to other pressing tasks.
- e. AIS Readiness Response Plan. Manager Imholte suggests putting mystery snails on exotic list via MAWD.

TREASURER'S REPORT.

a. Approval of July 2019 Claims. Treasurer Michaelson presented the claims to the Managers. Motion to approve the July 2019 expense claims (Checks # 14616-14631 and EFT 1049-1056) in the amount of \$86,564.39 and Managers 2nd Quarter 2019 Per Diems and Expenses (EFT 1042-1048 and EFT 1057-1063) in the amount of \$2308.75 and \$383.69 (Michaelson, Haggart), carried unanimously.



THE PELICAN RIVER WATERSHED DISTRICT OF BECKER AND OTTERTAIL COUNTIES

MINUTES OF THE REGULAR MEETING

- b. **July Fund Transfers**. Treasurer Michaelson recommended transferring \$120,000 to cover monthly payments and expenses. **Motion to transfer \$120,000 from Bremer Bank savings account to the checking account** (**Michaelson, Imholte**) carried unanimously.
- c. Financial Report. The January-June 2019 Revenues and Expenses Report was reviewed by the managers. Motion to approve the January-June 2019 R & E Report (Michaelson, Deede), carried unanimously. The report will be filed for audit.

OLD BUSINESS.

- a. 2018 Annual Report Approval The Managers reviewed and discussed the information presented in the 2018 Annual Report. Motion to approve the 2018 Annual Report as presented (Michaelson, Jasken) carried unanimously.
- b. **Summer Intern Update.** Connor Haugrud elaborated on the zooplankton study he is conducting on Big Floyd, Little Floyd, and Long Lake. Raina and Warren spoke about routine sampling and their shoreline survey project on Long, Pearl and Munson.

ATTORNEY REPORT. Nothing to report. She has reviewed the current violations.

ENGINEER REPORT. Mackowick discussed the following projects: 1) North Long Lake Road stormwater issues 2) High School plans-concerns with parking lots 3) North Shore Travel Plaza 4) Foltz Building 5) Broadway Welding – issue with baseball fields 6) Detroit Mountain parking lot.

PUBLIC FORUM.

ANNOUNCEMENTS

August Regular Managers' Meeting Date Change - Due to other meeting conflicts, the August 15th meeting was moved to the following week on *Thursday, August 22.*

ADJOURNMENT. Motion to adjourn the meeting 7:16 p.m. (Kral, Okeson) carried unanimously.

	Meeting Approved:
Respectfully Submitted,	
Janice Haggart, Secretary	

Pelican River Watershed District Claims Paid - July 2019

		Date	Num	Amount
Employee ACH				
	*Alcott, Brent	7/22/2019	EFT1049	40.00
	*Guetter,Tera	7/22/2019	EFT1050	101.48
	*Haugrud, Connor	7/22/2019	EFT1051	53.94
			,	\$195.42
Vendor ACH				
	Bremer Bank	7/22/2019	ACH	30.00
	Lakes Computer, Inc.	7/22/2019	EFT1052	200.00
	RMB Environmental Labs, Inc.	7/22/2019	EFT1053	2,338.50
	Wells Fargo-Office Lease	7/22/2019	EFT1054	1,299.58
	Wenck Associates, Inc	7/22/2019	EFT1055	4,902.13
	Xerox Corporation	7/22/2019	EFT1056	324.37
				\$9,094.58
<u>Vendor Checks</u>	Amus Cala III C	7/10/2010	14616	405.00
	AquaCalc LLC	7/19/2019 7/19/2019	14617	405.00 56.85
	Arvig Bank of America	7/19/2019	14618	942.35
		7/19/2019	14619	400.00
	^Campbell, Joshua Central Market	7/19/2019	14620	28.80
		7/19/2019	14621	396.69
	County 6 Amoco & Bait		14622	
	Detroit Lakes Tribune	7/19/2019		62.00
	Forum Communications	7/19/2019 7/19/2019	14623 14624	317.85 41.24
	Holiday/gas	7/19/2019	14625	99.83
	L & M Supply North Central Laboratories		14626	354.02
		7/19/2019	14627	90.38
	Office of Enterprise Technology	7/19/2019 7/19/2019	14628	27,640.88
	Professional Lake Management			162.59
	Rickly Hydrological Co.	7/19/2019 7/19/2019	14629 14630	41.16
	Verizon	1119/2019	14030	\$31,039.64
				\$31,035.64
Rice Lake Project				
	Houston Engineering Inc.	7/19/2019	14631	46,234.75
				\$46,234.75
2nd Qtr Mgr Exper	ises			
	.Deede, L	7/22/2019	EFT1057	80.04
	.Haggart, J.	7/22/2019	EFT1058	77.72
	.lmholte, G.	7/22/2019	EFT1059	17.40
	.Kral, D.	7/22/2019	EFT1060	101.81
	.Michaelson, R.	7/22/2019	EFT1061	48.72
	.Okeson, O.	7/22/2019	EFT1062	46.40
	.Refsland, B	7/22/2019	EFT1063	11.60
				\$383.69

Pelican River Watershed District Claims Paid - July 2019

	Date	Num	Amount
2nd Qtr Mgr Compensation			
.Deede, L	7/22/2019	EFT 1042	346.32
.Haggart, J.	7/22/2019	EFT 1043	346.31
.lmholte, G.	7/22/2019	EFT 1044	184.70
.Kral, D.	7/22/2019	EFT 1045	484.84
.Michaelson, R.	7/22/2019	EFT 1046	392.48
.Okeson, O.	7/22/2019	EFT 1047	277.05
.Refsland, B	7/22/2019	EFT 1048	277.05
			\$2,308.75
Payroll & Liabilities			
Supplemental Benefits	7/10/2019	EFT 1031-1033	2,324.71
Employee Payroll	7/11/2019	EFT 1034-1041	7,533.34
Federal Withholding	7/12/2019		2,882.38
Employee Payroll	7/25/2019	EFT 1064-1071	769.26
Federal Withholding	7/31/2019		2,874.46
MN HCSP	7/31/2019		500.00
MN Revenue	7/31/2019		1,030.00
NACO	7/31/2019		1,922.00
PERA	7/31/2019		2,078.58
			\$21,914.73
	Total July Expenses		\$111,171.56



Watershed District Managers

OATH OF OFFICE

OATH

State of Minnesota

SS:

County of Becker

I, Dennis Kral, do solemnly swear or affirm that I will support the Constitution of the United States and the Constitution of the State of Minnesota; uphold and carry out my duties under the Minnesota Watershed Act as a member of the Managers of the Pelican River Watershed District in the County of Becker; and faithfully discharge the duties of my office to the best of my judgment and ability.

Signature

Subscribed and sworn to before me this 1811 day of Ill

20/8

KAREN SKOYLES NOTARY PUBLIC-MINNESOTA My Commission Expires JAN. 31, 2022

Signature of Notary Public

County of Residence

BECKER



Watershed District Managers

OATH OF OFFICE

OATH

State of Minnesota

SS:

County of Becker

I, Chris Jasken, do solemnly swear or affirm that I will support the Constitution of the United States and the Constitution of the State of Minnesota; uphold and carry out my duties under the Minnesota Watershed Act as a member of the Managers of the Pelican River Watershed District in the County of Becker; and faithfully discharge the duties of my office to the best of my judgment and ability.

Signature Lines Jasker

Subscribed and sworn to before me this 18th day of Luly 2019

Signature of Notary Public

Date Commission Expires 3/ Jan 2022

KAREN SKOYLES

NOTARY PUBLIC—MINNESOTA

Printed Name of Notary Public

County of Residence

My Commission Expires JAN. 31, 2022 }

BECKER

Pelican River Watershed District Administrator Monthly Report August 15, 2019 www.prwd.org

MAIN DISTRICT WATER QUALITY INITIATIVES

Targeted Watershed Nutrient Reduction Grant/Rice Lake Project. The bid opening occurred on July 17. The Board of Managers reviewed the bids a the July 18th meeting and voted to reject all bids due to the project costs (see July 17th minutes). The District received a letter from the Mn Board of Water and Soil Resources which stated the agency requesting a meeting to discuss the project status and options for extending the grant deadline. Kral, Haggart, Imholte, and Guetter met with BWSR staff to review the options and devise a plan of action. The District will finish the Revised Water Management Plan in September and in February 2020, either file for a grant extension to December or work with the Becker Soil and Water Conservation District and transfer the project in February 2020 and extend the deadline to 2022 (PRWD will remain the project agent).

WATER MANAGEMENT RULES

Holmes Street Basin Area Stormwater Treatment Area. Guetter will work with City of Detroit Lakes this fall. **Rule Update** – Work on the Rules will start up after permitting and monitoring are finished up.

Revised Management Plan Update - Wenck is finalizing plan for September review and approval.

EDUCATION

Hodge Podge. Alcott and the Interns (Connor Haugrud, Raina Arntson, and Warren Swenson) were the guests on July 19th. Connor discussed his project working to assess the zooplankton community composition on the Floyd Lake Chain and on Long Lake and potential impacts to those population as a result of Zebra Mussel infestation. He also talked about how he will be assisting the MN DNR study to determine the extent of the Zebra Mussel impacts on Walleye populations in Lake Melissa and Big Cormorant Lakes. Warren and Raina discussed stream and lake monitoring, vegetation surveys, shoreline assessments, and getting ready for the Becker County fair booth. Alcott reviewed water levels and commented about the early July rain events and correlating short term decreases in water quality on area lakes. Alcott reviewed the Curly-leaf pondweed and Flowering Rush treatments, noting both were successful in suppressing plant densities.

Becker County Fair – With the mild temperatures, the turnout at the Fair was higher than normal. Moses worked with the three interns to staff our table in the MN DNR building. They talked about local water quality with adults and hundreds of environmental buttons were made for children of all ages.

Pelican River Watershed Local Projects Tour. The Project Tour was held on Thursday August 8th, which included two stops involving the Rice Lake project, and continued on to both commercial and residential development projects in the Floyd Lakes area, followed by a pontoon tour of Floyd Lake with discussion regarding Campbell Creek issues, internal loading, alum treatment, and E coli. There were 22 participants and all felt it was very worthwhile and informative.

Aqua Chautauqua 2019. This event was held Thursday, August 15 at Dunton Park from 5 PM – 8 PM. This is the second consecutive year the event was held at this location. Moses worked on the planning committee that was headed by the University of MN Extension. The District booth displayed our watershed model and Moses talked about stormwater runoff and how our actions can impact others, while summer intern, Connor Haugrud, helped the children make environmental buttons. Interns, Raina Arntson and Warren Swenson demonstrated some of their monitoring equipment and discussed what they monitor and why. Alcott worked with the MN DNR on their Stream Table and discussed streambed movement.

Starry Stonewort Field Trip to Lake Koronis. Becker COLA sponsored a trip to Lake Koronis, Paynesville, MN to look first hand at the impacts of Starry Stonewort in Lake Koronis. Managers Okeson and Michaelson attended the tour.

GENERAL ADMINISTRATION

Data Practices Request: We received a request from H2 Over Viewers from E Grant Forks regarding Redetermination of Benefits, and benefitted acres in our drainage district. A response was returned to them on 8/5/19.

WRAPS Meeting: September 6 at 9:30 AM in the Detroit Lakes MPCA office. Ben Underhill of Easter Otter Tail and Wadena SWCD will update on the WRAPS process, including explaining the results of the Stressor ID. The meeting will last approximately 2.5 hours and there is an online option if interested in attending (Webex).

2020 Budget: Guetter and Moses have been reviewing Jan-July expenditures and have prepared a 2020 draft budget, levies, assessments, and fees for board review at the August monthly meeting.

Alcott Resignation: Brent notified the District he has accepted a position with the City of Chaska as their new water resources coordinator. He will be with the District until August 30, 2019.

Watershed Administrators Region 1 Meeting, August 14- Guetter attended the meeting in Ada. Discussion was held on the Flood Damage Reduction Handbook. Questions arose regarding relevancy, scope (broaden to include natural resource and water quality). MN DNR allocates funds to be used for the Red River basin (not just the Red River Water Management Board Watershed District members) such as for project development, which PRWD would be eligible to receive. The Administrators reviewed human resources needs – updating handbooks, salary surveys, employee training/education.

MAWD Resolutions – Guetter prepared draft resolutions for increasing the general fund levy and to urge the U of MN AIS Research Center to develop solutions for managing Chinese Mystery Snail populations.

AQUATIC INVASIVE SPECIES MANAGEMENT

AIS Readiness Response Plan. The draft plan will be distributed at the August meeting.

2nd Flowering Rush Treatments

Detroit, Curfman, Sallie, and Melissa Lakes were treated on July 30th with fair weather conditions. The District continues to use the "Adaptive Management Treatment Strategy" to determine levels of annual treatment based upon actual plant densities – no treatment; 1 treatment; 2 treatments. See attached chemical treatment summaries for 2018 and 2019 treatments.

Detroit Calls— The District has received a number of phone calls in the past two weeks regarding nuisance levels of native plants in the North Shore Drive vicinity. We have also received a request from a North Shore Drive resident to pick up Chinese Mystery Snails along with the aquatic plant material. The District does not manage native plants and treats invasive plants only.

DRAINAGE SYSTEM REPORT

August 16, 2019

DITCH 11/12 (Moon Lake to Campbell Lake to North Floyd Lake)

Report: Nothing further to report.

DITCH 13 (Little Floyd Lake to Big Detroit)

Report: Nothing further to report. Continue to monitor for new beaver activity.

DITCH 14 and BRANCH 1 (HWY 10 to St. Claire Lake to Pelican River)

Report: Nothing further to report.

MONITORING REPORT – August 2018

July Weather. The July average high is 82 degrees F and the low is 60 degrees F. The July 2019 average high was 79.6 degrees F and the low 60.4 degrees F, very similar to the past two years when the average high was 79 degrees F in 2018- and 80-degrees F in 2017. The hottest days were July 14th and 15th reaching 88 degrees F. The coldest overnight low recorded was 41 degrees F on July 29th while the warmest overnight low was on July 1st at 70 degrees F.

July started out wet, with thunderstorms dominating the region on July 8th (1.29 inches), July 9th (1.75 inches), and July 10th (1.75 inches). By July 12^{th,} 3.86 inches of the of the total 4.72 inches of monthly rainfall were recorded with 15 days in July reporting rainfall. July 2019 total rainfall was slightly above the July annual average rainfall of 4.07 inches, above the July 2018 total of 3.97 inches and the July 2017 total of 3.11 inches.

August Weather. The August average high is 81 degrees F and the low is 58 degrees F. The first week in August was hot and humid, but by August 8th, cooler weather set in, where the night time lows dropped down to 50 degrees F, almost 10 degrees F below normal. Since that time the highs have been only in the mid-70's degrees F, well below normal temperatures.

Stream Monitoring.

Campbell Creek between Campbell Lake and North Floyd Lake – Following heavy rainfall from July 8-10th, totaling 3.18-inches, both sediment and phosphorus concentration results were elevated. Phosphorus concentrations were 186 ppb at 230th Street (CC2) and 274 ppb at County Rd 149 (CC1). Sediment concentrations also increased between the two sites from 40 ppm at CC2 to 85 ppm at CC1. Water levels also sharply increased by 1.5 ft at CC2 (230th Street) on July 10th but steadily declined to normal flow levels by the beginning of August. The early July slug of sediment and nutrients into North Floyd lake caused water clarity to sharply decline from 12 feet down to 7 ft., and the clarity has remained at 8 ft in August.

Completion of Data Collection: With Alcott leaving the District at the end of this month, intern Raina Arnston has agreed to collect stream samples on weekends from Sept-October, collect the HOBO units and download data, and input sampling data results into the District database.

Note: Elevations for all stream sites are recorded in NAVD88 vertical elevation datum. Lake levels are converted from NAVD88 to NGVD29. MN DNR tracks lake levels and ordinary high-water level elevations using NVGD29. Elevation differential between the two datum varies by .48ft to 1.1ft within the District.

Site	Phosphorus (TP) ppb (parts per billion)	Sediment (TSS) Impaired	Water Level (NAVD 88)	Flow rating Measurement
CC2 (Campbell Creek & 230 th St) HOBO	5/21/19 - 42 6/05/19 - 73 6/17/19 - 53 6/27/19 - 75 7/01/19 - 59 7/09/19 - 186 7/15/19 - 88 7/29/19 - 52 8/02/19 - 99	5/21/19 - 4.2 6/05/19 - 19.9 6/17/19 - 15.6 6/27/19 - 8.6 7/01/19 - 6 7/09/19 - 40.2 7/15/19 - 10.3 7/29/19 - 1.8 8/02/19 - 13.5	5/02/19; Gage – 1.71; 1409.00 Elev. 5/21/19; Gage – 1.49; 1408.78 Elev. 5/23/19; Gage – 1.68; 1408.97 Elev. 5/29/19; Gage – 1.40; 1408.69 Elev. 6/05/19; Gage – 0.86; 1408.15 Elev. 6/06/19; Gage – 0.76; 1408.05 Elev. 6/17/19; Gage – 0.62; 1407.91 Elev. 6/27/19; Gage – 0.45; 1407.74 Elev. 7/01/19; Gage – 0.32: 1407.61 Elev. 7/09/19: Gage – 1.19: 1408.48 Elev. 7/10/19: Gage – 1.61; 1408.90 Elev. 7/15/19: Gage – 1.12; 1408.41 Elev. 7/26/19: Gage – 0.44; 1407.73 Elev. 7/29/19: Gage – 0.35; 1407.64 Elev. 8/02/19: Gage – 0.30; 1407.59 Elev.	5/23/19 6/06/19 7/09/19
CC2a (Campbell Creek & Ag Field)	6/05/19 106 6/27/19 54 7/09/19 89 8/02/19 112	6/05/19 - 16.8 6/27/19 - 11.5 7/09/19 - 49.8 8/02/19 - 20	N/A	N/A
CC1 (Campbell Creek & Becker CSAH 149) HOBO	5/21/19 - 45 6/05/19 - 65 6/17/19 - 47 6/27/19 - 73 7/01/19 - 62	6/05/19 - 17.3 6/17/19 - 9.9 6/27/19 - 17 7/01/19 - 9 7/09/19 - 84.7	5/02/19; Gage — 1.32; 1379.10 Elev. 5/21/19; Gage — 1.29; 1379.07 Elev. 5/23/19; Gage — 1.36; 1379.14 Elev. 5/29/19; Gage — 1.12; 1379.00 Elev. 6/05/19; Gage — 0.86; 1408.15 Elev.	5/23/19 7/17/19

7/09/19 – 274 7/15/19 – 101 7/29/19 – 64 8/02/19 – 87	7/15/19 – 26.4 7/29/19 – 7 8/02/19 – 16.6	6/05/19; Gage – 1.09; 1378.87 Elev. 6/17/19; Gage – 0.94; 1378.72 Elev. 6/27/19; Gage – 0.89; 1379.67 Elev. 7/01/19; Gage – 0.75; 1378.53 Elev. 7/09/19; Gage – 1.25; 1379.03 Elev. 7/10/19; Gage – 1.40; 1379.18 Elev. 7/15/19: Gage – 1.22; 1379.00 Elev. 7/17/19: Gage – 1.09; 1378.87 Elev. 7/26/19: Gage – 0.80; 1378.58 Elev. 7/29/19: Gage – 0.62; 1378.40 Elev.
		7/29/19: Gage – 0.62; 1378.40 Elev. 8/02/19: Gage – 0.67; 1378.45 Elev.

Ice Out: April 6th

HOBO deployed: May 2nd

Pelican River/Ditch 13 between Little Floyd to Detroit Lake.

The early July high temperatures and the July 8-10th rainfall, saw a sharp increase in phosphorus levels from the Rice Lake wetland. The July 15th sample result was 122 ppb and on July 29 is was 151 ppb, significantly up from the July 9th result of 74 ppb and the July 1st result of 27 ppb phosphorus.

E-coli. Bacteria Source Testing Results. On July 1th, samples were collected throughout the Otter Tail basin at designated sampling locations. The source testing results from the Pelican River/Corbett Road location indicate bird bacteria are the main bacteria source and were quantified at high levels. Dog and Beaver bacteria were detected, but at low levels not quantifiable. Two types of human markers were also tested - one marker was not detected and the other human marker was detected, but at unquantified low levels. Fortunately, bird bacteria does not carry pathogens that are harmful to humans and pets, unlike human and cattle bacteria. The July samples were collected after a storm event and higher stream flow levels, which may have diluted the bacteria counts. Another collection round will be conducted in late August/early September which will target low flow, drier weather conditions. Additional source testing for the Pelican River site will include waterfowl/gull; dog, poultry, and human. The City will also be testing their sanitary system in the next week for potential cross contamination with the storm sewer system.

Site	Phosphorus (TP) ppb (parts per billion)	Sediment (TSS)	E. coli (fecal) Impaired	Water Level (NAVD 88)	Flow Rating
PR 2 (Anchor Rd/Ditch 13)	5/2/19 - 38 5/21/19 - 26 6/05/19 - 36 6/17/19 - 35 6/27/19 - 39 7/1/19 - 44 7/9/19 - 77 7/15/19 - 59 7/29/19 - 30 8/2/19 - 42	6/27/19 - 2.5 7/9/19 - 4.1 8/2/19 - 14.8	N/A	5/02/19 Gage - 2.56; 1353.20 Elev. 5/21/19 Gage - 2.38; 1353.02 Elev. 5/23/19 Gage - 2.44; 1353.08 Elev. 5/29/19 Gage - 2.32; 1352.96 Elev. 6/05/19 Gage - 2.23; 1352.87 Elev. 6/17/19 Gage - 1.94; 1352.58 Elev. 6/27/19 Gage - 1.87; 1352.51 Elev. 7/01/19 Gage - 1.86; 1352.50 Elev. 7/09/19 Gage - 2.16; 1352.80 Elev. 7/10/19 Gage - 2.49; 1353.13 Elev. 7/15/19 Gage - 2.28; 1352.92 Elev. 7/26/19 Gage - 1.89; 1352.53 Elev. 7/29/19 Gage - 1.78; 1352.43 Elev. 8/02/19 Gage - 1.68; 1352.32 Elev.	N/A
PR2a (Rice Wetland Outlet/Ditch 13) HOBO- 5/30	5/2/19 - 21 5/21/19 - 19 6/05/19 - 28 6/17/19 - 44 6/27/19 - 52 7/1/19 - 27 7/9/19 - 73 7/15/19 - 122 7/29/19 - 151 8/2/19 - 97	6/27/19 – 2.4 7/9 – 2.6 8/2/19 – 3.3	N/A	5/02/19 Gage - 2.48; 1350.14 Elev. 5/21/19 Gage - 2.34; 1350.00 Elev. 5/23/19 Gage - 2.42; 1350.08 Elev. 5/29/19 Gage - 2.12; 1349.78 Elev. 6/05/19 Gage - 1.78; 1349.43 Elev. 6/17/19 Gage - 1.64; 1349.29 Elev. 6/27/19 Gage - 1.96; 1349.62 Elev. 7/01/19 Gage - 2.05; 1349.71 Elev. 7/09/19 Gage - 2.60; 1350.26 Elev. 7/15/19 Gage - Gage under water 7/29/19 Gage - 3.18; 1350.84 Elev. 8/02/19 Gage - 3.12; 1350.78 Elev.	N/A
PR 3 (HWY 34/Ditch 13) HOBO- 5/2	5/28/19 - 32 5/21/19 - 32 6/05/19 - 43 6/17/19 - 58 6/27/19 - 102 7/1 - 70	5/28/19 - 4.2 5/21/19 - 4.4 6/05/19 - 3.6 6/17/19 - 5.6 6/27/19 - 4.7 7/1 - 1.6	6/5 - 58.3 6/17 - 72.3 7/1 - 113.7 7/10 - 1299.7 7/29 - 33.2	5/02/19 Gage - 2.34; 1347.52 Elev. 5/21/19 Gage - 2.24; 1347.42 Elev. 5/23/19 Gage - 2.37; 1347.55 Elev. 5/29/19 Gage - 2.04; 1347.22 Elev. 6/05/19 Gage - 1.65; 1346.83 Elev. 6/17/19 Gage - 1.43; 1346.61 Elev.	N/A

	7/9 – 91 7/15 – 104 7/29 – 90 8/2 - 63	7/15 – 2.0 8/2 – 1.0		6/27/19 Gage — 1.60; 1346.78 Elev. 7/01/19 Gage — 1.49; 1346.67 Elev. 7/09/19 Gage — 1.92; 1347.10 Elev. 7/10/19 Gage — 2.78; 1347.96 Elev. 7/15/19 Gage — 2.50; 1347.68 Elev. 7/17/19 Gage — 2.44; 1347.62 Elev. 7/26/19 Gage — 2.48; 1347.66 Elev. 7/29/19 Gage — 2.42; 1347.60 Elev. 8/02/19 Gage — 2.44; 1347.62 Elev.	
PR4a HOBO-5/30	N/A	N/A	6/5- 41.0 6/17- 218.7 7/1 - 198.9 7/10 - 1413.6 7/29 - 146.7	5/02/19 Gage – 1.72; 1339.97 Elev. 5/21/19 Gage – 1.67; 1339.92 Elev. 5/23/19 Gage – 1.77; 1340.02 Elev. 5/29/19 Gage – 1.52; 1339.77 Elev. 6/05/19 Gage – 1.27; 1339.52 Elev. 6/06/19 Gage – 1.24; 1339.49 Elev. 6/17/19 Gage – 1.16; 1339.41 Elev. 7/01/19 Gage – 0.98; 1339.23 Elev. 7/10/19 Gage – 1.70; 1339.95 Elev. 7/15/19 Gage – 1.40; 1339.65 Elev. 7/26/19 Gage – 1.40; 1339.65 Elev. 7/29/19 Gage – 0.97; 1339.22 Elev.	6/06/19 7/19/19 7/29/19
PR5	5/2/19 - 38 5/21/19 - 47 6/05/19 - 53 6/17/19 - 73 7/1 - 74 7/15 - 84 7/29 - 42	5/2/19 - 6.6 5/21/19 - 22.1 6/05/19 - 6.9 6/17/19 - 10.8 7/1 - 4.9 7/15 - 4.2 7/29 - 1.6	N/A	N/A	N/A
NOTES					

Ditch 14 between St. Clair Lake to Pelican River and the Pelican River between Detroit Lake to Sallie.

Stream sampling sites include the Ditch 14 wetland area – SC3 (outlet of St. Clair Lake/HWY 59), SC3b (Ditch 14/CTY 6 downstream), SC 4 (Pelican River/Ditch 14), PR6 (Pelican River/West Lake Drive), PR6A (Pelican River/Muskrat inlet), PR 7 (Pelican River/Muskrat Lake), PR8 (Pelican River/Shoreham), and PR9 (Pelican River/Melissa Outlet).

The stream segment between St. Clair Lake and the Pelican River has high phosphorus concentrations with results ranging between 66 ppb – 123 ppb at the outlet of St. Clair Lake and from 46 ppb to 250 ppb at the confluence of the ditch and the Pelican River.

Water levels have been steadily declining after abnormally high water observed in early July. Over the past month, levels have decrease by 6 inches at all of the monitoring locations.

Site	Phosphorus (TP)	Sediment (TSS)	Chloride (CL-	Water Level (NAVD 88)	Flow Rating
	, neepheres (iii))	Water Level (IVAVD 00)	Measurement
SC3 (outlet of St. Clair Lake/HWY 59) HOBO	5/2/19 - 74 5/16/19 - 109 5/28/19 - 123 6/10/19 - 79 6/24/19 - 66 7/8/19 - 77 7/22/19 - 99	5/28/19 - 6.9 5/31/19 - 10.8	5/2 – 18.3 5/13 – 5.9	6/10/19 Gage - 2.26; 1339.08 Elev. 6/24/19 Gage - 1.98; 1338.80 Elev. 7/08/19 Gage - 1.89; 1338.71 Elev. 7/10/19 Gage - 2.17; 1338.99 Elev. 7/11/19 Gage - 2.24; 1339.06 Elev. 7/22/19 Gage - 2.05; 1338.87 Elev. 7/26/19 Gage - 1.94; 1338.76 Elev.	N/A
SC3b (Ditch 14/CTY 6 downstream); HOBO	N/A	N/A	N/A	6/10/19 Gage - 1.98; 1337.43 Elev. 6/24/19 Gage - 1.71; 1337.16 Elev. 7/08/19 Gage - 2.66; 1338.11 Elev. 7/10/19 Gage - 3.03; 1338.48 Elev. 7/11/19 Gage - 3.03; 1338.48 Elev. 7/22/19 Gage - 2.93; 1338.38 Elev. 7/26/19 Gage - 2.74; 1338.19 Elev.	N/A
SC 4 (Pelican River/Ditch 14),	5/2/19 - 55 5/16/19 - 49 5/28/19 - 46 6/10/19 - 250 6/24/19 - 170 7/8/19 - 121	5/16/19 - 2.0 5/28/19 - 1.9 6/10/19 - 5.4 6/24/19 - 3.9 7/8/19 - 7.9 7/22/19 - 6.1	5/2 - 139 5/16 - 134 5/28 - 124 6/10 - 125 6/24 - 123 7/8 - 109	5/02/19 Gage - 9.35; 1335.85 Elev. 5/13/19 Gage - 9.20; 1335.70 Elev. 5/21/19 Gage - 9.23; 1335.73 Elev. 5/28/19 Gage - 9.23; 1335.73 Elev. 5/31/19 Gage - 9.20; 1335.70 Elev. 6/10/19 Gage - 8.95; 1335.45 Elev.	N/A

	1		T = 1,= 1		
	7/22/19 – 102	THE RESERVEN	7/22 – 101	6/24/19 Gage – 8.98; 1335.48 Elev.	
		HAVE TO VIEW		7/08/19 Gage – 8.85; 1335.35 Elev.	RIGHT NO RE
				7/10/19 Gage – 9.07; 1335.75 Elev.	
			Nielt Vie	7/17/19 Gage – 9.06; 1335.56 Elev.	
				7/22/19 Gage – 8.95; 1335.45 Elev.	
			Harries March	7/26/19 Gage – 8.86; 1335.36 Elev.	
PR6 (Pelican	5/2/19 - 16	N/A	N/A	5/02/19 Gage - 9.35; 1335.85 Elev.	5/28/19
River/West Lake	5/16/19 - 18		THE STREET	5/13/19 Gage – 9.20; 1335.70 Elev.	7/17/19
Drive)	5/28/19 - 15			5/21/19 Gage – 9.23; 1335.73 Elev.	
	6/10/19 - 22			5/28/19 Gage – 9.23; 1335.73 Elev.	
	6/24/19 – 17			5/31/19 Gage - 9.20; 1335.70 Elev.	
	7/8/19 - 24			6/10/19 Gage - 8.95; 1335.45 Elev.	
	7/22/19 - 14			6/24/19 Gage - 8.98; 1335.48 Elev.	
				7/08/19 Gage - 8.85; 1335.35 Elev.	
				7/10/19 Gage - 9.07; 1335.57 Elev.	
				7/17/19 Gage - 9.06; 1335.56 Elev.	
				7/22/19 Gage - 8.95; 1335.45 Elev.	
				7/26/19 Gage - 8.86; 1335.36 Elev.	
PR6A (Pelican River	5/2/19 - 25	N/A	N/A	5/02/19 Gage – 1.92; 1335.62 Elev.	6/04/19
/Muskrat inlet)	5/16/19 - 21			5/28/19 Gage – 1.83; 1335.53 Elev.	7/17/19
/machata miloty	5/28/19 - 22	BUILDING SE		5/31/19 Gage – 1.78; 1335.48 Elev.	
The Party of the P	6/10/19 - 92			6/04/19 Gage – 1.73; 1335.43 Elev.	
	6/24/19 - 55	BULL THE PARTY OF THE		6/10/19 Gage – 1.61; 1335.31 Elev.	
	7/8/19 - 49			6/24/19 Gage – 1.50; 1335.20 Elev.	
	1/0/19 - 49			7/08/19 Gage – 1.46; 1335.16 Elev.	
Participation of the second					
				7/10/19 Gage – 1.60; 1335.30 Elev.	
				7/17/19 Gage – 1.62; 1335.32 Elev.	
				7/22/19 Gage – 1.54; 1335.24 Elev.	
	Alla	10110	D1//0	7/26/19 Gage – 1.50; 1335.20 Elev.	NI/A
PR 7 (Pelican	N/A	N/A	N/A	6/24/19 Gage – 4.96; 1334.89 Elev.	N/A
River/Muskrat Lake),				7/07/19 Gage – 4.71; 1334.64 Elev.	
				7/10/19 Gage – 5.10; 1335.03 Elev.	
				7/22/19 Gage – 5.03; 1334.96 Elev.	
				7/26/19 Gage – 4.94; 1334.87 Elev.	
PR8 (Pelican	5/16/19 - 14	N/A	N/A	5/02/19 Gage - 8.92; 1331.08 Elev.	5/31/19
River/Shoreham)	5/28/19 - 12			5/28/19 Gage – 8.86; 1331.02 Elev.	7/17/19
	5/31/19 - 10			5/31/19 Gage - 8.82; 1330.98 Elev.	
	6/10/19 - 18			6/10/19 Gage - 8.58; 1330.74 Elev.	
STATE OF STATE OF	6/24/19 - 21		THE PARTY OF THE P	6/24/19 Gage - 8.26; 1330.42 Elev.	White and the second
	7/17/19 - 18			7/07/19 Gage - 8.19; 1330.35 Elev.	
Callenger at the	7/22/19 – 18			7/10/19 Gage - 8.40; 1330.56 Elev.	
				7/17/19 Gage - 8.37; 1330.53 Elev.	
TO THE SECOND PROPERTY.	THE RESERVE OF STREET			7/22/19 Gage - 8.32; 1330.48 Elev.	
	CHARLES OF C			7/26/19 Gage - 8.25; 1330.41 Elev.	
PR9 (Pelican	5/16/19 - 11	N/A	N/A	5/02/19 Gage - 2.19; 1329.82 Elev.	5/28/19
River/Melissa Outlet)	5/28/19 - 10			5/28/19 Gage – 2.23; 1329.86 Elev.	6/28/19
- involvinonood Oddict)	6/10/19 - 11	Manager and the second		5/31/19 Gage – 2.19; 1329.82 Elev.	7/18/19
	6/24/19 – 17			6/10/19 Gage – 2.08; 1329.71 Elev.	
	7/8/19 – 14	THE RESERVE OF THE PARTY OF THE		6/24/19 Gage – 1.96; 1329.59 Elev.	
	7/22/19 – 15			6/28/19 Gage – 1.97; 1329.60 Elev.	
PARTY CONTRACTOR	1122113 13			7/07/19 Gage – 1.90; 1329.53 Elev.	
		Aviet of the second		7/10/19 Gage – 1.90, 1329.33 Elev.	
SEL ST. IN THE PARTY OF THE PAR	Maria Maria	A State of the last		7/10/19 Gage – 2:05, 1329:66 Elev. 7/18/19 Gage – 1:98; 1329:61 Elev.	
	STATE OF THE PARTY		ALUE SETTING	7/16/19 Gage – 1.96; 1329.61 Elev.	
	Principal Laws		A STATE OF THE STA		
				7/26/19 Gage – 1.96; 1329.59 Elev.	
		+16			
HOBO - deployed at	SC3 and SC3B on	June 13"'.			

Lakes Monitoring.

Shoreline Surveys: Interns completed updating the survey database for Pearl, Munson and Long.

Lake vegetation surveys. Vegetation surveys were completed on Little and Big Detroit on August 14th.

Lake Water levels. Water levels have decreased 2-3 inches from mid-July and remain 2-3 inches above the Ordinary High Water Level (OHW) on area lakes.

Lake Sampling. The District collects routine samples from June-September and at other times if unusual lake conditions are noted (rapid decrease in water clarity, algae blooms). Lakes designated for 2019 monitoring are split into two sampling groups Week A (Big Floyd, North Floyd, Little Floyd, Long, Big Detroit, Little Detroit, Sallie, and Melissa) and Week B (Munson, Johnson, Reeves, St. Clair, and Abbey)

In July, most area lakes experienced slight water clarity declines due to the higher air temps and the July 8-10th rainfall event.

<u>Big Detroit:</u> Secchi readings declined from 15 feet on July 2nd to 11.5 feet on July 29th, but by August 15th, clarity rebounded back to 15 ft. Phosphorus concentration results for the month of July are better than the long term average.

<u>Little Detroit:</u> Water clarity trends followed closely with Big Detroit – decreasing from 16 ft on July 2nd to 13.5 feet on July 29th. On August 13th, water clarity reached 17 feet.

<u>Sallie:</u> The zebra mussel water filtering effects are most notable on Sallie. On August 14th, water clarity was 15 ft – more than three times the long term average in August. Phosphorus concentrations during the sampling season have remained low – ranging between 17-21 ppb, a dramatic change from the long term summer average of 35 ppb.

Melissa: Nutrients remain low and clarity has been excellent this summer – almost 20 ft in July.

Big Floyd: Nutrient levels remain low. Water clarity on August 13th was 10 feet, 2.5 ft better than the 7.5 ft recorded in 2018.

North Floyd: summer phosphorus results are better than the long term average and water clarity is also good. The July 8-10th rainfall event decreased water clarity levels from 12 ft on July 3rd to 7 feet on July 18th. In August, water clarity is at 8ft.

Little Floyd: Water clarity is significantly better than in 2018, averaging 12 ft - up from 9 ft.

Monitoring Data Collection Completion: The District is obtaining a quote from RMB labs to finish data collection on all lakes in September.

PRWD Zooplankton Study – Floyd Chain and Long lakes. Connor Haugrud has completed sampling and will prepare a study report this winter.

MN DNR Sustaining Walleye Populations – Zebra mussel impacts on sport fisheries lakes. Connor Haugrud assisted the MN DNR on Lake Melissa and Big Cormorant taking zooplankton samples and assessing fish communities by electrofishing to determine the extent that Zebra Mussel impact have on Walleye communities.

Week A Lakes

Note: Elevations for all stream sites are recorded in NAVD88 vertical elevation datum. Lake levels are converted from NAVD88 to NGVD29. MN DNR tracks lake levels and ordinary high-water level elevations using NVGD29. Elevation differential between the two datum varies by .48ft to 1.1ft within the District.

Name	TP	OP	CHL-A (algae)	Secchi (clarity)	Lake Level (NAVD 29)
Big Floyd	6/18/19 - 21	6/18/19 - <03	6/18/19 - 1.78	6/03/19 - 14	5/02/19 -1355.406
	6/21/19 – 16	6/21/19 - 03	6/21/19 - 4.45	6/18/19 - 13	5/21/19 - 1355.136
	7/03/19 - 12	7/03/19 – 05	7/03/19 - 8.46	6/21/19 - 11.5	5/29/19 - 1355.086
	7/18/19 - 11	7/18/19 – 04	7/18/19 - 3.56	7/02/19 - 13	6/17/19 - 1354.866
				7/03/19 - 12.5	7/01/19 - 1354.946
				7/18/19 – 12	7/10/19 - 1355.246
North Floyd (MUD)	6/18/19 - 21	6/18/19 - <03	6/18/19 - 2.67	6/03/19 - 13	5/02/19 -1355.406
	6/21/19 - 32	6/21/19 – 04	6/21/19 - 5.78	6/18/19 – 16	5/21/19 - 1355.136
	7/03/19 - 22	7/03/19 - <03	7/03/19 - 16.9	6/21/19 – 12	5/29/19 - 1355.086
	7/18/19 – 20	7/18/19 – 04	7/18/19 - 6.68	7/03/19 – 12	6/17/19 - 1354.866
				7/18/19 – 07	7/01/19 - 1354.946
					7/10/19 - 1355.246
Little Floyd	6/18/19 - 20	6/18/19 - <03	6/18/19 - 4.90	6/03/19 - 15	5/02/19 -1355.406
	6/20/19 - 20	6/20/19 - 03	6/20/19 - 7.56	6/18/19 – 11	5/21/19 - 1355.136
	7/02/19 – 18	7/02/19 – 05	7/02/19 - 1.00	6/20/19 - 12.5	5/29/19 - 1355.086
	7/18/19 – 15	7/18/19 - 03	7/18/19 - 4.90	7/02/19 – 13	6/17/19 - 1354.866
				7/18/19 – 13	7/01/19 - 1354.946
					7/10/19 - 1355.246

		Laravija an	1 0/04/40 00 00	1 0/04/40 00	1 3 1 / 4
Long	6/04/19 - 19 6/18/19 - 08 6/20/19 - 08 7/01/19 - 10 7/18/19 - 07	6/04/19 - 07 6/18/19 - <03 6/20/19 - 05 7/01/19 - 05 7/18/19 - 04	6/04/19 - 20.00 6/18/19 - 1.78 6/20/19 - 1.34 7/01/19 - 1.78 7/18/19 - 2.67	6/04/19 - 03 6/18/19 - 17 6/20/19 - 24 7/01/19 - 30+ 7/18/19 - 25	N/A
Big Detroit	6/19/19 – 13 7/02/19 – 17 7/16/19 – 20 7/29/19 – 18	6/19/19 - <03 7/02/19 - 05 7/16/19 - 05 7/29/19 - 07	6/19/19 - 3.12 7/02/19 - 4.57 7/16/19 - 5.34 7/29/19 - 4.00	5/30/19 - 17.5 6/05/19 - 17 6/19/19 - 15 7/02/19 - 15 7/16/19 - 12.5 7/29/19 - 11.5	5/02/19 - 1335.15 5/21/19 - 1335.03 5/31/19 - 1335.00 6/10/19 - 1334.75 6/24/19 - 1334.78 7/08/19 - 1334.65 7/10/19 - 1334.87
Little Detroit	6/19/19 – 15 7/02/19 – 16 7/16/19 – 16 7/29/19 – 15	6/19/19 - <03 7/02/19 - 05 7/16/19 - 05 7/29/19 - 08	6/19/19 - 1.34 7/02/19 - 1.00 7/16/19 - 3.12 7/29/19 - 1.78	5/30/19 - 9.5 6/05/19 - 13.5 6/19/19 - 17 7/02/19 - 16 7/16/19 - 14 7/29/19 - 13.5	5/02/19 - 1335.15 5/21/19 - 1335.03 5/31/19 - 1335.00 6/10/19 - 1334.75 6/24/19 - 1334.78 7/08/19 - 1334.65 7/10/19 - 1334.87
Curfman	N/A	N/A	N/A	6/19/19 – 15 7/02/19 – 13.5 7/29/19 – 13.5	5/02/19 -1335.15 5/21/19 - 1335.03 5/31/19 - 1335.00 6/10/19 - 1334.75 6/24/19 - 1334.78 7/08/19 - 1334.65 7/10/19 - 1334.87
Sallie	6/06/19 - 20 6/19/19 - 18 7/01/19 - 21 7/16/19 - 19 7/30/19 - 17	6/06/19 - 05 6/19/19 - 04 7/01/19 - 04 7/16/19 - 05 7/30/19 - 06	6/06/19 - 8.01 6/19/19 - 1.00 7/01/19 - 3.12 7/16/19 - 3.12 7/30/19 - 4.9	6/06/19 - 12 6/19/19 - 19 7/02/19 - 13.5 7/16/19 - 14.5 7/30/19 - 14	5/02/19 - 1330.78 5/31/19 - 1330.68 6/10/19 - 1330.44 6/24/19 - 1330.12 7/07/19 - 1330.05 7/10/19 - 1330.26
Melissa	6/06/19 - 11 6/19/19 - 12 7/07/19 - 14 7/16/19 - 19 7/30/19 - 16	6/06/19 - 06 6/19/19 - <03 7/07/19 - 04 7/16/19 - 05 7/30/19 - 08	6/06/19 - 6.55 6/19/19 - 5.94 7/07/19 - 5.18 7/16/19 - 2.22 7/30/19 - 4.90	5/30/19 - 15 6/06/19 - 21.5 6/19/19 - 19.5 7/02/19 - 17 7/07/19 - 17 7/16/19 - 20 7/30/19 - 16	5/02/19 - 1328.92 5/31/19 - 1328.92 6/10/19 - 1328.81 6/24/19 - 1328.69 6/28/19 - 1328.70 7/07/19 - 1328.78

Johnson/Reeves: Water quality has been average for the year. Water clarity was measured at 10 feet on both lakes on August 6th.

Munson: Water quality has been better than average. On August 6th clarity was 11.5 feet and only 11 ppb phosphorus were recorded.

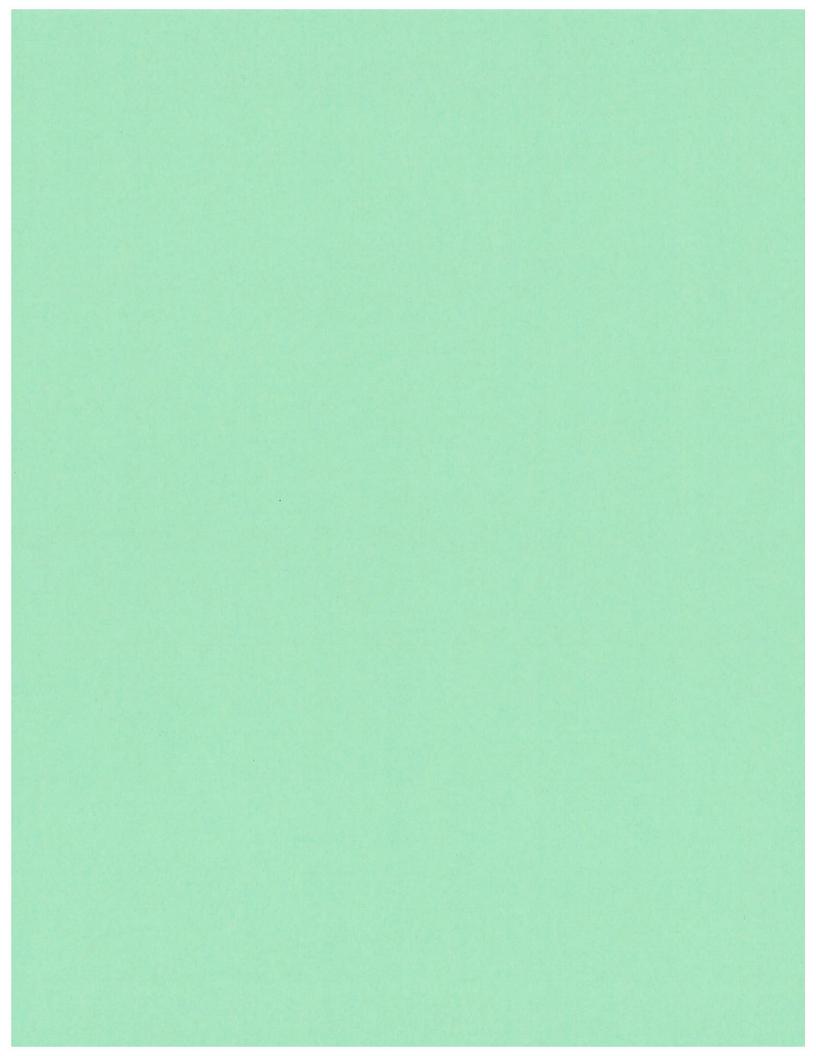
Fox: Water quality remains good this season. Water clarity on August 6th was 17 ft and phosphorus levels were low at 10 ppm.

Abbey: Nutrient levels and clarity are better than the long term average and are closely following the 2018 trends. Water clarity is to the lake bottom all season (8 ft).

St. Clair: St. Clair water quality is better than in 2018, but still exceeds impairment thresholds. Phosphorus results in July and August were in the low 90's, down from 120 ppb during this timeframe in 2018.

Week B Lakes Note: Elevations for all stream sites are recorded in NAVD88 vertical elevation datum. Lake levels are converted from NAVD88 to NGVD29. MN DNR tracks lake levels and ordinary high-water level elevations using NVGD29. Elevation differential between the two datum varies by .48ft to 1.1ft within the District. CHL-A (algae) Secchi (clarity) Lake Level (NAVD 29) Name TP OP 6/11/19 - 08 6/11/19 - 4.00 6/11/19 - 12 N/A Johnson 6/11/19 - 20 6/25/19 - 056/25/19 - 7.126/25/19 - 076/25/19 - 227/10/19 - 257/10/19 - 057/10/19 - 9.797/10/19 - 097/25/19 - 227/25/19 - 067/25/19 - 8.907/25/19 - 076/11/19 - 5.34 6/11/19 - 13 N/A Reeves 6/11/19 - 226/11/19 - 086/25/19 - 186/25/19 - 056/25/19 - 13.406/25/19 - 12

	7/10/19 – 18	7/10/19 - 04	7/10/19 - 5.78	7/10/19 – 10	PERIOR NEW TOTAL STATE
	7/28/19 - 17	7/25/19 – 05	7/25/19 - 5.34	7/25/19 – 11.5	
Munson	6/10/19 – 17	6/10/19 - 04	6/10/19 - 5.34	6/10/19 - 12	N/A
	6/24/19 – 18	6/24/19 - <03	6/24/19 - 7.56	6/24/19 - 10	
	7/10/19 – 15	7/10/19 - <03	7/10/19 - 6.68	7/10/19 – 11	
	7/25/19 – 15	7/25/19 – 03	7/25/19 – 2.67	7/25/19 – 13	
St. Clair	6/13/19 - 64	6/13/19 - <03	6/13/19 - 52.70	6/13/19 - 03	N/A
	6/26/19 – 54.5	6/26/19 - <03	6/26/19 – 22.00	6/26/19 05	
	7/12/19 – 91	7/12/19 - 06	7/12/19 – 44.50	7/12/19 - 03	
Fox	6/26/19 – 17	6/26/19 - 05	6/26/19 - 5.78	6/26/19 - 11	N/A
	7/12/19 – 14	7/12/19 - 04	7/12/19 - 2.22	7/12/19 – 14	
	7/24/19 – 11	7/24/19 - 05	7/24/19 - 4.45	7/24/19 - 16.5	
Abbey	6/11/19 – 16	6/11/19 - <03	6/11/19 – 1.78	6/11/19 - 6.5	N/A
	6/26/19 - 22	6/26/19 - < 03	6/26/19 - 4.90	6/26/19 - 07	
	7/12/19 – 21	7/12/19 - <03	7/12/19 - 3.56	7/12/19 – 08	
	7/30/19 – 28	7/30/19 - 08	7/30/19 - 6.23	7/30/19 – 06	





RULES OF ENFORCEMENT August 2019

Permits Issued

No.	<u>Name</u>	Address/Area	Approved Project
19-34	Tweten, Micah	24511 Woodland Lane Sallie	SIZ Alteration: repair existing rip rap and ice pressure ridge.
19-35	Wolff, Scott	916 Longview Lane Long	SIZ Alteration: remove one diseased birch tree
19-36	Ahlin, Tom & Jane	26425 Paradise Point Rd. Floyd	SIZ Alteration: remove retaining wall, regrade shoreline, installation of boulder outcroppings and native plantings.
19-37	Neil, Clement & Donna	Town & Country Estates Rd Floyd	SIZ Alteration: replant 6 trees and restore shore impact zone vegetation with native plants
19-38	Studsrud, Justin	1451 Long Lake Dr.	SIZ Alteration: remove retaining wall, regrade and revegetate Shore impact zone, install 4 foot wide steps to lake.
19-16	Holiday Inn 2nd Amendment 7/11/2019	1155 Hwy 10 E.	Include asphalt patching (3,085 S F) and sidewalk replacement (600 S F) on the west parking lot area.

Permit Applications submitted

Detroit Lakes School Projects:

DLHS-MBN Engineering currently working on plan and District is expecting them shortly.

<u>Broadway Welding-</u>1090 Legion Road, Application received 6/24. Wenck second review completed on 8/5/19. Apex currently making revisions. Building addition and parking lot improvements. Impervious surface coverage over 1 acre.

Projects Under Remediation

<u>Jamie Braseth-</u>608 Shorewood Dr.- Restoration is complete and the surety (\$2000) will be returned once the Request for Escrow funds is received.

Shore Impact Zone violations- Guetter met with City staff and contractor regarding needed corrective action on properties altered without permits.

Progress Report

Becker County Museum Building Project—Nothing further to report.

Becker CSAH 22 Long Bridge— The City staff is working toward a plan for a stable access path.

<u>Long Lake Lane</u>— The City has informed the District they are working on vegetation establishment in ditch checks which will loosen soils to allow drainage.

Holiday Inn—Owners and MN DNR are reviewing public access stormwater plan for potential water treatment from west parking lot Holiday site. Feldt Plumbing will be installing the vortek unit on the east parking lot shoreline area. The pipe installed between the infiltration basin and the City stormwater pond was installed at a reverse slope and will need to be corrected. Additionally, the horizontal boring beneath the boat launch caused the soil to collapse creating a void space below the concrete, this too will need to be corrected. Feldt Plumbing informed the District these corrections would be complete by August 23rd. Becker SWCD will be assisting with the vegetation establishment from Hwy 10 Frontage Road to the lake, including the basin. We anticipate the work to be completed this fall.

Denis & Susan Kadrie-190 Shorewood Dr., City of Detroit Lakes has issued variance for lot coverage over 25%-stormwater management plan needed. Applicant will be reapplying for variance for deck construction in the shore impact zone with updated buffer plans (mitigation).



THE PELICAN RIVER WATERSHED DISTRICT OF BECKER AND OTTERTAIL COUNTIES MINUTES OF THE SPECIAL MEETING

August 8, 2019

Managers Present: Kral, Okeson, Michaelson, Imholte, Deede, Haggart, Jasken

Managers Absent: None

Staff: Administrator Guetter, Alcott, Moses

Consultants: Skoyles, Mackowick

Others: Jerry Doyea, Mark Demay, Michael Mathias, Jennifer Mastrud, Larry Anderson, Wanda Roden, Trish

Klingsporn, Connor Haugrud, Mike Brethorst, Dick Alsop

Pelican River Watershed District Project Tour:

Time	Location/Topic
1:00 PM Depart	City Parking Lot across from Wells Fargo Bank - We will car pool.
1:15 PM	Lower Structure Location – Terry Street/Residential Development
	Review Upper Structure Location and access road – not able to access due to
	location constraints; monitoring data
1:45 PM	Anchor Road – Brief stop to review vacated area
1:55 PM	County 131 – Review Park Core Commercial Plat
2: 10 PM	Sunlight Lower Parking Lot – Review Par Place Residential Plat
2:20 PM	Sunlight Marina – Board Pontoons
2:30 PM	Review North Floyd Plat / PRWD Outlot, Campbell Creek issues, Internal
	loading/Alum treatment; Little Floyd Lake E. coli
3:15 PM	Tour Big Floyd Lake - Redevelopment; Shoreline; Restorations;
	Connor Haugrud – Concordia Student Zooplankton Study
5:15 PM	Return to Sunlight Marina
5:30 PM	Sunlight Grill

No Business was conducted. Tour handouts attached hereto.

	Meeting Approved:	
Respectfully Submitted, Janice Haggart, Secretary		