



NORTHERN MORAIN WASTEWATER RECLAMATION DISTRICT

113 Timber Trail, Island Lake, Illinois 60042

REGULAR MEETING MINUTES

November 12, 2019

Present: Trustees: Ken Michaels, John Ragland, Timothy Brunn, Dena Battaglia, Lydia Ryberg
District Manager: Mohammed Haque; District Clerk: Deborah Martin
Others: Superintendent: Luke Markko; Junior Engineer: Joe Lapastora
Guest: John Balzano with Piper Jaffray

President Michaels called the meeting to order at 7:31 p.m.

1. CALL TO ORDER:

Roll Call: Timothy Brunn - Present
John Ragland - Present
Dena Battaglia - Present
Lydia Ryberg - Present
Ken Michaels - Present

2. PLEDGE OF ALLEGIANCE:

Those present stood and pledged allegiance to the flag.

10. NEW BUSINESS:

President Michaels asked the Board to accept a change in the agenda, allowing John Balzano of Piper Jaffray, to present to the Board Piper Jaffray's results for refinancing the Series 2019 General Obligation Bonds. The board agreed.

John Balzano of Piper Jaffray gave a brief presentation on the bid that was received on the bond refunding, market interest rates and the excellent rate of 2.02% received under Option C that was presented by JP Morgan Chase for the refunding.

e. Selection of Purchaser for the General Obligation Refunding Bonds Series 2019 – Alternate Revenue Source

Motion by Trustee Ryberg to accept the presented bid by JP Morgan Chase Option C for the refinancing of the Series 2019 General Obligation Bonds (Alternate Revenue Source), not to exceed \$4,105,000.00 at an interest rate of 2.02%.

2nd by Trustee Battaglia

Roll Call Vote: Dena Battaglia - Aye
Timothy Brunn - Aye
John Ragland - Aye
Lydia Ryberg - Aye
Ken Michaels - Aye

5 ayes 0 nays 0 abstain

MOTION CARRIED



Northern Moraine Wastewater Reclamation District
Regular Meeting Minutes
November 12, 2019

3. PRESENTATION & APPROVAL OF MINUTES:

a. Regular Meeting, October 8, 2019

Motion by Trustee Brunn to approve the Regular Meeting minutes of October 8, 2019 as presented.

2nd by Trustee Ryberg

5 ayes 0 nays 0 abstain

MOTION CARRIED

4. TREASURER'S REPORT:

a. Approval of the Monthly Treasurer's Report for month ending September 30, 2019

Mrs. Ryberg presented the Monthly Treasurer's Report for month ending September 30, 2019 for Board approval.

Motion by Trustee Ragland to approve the Treasurer's Report for month ending September 30, 2019 as presented.

2nd by Mr. Brunn

5 ayes 0 nays 0 abstain

MOTION CARRIED

5. PUBLIC COMMENTS: none

6. MANAGER'S REPORT:

Manager Haque reported that the Bar Screen will require an additional \$5,000 to modify the installation to fit District needs. A change order for the bid will be presented next month for approval. Mr. Haque told the Board that he is still working closely with Representative Weber, Senator Wilcox and with Mike Tryon, concerning the Capital Bill funding that the District is expecting to receive. Manager Haque informed the Board that an intern has been hired; Miranda Durbin, who is a junior at Milwaukee School of Engineering. She is working on assigned tasks remotely and is physically at the District once a week. Mr. Haque stated that he has been in discussion with Eric Rothstein, and the preliminary findings are that the District is in a good place financially and Mr. Rothstein felt that the District would not need to increase user rates. He will be at the December or January Board meeting to discuss his findings and present his final report. Manager Haque has been in contact with the District's attorney, Vic Filippini, concerning the Ordinance Review and he feels that the District should be able to condense and combine some ordinances to be more user friendly. Mr. Filippini will also be making his presentation at a future board meeting. Manager Haque reported that the revised Employee Manual has been distributed to all District Employees. Manager Haque invited Superintendent Luke Markko to give his Operations Report.

Superintendent Markko started his presentation by reporting to the Board that Operator Tim Hendrickson had passed his IEPA Class 3 Wastewater Operator Certification exam. Superintendent Markko informed the Board that certified operators in the State of Illinois are a commodity, and the District is pleased to have Tim pass this exam. Mr. Markko reported that the District has permitted with Community Sewer and Septic along with Weidner's Septic Service for limited septage receiving. District staff is collecting samples with each load and is observing loads brought to the plant. He informed the Board of mechanical issues at some of the lift stations and how staff has responded to these issues. Superintendent Markko also relayed to the Board that his report outlined how the sludge conveyor was repositioned and how this temporary arrangement was working. Mr. Markko reported that the District recently worked with the Village of Island Lake to allow the Village's Public Works department to deposit stormwater cleaning spoils on one of the District's drying beds located at the treatment plant. After the debris has drained and dried, the Village will remove the debris. Mr. Markko reviewed for the Board the direct chemical feed results. He is quite happy with the results of less



Northern Moraine Wastewater Reclamation District
Regular Meeting Minutes
November 12, 2019

handling of these hazardous chemicals, along with the added benefit of less electricity used to pump the water to carry these chemicals. He stated that more enhancement is in the works for improving this process. Mr. Markko reported that District Staff is still monitoring the new Channel Grinder to see if the grinder's motor is still taking on water.

Junior Engineer Joe Lapastora reported to the Board that two more permits were pulled for Deer Grove II, with a connection inspection occurring for the construction of a second home this month. Mr. Lapastora reported that as-builts were received for Savannah's of Lakemoor today, and that the District was waiting to hear from William Ryan Homes concerning the exchanging of their performance bond for a maintenance bond, which would enter Savannah's into the maintenance period for the next three years. Mr. Lapastora informed the Board that there is still concern on the District's end concerning the lift station for Woodman's; although punchlist items were met, new issues with the East pump will need to be addressed. District staff is working with RA Mancini and the Village of Lakemoor to make sure that the lift station and all associated components are in working order before accepting this lift station. It was noticed by Luke and Joe that although the access road to the lift station has not been paved, aggregate has been installed for winter access. The Village of Lakemoor will plow this access road. He informed the Board that the project in Island Lake for the right turn lane at Route 176 and Roberts Road is near completion, with the retaining wall having been poured on Route 176, new underground electrical work is near completion for asphalt to be poured. One of the District's buried manhole in front of Dale's Motorcycle Shop was discovered when Home Towne Electric informed the District that one of their workers had bored through a buried manhole. IDOT will repair the damage to this manhole and the District will inspect the repair. Mr. Lapastora updated the Board on the SCADA project as written in his report and reported to the Board that some LED fixtures were successfully installed and that the District will proceed with more lighting upgrades over the winter. He told the Board that Idea Marketing has neared completion of the District's new website, with just a few more updates needed before unveiling the final product. Mr. Lapastora reported that due to issues discovered at the North Clarifier, he was the only staff member able to attend the CSWEA Operations Seminar at the Fox River Water Reclamation District in October. Mr. Lapastora was one of three presenters for this seminar, and his presentation on the District's more modern approach of data acquisition resulted in a few wastewater agencies scheduling calls to find out more about implementing this system at their plants.

7. TRUSTEE REPORTS:

President Michaels reported that he had a very brief discussion with Mayor Weihofen of the Village of Lakemoor concerning meeting to discuss the situation with Rockwell Utilities.

8. LEGAL BUSINESS - none

9. OLD BUSINESS - none

10. NEW BUSINESS

a. Adoption of Ordinance 19-08: 2019-2020 Tax Levy

For the 9th year in a row, the District will be lowering its tax levy, reducing the tax burden on residents served by Northern Moraine WRD. This year's reduction is 10.5% lower than last year's and 70% lower than 2010. Motion by Mr. Ragland to adopt the 2019-2020 Tax Levy Ordinance 19-08, setting the Levy at \$119,608.65.

2nd Mr. Brunn

Roll Call Vote:

Dena Battaglia - Aye

Timothy Brunn - Aye

John Ragland - Aye

Lydia Ryberg - Aye

Ken Michaels - Aye

5 ayes 0 nays 0 abstain

MOTION CARRIED



Northern Moraine Wastewater Reclamation District
Regular Meeting Minutes
November 12, 2019

b. Approval of Employee Health Insurance Coverage Renewal

District Manager Haque presented the quotes received from One Digital, with the best coverage for the District employees coming from BlueCross BlueShield of Illinois. Trustee Ragland asked if Manager Haque could look into getting a quote from Dearborn National Life for life insurance coverage for the trustees.

Motion by Mr. Ragland to accept the quote received from BlueCross BlueShield of Illinois for employee health insurance coverage and approve a Resolution authorizing the District Manager to execute documents for the one year coverage period beginning January 1, 2020 for a monthly premium of \$13,341.50.

2nd Mr. Brunn

Roll Call Vote: Dena Battaglia - Aye
 Timothy Brunn - Aye
 John Ragland - Aye
 Lydia Ryberg - Aye
 Ken Michaels - Aye

5 ayes 0 nays 0 abstain

MOTION CARRIED

c. Workers Compensation Insurance Coverage Renewal

District Manager Haque presented the quote received from Illinois Public Risk Fund through Arthur J. Gallagher. He explained that the rate has increased, based on a percentage of payroll and fluctuates yearly as staffing levels adjust.

Motion by Mrs. Battaglia to renew the agreement for Workers Compensation Insurance with the Illinois Public Risk Fund and to adopt a Resolution authorizing the District Manager to execute an agreement with Arthur J. Gallagher & Company and the Illinois Public Risk Fund for the period of January 1, 2020 to January 1, 2021 at the annual premium of \$15,916.00.

2nd Mr. Brunn

Roll Call Vote: Dena Battaglia - Aye
 Timothy Brunn - Aye
 John Ragland - Aye
 Lydia Ryberg - Aye
 Ken Michaels - Aye

5 ayes 0 nays 0 abstain

MOTION CARRIED

d. Resolution for Emergency Repairs Approval - North Clarifier

On November 1, 2019, Manager Haque informed the Board of serious issues with the North Clarifier discovered during routine maintenance. Since that time, Manager Haque has asked Trotter and Associates to perform a topographic survey of the floor of the clarifier. Manager Haque reminded the Board that this floor consists of 14 inches of concrete and a very large center concrete column that holds a 24" inlet pipe from the ditch. The engineering survey revealed that the middle of the clarifier had heaved up 5 inches, effectively reversing the hydraulics of the bottom of the clarifier. A claim was filed with our insurance provider, and an insurance appraiser has visited the plant to assess the damage. Both Superintendent Markko and Junior Engineer Lapastora explained to the Board the issues and preliminary plans of repairing or replacing the North Clarifier and concerns for the extra strain on the South Clarifier. Manager Haque reported that due to the potential extensive repairs that may be needed, the possibility of a sizeable insurance claim and the disruption that this will likely cause, the District also notified the IEPA and the District attorney of the insurance claim. He also reported that based on the recommendation of Trotter and Associates, the District has begun to get quotes for monitoring and dewatering wells and dome removal. Manager Haque recommends approval of a Resolution to authorize emergency repairs and to have him report all contracts over \$40,000 to the Board.



Northern Moraine Wastewater Reclamation District
Regular Meeting Minutes
November 12, 2019

Motion by Mrs. Battaglia to approve the Resolution authorizing emergency repairs of the North Clarifier facilities and for the District Manager to report all contracts over \$40,000 to the Board.

2nd Mr. Brunn

Roll Call Vote: Dena Battaglia - Aye
Timothy Brunn - Aye
John Ragland - Aye
Lydia Ryberg - Aye
Ken Michaels - Aye

5 ayes 0 nays 0 abstain

MOTION CARRIED

11. MISCELLANEOUS CORRESPONDENCE

- a. MCCG November Membership Meeting: Wednesday, November 13, 2019 at Galati's Hideaway in Cary

12. APPROVAL OF BILLS

Motion by Mrs. Ryberg to approve payment of bills on the November 12, 2019 bill list as presented, in the amount of \$186,888.46.

2nd Mr. Brunn

Roll Call Vote: Dena Battaglia - Aye
Timothy Brunn - Aye
John Ragland - Aye
Lydia Ryberg - Aye
Ken Michaels - Aye

5 ayes 0 nays 0 abstain

MOTION CARRIED

13. OTHER BUSINESS - none

ADJOURNMENT

Motion by President Michaels to adjourn at 8:34 p.m.

2nd Mrs. Ryberg

5 ayes 0 nays 0 abstain

MOTION CARRIED



November 12, 2019

To: NMWRD Board of Trustees
From: Mohammed Haque, District Manager
Subject: Manager's Report

All update items are in italics.

Woodmans [Force Main + Gravity Sewer Extension + Lift Station]

We continue to work with Lakemoor to ensure that startup was completed in time of the store opening. The District allowed temporary bypass pumping and operations without the permanent generator to avoid delays and to accommodate the Village's schedule. Since that time, the generator has been installed and tested. District board has approved the project improvements, contingent on punchlist item completion. *The most recent inspection found an issue with one of the pumps. While all other items were addressed, this new issue is holding up the final approval and all remaining training. I expect that it will be resolved soon. In addition, we are expecting paving to be completed by Thanksgiving.*

Circle K

Waiting on retained personnel fee. No contact has been made with the District for several months. We have reached out to inspector at Island Lake. *No update.*

Skipper Bud's

Skipper Bud's request to connect to NMWRD did not garner the full support of all five parties. LRSD has requested that the matter be delayed until their dissolution/transfer to Lake County. *No update.*

Dunkin Donuts - Lakemoor

The development has paid the permit fees. We are waiting for a recorded covenant / ordinance from the Village of Lakemoor. *The Village board has approved the covenant, but we are waiting for it to be recorded. Sewer connection has been made and has been inspected.*

Lift Station Controls

The Hale control panel has been delivered and because of the 50th Anniversary, we have decided to use it at the Treatment Plant Lift Station. A new one will be ordered for Hale, as well as panels at additional locations in the next few months utilizing contributions from state legislature capital bill funding. Due to ongoing trouble with the Grundfos Remote Management system, we are looking into alternate alarming system for the new conversions. *Work will resume on this now that the Open House is complete. Quotes have been requested for control panel installation.*

Floodproofing of Control Building and Generator Modifications

Since we have had considerable savings on this project, we are replacing the weathered and rusting doors on this building with extruded aluminum doors as well as the entire mansard to have a uniform look to the building. We are also having some landscaping work done around the building and replacing several linear feet of damaged sidewalks and stoops. Some of the concrete work is necessary to allow for the flood barriers to work properly. *The coping is being installed and final touches are being completed. Floodproofing angles and supports have been ordered from Breur Metal. Coping and other architectural metals have been received and are currently being installed by District staff.*



Phosphorus Removal

Currently on hold due to other work and preparation for the 50th Anniversary, however, we know what we need to do for a long-term arrangement and expect to complete this project by the end of the year. *We are working on ordering the permanent Hyper Ion storage tanks.*

Influent Flowmeter and Raw Pump #4

This is complete and working quite well. I anticipate a big reduction in our energy use is a result of the new pump. The only item remaining is the painting of the new piping. I anticipate that will be completed in the next 2 weeks. *Painter is scheduled to complete piping painting in the near future. In addition, we plan on swapping Pump #1 out due to issues with the existing pump.*

SCADA(Supervisory Control and Data Acquisition) and Telemetry

Fiber optics backbone has been installed and most hardware components have been purchased. *A quote for installation and termination of fiber optics is currently pending.*

Plant Process Automation – Phase 1

Three control panels have been delivered and are currently awaiting installation in the Control Building, Oxidation Ditch and Chemical Building. *We are waiting on quotes for the installation. We expect to have the panels installed over the winter.*

Headworks / Screening Issues

The influent grinder was installed and continues to work well after it was fixed under warranty. There is a need to change the motor stem height. In addition, some alignment issues will require us to move it slightly in conjunction with the installation of the new replacement screen and conveyor. I am waiting on Trotter & Associates to prepare some drawings for the installation of the new Headworks MS1 bar screen, conveyor, new gates and the repositioning of the grinder. *Submittal comments received with a request for change order on the bar screen in the amount of \$5,000. Currently negotiating an outcome. Once finalized, the screen will be put into production and scheduled for delivery. Also still waiting on plans from Trotter & Associates.*

Non-Potable Water Improvements

Self-cleaning filter/strainer has been started up and is working quite well. In the process we have discovered that of the three existing NPW pumps, one does not work properly and another is showing extreme age and corrosion. *A new pump skid has been selected and will be ordered in the next few days.*

Maintenance Garage

CE Ltd has started the work for stormwater permitting by McHenry County. I am working with ADG Design on the architectural drawings and will submit to the board in late fall. *No update, but progress will be made over winter.*

106 E. State, Island Lake (Dentists Office) Expansion

The property owner is in the process of televising the service tie-in. A follow-up will be done with the Village of Island Lake's new building inspector to ensure that we have better coordination going forward. *We have requested videos of the inspection, but only been provided photos. I have informed the Island Lake inspector that the photos are not sufficient.*



Capital Bill

I have been working with the staff at Representative Weber's office to get them information on the member initiative funding for Lakemoor Lift Station improvements. I continue to work with Mike Tryon to identify other sources of funding for Darrell Road Interceptor. *I will be following up with Tom Weber and Craig Wilcox regarding funding efforts.*

Personnel

We have hired Miranda Durbin, a junior at MSOE as our Engineering Intern. Miranda works for a few hours a week at the District and is given engineering related tasks that she performs remotely. During her breaks and summer, she will have more regular hours at the District. We are still weighing what to do with the part-time office clerk position and the operator in training position that were previously discussed and put on hold. Recent operator concerns are necessitating the need for the Operator-In-Training position.

User Rate Study

Now that the picture regarding the capital bill is more certain, the rate study should be completed soon and we will incorporate information from a new capital improvement plan and anticipated construction for Darrell Road and it's related timing. We will also discuss the special connection fee concept that we had previously briefly looked at a few months back. *Eric Rothstein is close to finalizing the user rate study and will make a presentation at the December meeting.*

Ordinance Review

Currently the District has Sewer rates, usage, construction details and specifications in seven (7) different documents. There is some duplication (and related confusion) as a result. I am currently working with our attorney Vic Filippini to streamline this into 2-3 ordinances, which is the standard for agencies such as ours. This will make things easier for staff and for the public. *Awaiting receipt of draft from Vic Filippini.*

Employee Policy Manual Review

Clark Baird and Smith has reviewed our employee policy manual to ensure that everything is in line and up to date. A draft redline version of the manual has been received and is currently being reviewed by staff. Approved in October. *Distributed and all changes were explained to staff.*

Sludge Bed Cover and Conveyor

Greenfield Contractors was awarded the bid for the Sludge bed covers. We are currently in the process of submittal review and finalization. *Once submittal is approved, we expect that it will be installed in 60-90 days. We have moved the sludge conveyor to directly discharge to the sludge bed to the east of the Dewatering building and are currently setting up the conveyor to dump into the bed. Once the system works and the covers are installed, we expect to order a full stainless conveyor with cleated belts that should function well long-term.*

North Clarifier Issue

Please see agenda item. *A dewatering plan was received by Trotter and is currently being reviewed. In addition, we have started to receive dewatering quotes.*

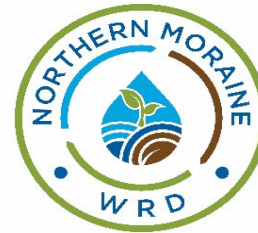
Northern Moraine WRD - Septage Receiving Tracking

Month	Loads	Gallons	Revenue	YTD
May-19	9	21000	\$1,260.00	\$1,260.00
Jun-19	10	22000	\$1,320.00	\$2,580.00
Jul-19	5	11850	\$711.00	\$3,291.00
Aug-19	9	22250	\$1,335.00	\$4,626.00
Sep-19	5	12950	\$777.00	\$5,403.00
Oct-19	16	41400	\$2,484.00	\$7,887.00
Nov-19				
Dec-19				
Jan-20				
Feb-20				
Mar-20				
Apr-20				
May-20				



	Date	Company Name	Gallons	Cost/Gal	Revenue	Time	Type
May	5/1/2019	Comm. Sewer & Septic	1500	\$0.06	\$90.00	11:15AM	Septic/Multiflo
	5/3/2019	Comm. Sewer & Septic	2000	\$0.06	\$120.00	10:00AM	Septic/Multiflo
	5/6/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	9:15AM	Septic/Holding Tank
	5/9/2019	Comm. Sewer & Septic	2000	\$0.06	\$120.00	12:35PM	Septic
	5/10/2019	Comm. Sewer & Septic	1500	\$0.06	\$90.00	9:35AM	Septic/Lift Station
	5/10/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	3:10PM	Septic/Jet-Rodding
	5/22/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	9:40AM	Septic
	5/24/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	11:15AM	Holding Tank
June	5/30/2019	Comm. Sewer & Septic	2000	\$0.06	\$120.00	10:00AM	Septic
	6/3/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	9:45AM	Septic/Jet-Rodding
	6/5/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	9:20AM	Septic
	6/5/2019	Comm. Sewer & Septic	2000	\$0.06	\$120.00	11:15AM	Septic
	6/10/2019	Comm. Sewer & Septic	1500	\$0.06	\$90.00	9:55AM	Septic
	6/12/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	8:15AM	Septic
	6/14/2019	Comm. Sewer & Septic	2500	\$0.06	\$150.00	7:55AM	Septic/Jet-Rodding/Aeration Tank
	6/17/2019	Comm. Sewer & Septic	1000	\$0.06	\$60.00	1:40PM	Septic
July	6/24/2019	Comm. Sewer & Septic	2750	\$0.06	\$165.00	10:55AM	-
	6/25/2019	Comm. Sewer & Septic	1000	\$0.06	\$60.00	-	-
	6/27/2019	Comm. Sewer & Septic	2250	\$0.06	\$135.00	-	-
	7/8/2019	Comm. Sewer & Septic	2850	\$0.06	\$171.00	-	-
	7/9/2019	Comm. Sewer & Septic	2250	\$0.06	\$135.00	-	-
	7/11/2019	Comm. Sewer & Septic	1200	\$0.06	\$72.00	-	-
	7/17/2019	Comm. Sewer & Septic	2550	\$0.06	\$153.00	-	-
	7/18/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	-	-
August	8/12/2019	Comm. Sewer & Septic	2000	\$0.06	\$120.00	-	Septic
	8/14/2019	Comm. Sewer & Septic	3500	\$0.06	\$210.00	10:05AM	Septic
	8/14/2019	Comm. Sewer & Septic	2100	\$0.06	\$126.00	2:05PM	Septic
	8/16/2019	Comm. Sewer & Septic	2750	\$0.06	\$165.00	1:00PM	Septic
	8/19/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	9:40AM	Septic
	8/21/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	2:10PM	Septic
	8/23/2019	Comm. Sewer & Septic	2000	\$0.06	\$120.00	-	Septic
	8/26/2019	Comm. Sewer & Septic	1950	\$0.06	\$117.00	8:30AM	Septic
September	8/29/2019	Comm. Sewer & Septic	1950	\$0.06	\$117.00	8:10AM	Septic
	9/3/2019	Comm. Sewer & Septic	2200	\$0.06	\$132.00	10:00AM	Septic
	9/4/2019	Comm. Sewer & Septic	3500	\$0.06	\$210.00	2:45PM	Septic
	9/5/2019	Comm. Sewer & Septic	1500	\$0.06	\$90.00	11:05AM	Septic
	9/6/2019	Comm. Sewer & Septic	2500	\$0.06	\$150.00	1:55PM	Septic
	9/22/2019	Comm. Sewer & Septic	3250	\$0.06	\$195.00	9:00AM	Septic
October	10/7/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	10:05AM	Septic
	10/7/2019	Comm. Sewer & Septic	2000	\$0.06	\$120.00	2:55PM	Septic
	10/9/2019	Comm. Sewer & Septic	3100	\$0.06	\$186.00	2:45PM	Septic
	10/11/2019	Comm. Sewer & Septic	3100	\$0.06	\$186.00	2:30PM	Septic
	10/15/2019	CSS - Kemper	1000	\$0.06	\$60.00	-	Septic
	10/17/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	9:05AM	Septic
	10/17/2019	Comm. Sewer & Septic	2000	\$0.06	\$120.00	3:10PM	Septic
	10/23/2019	CSS - Kemper	1000	\$0.06	\$60.00	-	Septic
	10/25/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	2:00PM	Septic
	10/25/2019	Weidner' Septic Service	3100	\$0.06	\$186.00	4:30PM	Septic
	10/28/2019	Weidner' Septic Service	3500	\$0.06	\$210.00	AM	Septic
	10/29/2019	CSS - Kemper	1000	\$0.06	\$60.00	-	Septic
	10/29/2019	Comm. Sewer & Septic	3000	\$0.06	\$180.00	1:35PM	Septic
	10/29/2019	Weidner' Septic Service	3300	\$0.06	\$198.00	9:30AM	Septic
	10/31/2019	Weidner' Septic Service	3400	\$0.06	\$204.00	9:45AM	Septic
	10/31/2019	Weidner' Septic Service	2900	\$0.06	\$174.00	12:05PM	Septic

FY 2019-20

[illegible]



NMWRD October 2019 Operations Report

As of November 8th, 2019

Prepared by: Luke Markko, Superintendent

Tim Hendrickson Class 3 Wastewater Operator Certification – I'd like to congratulate Tim Hendrickson on passing his IEPA Class 3 Wastewater Operator Certification exam. Tim has benefitted both himself and the District in pursuing higher certification levels. Qualified operators are becoming a limited and valuable resource in the wastewater industry at large. Congratulations Tim!



Septage Receiving – Following the District's approval of the Hauled Waste Ordinance, District staff have followed through with permitting two septic waste haulers. Community Sewer & Septic, along with Weidner's Septic Service. Weidner is limited to 20,000 gallons per week of domestic septage, and Community is limited to 10,000 gallons per week. Currently District staff are involved with being contacted by the haulers and collecting samples of each load that is brought in. There are plans to automate this in the future and to meter the volume of each load.



Septic truck dumping a load.



113 Timber Trail, PO Box
240, Island Lake, IL 60042



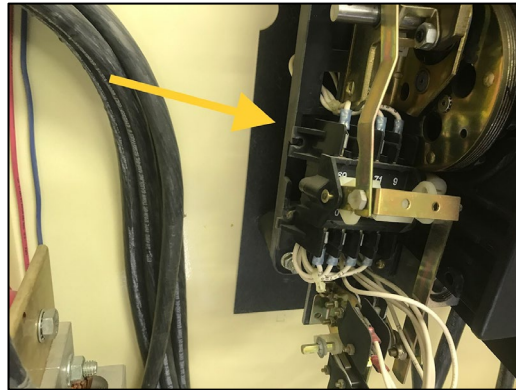
Phone: 847-526-3300
Fax: 847-526-3349



Email: info@nmwrd.org
Web: www.nmwrd.org

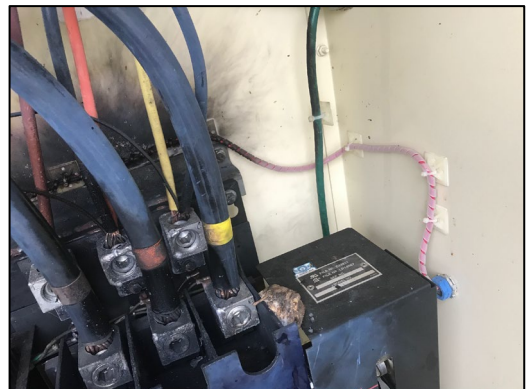
Lift Station Automatic Transfer Switch and Generator Failures – Two lift stations have experienced failures of different natures involving the Automatic Transfer switch. One has an additional generator issue.

Rawson Bridge Lift Station – The lift station located on Rawson Bridge Rd. in the Riverwalk neighborhood of Port Barrington experienced a mechanical failure in the Automatic Transfer Switch (ATS) mechanism and on the backup generator. The ATS is an automated switch that in the event of a power failure will transfer incoming power to the lift station from the utility feed (ComEd) to the power being supplied by the backup generator. In this case a plastic component broke and will need to be replaced. Regarding the backup generator, an oil leak has developed at the turbo, and will need to be repaired by a service technician. Service of the two items is scheduled for the Week of 11/11.



Plastic base of switch mechanism cracked.

Lift Station #7 – Lift Station #7 located on Wegner Rd. in Lakemoor experienced damage to the Automatic Transfer Switch (ATS) due to an arc flash. This arc flash was caused by two rodents entering the enclosure and short circuiting it as they crawled through the electrical connections. Sourcing of a new ATS is underway.



These two troublemakers were caught red handed...

Sludge Conveyor Repositioning - The repositioning of the sludge conveyors is a project that has been discussed for some time now. I'm happy and excited to report that we have taken action on it. Originally there were two conveyors that carried sludge from the belt filter press located in the Dewatering building. They carried the sludge from the discharge of the press, and deposited it into





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the back of a dump truck in the center bay of the dewatering building. Later when the Centrifuge was added, an additional conveyor was added and one of the pre-existing conveyors was extended so that both the centrifuge and belt filter press could feed into the same set of conveyors that fed into the dump truck. At some point in time the dump truck broke down and was never replaced. As a result the sludge was allowed to pile up on the concrete floor of the back to then be scooped out using a front-end loader. This method has proven to be very time consuming and messy. So, to streamline and clean up the process, a plan was made to move the conveyors outside so that they could deposit the sludge directly to the storage beds. That plan is being realized. A hole was cut in the exterior wall of the Dewatering Building, and a rigging company was contracted to take the conveyors out of the building and reinstall them so that they would convey sludge outside. There is still work to be done, but we are now successfully conveying sludge directly to the storage beds!



Sludge conveyors being relocated and temporary arrangement.





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Additional Sludge Conveyor – As mentioned in the above section regarding the repositioning of the sludge conveyors, there is yet more work to be done to see the entire project completed. An additional conveyor will be needed to deposit the sludge in the center of the storage bed. A cost effective option staff have been exploring is the use of an agricultural belt conveyor. Conventional sludge conveyors can cost in excess of \$2,000.00 per linear foot. By comparison we recently purchased a used 31 ft. agricultural belt conveyor for under \$4,000.00. This purchase was made to test the concept our before committing to a larger new belt conveyor of a length between 40 and 50 ft. Components were purchased to convert the drive mechanism of the conveyor from hydraulic to an electric motor with variable speed control. Once assembled and positioned staff will test and evaluate the operation of the conveyor.



Agricultural conveyor EnRoute to NMWRD.

Mutual Aid – In maintaining a cooperative relationship with the communities we serve, we agreed to allow the Village of Island Lake Public Works to deposit stormwater cleaning spoils on one of the drying beds located at the treatment plant. The Village recently purchased a vac truck, and has been using it to maintain their storm sewers. The village has agreed to remove the debris after it has drained and dried in the bed.



Island Lake PW emptying storm sewer debris.

Disinfection Chemical Feed - Several months ago staff experimented with a direct chemical feed of chemicals used in disinfection of the effluent in the chlorine contact tank. This has proven to be successful. The success of this method of feeding the chemicals eliminated the need to manually





pump the chemicals from a bulk storage tank to a day tank where it was then fed into a water line that would carry it to its destination. As a result, there is less handling of these hazardous chemicals, and less electricity being used to pump all of the water that was used to carry it. New chemical pumps and feed lines were installed once the concept had been tested and evaluated. Further work will include the installation of exterior fill ports, venting for fume mitigation, and level sensing to be integrated in the upcoming SCADA system.

Channel Grinder – The channel grinder after experiencing a failure was repaired at no cost to the district and has been reinstalled. It appears that further protective action will be required to keep the motor from taking on water.

Woodmans' Lift Station Panel – See Engineers Report.

Lakemoor Lift Stations - District staff are currently working with Trotter and Associates along with Automation Systems and Design to develop a plan to upgrade lift stations in Lakemoor with the funding that the District received through the state Capital Bill.

North Secondary Clarifier Floor Heaving – While performing routine maintenance on the North Secondary Clarifier, staff noticed peculiarities in the distribution of water on the tank floor once it had been drained. Instead of draining towards the center of the tanks, the water was pooling in a ring against the outer walls. This circular tank had originally been constructed with the floor pitched to the center of the tank for the very reason of allowing water to drain toward the center. This was obviously a very serious condition. The District's contracted engineering service, Trotter and Associates assisted in surveying and mapping the floor of the clarifier. Following their observations, it was determined that the center of the clarifier floor and the mechanical structures above it lifted approximately 5". How exactly this happened is still currently under investigation, however it is suspected that hydraulic pressure from groundwater while the tank was empty appears the most likely factor. Staff will be covering this situation in detail at the next District Board meeting.



NMWRD Engineering Report

Date: November 6th, 2019

Prepared by: Joe Lapastora, Staff Engineer

Deer Grove Sanitary Sewer Extension:

[Project Update] – The District Board of Trustees voted to approve the sewer extension for Deer Grove Unit II development at the June 11th Board Meeting and Mohammed Haque issued an “Approval for Use” letter to Jarvis Exteriors, Inc. on June 13th. The District has officially entered the maintenance period of the project for the next three (3) years. Note that an service connection inspection occurred for construction of a second home at the Deer Grove Unit II development on November 5th.



Picture of service line for Deer Grove Unit II Lot 4



Picture of service line trench with backfill.

Savannah’s of Lakemoor Residential Subdivision:

[Project Update] –The District Board of Trustees voted to conditionally approve the sewer extension for Savannah’s of Lakemoor at the June 11th Board Meeting. Mohammed Haque issued a conditional acceptance letter on August 1st, as the District is still waiting for a few items including; physical and digital as-builts and William Ryan Homes will need to exchange their performance bond for a maintenance bond. As of November 8th, William Ryan Homes has yet to exchange bonds, so a reminder e-mail was issued. After receiving the aforementioned items, the District will officially enter the maintenance period of the project for the next three (3) years.

Woodman’s Lift Station and Sanitary Sewer Additions:

[Project Update] – R.A. Mancini completed the mainline construction and testing in July and shifted their focus to the remaining items associated with the lift station in late August. Upon initial inspection of the Woodman’s Lift Station, a punchlist was delivered to Mary Schorr and



Rick Mancini with a Lift Station wrap up deadline set for September 16th. The September 16th deadline was not met and a 'Final Punchlist' was issued on September 17th stating that all punchlist items must be completed by September 27th. Upon entering October, there were still a few items that needed to be addressed for the District to approve and accept the lift station so an extension was granted for the deadline. District employees performed an inspection on Friday, November 8th and although all punchlist items were met, there were a few new issues regarding the East pump that will need to be addressed. The District is doing its due diligence to ensure that the lift station and all associated components are in working condition before acceptance. Note that the access road to the lift station has not been paved but aggregate has been laid to allow for winter access.

Right turn lane at the intersection of Route 176 and Roberts:

[Project Update] – This project is nearing completion as the retaining wall has been poured while the bedding for the right-turn lane was laid and compacted in mid-October. The existing asphalt was stripped during the last week of October and as of November 6th, underground electrical work should be wrapping up in preparation for new asphalt to be poured. It was the District's intent to uncover two (2) buried manholes during this project, however, District staff have been unsuccessful in locating the hidden manhole located at the Southwest corner of Roberts Road and Route 176. As for the other buried manhole, the District received a call on October 17th from a worker at Home Towne Electric stating that they had directionally bored through the other buried manhole located directly in front of Dale's M&C Motorcycle Shop. Luke Markko and Joe Lapastora observed the damage and pictures have been provided below. Mohammed Haque talked to an IDOT representative and they have agreed to come and fix the damage, at which point the District will inspect.



Damaged manhole investigation.



Inside damaged manhole. Note damage at top-right of picture.





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NMWRD Plant Projects:

[Project Update] – Completed aspects of the floodproofing project include; new concrete curb, step ladder, railing, kick plates, temporary steps, conveyor removal, grating, control panel relocation, Rotamat Conveyor has arrived but is awaiting install, immersible raw pump installation, and flood barriers have arrived but are awaiting install. The floodproofing hardware that will complete the marriage of the panels to the control building have been drafted and ordered from Breuer Metals. We expect that we will have the fabricated floodproofing hardware by the end of November. Other plant project updates include; control building metals have been ordered and will be installed in November, sludge conveyor has been reconfigured so that the sludge is now leaving the dewatering building towards the permanent resting place in the Southwest drying bed, two (2) actuator were installed on the Oxidation Ditch and RAS station, various painting projects have been completed, and new sidewalk has been poured around the plant. Pending work items include; finishing flashing and marriage to new deck for dumpster enclosure and installation flood barriers. There were several other plant projects, both new and continued projects, during the month of October. In preparation for the Sludge Drying Bed Cover bid, prep work on the Southwestern most drying beds has been completed while some block foundation blocks have been positioned for the sludge drying bed cover. As the District considers new quotes for a permanent conveyor, the endwall design for the Greenfield sludge drying bed cover has been placed on hold until the conveyor penetration has been determined. Additionally, the District is still waiting for a quote from Fisher Bros for the remaining foundation blocks. Other plant projects completed in the month of October include; purchase of sludge/ag conveyor for final transport to drying bed, rock box design for septage receiving, door hardware finalizing/ordering, admin vehicle purchase review and more!



New sludge conveyor.



Fabricated supports for existing angled section of sludge conveyor.





NMWRD SCADA & Telemetry:

[Project Update] – Completed aspects of the SCADA & Telemetry project include; underground conduit with tracer wire installed at the plant, most of the hardware has been ordered for SCADA system (recommended by ASD), one (1) actuator installed on a RAS line, one (1) actuator installed on the Oxidation Ditch, fiber cable ordered, and new concrete pads poured. Allan-ICS was awarded the bid regarding the SCADA Control Panels. The three (3) panels include; Control Building C.P., Oxidation Ditch C.P. and Chemical Building C.P. The first panel (Oxidation Ditch Panel) was delivered during the last week of August while the second and third panels (Control Building & Chemical Building Panels) were delivered in October. The District is seeking quotes for pulling and terminating fiber and we expect that work to be performed in November.

Septage Receiving:

[Project Update] – The District has been exploring the option of septage receiving at the treatment plant and intends to move forward with a permanent septage receiving station. Preliminary designs have been examined and District staff are close to finalizing plans. A new manhole was placed near the Southeast corner of the drying beds in anticipation for septage receiving. The new manhole is now connected to the headworks wet well but is currently not in use. In preparation for the next phase of septage receiving, the District ordered new gate hardware that will allow haulers to enter only if they receive a District issued RFID card that will both track proximity of haulers entering the treatment plant and allows for complete control on who does and does not have access to the plant. This program will provide the District with another revenue stream with a short-term payback period.

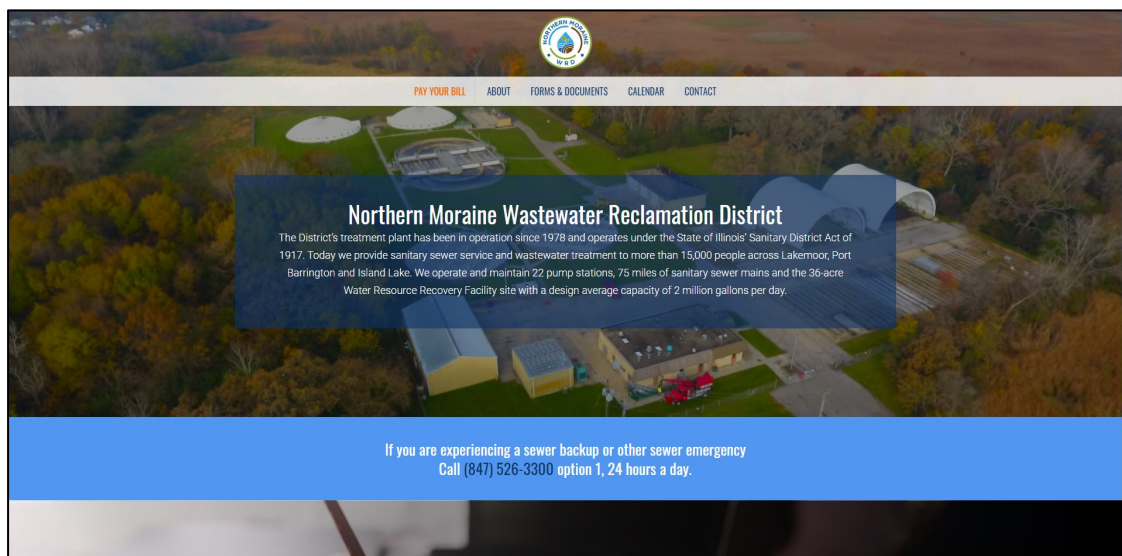
In addition to the work relating to these projects, the following engineering related work is also being performed;

- The District successfully installed LED fixtures in the main office of the Control Building. With the help of Arne Venteris, the District received GREAT prices on LED bulbs before tariffs set in. The District has ordered enough bulbs to exchange all bulbs types for LEDs in the Control Building, Maintenance Garage and Dewatering Building. The bulb replacement is tentatively on hold as the District awaits approval for the ComEd lighting incentive. We should have a clearer picture on how to proceed with the lighting upgrades by mid-November. Simply put, we are waiting to see which approach will be most advantageous for the District from a financial perspective.
- Idea Marketing is nearing completion with the new NMWRD website. The team provided a link to the demo website for employee review in early October and after all comments had been reviewed/fixed by the Idea Marketing team, they moved on to the final responsive testing stage. Over the next month, I anticipate that we will update outdated forms, pictures





and text before we unveil the final product. The District anticipates that the new website will be made available by late November.



Screenshot from the new NMWRD website.

- Several District employees were registered to attend the CSWEA Operations Seminar at Fox River Water Reclamation District on October 30th, however, only Joe Lapastora was able to attend due to the problems related to the North Secondary Clarifier. Joe was one of three presenters to speak on the topic of “Data Collection & Entry” and gave a 45-minute presentation on some of the wonderful things we are doing at Northern Moraine WRD. Specifically, the presentation detailed the modern approach of data acquisition at NMWRD via iAuditor/Zapier on the District iPad and the reduction of wasted operator time. The presentation was well received, and a few wastewater agencies have scheduled calls to implement the same system at their plants.
- The end-of-year JULIE review has been completed and our “Interest Area” has been updated to include the sanitary sewer extensions/additions from the last year.



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DELINQUENT ACCOUNTS RECAP FOR October 2019

Revised: 11/05/19 by Debi Martin, District Clerk

\$200-\$300

60 Active Accounts

Island Lake – 33 customers
30 Water Shut Off Notices, 2 Final Water Shut Off Notices, 1 making payments
Lakemoor – 19 customers
6 Final Notices of Delinquency, 13 Water Shut Off Notices
Port Barrington – 8 customers
4 Final Notices of Delinquency, 3 Sewer Disconnection Notices, 1 making payments

\$301-500

9 Active Accounts

Lakemoor – 5 customers
5 Sewer Disconnection Notices
Port Barrington – 4 customers
2 Sewer Disconnection Notices, 2 to be disconnected from sewer

\$501-\$1000

11 Active Accounts

Island Lake – 5 customers
5 liens – 4 with water off, 1 to be disconnected from sewer
Lakemoor – 4 customers
4 liens – 4 to be disconnected
Port Barrington – 2 customers
2 liens – 2 to be disconnected, with 1 in foreclosure

\$1001 and up

11 Active Accounts

Island Lake – 6 customers
6 liens – 5 with water off, 1 to be disconnected from sewer
Lakemoor – 5 customers
5 liens – 3 sold for delinquent taxes, with 1 to be demolished, 2 to be disconnected

Delinquent Accounts total (active and inactive customers): **\$55,883.90** (\$9,613.65 inactive accts)

October 2018's report: **\$49,744.05**

October 2017's report: **\$45,945.10**

MONTHLY ACTIVITY:

4794	Monthly Bills mailed on 11/01/19 (for October service)	134	Notices of Delinquency mailed on 11/01/19
395	Bills <u>not</u> mailed – customers prepaid on their accounts	28	Real Estate closings for October 2019
43	Water Shut Off Notices mailed on 11/01/19	3	Liens filed in October
10	Final Notices of Delinquency mailed on 11/01/19	2	Liens released in October
10	Sewer Disconnection Notices mailed on 11/01/19		
2	Final Water Shut Off Notices mailed on 11/01/19		



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AGENDA REGULAR MEETING

7:30 P.M. – November 12, 2019

- 1. CALL TO ORDER & ROLL CALL**
- 2. PLEDGE OF ALLEGIANCE**
- 3. PRESENTATION & APPROVAL OF MINUTES**
 - a. Regular Meeting Minutes – October 8, 2019
- 4. TREASURER'S REPORT**
- 5. PUBLIC COMMENTS**
- 6. MANAGER'S REPORT**
 - a. Operations Report
 - b. Engineering Report
 - c. Delinquent Accounts Report
 - d. Mid-Year Fiscal Report and Project Adjustments
- 7. TRUSTEE REPORTS**
- 8. LEGAL BUSINESS**
- 9. OLD BUSINESS**
- 10. NEW BUSINESS**
 - a. Adoption of 2019-20 Tax Levy Ordinance
 - b. Approval of Employee Health Insurance Coverage Renewal
 - c. Approval of Worker's Compensation Insurance Coverage Renewal
 - d. Approval of a Resolution Authorizing Emergency Repairs of North Clarifier Facilities
 - e. Selection of a purchaser for the General Obligation Refunding Bonds (Alternate Revenue Source), Series 2019
- 11. MISCELLANEOUS CORRESPONDENCE**
 - a. MCGG October Meeting – Wednesday, November 13, 2019 – Galati's Hideaway, Cary, IL
- 12. APPROVAL OF BILLS**
- 13. OTHER BUSINESS**
 - a. Executive Session – if needed

Posted to www.nmwrld.org November 8, 2019



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