



NORTHERN MORAINE WASTEWATER RECLAMATION DISTRICT

113 Timber Trail, Island Lake, Illinois 60042

REGULAR MEETING MINUTES

January 8, 2019

Present: Trustees: Ken Michaels, John Ragland, Dena Battaglia, Lydia Ryberg
District Manager: Mohammed Haque; District Clerk: Deborah Martin
Others: Luke Marrko, Operations Supervisor

President Michaels called the meeting to order at 7:30 p.m.

1. CALL TO ORDER:

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

2. PLEDGE OF ALLEGIANCE:

Those present stood and pledged allegiance to the flag.

3. PRESENTATION & APPROVAL OF MINUTES:

a. Regular Meeting, December 11, 2018

Motion by Trustee Ragland to approve the Regular Meeting minutes of December 11, 2018 as presented.

2nd by Trustee Battaglia

4 ayes 0 nays 0 abstain

MOTION CARRIED

b. Executive Meeting, December 11, 2018

Motion by Trustee Ryberg to approve the Executive Meeting minutes of December 11, 2018 as presented.

2nd by Mrs. Battaglia

4 ayes 0 nays 0 abstain

MOTION CARRIED

4. TREASURER'S REPORT:

The Treasurer's Report was presented by Mrs. Ryberg.

Motion by Mrs. Battaglia to approve the Treasurer's Report for the month ending November 30, 2018 as presented.

2nd Mr. Ragland

4 ayes 0 nays 0 abstain

MOTION CARRIED

5. PUBLIC COMMENTS - none

6. MANAGER'S REPORT:

Manager Haque reported to the Board that the staff enjoyed the holiday party held in December at Sideout's in Island Lake and that most of the staff attending with family. He reported that most of the Lift Stations project has been completed and that project along with the Phosphorus Removal Project and the Floodproofing project were discussed in the Operations Report. Manager Haque informed the Board that the Operations Remodeling is almost complete and that new flooring and new paint had been applied in the main offices with more remodel work to be done there. Manager Haque reported that he had met with Village of Island Lake officials concerning the completion of the sewer installation for the Woodman's Store; Deer Grove North II sewer installation was complete; Savannah's of Lakemoor sewer installation was nearly complete; and that the headworks project continues with some clogging issues. Manager Haque pointed out to the Board that Operations Supervisor Markko's report did mention that the District is



Northern Moraine Wastewater Reclamation District
Regular Meeting Minutes
January 8, 2019

getting ready to retire a 40-year old generator, which will require a middle of the night shut down of pumping, as to not interrupt service to residents during peak hours of usage.

7. TRUSTEE REPORTS - none

Mr. Ragland reported that he and Mrs. Ryberg attended the Village of Lakemoor Christmas party on December 21, 2018. Mr. Ragland did express concern over the increase in accidents on the new River Road roundabout.

8. LEGAL BUSINESS - none

9. OLD BUSINESS:

10. NEW BUSINESS

a. Adoption of Ordinance 19-01 - Tax Abatement Ordinance

Motion by Mrs. Battaglia to adopt Ordinance 19-01, authorizing the County Clerks of Lake and McHenry Counties to abate and not spread General Obligation Bond Tax for 2018 in the amount of \$486,847.50.

2nd Mrs. Ryberg

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

4 ayes 0 nays 0 abstain **MOTION CARRIED**

b. Adoption of Resolution 19-A, Capital Improvements Plan

Motion by Mrs. Ryberg to adopt Resolution 19-A, establishing a Capital improvements Plan.

2nd Mrs. Battaglia

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

4 ayes 0 nays 0 abstain **MOTION CARRIED**

c. For Discussion - Special Connection Fee - Darrell Road

The Board discussed that with future growth in Lakemoor, and with the possible inclusion of Rockwell into the District, capacity may become an issue. Manager Haque reported that the expense of these projects should be discussed and acted on soon. "A "sinking fund" should be appropriated for the Darrel Road interceptor," he stated. He felt that the Board should consider having a plan in place to recoup expenses for this expansion. He explained that the plant is currently at 50% capacity, but that the Board needs to consider the future developments in the works.

11. MISCELLANEOUS CORRESPONDENCE

a. MCCG Annual Legislative Dinner – January 23, 2019 at M Supper Club in Crystal Lake

12. APPROVAL OF BILLS

Motion by Mrs. Ryberg to approve payment of bills on the January 8, 2019 bill list as presented, in the amount of \$112,713.89.

2nd Mr. Ragland



Northern Moraine Wastewater Reclamation District
Regular Meeting Minutes
January 8, 2019

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

4 ayes 0 nays 0 abstain **MOTION CARRIED**

13. OTHER BUSINESS - Executive Session

a. Purchase of Real Estate/Personnel Issues

Motion by President Michaels to go into Executive Session to discuss the purchase of real estate and personnel issues.

2nd Mrs. Battaglia

4 ayes 0 nays 0 abstain **MOTION CARRIED**

Regular session ended at 8:19 pm.

Executive session ended at 8:46 pm.

Regular session reconvened at 8:46 pm

President Michaels stated that no Board action was taken at the Executive Session concerning the purchase of real estate or on personnel matters.

ADJOURNMENT

Motion by President Michaels to adjourn at 8:50 p.m.

2nd Mr. Ragland

4 ayes 0 nays 0 abstain **MOTION CARRIED**



January 8, 2019

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

December went by very fast, as most Decembers too. Some of the off days and slow down in construction has given us some time to catch up. Both the Operations and the Engineer's report cover all of the various projects and activities in the works. I'll touch on some items that are not already covered in those reports with the goal of avoiding duplication.

Deer Grove North Unit 2 [Gravity Sewer Extension for 11 lots]

Please see the Engineering Report for an update on this project.

Savannahs of Lakemoor [Gravity Sewer Extension for Subdivision]

Please see the Engineering Report for an update on this project.

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

I met with Matt Dabrowski and David Alarcon on December 20 to develop plans on how, when and with what funding we could expand sewers to provide service to additional properties west of Route 12 along Route 120. We are also working to tidy up items related to our agreements. I was informed that the \$270k reimbursement check was not deposited because Lakemoor was waiting for some paperwork from their engineers, however, they indicated they would deposit it soon.

SCADA(Supervisory Control and Data Acquisition) and Automation

We are working with our IT consultant (Bitspeed) to select equipment for the network and integrations. We hope to do more with this in the next couple of months.

Headworks / Screening Issues

The screenings conveyor was ordered per our discussion last month and we are waiting on delivery in the next month. We are also looking at improving our filtration system on the Non-potable water (plant effluent). There is concern that the quality of the water to the unit may be causing some issues. We have selected the filter we want to purchase and will be ordering it soon.



Branding & Culture

We had a successful pizza and soda holiday get-together for staff and their family on Friday, December 14th. Because of all the staffing changes at the District, many of us met our families for the first time and got to know one another. A couple of pictures are below. Those that attended were very appreciative of the get-together.



Lift Station Controls

The District has reviewed the final submittal for the standardized control panel (Unit #1 of 22) at Hale 1 lift station and have sent back comments to the control panel vendor, B&M Technical Services. The timing of our work is allowing the new Woodman's Lift Station Control Panel (#23) to be done per the same standard design.

Floodproofing of Control Building and Generator Modifications

Work on this project continues with the ordering of the grating, installation of temporary steps and ordering of permanent steps, building of the dumpster enclosure, significant electrical work. Additional items such as floodproofing stoplogs on the doors, roofing and masonry revisions and outside concrete flatwork will be completed in the spring with anticipated project completion by mid-April.



Phosphorus Removal

We have moved on to Hyper+Ion as the new chemical to use for our phosphorus removal. The product was purchased and we have started to feed it and today we are expecting we will be under the 1.0 mg/L concentration. A new, more robust peristaltic pump was ordered today for the system and a temporary shed was installed to house the totes and pump.

Operations Building Remodeling

Shelving and cabinets are being installed and we hope to wrap this up this month.

Office Remodeling

We have new vinyl flooring and paint installed and the area looks great. We are going to have some of the trim re-done and will work on furniture updates after that.



NMWRD December 2018 Operations Report

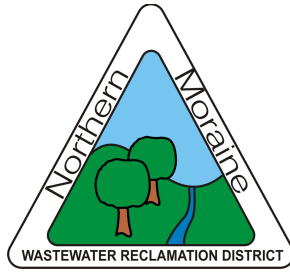
As of January 3rd, 2019

Prepared by: Luke Markko Superintendent

- **Prairie Woods Generator Update** – While November brought much needed and significant repairs to the standby generator at the Prairie Woods Lift Station, further work is necessary. The engine is operating at erratic speeds, and it has been determined with a fair amount of certainty that the fault lies with the wiring harness that serves as the engine’s nervous system. This harness sends information back and forth from the ECM (Onboard Diagnostics Computer) and the various sensors located on the engine and allow for control of spark timing, air-to-fuel mixture, temperature sensing, and an array of other information. Replacement of the wiring harness is being coordinated with Alternate Power, a local generator servicer.
- **Lift Station Standardization Project** – A final review of component submittals for the “Controls” panel has been completed. An order will be placed in the very near future for the first “Controls” panel, and if all goes well, this will be used as the standard panel that is installed as we implement the standardization of all the District’s lift stations. This is a first big step in what will be a long-term project. Plans for the “Power” panel that will be located at Hale #1 have been developed. As mentioned in previous reports, there will be two panels located at each station. A “Controls” and a “Power” panel. “Controls” will house the lower voltage controls components of the station, while the “Power” panel will house the higher voltage power entering the station. This approach provides a level of safety for the operators during maintenance and repairs.
- **Flood-Proofing & Related Work**
 - **Railings Installed** – Aluminum railings were sourced by District staff and installed by Dahme Mechanical around the Raw wet well. Materials have been ordered to provide a safety grating over the well, and permanent steps up to the top of the curb.



New railings and temporary stairs at raw wet well.



- **Dumpster Enclosure** – A carpentry contractor with Titan Advantage has been brought in to assist with several projects. They have been working with District staff to help see these projects to completion. The new dumpster enclosure is one of these projects. The roof, sheeting, and moisture barrier have been installed, and revisions were made to the structure to allow for modular disassembly and reassembly.



Dumpster Enclosure with roof and moisture barrier.

- **Cummins (1970's) Treatment Plant Generator Retirement and Power Redirect** – Earlier this year it was determined that the standby generator housed inside the control building at the wastewater treatment plant had reached the end of its useful life. This unit dates to the 1970s and served the original iteration of the wastewater treatment plant. Presently backup power is supplied by this generator and the newer generator that was installed in 1999 with power from each being split to two portions of the treatment plant. The newer generator is more than adequately sized at 500KW to handle the full load of the treatment plant which is 325KW. The Morse Group, an electrical contractor, has begun work to redirect the backup power feeds to the newer generator.



Older Cummins Generator circa 1970



Newer Cummins/Onan Generator installed 1999



- **Cummins/Onan (1999) Treatment Plant Generator Repairs** – During the annual servicing of the aforementioned “newer” generator, trouble arose during the load bank testing of the unit. This is when a simulated load is placed on the generator and gradually increased until the generator is operating under 100% load. The trouble that was encountered was that during the test, the load could not be increased beyond 30% without the control system alarming and shutting the generator off. Local generator servicer Alternate Power provided service to correct the issue and a full load bank test has been performed. The timing of the discovery of this issue was fortuitous in that we learned of it prior to having this generator become the sole provider of backup power.
- **Hyper Ion** – District staff have initiated the feed of Hyper Ion into the process of the wastewater treatment plant. This is a chemical used for phosphorous removal and will allow for NMWRD to achieve a final effluent phosphorous discharge concentration below 1 mg/L as will be required by the District NPDES permit. The physical properties of the chemical differ from the RE100 chemical that was used earlier in the year. The Hyper Ion is more viscous and has proven difficult for our chemical feed pumps to convey. This has resulted in lower than desired feed rates, and pump malfunctions. A pump better suited to conveying this chemical is being sourced. Despite some of these setbacks, we are seeing the phosphorous concentration in the final effluent continually drop. NMWRD should be able to meet the 1 mg/L concentration limit in the coming weeks. The deadline for meeting this limit begins in April & May of 2019.



Shed housing chemical tote located at Oxidation Ditch.



Tote inside shed.

- **Verizon Fleet Installed** – The Verizon Fleet hardware has been installed on the District vehicles. Verizon offers a system that indicates District vehicles are located and where they've been, while also providing data on speed, engine conditions, PTO status on the Vactor and Crane trucks, even seatbelt usage. Considering the many repairs that have been required on the aging fleet, this will allow staff to use technology to develop strategies for maintenance, vehicle-to-task management, safe vehicle usage, and efficiencies in routing for routine inspections of the District's many lift stations.
- **Wash Water Leak on Older Rotamat Screener** – A leak developed on the older screener located at the treatment plant headworks. The wash water supply line feeding the unit was reinstalled with new hose clamps.



- **Island Lake Public Works Assistance with Flagpole Repairs** – Island Lake Public Works aided with a staff member and a boom truck to replace the pulley at the top of the flagpole located at the treatment plant.

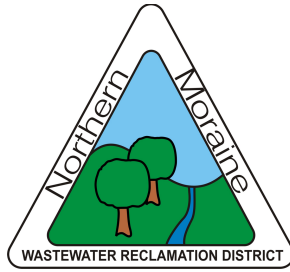


Old Glory flying high!

- **District Office Remodeling** – Upgrades are underway at the District Office that include new flooring, paint, trim, and electrical improvements. District staff have been able to make the electrical improvements at the various work stations.
- **2019 Ford F-250** – The new pickup truck that was ordered back in November has arrived. It was recently equipped with a snowplow and bedliner. Further additions include safety strobe and work lights, along with decals of the District logo. This vehicle is intended to replace the aging Chevy 2500 that has begun to require regular repairs that are becoming cost prohibitive.



New Ford F-250 w/ recently installed plow.



- **Total Nitrogen Testing** – As part of the new NPDES permit, a provision has been added to monitor the Total Nitrogen levels in the final effluent on a more frequent basis. The previous NPDES permit required sampling and testing on a monthly basis, the new permit requires it be done on a weekly basis. Prior to this change the District had been sending samples to a contracted lab to provide analysis for Total Nitrogen. The increased frequency of the testing prompted a reevaluation of this practice. It was determined that with the new spectrophotometer that was purchased earlier in the year, District staff would be able to perform the analysis in the District lab. Emily Lecuyer has implemented this new testing procedure and incorporated it into the weekly lab routine. This saves the District the time involved in delivering the samples as well as the cost of having another lab perform the test.
- **iAuditor** – In efforts to streamline data collection and utilization, the District has been exploring single point data acquisition. Junior Engineer Joe Lapastora has been coordinating with District staff as well as developers of an app called iAuditor to help see this happen. iAuditor will allow staff to collect operational data from various points in the treatment plant on a iPad or other mobile device. This is a vast improvement from the current method that requires a staff member to record all of the data on paper, and then go and manually enter the data onto an Excel spreadsheet. Not only can staff enter operational data, they will be able to enter values obtained in the lab. The values in the lab are then integrated with the operational data in the plant to provide reporting numbers for the Discharge Monitoring Reports. Prior this, data needed to be manually manipulated on a monthly basis to generate these reporting numbers. Plans are underway to incorporate this app in data collection at the District lift stations as well.

NMWRD Engineering Report
Date: January 4th, 2018
Prepared by: Joe Lapastora, Junior Engineer

Woodman's Lift Station and Sanitary Sewer Additions:

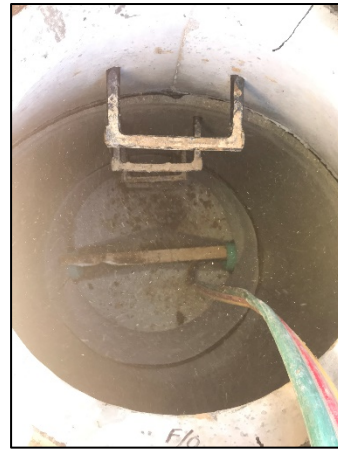
[Project Update] – Little progress has been made during the month of December. The sanitary sewer contractor, RA Mancini, has not been on site for the entire month of December partly due to the weather and project logistics. With that being said, a total of 5 manholes have been set with 12 to be installed.

Savannah's of Lakemoor Residential Subdivision:

[Project Update] – PirTano has set a total of 10 manholes and all sanitary stubs associated with the completed sanitary gravity main. On Monday December 17th air tests were performed on the completed mains with all mains passing District requirements. Moving forward, the plan is to complete the testing for the remaining pipes upon final underground completion. All sanitary work has been on hold as PirTano switched over to storm and water. There is no current timetable to complete the remaining 6 manholes.



Picture of the testing apparatus used for the sanitary air tests.



View of the inside of a manhole during the air tests.

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

[Project Update] – No progress has been made for this project during the month of December. Note that it is the District's intention to ensure all manholes that lie within the project extents are at grade and uncovered when the project is completed. We anticipate working with the construction crew to reveal a buried manhole cover.

Deer Grove Sanitary Sewer Extension:

[Project Update] – This construction portion of this project has been successfully completed. Wilkinson Excavation completed all sanitary service stubs coming off an existing main line on Noble Drive on December 18th. In accordance with District ordinances, air tests, mandrel tests and televising will be completed during the month of January.



In-trench view of service tie-in.



Picture of crew attaching the service line.

NMWRD Floodproofing:

Completed aspects of this project include; a new concrete curb, step ladder, railing, kick plates, and steps while the easternmost conveyor has been removed. We intend for Morse Electric to perform electrical work while Dahme would perform mechanical work. Door measurements have been sent to Cross Aluminum Products while we are also working with Floodbarrier American for the floodproofing barriers. Finally, the dumpster enclosure has been contracted out and is still in progress in the garage.



Picture of the stairs to access the wet well.



Picture of the rail kick plates



Current progress of the dumpster enclosure.



Current progress of the dumpster enclosure

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

- The District's online ArcGIS is completed. This web-based parcel map has been added to the District website. This will provide a user-friendly experience for all residents that want to identify parcels within the district.
- I have created three testing templates for the District's use. Upon my arrival there was no documentation standard for these tests and these templates provide historical documentation in the case of a public or business inquiry.
- Fiber conduits have recently been installed at the treatment plant as the District moves forward to create a reliable SCADA system. Additionally, the District's Adviser, District Manager, Superintendent and Junior Engineer sat down to discuss what kind of probes/instruments will be needed for our future SCADA system.
- The District has recently made the switch to electronic data acquisition to diminish the heavy use of paper. A software named iAuditor has been purchased to allow operators to collect data via the iPad while another software named Zapier has been purchased to auto generate the data into a pre-formatted spreadsheet. This process will save the District time and money in the long run. Additionally, a new procedure for JULIE locates has been implemented at the beginning of the new year that also erases the use of paper.
- Luke and I have begun to dig through some old electronics at the plant. It is the District's intent to post items via Obenauf Auction for disposal as surplus equipment.
- Internal review of the District's infrastructure via RedZone televising data. A Capital Improvement Plan (CIP) will eventually be developed for future use. This is something that the District will hit hard during the months of January February.
- Review of all District ordinances to update any outdated references or ordinances. This is also something that the District will hit hard during the months of January and February.

DISTRICT SERVICE AREA

See if your property is in the District's Service Area (clickable link)



Screenshot of NMWRD website with Parcel Map.



DELINQUENT ACCOUNTS RECAP

Revised: 1/03/19 by Debi Martin, District Clerk

\$200-\$300

77 Active Accounts

Island Lake – **51** customers
1 Sewer Disconnection Notice, 50 Water Shut Off Notices
Lakemoor – **20** customers
12 Sewer Disconnection Notices, 8 Water Shut Off Notices
Port Barrington – **6** customers
1 payment agreement , 5 Sewer Disconnection Notices

\$301-500

15 Active Accounts

Island Lake – **5** customers
4 Final Water Shut Off Notices, 1 Sewer Disconnection Notice
Lakemoor – **6** customers
5 Sewer Disconnection Notices, 1 Final Water Shut Off Notice
Port Barrington – **4** customers
3 Sewer Disconnection Notices, 1 promised payment

\$501-\$1000

10 Active Accounts

Island Lake – **3** customers
3 liens – 3 with water off
Lakemoor – **6** customers
3 liens – 1 with water off, 3 to be disconnected, 2 Sewer Disconnection Notices
Port Barrington – **1** customer
1 liens – 1 to be disconnected

\$1001 and up

9 Active Accounts

Island Lake – **5** customers
5 liens – 5 with water off
Lakemoor – **4** customers
4 liens – 2 sold for delinquent taxes, with 1 to be demolished, 2 to be disconnected

Delinquent Accounts total (active and inactive customers): \$52,553.05 (\$14,570.79 inactive accts)

December 2017's report: \$52,735.27

December 2016's report: \$55,328.65

MONTHLY ACTIVITY:

4854 Monthly Bills mailed on 12/31/19
321 Bills not mailed – customers prepaid on their accounts
29 Sewer Disconnection Notices to be mailed on 1/09/19
172 Notices of Delinquency to be mailed on 1/09/19
58 Water Shut Off Notices to be mailed on 1/09/19
5 Final Water Shut Off Notices to be mailed on 1/09/19
10 Final Notices of Delinquency to be mailed on 1/09/19
12 Real Estate Closings for December 2018



Northern Moraine Wastewater Reclamation District

113 Timber Trail
Island Lake IL 60042

**AGENDA
REGULAR MEETING
7:30 P.M.
January 8, 2019**

- 1. CALL TO ORDER & ROLL CALL**
- 2. PLEDGE OF ALLEGIANCE**
- 3. PRESENTATION & APPROVAL OF MINUTES**
 - a. Regular Meeting Minutes – December 11, 2018
 - b. Executive Session Meeting Minutes – December 11, 2018
- 4. TREASURER'S REPORT**
 - a. Quarterly Investment Report
- 5. PUBLIC COMMENTS**
- 6. MANAGER'S REPORT**
 - a. Operations Report
 - b. Engineering Report
 - c. Seriously Delinquent Accounts Report
- 7. TRUSTEE REPORTS**
- 8. LEGAL BUSINESS**
- 9. OLD BUSINESS**
- 10. NEW BUSINESS**
 - a. Adoption of Ordinance 19-01 to Abate GO Bond Taxes for 2018
 - b. Approve Resolution 19-A on Capital Improvements Projects
 - c. Sinking Fund and Special Connection Fee for Darrell Road Sewer Service Area
- 11. MISCELLANEOUS CORRESPONDENCE**
 - a. MCCG Membership Meeting – Wednesday, January 23, 2019 – TBD, Crystal Lake, IL
- 12. APPROVAL OF BILLS**
- 13. OTHER BUSINESS**
 - a. Executive Session – Personnel; Purchase or Lease of Real Estate