



# **NORTHERN MORAINE WASTEWATER RECLAMATION DISTRICT**

113 Timber Trail, Island Lake, Illinois 60042

## **REGULAR MEETING MINUTES**

April 16, 2019

Present: Trustees: Ken Michaels, John Ragland, Dena Battaglia, Timothy Brunn, Lydia Ryberg  
District Manager: Mohammed Haque; District Clerk: Deborah Martin  
Guests: Sean Hickey from Lauterbach and Amen, LLP  
Others: David Duck, resident of Lakemoor

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

### **3. PRESENTATION & APPROVAL OF MINUTES:**

#### **a. Regular Meeting, March 12, 2019**

Motion by Trustee Brunn to approve the Regular Meeting minutes of March 12, 2019 as presented.

2nd by Trustee Ragland.

4 ayes 0 nays 1 abstain, Lydia Ryberg because she was not in attendance for the March 12, 2019 meeting.

**MOTION CARRIED**

### **4. TREASURER'S REPORT:**

The Treasurer's Report was presented by Trustee Ryberg

Motion by Mr. Brunn to approve the Treasurer's Report for the month ending February 28, 2019 as presented.

2nd Trustee. Battaglia

5 ayes 0 nays 0 abstain

**MOTION CARRIED**

Mrs. Ryberg and District Manager Haque made comment on the Quarterly Investment Report, pointing out that the District continues to make investments in Certificates of Deposit along with Treasury Bonds in anticipation of future payment for Woodman's.

### **5. PUBLIC COMMENTS:**

President Michaels pointed out the letter received by the Village of Island Lake concerning the Village's increasing of fees charged to the District for red tags delivered for water shut off notices for the first time since 2010.

President Michaels recognized Lakemoor resident David Duck, who wished to address the Board concerning fees assessed to delinquent accounts. He felt the bills should be clearer concerning how penalties are assessed. The Board waived a penalty for Mr. Duck and he left with District Clerk Debi Martin to pay his bill.

*(At this time, President Michaels asked the Board to allow a change in the agenda order, to allow Sean Hickey from Lauterbach and Amen, LLP to address the Board early, so that he would not have to be present for the full board meeting.)*



Northern Moraine Wastewater Reclamation District  
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**10. NEW BUSINESS:**

c. Appointment of Auditor for the District's financials for Fiscal Year 2018-2019

Manager Haque reported to the Board that the District has been gathering proposals for Auditor services; he explained that although the District has had a good working relationship with George Roach and Associates for over ten years, proper government business practices recommend changing auditors every 3-5 years. He introduced Sean Hickey, from Lauterbach and Amen, LLP, to introduce his firm to the District. Mr. Hickey gave a short presentation to the Board about Lauterbach and Amen, LLP and what their firm can offer the District.

Motion by Mrs. Battaglia to approve the hiring of Lauterbach and Amen, LLP for the District's audit of fiscal year ending April 30, 2019, with the option of renewing for two additional fiscal years.

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**

*(The Board thanked Mr. Hickey for his time and continued on with the Board Agenda)*

**6. MANAGER'S REPORT:**

Manager Haque updated the Board on the progress being made on various projects in and around the District. He told the Board that Savannah's of Lakemoor is ready to connect their first model home. He told the Board that Woodman's has sewer in the ground and are currently waiting for lift station components to be delivered. Construction at Woodman's continues at a fast pace and he felt construction may be complete by mid-June. Mrs. Ryberg commented that she thought that Woodman's was looking for a grand opening on Labor Day. Mr. Haque informed the Board that the SCADA project is progressing; he reported that he and other staff members had a good meeting with the Circle K representatives last week and mentioned that the developers still have some issues to work out with both IDOT and McHenry County DOT. He also reported that Skipper Buds has expressed interest in getting sewer connection, and he had recommended that the owners speak with Lake County first, per the 5-party agreement of a few years ago. Manager Haque reported that the District played host to a delegation from Costa Rica, and that Trustee Ryberg had been in attendance. He informed the Board that this delegation has toured various treatment facilities along with some manufacturing plants. He gave a short report on the progress of the various improvements around the plant. He also informed the Board that not all trustee confirmations had been returned from our representatives and that he is in contact with their offices.

**7. TRUSTEE REPORTS -**

Mrs. Ryberg reported that she was very pleased with the hard work that Operations Supervisor Luke Marrko, Junior Engineer Joe LaPastora, and District Manager Haque put in to make the delegation from Costa Rica feel comfortable, including having the presentation in both Spanish and English. She was impressed with the presentation and stated that she learned a lot from the tour. She commended the District staff of a job well done.

President Michaels reported that he had a conversation with the new Island Lake trustee, Will Ziegler, concerning the Circle K project. President Michaels has the impression that some of the village trustees may have been misinformed about the District's involvement to date in the project.

**8. LEGAL BUSINESS - none**

**9. OLD BUSINESS -**

a. Trustee Appointments - Manager Haque covered this in his Manager's Report.



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**10. NEW BUSINESS**

a. Public Hearing for the Proposed FY 2019-2020 Operating Budget

President Michaels called to order the Public Hearing for the Proposed Fiscal Year 2019-2020 Operating Budget for the Northern Moraine Wastewater Reclamation District at 8:15 p.m. There were no public comments and President Michaels adjourned the Public Hearing at 8:16 p.m.

b. Final Action and Adoption of the NMWRD FY 2019-2020 Budget

Motion by Mr. Brunn to adopt the Northern Moraine Wastewater Reclamation District for Fiscal Year 2019-2020 operating budget as proposed.

2nd Mrs. Ryberg

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. Appointment of Auditor for the NMWRD's Financials for Fiscal Year 2018-2019

*(This item was covered earlier in the meeting.)*

d. Renewal of NMWRD's Property, Liability and Flood Insurance

President Michaels asked that this item be tabled until next month so that more information on available insurance groups can be gathered. No Board action is required at this time.

e. Acceptance of Bids for Polymer for Solids Handling

Motion by Mr. Brunn to award the bid to the lowest responsible and responsive bidder, Polydyne, Inc., and adopt a resolution authorizing the District Manager to execute a one-year service agreement, renewable for two additional years, with Polydyne, Inc.

2nd Mrs. 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**

f. Acceptance of Bids for Chlorination and De-Chlorination Chemicals

Motion by Mr. Ragland to award the bid to the lowest responsible and responsive bidder, Viking Chemical Company, in the amount bid for Sodium Hypochlorite and for Sodium Bisulfite for the 2019-2020 and 2020-2021 Fiscal Years and adopt a resolution authorizing the District Manager to execute a two-year agreement with Viking Chemical Company to provide chlorination and de-chlorination chemicals.

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**



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g. Acceptance of Bids for Generator Maintenance

Motion by Mr. Brunn to award the bid for generator maintenance service to the lowest responsible and responsive bidder, Alternate Power Industries, Inc. and adopt a resolution authorizing the District Manager to execute a one-year service agreement with Alternate Power Industries, Inc., with the authority to extend the service agreement for up to three additional years.

2nd Mrs. 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**

**11. MISCELLANEOUS CORRESPONDENCE**

- a. MCCG Dinner Meeting – April 24, 2019 at Crandall's in Hebron. Interested parties should let District Clerk Debi Martin know so that she may RSVP.

**12. APPROVAL OF BILLS**

Motion by Mr. Brunn to approve payment of bills on the April 16, 2019 bill list as presented, in the amount of \$133,625.45

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 Mr. Ragland to adjourn at 8:18 p.m.

2nd Mrs. Ryberg

5 ayes 0 nays 0 abstain

**MOTION CARRIED**





April 15, 2019

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

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

Nothing new to report. We hope to close out this project this spring.

**Savannahs of Lakemoor [Gravity Sewer Extension for Subdivision]**

Nothing new to report. We hope to close out this project this spring.

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

Submittals were received for the generator, pumps and controls for the lift station at Woodman's and we have approved the pumps and generator. The controls are having some final modifications per our review and we expect to approve them in the next day or two. The original change order request in the amount of \$23,556 has been reduced to \$9,460 through a combination of value engineering and back and forth regarding interpretation of the original design specifications and requirements. The end product is something that the District is happy with and will provide us with a good solid solution for the lift station for the long term. Woodman's is pushing for

**SCADA(Supervisory Control and Data Acquisition) and Automation**

ASD has completed phase 1 of their design work and we have purchased the fiber cables and network components to finish the backbone of the SCADA at the plant. We have also put out the control panels for quotes for the SCADA and those quotes are coming in now. We are moving on to phase 2 of the work, which includes providing schematic design drawings for the Control Building, Chemical Building and Oxidation Ditch. Three new control panels are planned for this and that work is underway. ASD has been quick to work on the SCADA and has provided good quality work at a reasonable price and met all of our scheduling requirements.

**Circle K**

We met with Circle K representatives on April 9. The group is really hoping to start construction this late summer, but they have considerable coordination that needs to be done with IDOT and they have not started the process. We informed them that we will expedite our reviews and coordination once final plans are ready. We outlined our requirements and will memorialize them once we receive plan documents from them.

**Skipper Bud's**

On Wednesday, April 10, I met with the Village of Lakemoor about the potential to connect Skipper Bud's to our system. I explained to the group that we signed a 5-party agreement a few years back that obligates this property to be severed by Lake County / Lakes Region Sanitary District. Skipper Bud's prefers to be connected via NMWRD and will be pursuing that route with Lake County representatives.



## Costa Rica Delegation Visit



On Thursday, April 11<sup>th</sup>, we welcomed a group of 10 Costa Ricans who were touring the Midwest as part of a delegation that was looking at wastewater technology and facilities for their country. Trustee Ryberg was with us and we were very grateful for her company. Joe and Luke conducted the tour with presentations of our systems and processes and all of the hard work that they have put in the last year at the District. I was quite proud of both of them. The group visited the plant and looked at our solids handling and was also able to visit our Deer Grove lift station. Their trip was part of the work that Joe and I are involved with for Global Water Stewardship. We anticipate that this will be a yearly tour featuring other Costa Rican professionals that want to learn about our industry.

## Influent Flowmeter and Raw Pump #1

Per our 2014 Facility Plan, Trotter & Associates recommended that we replace our existing influent 18" flowmeter with a 12" flowmeter at a cost of approximately \$100,000 and Raw Pumps for \$250,000 (\$62,500 per pump). TAI estimated that the total cost, with engineering and contingencies, of replacing one pump and the 12" flowmeter would be \$265,160. We are under way to replace it for approximately \$104,000 per below. We have ordered a flowmeter for \$4,800 as well as an immersible pump for \$14,000 as part of this project. I anticipate that this project will start to take place in the next 2-4 weeks.

<b>Influent Flowmeter and Raw Pump # 1</b>	<b>TAI</b>	<b>Project w/ 1 pump</b>	<b>Project w/ 1 pump</b>	<b>Balance of</b>	
	<b>Facility Plan</b>	<b>and Flowmeter</b>	<b>and Flowmeter</b>	<b>Work in Future</b>	
	<b>Cost</b>	<b>Standard Method</b>	<b>NMWRD as GC</b>		<b>Comments</b>
General Conditions	\$ 93,750.00	\$ 21,959.46	\$ -	\$ -	
Raw Sewage Pump Replacement (4 pumps)	\$ 250,000.00	\$ 62,500.00	\$ 20,000.00	\$ 60,000.00	1 pump now; 3 later
Influent Force Main and Meter Replacement	\$ 100,000.00	\$ 100,000.00	\$ 70,000.00	\$ -	
Fine Screen Replacement	\$ 250,000.00	\$ -	\$ -	\$ 200,000.00	Replace Fine Screen in separate project
<b>Subtotal Construction</b>	<b>\$ 693,750.00</b>	<b>\$ 184,459.46</b>	<b>\$ 90,000.00</b>	<b>\$ 260,000.00</b>	
Contingency @ 25%	\$ 173,437.50	\$ 46,114.87	\$ 9,000.00	\$ 26,000.00	Contingency @ 10% for NMWRD as GC
<b>Construction Total</b>	<b>\$ 867,187.50</b>	<b>\$ 230,574.33</b>	<b>\$ 99,000.00</b>	<b>\$ 286,000.00</b>	
Engineering @ 15%	\$ 130,078.13	\$ 34,586.15	\$ 5,000.00	\$ 5,000.00	As-Built Only
<b>Portable Capital Cost - Treatment Facility Rehabilitation</b>	<b>\$ 997,265.63</b>	<b>\$ 265,160.47</b>	<b>\$ 104,000.00</b>	<b>\$ 291,000.00</b>	
			<b>TOTAL COST</b>	<b>\$ 395,000.00</b>	

## Lift Station Controls

The Hale control panel is anticipated to be delivered later this month and we will be working with Newcastle Electric and Kresmery Construction on the installation. In conjunction with this, we are now working on designing and procuring the power panel. Panels at additional locations will be ordered in the next month.

## Floodproofing of Control Building and Generator Modifications

Work on this project is nearing completion. Conduit penetrations were floodproofed in the last month and work has started on removing the mansard above the headworks. We are working on getting quotes for miscellaneous work related to the building. Additional items such as floodproofing stoplogs on the doors, roofing and masonry revisions are pending. Since we have had considerable savings on this project, we are considering replacing the weathered and rusting doors on this building with extruded aluminum doors.



### **Phosphorus Removal**

We have removed the old and unused belt filter press in the sludge dewatering building and are in the process of installing permanent fiberglass tanks for bulk storing Hyper+ion. Luke and his staff are working on selecting the pumps for this project.

### **Headworks / Screening Issues**

The screenings conveyor has been delivered and we are in the process of bidding out a new bar screen. The replacement Influent Grinder is in the process of being shipped to us.

### **Non-Potable Water Improvements**

We have also ordered a self-cleaning filter for our Non-potable water (plant effluent) system and are working with a contractor to get it installed. This will involve changing piping in the NPW room and it is anticipated that we can also replace a malfunctioning pump (1 of 3 pumps) in the process.

### **Operations Building Remodeling**

This project is near completion. We just need to order a couple of file cabinets.

### **Office Remodeling**

The only remaining item is to purchase some updated furniture. That will be done in the next wee.

### **Prairie Woods Generator**

A replacement generator by Cummins was ordered and shop drawing submittals have been reviewed and approved. We are waiting for shipment.

### **Maintenance Garage**

I continue to work with ADG Design Services on the design of the new maintenance garage, with the expectation that will construct it for approximately \$450,000 (or 50% of the amount anticipated in the Facility Plan). I have included some funds for this as part of the budget proposal.



Save the Date!

NMWRD'S  
50<sup>TH</sup> ANNIVERSARY

*Northern Moraine  
Wastewater Reclamation District*

*Saturday, September 14, 2019  
Island Lake, Illinois*



## NMWRD March 2019 Operations Report

As of April 11th, 2019

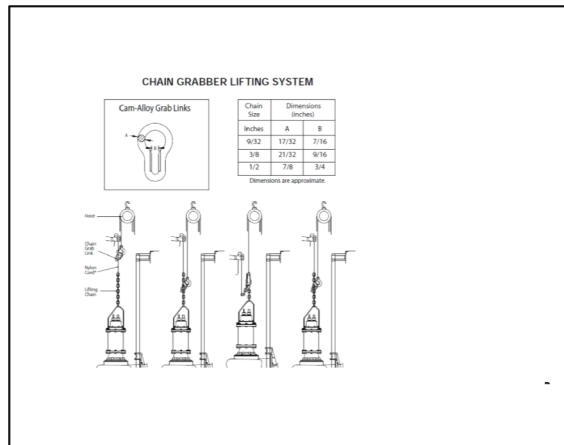
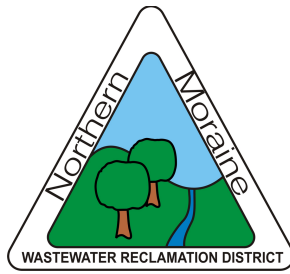
Prepared by: Luke Markko, Superintendent

- **Automatic Greaser** – An automatic greasing system is being tested on the aerator bearings located on the Oxidation Ditch. The greaser consists of a cylinder that is loaded with grease and installed at the bearing's greasing point. It is then equipped with a small capsule that can be set to start a chemical reaction at a fixed rate that will generate gas and create pressure within the cylinder. As the pressure increases at a fixed rate, the grease is then pushed into the bearing at a rate that is determined appropriate for that bearing under the conditions it operates in. So far, the feed rate seems to be a bit slower than anticipated. However, the bearing temperature is remaining consistent. Once an appropriate system has been chosen, a significant amount of manhours will be saved. There are 16 bearings that require regular greasing on the Oxidation Ditch, and each bearing takes a significant amount of time and grease to lubricate.



Automatic Greaser Installed on Aerator Bearing

- **Lift Station Maintenance & Pump Chain Grab Systems** – With the weather beginning to break, work has begun to inspect all of the lift station pumps, change the oil, and clean the stations with the vac truck. In addition, staff have been installing “Chain Grab Systems” to allow pumps to be removed with greater ease. When lifting the pumps out of a lift station, in many cases, staff need to try and use a hook that has been lowered with the crane truck and swing it into a position where it can be pulled up and catch the lifting point of the pump. The lifting point of the pump is usually a piece of steel attached to the pump and it resembles an upside-down U or V. This can prove extremely difficult in colder weather conditions when the warm water in the wet well meets the cold air and creates a vapor that makes seeing down into the well impossible at times. The “Chain Grab Systems” consist of a short section of chain connected to the lifting point of the pump where a length of rope is then tied to the end of the chain and ascends to the top of the wet well. A “grab” device is then attached to the crane hook with the rope passing through and acting as a guide as the mechanism descends into the wet well. It is designed to slide down over the chain and then grab the chain links as it is lifted. This allows the pumps to be lifted with greater ease, and save time trying to “fish” a pump out.



Chain Grabber Lifting System

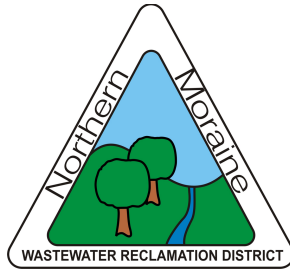
- Guide Rail at Lift Station #3** – One of the guide rails for the pumps at Lift Station #3 became disconnected at the bottom support. This rail serves as a guide to position the pump as it is being lowered into the wet well. If the pump is not seated (positioned properly) on the discharge piping, it may not operate properly. Marc Kresmery Construction was contacted to assist in repairing the railing connection. Their staff were able to have the rail reattached in a matter of hours.



The rail to the right had fallen out of alignment. Here it is after the repair.

- Phosphorous Removal Update** – Final Effluent Total Phosphorous concentrations remain below the 1.0 mg/L limit that will go into effect in the near future. Recent results have been averaging between 0.80 mg/L and 0.94 mg/L. This is a little higher than the target concentration of 0.75mg/L. We are gradually zeroing in on a consistent feed rate that will achieve our target concentration with minimal adjustment. Seasonal changes may be playing a factor as well. As temperatures rise algae growth can contribute to higher phosphorous levels. Since starting the feed in December at 70 gal/day, reductions in the feed rate have been made incrementally to 34.74 gal/day.





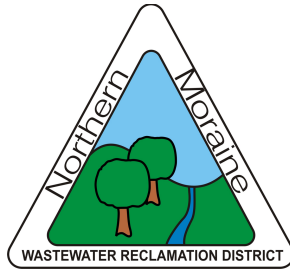
- **Security Camera Upgrades & Exterior Wi-Fi Repeater** – Staff replaced the three security cameras that were located on the Control Building roofline, while adding an additional camera on the storage garage. The old cameras were beginning to fall behind in what software would support them. The new NEST cameras offer an easy installation and setup. They are also widely supported on a number of devices. The new cameras transmit their signal over Wi-Fi, so a weatherproof Wi-Fi repeater was installed on the roof of the Control Building to expand the range of the Wi-Fi signal at the treatment plant. Now while outside, staff can access the District's network over a large range of the plant site. Additional cameras will be added in the near future to allow for remote monitoring of system processes.
- **Old Generator & Belt Filter Press** – In last month's report, staff were planning for the removal of the Old Treatment Plant Generator and Belt Filter Press (BFP). At the time after struggling to find anybody interested in buying the equipment it was determined that they had zero value. A rigging company was contracted for the removal of the heavy equipment. Fortunately, at the last minute we found a buyer for both. Dahm Enterprises, the company that is contracted for the District's sludge hauling, has agreed to purchase the two pieces of equipment for \$3,000 and repurpose them. This will help offset the cost of the rigging company's services for removal. Plans are to house chemical storage tanks in the pit that was located below the BFP. The pit structure will provide spill containment, and the chemical storage tanks will allow for receiving bulk deliveries of the Hyper + Ion chemical that is currently being used for phosphorous removal. We are currently using 250 gallon totes that need to be driven up the side of the Oxidation Ditch hillside on a regular basis.



The old 1978 generator was disconnected from the plant power systems.



Installed in 1999, the Belt Filter Press has been replaced by the Centrifuge.



Rigging staff assessing the generator.



District staff removing sludge feed line from Belt Filter Press.



Inch-by-inch the generator was navigated out the door.



The Belt Filter Press weighed nearly 18,000 lbs.

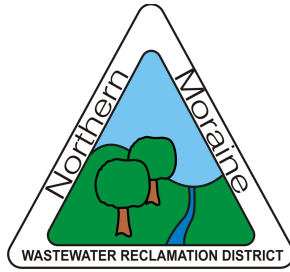


It was a tight fit, but the Generator is out the door.



After nearly 20 years, the Belt Filter Press sees daylight once again.





Generator loaded up and ready to go.



After some modifications a chemical storage and feed system will move in.

- Supervisory Control and Data Acquisition (SCADA) Update** - District staff continue to work towards developing a SCADA system for the treatment plant. Some additional conduits have been run to provide power and data to valve actuators that will be installed to provide automatic control of valves involved in wasting sludge to the digesters. Fiber optic cable and fiber optic equipment has been purchased to provide the “backbone” of the communication network. Review of control panel designs is also just beginning.

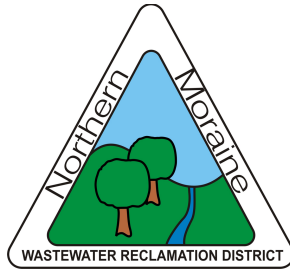


Power and data conduits for future SCADA control panel.



Power and data conduits for future valve actuator.

- Drying Bed Modifications** – The dividing wall was removed between the two drying beds closest to the Dewatering Building. This was done in preparation for Turfstone installation in the runners, and to have the two beds covered with a Clearspan cover in a similar fashion to several other bed that were covered. The goal here is to have the dried sludge being produced by the centrifuge conveyed directly to the stockpile storage. Currently sludge is deposited onto the floor of a garage bay adjoining the dewatering room. Staff then use a front-end loader to scoop up the sludge and then drive it over to the covered beds used to store our sludge stockpile. This is a time consuming and messy affair that results in sludge being tracked down a large portion of the driveway.



Concrete dividing wall removed with metal supports remaining.



Metal supports removed.

- **Sludge Hauling** – The District’s sludge stockpile that had accumulated over the winter was hauled off for land application the first week of April by Dahm Enterprises. The sludge was hauled to farm fields located in Lakemoor to be utilized as fertilizer. Sludge hauling typically occurs twice each year, once in the spring, and once in the fall. The timing for land application in the spring must be once the ground has thawed sufficiently for the sludge to be tilled into the field, and prior to crops being planted. In the fall, the application needs to occur once crops have been harvested, and prior to freeze up. In either season excessively wet weather will delay or prevent land application at a particular field.



- **Treatment Plant Generator** – As Driesilker Electric, the contractor awarded the 2018 bid for generator service, was performing annual service on the treatment plant generator the generator controller was shorted out. This rendered the treatment plant generator useless and required an emergency trailer-mounted unit to be brought in by Driesilker so that the treatment plant would have a backup source of power in the event of a power failure. It turns out the controller was shorted out because the Driesilker technicians working on it failed to disconnect the battery charger prior to disconnecting the leads from the battery terminals for cleaning. With the batteries disconnected, the battery charger operating as it should, saw a drop in voltage and began attempting to charge. When the terminals were reconnected arcing occurred and a surge went to the controller and shorted it out. A separate contractor, Alternate Power, was called in because of their familiarity with the type of controller that the generator is equipped with. They determined that the controller was indeed faulty and began sourcing a new one. A new controller was obtained several days later and installed. All was thought to be well until the generator was tested “under load”, meaning that it was actively powering the entire treatment plant. During this test the voltage was unsteady and went up and down significantly. Driesilker then had to reconnect the portable generator until the issue with the voltage could be sorted out. The source of this problem was found to be with the Automatic Voltage Regulator (AVR). A wire connecting rail had come loose and tipped over onto the AVR causing a short on this component. Again, Alternate Power was contacted for their familiarity with the controlling components on this particular generator. The AVR was replaced, and after some adjustments to the controller with the new AVR in place, the generator has finally been successfully tested while powering the treatment plant. Driesilker Electric was placed on notice that the District would be holding them accountable for the expenses incurred in correcting the problem their staff created. They have agreed to do so.



Portable 400 kW generator being delivered to plant site.



Portable generator connected and ready to provide emergency power if needed.



**NMWRD Engineering Report**  
Date: April 12<sup>th</sup>, 2019  
Prepared by: Joe Lapastora, Junior Engineer

**Woodman's Lift Station and Sanitary Sewer Additions:**

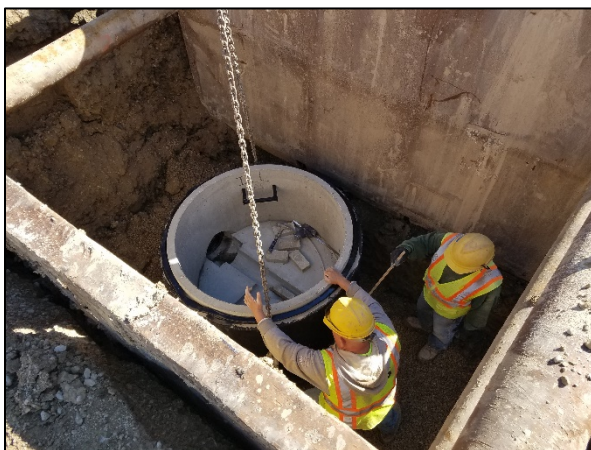
*[Project Update]* – Mancini completed the entire sanitary sewer main along Ring Road last week. A total of 16 structures are set which include 15 manholes and the wet well. The only remaining underground sanitary to be completed are the services for the gas station and car wash to the North of Woodman's. Lake County Grading is planning on wrapping up the services for these businesses by the end of the week, at which time all underground construction will be completed. Looking forward, testing will need to be completed for both the main line and the service lines (Air pressure test, manhole vacuum test, mandrel deflection test, cleaning and televising). Before any service connections to the mainline, Lake County Grading Company will need to submit their maintenance bond to the District. Finally, as underground construction wraps up, we will be shifting our focus to the control panel and generator side of the Woodman's project. The District is waiting for Gasvoda to send us the submittal revisions regarding the control panel and generator, but we expect to finalize and green light all items very soon. The anticipated opening date for the Woodman's grocery store is tentatively set for late June.



*Picture of the last manhole set along Ring Road.*



*Construction of the services for the Car Wash and Gas Station.*



*Lake County Grading setting the base for a manhole.*



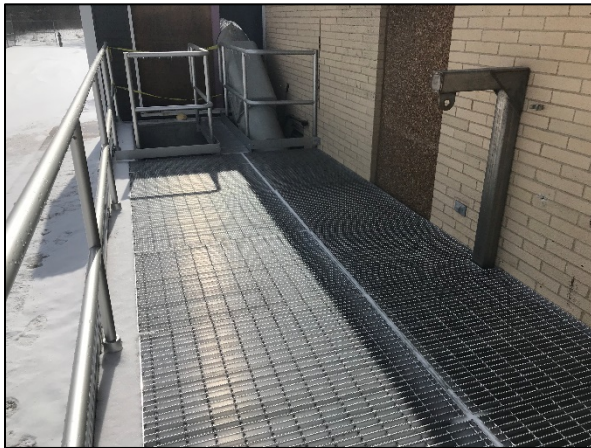
*LCGC capped the service line 5 feet short of the main line.*

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

*[Project Update]* – ComeEd is currently relocating power lines to prepare for the additional turn lane. With this work being completed, I assume that roadwork and associated underground work will commence soon. 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 two buried manhole covers.

**NMWRD Floodproofing:**

*[Project Update]* – Completed aspects of this project include; a new concrete curb, step ladder, railing, kick plates, temporary steps, conveyor removal, grating, control panel relocation and dumpster enclosure. We still 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 decision has been made to wait on the permanent stairs until the concrete is poured for the new sidewalk.



*Picture of the new grating above the headworks wet well.*



*Open area for the new conveyor.*

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

- Luke and I recorded wet well measurements to aid Eric Lecuyer while the District considers replacing one of the drum screens with a bar screen at the headworks of the plant. The District hopes to construct a septage receiving station and the bar screen would play an integral part in the treatment process as it would have a highly effective removal efficiency of unfavorable solids that may harm other treatment processes.
- Old electronics have been identified and organized. It is the District's intent to keep at least one backup for such items as desktop towers, monitors, printers and battery backups while any additional items will be sent to auction as surplus items. Furthermore, we came across multiple items that are no longer in working condition. For these items, we have contacted Wauconda Recycling Center and they have agreed to take in all electronic waste and will pay the District an amount equal to the scrap material of the item.

- The District has successfully removed the Belt Filter Press from the dewatering building while also removing the 30+ year old generator from the control building. The removal of these items has cleared up significant space in their respective buildings and the District is looking to retrofit these areas for storage. Manusos will be pouring a concrete divider in the pit directly below the old belt filter press and this space will be utilized to store the Hyperlon chemical that treats our wastewater for Phosphorous removal.
- I will be submitting a “Pre-Approval” Application for the ComEd Energy Efficiency Program later this week. The district has identified the plant control building as the building with the most potential for energy reduction if all lighting fixtures were converted to LED. If selected, this program will handle all costs associated with a complete LED conversion. I performed a preliminary “Life Cycle Assessment” for the control building under current conditions vs future conditions (all LED bulbs). I am currently waiting for Dynegy energy services to send some information pertaining to the plant control building.
- Luke Markko and Joe Lapastora attended the CSWEA Education Seminar on April 2<sup>nd</sup>. The seminar focused on innovative and emerging technologies for wastewater treatment. Luke and I met a handful of connections/vendors who have reached out for site visits. Ultimately, the seminar proved to be a valuable learning experience and we look forward to seeing what ideas we can implement at NMWRD.
- The District is reevaluating the chemical building and the plant intends to reconfigure the chemical room (Easternmost room) so that each chemical will have its own spill containment. Furthermore, we hope to upgrade to larger tanks so that the same tank used for chemical delivery will also be the discharge tank where the feed comes from. This will free up operator time as they currently fill an intermediary tank before injecting the chemicals in the wastewater.
- Mohammed and I attended a short meeting with representatives from Circle K to discuss the anticipated project at the corner of Route 176 and River Road. We informed the developers that they would need to extend the sanitary sewer to the furthest extent of their property as written in NMWRD Ordinances. We expect this project to break ground in late summer or early Fall.
- The Costa Rican delegation toured the plant on April 11<sup>th</sup> and the presentation and tours were great successes. Our staff thought it was a truly valuable experience and we want to thank Trustee Lydia Ryberg for joining us for the day!
- In some personal news, I have applied to sit for the Class 4 Operators exam to gain a better understanding of the daily plant operations and maintenance at NMWRD. Looking forward, I plan to obtain my Class 1 License after gaining the required experience, which will take some time. Finally, I have decided to hold off on my P.E. License until I obtain my Class 4. Mohammed has agreed to be my Professional Engineering mentor and continues to be a great leader for my career development.



### **DELINQUENT ACCOUNTS RECAP FOR MARCH, 2019**

Revised: 4/12/19 by Debi Martin, District Clerk

#### **\$200-\$300**

##### **34 Active Accounts**

Island Lake – 25 customers  
24 Water Shut Off Notices, 1 Final Water Shut off Notice  
Lakemoor – 9 customers  
3 Sewer Disconnection Notices, 4 Water Shut Off Notices, 1 Final Notice of Delinquency  
1 payment agreement

#### **\$301-500**

##### **22 Active Accounts**

Island Lake – 3 customers  
1 Final Water Shut Off Notice, 2 Sewer Disconnection Notices  
Lakemoor – 10 customers  
6 Sewer Disconnection Notices, 4 Final Notices of Delinquency  
Port Barrington – 9 customers  
6 Sewer Disconnection Notices, 3 Final Notices of Delinquency

#### **\$501-\$1000**

##### **14 Active Accounts**

Island Lake – 7 customers  
6 liens – 6 with water off, 1 Sewer Disconnection Notice  
Lakemoor – 4 customers  
4 liens – 1 with water off, 3 to be disconnected  
Port Barrington – 3 customers  
3 liens – 3 to be disconnected

#### **\$1001 and up**

##### **9 Active Accounts**

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

**Delinquent Accounts total (active and inactive customers): \$52,461.46** (\$14,570.79 inactive accts)

**March 2018's report: \$52,597.98**

**March 2017's report: \$50,872.42**

#### **MONTHLY ACTIVITY:**

**4802** Monthly Bills mailed on 4/1/19  
**376** Bills not mailed – customers prepaid on their accounts  
**18** Sewer Disconnection Notices mailed on 4/09/19  
**51** Notices of Delinquency mailed on 4/09/19  
**28** Water Shut Off Notices mailed on 4/09/19  
**2** Final Water Shut Off Notices mailed on 4/09/19  
**8** Final Notices of Delinquency mailed on 4/09/19  
**25** Real Estate Closings for March 2019





# Northern Moraine Wastewater Reclamation District

113 Timber Trail  
Island Lake IL 60042

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## AGENDA REGULAR MEETING 7:30 P.M. April 16, 2019

- 1. CALL TO ORDER & ROLL CALL**
- 2. PLEDGE OF ALLEGIANCE**
- 3. PRESENTATION & APPROVAL OF MINUTES**
  - a. Regular Meeting Minutes – March 12, 2019
- 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**
  - a. Trustee Appointments for the term beginning May 1, 2019 and ending April 30, 2022
- 10. NEW BUSINESS**
  - a. Public Hearing: Proposed FY 2019-20 Annual Budget
  - b. Final Action and Adoption of the FY 2019-20 Annual Budget
  - c. Appointment of Auditor for the District's financials for FY 2018-19
  - d. Renewal of the District's Property, Liability and Flood Insurance
  - e. Acceptance of Bids for Polymer
  - f. Acceptance of Bids for Chlorination / Dechlorination Chemicals
  - g. Acceptance of Bids for Generator Maintenance
- 11. MISCELLANEOUS CORRESPONDENCE**
  - a. MCGG Membership Meeting – Wednesday, April 24, 2019 – Crandall's, Hebron, IL
- 12. APPROVAL OF BILLS**
- 13. OTHER BUSINESS**
  - a. Executive Session – Personnel