



NORTHERN MORAINE WASTEWATER RECLAMATION DISTRICT

113 Timber Trail, Island Lake, Illinois 60042

REGULAR MEETING MINUTES

July 9, 2019

Present: Trustees: Ken Michaels, John Ragland, Dena Battaglia, Timothy Brunn, Lydia Ryberg
District Manager: Mohammed Haque; District Clerk: Deborah Martin;
Superintendent: Luke Markko
Guests: former State Representative Mike Tryon and former Senator Pam Althoff, and
current Representative Tom Weber

President Michaels called the meeting to order at 7:35 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.

At this time, President Michaels asked the Board to change the order of the meeting to accommodate the special guests.

10. NEW BUSINESS:

- a. Adoption of Resolutions Thanking Representatives Tom Weber and Senators Craig Wilcox and Dan McConchie for their leadership and support of The Northern Moraine Reclamation District

A formal signed Resolution certificate was presented to Representative Tom Weber for his support in securing funding for Northern Moraine Wastewater Reclamation District's Capital Improvement Projects through the State's Capital Improvement Bill. The Board also recognized and thanked former Representative Mike Tryon and former Senator Pam Althoff for their assistance in this effort and their continued support of NMWRD. The Board posed for pictures with their special guests. An invitation was extended to the guests to attend the District's 50th Anniversary celebration this September.

President Michaels asked the Board to return to the regular meeting agenda.

3. PRESENTATION & APPROVAL OF MINUTES:

- a. Regular Meeting, June 11, 2019

Motion by Trustee Brunn to approve the Regular Meeting minutes of June 11, 2019 as presented.

2nd by Trustee Ryberg

5 ayes 0 nays 0 abstain

MOTION CARRIED

4. TREASURER'S REPORT:

The Treasurer's Report was presented by Mrs. Ryberg

Motion by Mr. Brunn to approve the Treasurer's Report for the month ending May 31, 2019 as presented.

2nd Trustee Battaglia

5 ayes 0 nays 0 abstain

MOTION CARRIED

- a. Quarterly Investment Report

The Board discussed moving some of the banking funds to money market accounts to garner a higher interest



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rate. Trustee Ragland expressed concern in leaving so much money in regular accounts. District Manager Haque stated that one of the banks that the District has accounts with, First National Bank of McHenry, has been purchased by Blackhawk Bank. He stated that he will talk with the new banking representatives about better rates for the District and will contact other area banks. Manager Haque reminded the Board that several payments for the Woodman's project would be presented soon, and he wanted to make sure the funds were readily available as needed.

5. PUBLIC COMMENTS: President Michaels recognized that Superintendent Luke Markko was in attendance and asked if he wanted to highlight some of the projects that the plant is working on. Mr. Markko began by thanking the Village of Wauconda and the City of McHenry for their help when the need arose for a crane truck. The District now has a new crane truck that has been used in projects including the removal of the roofing in the sludge dewatering building. Mr. Markko informed the Board that the trial runs for phosphorus removal proved successful and that the District is in compliance with the new IEPA regulations. He reported that a carrier conduit for the delivery of the Hyper + Ion chemical has been installed on the oxidation ditch and that the District has its first SCADA (Supervisory Control and Data Acquisition) panel which will allow for monitoring and control for a number of process-related equipment. Mr. Markko also updated the Board on the process of the drying bed improvements, and the new sludge pump that is now in operation. He gave the Board information on a project that was completed by a local Eagle Scout, Jake Anderson, of Island Lake Scout Troop 76. Jake, with help from his fellow Scouts, installed bat houses at the treatment plant. A mature bat usually eats 6,000 to 8,000 mosquitos nightly. It may take a few years for the bats to utilize the bat houses and District staff will continue to monitor the houses.

6. MANAGER'S REPORT:

Manager Haque briefly updated the Board on the various projects in and around the treatment plant that were not covered by the Operations Report and Engineer's Report. Mr. Haque reported that more testing is required at Woodman's; there have been issues with the contractor's tests failing and repairs were made to completely pass the tests; another test will be completed in the next week. Our summer intern, Ross Khaler, has been instrumental in assisting our Jr. Engineer, with all the testing and in being our on site presence at Woodman's. Mr. Haque updated the Board concerning Skipper Bud's request to connect to Northern Moraine; Lakes Region Sanitary District requested that the matter be delayed until their dissolution/transfer to Lake County is completed. Dunkin Donuts development plans are under review for a new Dunkin at 250 Rand Road in Lakemoor. He stated that basic site plans have been received for a Circle K to be constructed in Island Lake. Manager Haque reported to the Board that doors will be replaced during the floodproofing work being done in the Control Building; it was noted that doors were weathered and rusting. He stated that the entire mansard will be replaced to keep a uniformed look for the building. He reported that the Prairie Woods generator has been delivered and installation will be scheduled shortly. Manager Haque updated the Board on plans for the District's 50th anniversary Open House in September; District Clerk Debi Martin and staff have been working diligently on finalizing plans for this open house. The invitation and mailing list will be ready next week for mailing. Manager Haque updated the Board on Personnel matters, informing them that the summer intern, Ross, will be leaving in August. Former Manager Eric Lecuyer's last day was on June 30th; Manager Haque has interviewed candidates for an Operator position and an offer will be extended shortly. He informed the Board with the numerous projects currently taking place in the District, administrative staff have become overtaxed with additional duties, and he feels a part time office assistant will greatly reduce this burden. Manager Haque informed the Board that the District was able to approach the contractor for the large addition to the Dentist's office at 106 E State Road in Island Lake for compliance to our Ordinances concerning connection fees; this addition work was in violation of District Ordinances, and additional connection fees were paid. Follow up televising of the sewer hook-up is being coordinated. Manager Haque expressed frustration with the lack of coordination with the Village of Island Lake and the other Villages concerning non-notification of construction. He told the Board that the User Rate Study will be completed soon now that the District has results from the Capital Bill; our District attorney is working to streamline the District's ordinances; it is felt that some of the District's Ordinances are repetitive and can be condensed from 7 ordinances, to 2-3 ordinances. This will be easier for Staff and the public to obtain needed information quickly. Manager Haque reported that the District



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Attorney's office did give him a Septage Receiving Ordinance, but it was delivered too late in the afternoon, and will be on the August agenda.

7. TRUSTEE REPORTS :

President Michaels reported Rockwell Utilities failing zero discharge facility has been purchased by Aqua Illinois and is currently awaiting ICC approval for this purchase. Mr. Michaels expressed concern for the citizens in Lakemoor that will be affected by this purchase, noting that Aqua Illinois does not have a very good reputation for keeping costs contained or in protecting local environments. The Board felt that eventually the District will be asked to clean up after Aqua Illinois fails to effectively serve the citizens of Lakemoor effected by this purchase. Apprehension was voiced over the District not being informed of this pending sale, and over the future of the Volo Bog and other natural habitats in the surrounding area. The Board voiced opinions that the District should work with the Village of Lakemoor to notify residents of this sale.

8. LEGAL BUSINESS - none

9. OLD BUSINESS -

a. Septage Receiving Ordinance

As noted earlier, District Manager told the Board that the District's attorney had just finalized the ordinance late in the afternoon, as asked that the Board table acting on this ordinance until next month.

b. Semi Annual Strategic Plan Review

President Michaels stated that the review given to the Board was comprehensive, and that the Board has been impressed with all the improvements and projects currently underway. Manager Haque stated that he did not add anything new to the plan, hoping that the District will have some breathing space before undertaking any additional projects.

10. NEW BUSINESS

a. Adoption of Resolutions Thanking Representatives Tim Weber and Senators Craig Wilcox and Dan McConchie for their leadership and support of the Northern Moraine Reclamation District

Motion by Mr. Brunn to adopt resolutions thanking Representatives Tim Weber and Senators Craig Wilcox and Dan McConchie for their leadership and support of the Northern Moraine Wastewater Reclamation District.

2nd Mrs. Ryberg

MOTION CARRIED

Manager Haque will forward the signed Resolutions to Senator Wilcox and Senator McConchie, who were not present to receive their Resolution certificates.

b. Adoption of a Resolution Designating Surplus Equipment and Authorizing Disposal through Auction

Motion by Mr. Ragland to adopt a resolution designating items listed on Exhibit "A" (the District's old crane truck and an old Moyno sludge pump) as presented to the Board as surplus equipment to be sold through an on-line auction administered by Obenauf Auction Services, Inc.

2nd Mrs. Ryberg

5 ayes 0 nays 0 abstain

MOTION CARRIED

c. Acceptance of Bids for Clarifier Covers Recoating

Motion by Mrs. Battaglia to award the bid to the lowest responsible and responsive bidder, P&M Painting, Inc., in the amount bid for both the North and South Clarifiers in the amount of \$32,000.00 and to authorize the District Manager to execute a service agreement with P&M Painting, Inc..

2nd Mr. Ragland



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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. Acceptance of Bids for Sludge Dewatering Building

Motion by Mr. Ragland to award the bid to the lowest responsible and responsive bidder, Filotto Construction, to provide roofing, gutters and downspouts for the sludge dewatering building in the amount of \$21,850.00 plus 10% for any contingencies and to authorize the District Manager to execute a service agreement with Filotto Construction.

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

e. Acceptance of Bids for SCADA Control Panels

Motion by Mr. Brunn to award the bid to the lowest responsible and responsive bidder, Allan ICS, to provide SCADA control panels at the bid price of \$44,202.00 plus 10% for any contingencies and to authorize the District Manager to execute a service agreement with Allan ICS.

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 a Sludge Drying Bed Cover

Motion by Mrs. Battaglia to award the bid to the lowest responsible and responsive bidder, Greenfield Contractors, LLC, to provide a Sludge Drying Bed Cover at the bid price of \$49,461.52 plus 10% for any contingencies and to authorize the District Manager to execute a service agreement with Greenfield Contractors, LLC.

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 Dinner Meeting – July 24, 2019 at Pistakee Yacht Club in Johnsburg. Interested parties should let District Clerk Debi Martin know by 7/18/19 so that she may RSVP.



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12. APPROVAL OF BILLS

Motion by Mrs. Ryberg to approve payment of bills on the July 9, 2019 bill list as presented, in the amount of \$135,965.30.

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

13. OTHER BUSINESS - none

ADJOURNMENT

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

2nd Mrs. Ryberg

5 ayes 0 nays 0 abstain

MOTION CARRIED



July 9, 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]

In maintenance period. This will no longer appear on DM Report.

Savannahs of Lakemoor [Gravity Sewer Extension for Subdivision]

Received sanitary sewer as-builts and cleaning / televising documentation. Issuing letter of acceptance and will enter maintenance period of 3 years.

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

The control panel is pending delivery. Testing is ongoing with some failed items that are being rectified. An IEPA permit allowing for plugging sewer and pumping with septic hauling trucks was signed by District. Awaiting receipt of permit for stopgap arrangement until lift station is fully operational. We continue to work with Lakemoor to ensure that startup and sitework is completed in time for the store opening.

Circle K

Waiting on retained personnel fee. Basic site plans have been received.

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.

Dunkin Donuts - Lakemoor

Development plans are currently under review for a new Dunkin Donuts in Lakemoor at 250 Rand Road.

Lift Station Controls

The Hale control panel has been delivered and we will be working with Kresmerey Construction on the installation. Panels at additional locations will be ordered in the next few months utilizing contributions from state legislature capital bill funding.

Floodproofing of Control Building and Generator Modifications

Flood barriers have been received. Reviewing mansard / architectural panel options for the building and finalizing order. Since we have had considerable savings on this project, we are replacing the weathered and rusting doors on this building with extruded aluminum doors. We are also replacing the entire mansard to have a uniform look for the building.

Phosphorus Removal

See Superintendent's report.



Influent Flowmeter and Raw Pump #4

See Superintendent's report.

SCADA(Supervisory Control and Data Acquisition) and Automation

See Superintendent and Engineer's Report.

Headworks / Screening Issues

The influent grinder was installed and is working well. Some alignment issues will require us to move it slightly in the near future in conjunction with the installation of the new replacement screen and conveyor. I have requested 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.

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. We are currently pricing out a replacement pump skid and will proceed with replacing the pumps.

The installation of the filter/strainer has had considerable effect on clogging of nozzles throughout the plant, saving considerable maintenance time and effort.

Operations Building Remodeling

Minor punchlist items to be completed by end of August.

Office Remodeling

Minor punchlist items to be completed by end of August.

Prairie Woods Generator

A replacement generator by Cummins was ordered and was received last week. Installation is being scheduled.

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.

Capital Bill

We are expecting Representative Tom Weber, Senator Craig Wilcox and perhaps Senator Dan McConchie at our board meeting on July 9, 2019. Resolutions of thanks are being prepared in anticipation of their attendance.

50th Anniversary Preparations

Debi has started on preparations for this event and is receiving quotes for arrangements including tent, tables, podium, snacks, refreshments, etc. A formal flyer was created and will be mailed this month. A copy of the mailing list will be distributed to the board for review. We also intend to put inserts into future bills to invite the public. We are also working on some tours, displays as well as speakers for the day. A draft agenda is attached.



Personnel

Our Engineering Intern, Ross Kahler finally was able to start with us on June 13. He will be working with us until end of August. As a recent graduate in Environmental Engineering, he is actively seeking a full-time permanent position. I am assisting him in getting placed since the District does not have a permanent full-time position available for him to fill for the long term.

Eric Lecuyer's last day with the District was on June 30, 2019. Eric is really looking forward to retirement. I will be taking him out to lunch next week to check up on him.

The District has been heavily advertising the two Operator positions with the intention of filling only one of them now. We have had a good response to the opening. Several candidates will be interviewed prior to the Board meeting. The Operator-in-Training position we had discussed last month is being put on hold until we are able to fill one Operator position.

We are considering the possibility of hiring part-time office help after the intern leaves at the end of August. The new subdivisions of Savannah's, Deer Grove as well as the number of construction projects that are being managed in house has created considerable work in the areas of Permitting, Inspection coordination, Accounts Payable, etc. There are times when office staff feel overwhelmed and a part-time position would allow for some relief and also allow for some redundancy in staffing positions and skillsets.

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

The Dentist's office added to their existing office without any sewer review or coordination. Since approaching them about the violation of District Ordinances, they have paid connection fees for the expansion (additional office space as well as 2 apartments). They are in the process of televising the service tie-in. A follow-up will be done with the Village of Island Lake once they have a new building inspector to ensure that we have better coordination going forward.

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.

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.



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. A final version will be presented to the board in the next 1-2 months.

Bids

Several bids were advertised and are up for approval this month. We had very good responses on the Clarifier Cover Recoating and the SCADA Control Panels bids and decent response on the Roofing and the Sludge Drying Bed Cover bids. One additional bid for Site Improvements was advertised, but ultimately postponed because the engineering drawings from CE, Ltd. was not far along to advertise. That bid will be re-advertised later this month.



50th Anniversary

NMWRD Treatment Plant
420 Timber Trail
Island Lake, IL 60042

AGENDA

Saturday – September 14, 2019

- 12:15 – 12:20 **Welcome and Introductions / LUNCH** – *Mohammed Haque, District Manager*
- 12:20 – 12:35 **History of Northern Moraine WRD** – *Ken Michaels, District President*
- 12:35 – 12:45 **2019 Illinois House Overview** – *Honorable Representative Tom Weber*
- 12:45 – 1:05 **2019 Illinois Senate Overview** –
- *Honorable Senator Dan McConchie*
 - *Honorable Senator Craig Wilcox*
- 1:05 – 1:15 **District Projects** – *Mohammed Haque*
- Darrell Road Interceptor
 - Lift Station Upgrades
 - Plant Upgrades
- 1:15 – 1:30** *Overview of the Treatment Plant & Service Area of Island Lake, Lakemoor and Port Barrington*
- 1:30 – 1:45 **Wrap Up & Final Comments** - *Ken Michaels, District President*
- 1:45 – 4:00 - **Tour of the Northern Moraine Treatment Plant** – *Luke Markko, Superintendent*
- Displays and Activities**
- **District Maps / GIS / Robotics** – *Joe Lapastora, Jr. Engineer*
 - **Water Reuse & Resource Recovery** – *Chris Molidor, Operator*
 - **Lab and Sampling** – *Emily Lecuyer, Lab Technician*
 - **Billing & Collections** – *Debi Martin and Madalina Roscan*
 - **Touch-A-Truck** – *Bryan Gainer, Operator*

IN ATTENDANCE:

- **District Trustees:** *John Ragland, Dena Battaglia, Lydia Ryberg, Tim Brunn and Ken Michaels*

For more information:

Debi Martin, District Clerk
(847) 526-3300
debi@nmwrd.org

Mohammed Haque, District Manager
(847) 526-3300
haque@nmwrd.org



NMWRD June 2019 Operations Report

As of July 5th, 2019

Prepared by: Luke Markko, Superintendent

New Crane Truck - The new Ford F-550 crane truck has arrived. The crane from the old Ford F-450 was removed and installed on the new chassis and utility body. The old F-450 had significant engine problems and needed to be warmed up for 15 minutes prior to being driven, creating delayed action to events requiring a lift station pump being pulled for inspection. NMWRD was without a crane truck for nearly two months as the new truck was being assembled. Many thanks go out to the Village of Wauconda and the City of McHenry for providing mutual aide with their crane trucks on several occasions when lift station pumps needed to be pulled.



Ready for some heavy lifting!

Hyper + Ion Conduit – A carrier conduit for the delivery of the Hyper + Ion chemical has been installed on the oxidation ditch. This provides protection for the small plastic tubes that the chemical is pumped through. The conduit has several termination points to allow staff to adapt to various operating conditions and maintain phosphorous removal with various flow configurations through the Oxidation Ditch.



PVC conduit to house plastic chemical tube.



One of several feed points near water surface.



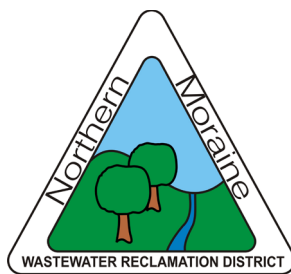
Non-Potable Water Strainer- Following up a month after the installation of the Non-Potable Water strainer, I'm happy to say that it has saved staff a lot of time and effort. Prior to installation staff would need to clear clogged spray nozzles on the clarifiers and Rotating Drum Screen multiple times each week. The Rotating Drum Screen would tie up two operators for about an hour each time it required servicing. Now that the strainer has been installed, There has been minimal need to clear the spray nozzles on the clarifiers, and the Rotating Drum Screen has only required service once!



Strainer installed in NPW pump room.

Energy Management – District staff have begun trying new and innovative ideas to reduce the amount of electricity that is used. Staff have begun shutting off one of the Oxidation Ditch aerators for one hour each day, turning off laboratory equipment that used to run continuously, and shutting off the basement exhaust fan when nobody is down there. We are still awaiting usage data for the timeframe these actions were taken. More to report once we have some data, and additional ideas.

Plant Bypass: Raw piping and Flowmeter Installation – To install new raw pump discharge piping along with a new magnetic flow meter, the treatment plant headworks needed to be bypassed to allow for the work to be performed. Technicians from Rain For Rent, a contractor specializing in bypass pumping, set up trailer mounted pumps and piping to allow the every bit of the raw wastewater entering the facility to be pumped up to the Oxidation Ditch as contractors from Dahme Mechanical performed the work involving the discharge piping and flow meter. I am happy to report that the project was completed without complications. The result of these efforts will allow for future raw pump replacements, and a more accurate flow meter that can more easily be accessed for service. The existing raw flowmeter is a retrofitted ultrasonic meter that is prone to inaccuracies and is in a buried structure. The new meter can be accessed in the basement and more importantly can be bypassed with the new piping configuration in the event it needs to be removed or replaced.



Bypass pumps staged upstream of headworks



Pump discharge directly to ditch.



A plug was installed at the headworks to stop flow.



New piping and flow meter.

Old Belt Filter Press Piping – District staff removed the feed line that supplied sludge to the belt filter press that was removed earlier this year. Part of this line is still utilized to send sludge to the centrifuge. At times gases can build up in the sludge line, so staff installed a bleeder pipe and valve to allow venting of these gases.



Putting the new crane truck to work.



Bleeder pipeline installed.



New Sludge Pump – Installation of a new sludge pump has begun in the dewatering building. The sludge pumps convey sludge from the digesters to the centrifuge for dewatering or thickening. A rotary-lobe pump was selected for its smaller footprint and ease of maintenance.



Old Moyno sludge pump after removal.

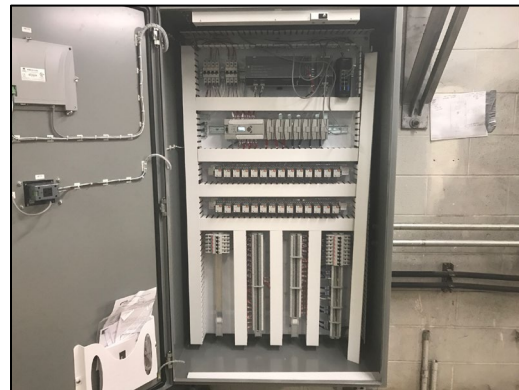


New rotary lobe pump being staged for install.

Supervisory Control and Data Acquisition (SCADA) Update – Northern Moraine has its first SCADA panel! This panel has a Programmable Logic Controller (PLC) that will allow for monitoring and control of a number of process related equipment. This panel along with others that are currently out for bid will be installed in a network that will become the central nervous system of the treatment plant, allowing for coordinated control of plant processes and remote system monitoring and adjustment. The panel has been mounted, yet a lot of work remains before it becomes functional. This is a first and important step in brining NMWRD into the modern technological era.

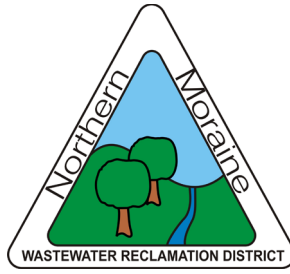


Dewatering Building SCADA panel.



Clean and organized!

Drying Bed Improvements – Work continues on the drying beds where sludge will be directly conveyed once the conveyors in the dewatering building have been reoriented. As previously reported, concrete dividers were removed to create one large storage area similar to the two beds that are now covered by the clear-span. District staff recently removed the old sand and debris in the drainage runners and installed new sand. This has been done in preparation for the installation of turf-stone. Turf-stone was



installed in the existing drying bed that currently houses the sludge stockpile, and proved effective in supporting the weight of front-end loaders as they were driven in the bed for removal of the sludge. This prevents large ruts being formed as the loader wheels drive on the drainage runners.



Fresh sand in drainage runners.

RAS/WAS Valve Actuators – One of two motorized valve actuators that were delivered has been installed. The actuator consists of an electric motor and gearbox that operate the valve. The installation of the valve actuators will allow for the automation of the daily wasting process once the SCADA system is up and running. Additional actuators in the future could allow for further automation in other routine treatment processes and in optimization of treatment.



Actuator installed on new concrete pad.



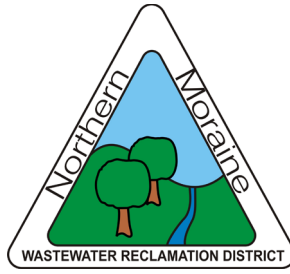
Automatic Greasers – Automatic greasers were recently delivered and will be installed on the Oxidation Ditch aerator bearings. There are 16 bearings on the Oxidation Ditch that require regular greasing. This is a time-consuming process that will tie up staff for several hours, especially in the winter months when the grease becomes more viscous and is difficult to pump. These greasers have a canister that can be preloaded with grease along. There is a plunger in the canister that pushes the grease out of the canister and into a small pipe that feeds the bearing. There is a small expendable cartridge that screws into the canister. When activated, this cartridge will use a chemical reaction to form an expanding gas at a controlled rate to drive the plunger. This unique method allows for a fairly simple installation that does not require any electricity.



Canisters loaded up with grease and gas cartridges

Training & Changes to IEPA Certified Wastewater Operator Regulations– On June 26th, staff attended a training course put on by the Central States Water Environment Association. The course, Fundamentals of Collection Systems, as the title suggest was all about collection systems. With the varying levels of experience that NMWRD staff possess, the course provided new content for those who haven't been exposed to it yet, and a nice refresher for those who have been around for some time. New IEPA regulations will now require a certified operator to attend courses like this in the future, and track how many Continuing Education Units (CEUs) they receive in a period of time. For Class 3 & 4 Operators, they will be required to have 15 hours of training every 3 years, and Class 1 & 2 Operators will be required to have 30 hours of training every 3 years.

Septage Receiving Trial – We continue to cautiously receive several septic loads each week while monitoring the treatment plant processes. After speaking with our IEPA inspector about our trial run she directed us to the City of Richmond, IL. They began receiving septic loads several years ago and have a plant process similar to that of the District. The staff at Richmond were contacted and explained that they had to obtain an IEPA construction permit as they designed their septage receiving station and the IEPA placed limits on the volume of septage they could receive based on their plant size and loadings. We can likely expect to go through a similar process.



Bat Houses – Jake Anderson of Island Lake Scout Troop 76 has been working on an Eagle Scout project with the District over the last several months. Jake put together a plan to construct bat houses to be installed at the treatment plant site. Just last week, Jake and his fellow scouts came out and put them up. The bats won't be the only beneficiaries here! District staff can hope to see the horrendous mosquito population go down and experience less bites once the bats move in. Bats may take several years to move in. We will be staying in touch with Jake and letting him know when we see some activity.



The scouts arrived with the houses preassembled.



After mounting them to poles the houses were installed.



Sun exposure and tree proximity are important.



Thank you Jake and Troop 76!

NMWRD Engineering Report
Date: July 5th, 2019
Prepared by: Joe Lapastora, Junior Engineer

Deer Grove Sanitary Sewer Extension:

[Project Update] – The construction portion of this project has been successfully completed. All applicable testing has been conducted with no failed items and the sanitary sewer extension has been cleaned and televised. The District Board of Trustees voted to approve the sewer extension 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.

Savannah’s of Lakemoor Residential Subdivision:

[Project Update] – PirTano has completed the construction portion of this project. All applicable testing has been conducted with no failed items and the sanitary sewer addition has been cleaned and televised. The District Board of Trustees voted to approve the sewer extension at the June 11th Board Meeting. Mohammed Haque will issue an “Approval for Use” letter to William Ryan Homes, at which point, 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] – RA Mancini Construction has completed the mainline construction portion of this project. The service lines coming from the Woodman’s building, car wash and gas station (Installed by Lake County Grading Company) have been tested with no failed items. Roughly half of the testing on the sanitary sewer mainline has been completed, with the latter half set to be tested within the next two weeks. Our new engineering intern assisted Joe Lapastora with his inspection duties while he was injured. Finally, as underground construction wraps up, we will be shifting our focus to the control panel and generator side of the Woodman’s project. Note that there have been three (3) failed items thus far during testing. RA Mancini Construction made the appropriate repairs and passed the associated testing on two (2) of the three (3) items and they will be re-testing the final failed item after the repair is complete.



NMWRD Engineering Intern performing inspections at Woodmans.



Picture of manhole vacuum test.

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

[Project Update] – The District is still waiting for construction crews to begin stripping pavement at the intersection of Route 176 and Roberts Road, at which time we will find the foreman to discuss our intent to uncover two buried manholes.

NMWRD Floodproofing & Other Plant Projects:

[Project Update] – Completed aspects of this 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. Pending work items include; finishing flashing and marriage to new deck for dumpster enclosure, install flood barriers and permanent stairs to be installed after new sidewalk is poured. Furthermore, in preparation for the Sludge Drying Bed Cover bid, Bryan Gainer has nearly completed the prep work on the Southeastern most drying beds.



Drying beds after pavement removal and sand filler in runners.

NMWRD SCADA & Telemetry:

[Project Update] – Completed aspects of the SCADA & Telemetry project include; underground conduit with tracer wire installed at the plant, some hardware has been ordered for SCADA system, Rotork Actuators ordered from LAI, one (1) actuator installed on a RAS line, fiber cable ordered, and new concrete pads poured. Items currently on hold or in progress include; Panel/enclosures, restoration landscaping after all excavating is complete, and tying the entire system together. Note that a bid opening is scheduled for July 5th regarding the SCADA Control Panels. The three (3) panels to be bid out include; Control Building C.P., Oxidation Ditch C.P. and Chemical Building C.P.

Septage Receiving:

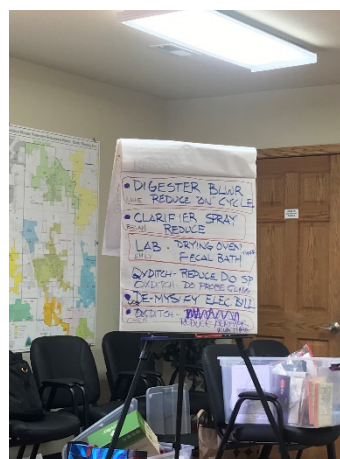
[Project Update] – The District has been exploring the option of septage receiving at the treatment plant and intends to move forward with a permanent septage receiving station. Preliminary designs have been examined and District staff will finalize a design in the upcoming month. Once a final design is established, the District would have to complete the permit process with the IEPA in order to start receiving septage. This program would 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 will be following up with Arne Venteris, who performed an indoor lighting audit for us early in June. After his review of the Treatment Plant Control Building, Arne drafted up a quote for 325 bulbs for just over \$1,100 with a projected payback period of 6 months. The project appears to be a no-brainer, however, the District decided to order 25 bulbs to test before making the full purchase. In addition to the energy/cost savings associated with LEDs, the District should also see some incentive payback via the ComEd Energy Efficiency Program.
- The auction for the old District electronics is live via Obenhaf Auctions through July 12th. As I am writing this today, we have bids on more than half of our items, albeit at some low bid values. For any items that do not sell, they will be added to the multiple items that were identified as no longer in working condition and recycled for scrap value. The District has reached out to Wauconda Recycling Center and they have confirmed that they are available to pay scrap value for the electronics. Looking forward, the District intends to cycle through this process with larger items including the old crane F550 and Moyno sludge pump which have been included in this agenda for designation as Surplus Equipment.
- District Superintendent, Luke Markko and Junior Engineer, Joe Lapastora participated in a ComEd Strategic Energy Management “Treasure Hunt” that took place at NMWRD on June 6th. The idea of the “Treasure Hunt” or general audit was to have energy professionals help identify areas that we could potentially reduce our energy consumption and, in turn, save the District money both directly and through incentives. The “Treasure Hunt” was a bit unorthodox at times, however, staff members walked away with several ideas to implement at the plant which will result in saved energy and money! I would be remiss to not mention how awesome it is that Northern Moraine has a District Manager and Superintendent who are open to the idea of changing how things are done at the plant without stating “but this is always how things have been done around here, so we aren’t changing anything.” It is this attitude that will ultimately benefit the District and furthermore, all of the District’s customers.



Brainstorming session from Treasure Hunt.



Five Energy Saving Ideas to Implement.

- A new wireless access point was installed at the Treatment Plant Control Building, with some help from our I.T. specialist, Gabe. It appears now, that all cameras are able to connect, however, there are still some small issues with maintaining connectivity 24/7. The District will discuss and circle back on this.
- Idea Marketing has recently completed Phase II of the website re-design. The second round of peer reviews is still in progress but Mohammed, Luke, Debi and Madalina have all been diligent with the mark-up process and the website should turn out excellent!
- The District issued invitations to bid on five (5) projects on June 26th including, Clarifier Cover Recoating, Roofing for Sludge Dewatering Building, SCADA Control Panels, Sludge Drying Bed Cover and Site Improvements. Note that the invitation to bid for the Site Improvements has been postponed. The District will be accepting bids through July 5th, on which date, the bid openings are scheduled to occur.
- The invite for the 50th anniversary celebration in September has been created. Mohammed was able to produce the invite on a postcard and the results look great! There is also a lot on planning being performed by District Clerk, Debi Martin. She is working her heart out to plan for this special occasion and we cannot express our appreciation enough! I was able to help Debi with planning by producing a map/model of the proposed layout and the District is in the process of finalizing the layout.
- Several District personnel attended the CSWEA Operations Seminar/Collection Systems Course on June 26th in Naperville. I am proud to announce that all District staff in attendance passed the Collection Systems Course.
- The District purchased, registered and installed iPass' in three (3) District vehicles; F250, F550 Crane and Silverado 2500.
- With the good(ish) weather returning in June, District staff performed five (5) service connection inspections and had several days of construction testing at various sites.
- Finally, the District hired an Engineering Intern on June 19th. Ross Khaler is a UW-Platteville graduate with an Environmental Engineering degree and will be with the District through August. Ross was pivotal in keeping things chugging along at the District as soon as he started. With Joe Lapastora's brief ankle injury in early June, Ross stepped in and performed on-site inspections without skipping a beat.



DELINQUENT ACCOUNTS RECAP FOR June, 2019

Revised: 7/03/19 by Debi Martin, District Clerk

\$200-\$300

61 Active Accounts

Island Lake – 41 customers
37 Water Shut Off Notices, 2 Final Water Shut Off Notices, 1 Final Notice of Delinquency,
1 promised payment
Lakemoor – 15 customers
5 Water Shut Off Notices, 1 promised payment, 9 Final Notices of Delinquency
Port Barrington – 5 customers
5 Final Notices of Delinquency

\$301-500

8 Active Accounts

Island Lake – 2 customers
2 Final Water Shut Off Notices
Lakemoor – 5 customers
5 Sewer Disconnection Notices
Port Barrington – 1 customer
1 promised payment

\$501-\$1000

14 Active Accounts

Island Lake – 8 customers
6 liens – 6 with water off, 2 Sewer Disconnection Notices
Lakemoor – 3 customers
3 liens – 3 to be disconnected
Port Barrington – 3 customers
3 liens – 2 to be disconnected; 1 Sewer Disconnection Notice

\$1001 and up

9 Active Accounts

Island Lake – 4 customers
4 liens – 4 with water off
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): **\$46,983.10** (\$9,613.65 inactive accts)

June 2018's report: **\$46,814.87**

June 2017's report: **\$49,626.91**

MONTHLY ACTIVITY:

4816	Monthly Bills mailed on 6/1/19 (for May service)	121	Notices of Delinquency to be mailed on 7/8/19
368	Bills <u>not</u> mailed – customers prepaid on their accounts	8	Sewer Disconnection Notices to be mailed on 7/8/19
42	Water Shut Off Notices to be mailed on 7/8/19	4	Final Water Shut Off Notices to be mailed on 7/8/19
2	Final Notices of Delinquency to be mailed on 7/8/19	32	Real Estate closings for June 2019
		3	Liens Released





Northern Moraine Wastewater Reclamation District

113 Timber Trail
Island Lake IL 60042

AGENDA REGULAR MEETING 7:30 P.M. – July 9, 2019

- 1. CALL TO ORDER & ROLL CALL**
- 2. PLEDGE OF ALLEGIANCE**
- 3. PRESENTATION & APPROVAL OF MINUTES**
 - a. Regular Meeting Minutes – June 11, 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. Adoption of Ordinance # 19-06, Hauled Waste Ordinance
 - b. Semi-Annual Strategic Plan Review
- 10. NEW BUSINESS**
 - a. Adoption of Resolutions Thanking Representative Tom Weber and Senators Craig Wilcox and Dan McConchie for their Leadership and Support of the Northern Moraine Wastewater Reclamation District
 - b. Adoption of a Resolution Designating Surplus Equipment and Authorizing Disposal through Auction
 - c. Approval of Bid for the Clarifier Cover Recoating
 - d. Approval of Bid for the Roofing for Sludge Dewatering Building
 - e. Approval of Bid for the SCADA Control Panels
 - f. Approval of Bid for the Sludge Drying Bed Cover
- 11. MISCELLANEOUS CORRESPONDENCE**
 - a. MCCG Membership Meeting – Wednesday, July 24, Pistakee Yacht Club, Johnsburg, IL
- 12. APPROVAL OF BILLS**
- 13. OTHER BUSINESS**
 - a. Executive Session – if needed