

## VILLAGE OF GRAFTON

### BOARD OF PUBLIC WORKS MEETING MINUTES

MONDAY, SEPTEMBER 12, 2016

\*Amended

The Board of Public Works meeting was called to order at 6:00 p.m. by Chair Sue Meinecke

Board members present: Trustee Sue Meinecke, Trustee Tom Krueger, Trustee Dave Liss, Les Blum and Pat Murray

Staff present: Director of Public Works/Village Engineer Amber Thomas, Superintendent of Public Works Gary Helm, Utility Superintendent Tim Nennig, Utility Program Coordinator Larry Roy and Administrative Assistant Melissa Depies

Others present: Representative for Water Quality Investigations – Andy Jacque; representatives for Milwaukee River Watershed Conservation Partnership – Karen Nenahlo, MMSD and Andy Holschbach, Ozaukee County; representatives for Habitat for Humanity – Tom Urban, Jim Shaw, and Robert Meier; and interested residents Bill Harbeck and Trustee Lisa Harbeck

#### HEAR PERSONS REQUESTING TO BE HEARD

Mr. Blum stated that he did not receive his packet until Monday after 2:00 p.m. This is not sufficient time to review all the material. The packet delivery needs to be earlier so board members have ample review time of the materials they are receiving.

#### MINUTES

Motion by Trustee Liss, seconded by Trustee Krueger, to approve the July 11, 2016 and August 8, 2016 Board of Public Works meeting minutes, as presented.  
Motion carried.

Mr. Blum noted that on page 3, paragraph 4 of the July 11 minutes the word “in” needs to be removed.

#### WATER & WASTEWATER

##### Well #3 and Water Supply Investigation Report

Utility Program Coordinator Larry Roy explained that over the last several years the Utility has received complaints of brown water from businesses on the east side of the Village.

It is believed that the discolored water is caused by a naturally occurring iron bacteria that grows in the wells. Every well in the Village has this bacteria, and it is currently treated with chlorine. Well 3 has a very severe infestation of iron and common soil related bacterial bio-films. The Utility has contracted with Water Quality Investigations to

test all the wells and the distribution system in the Village. This was to include an in-depth investigation of Well 3.

Andy Jacque, Water Quality Investigations, LLC., presented his findings of the wells and distribution system stating that this iron bacteria is a naturally occurring bacteria, is within regulation limits, and will not make you sick.

Mr. Jacque did a very complete presentation explaining the basic well operation; each well has 5 zones:

- Zone 1 is above the pump in the pump column;
- Zone 2 is above the pump in the well casing;
- Zone 3 is below the pump in the well casing;
- Zone 4 is the borehole; and
- Zone 5 is the aquifer, outside the borehole

He also explained the geologic setting for the Village stating that the area around Grafton was under a sheet of ice during the most recent glacial period. Bedrock types located below the glacial deposits for Ozaukee County consist of limestone and dolomite. Interpretation of well construction cuttings for Ozaukee County suggests the presence of a fault line in the bedrock, which appears to be an extension of the Waukesha Fault. Data also suggest a directional change to the fault or an offset fault, running from the southeast to the northwest under the center of Grafton. Well 3 is located to the east of the fault line, on the down-thrust side of the fault while wells 2, 4, 5, and 6 are located to the west of the fault line, on the up-thrust side of the fault. Well 7 is located to the southeast, and off the end of the offset fault, which appears to be on the down thrust side.

Mr. Jacque explained how microbial testing was collected during pumping of the wells at various time and how the water was tested at different times to show the level of the bacteria at various stages. This type of test shows at what level of the well the bacteria is. The investigation revealed that all the wells have an excessive growth of common environmental microbes (non-pathogenic) in a cased region of the well, which can cause corrosion of the steel components of the well.

Well 3 has microbial growth that is caused by excess presence of organic carbon, nitrogen and phosphorous (P is limiting nutrient) and Microbial Induced Corrosion (MIC) is present.

Mr. Jacque stated that nutrient conditions in the aquifer suggest the potential for continued microbial activity in Grafton's wells. This growth can cause corrosion in the well and of the mechanical equipment. To maintain optimal water quality, and minimize the potential for regrowth of microbes and biofilm in the wells, operation of the wells should include the following:

- Installation of a recycle line to minimize stagnant conditions above the pump, and installation of a tee and valve below the air release valve for future treatment of the column pipe.
- Quarterly introduction of chlorinated water into the column pipe through manual operation of the pre-lube line to control microbial growth in the column pipe.

- Perform periodic high rate flushing of the well to waste for about an hour to routinely dislodge any biofilm attempting to form in the borehole. Rawhiding during the flushing would assist in biofilm purging from the well.
- Perform unidirectional flushing of the distribution system to remove accumulated debris and biofilm that can promote aesthetic issues at the consumer's tap. Removal of naturally occurring water main debris will lower chlorine demand, reduce disinfection byproduct formation, reduce plumbing corrosion and minimize aesthetic water quality complaints.

Mr. Jacque also suggested that the Village consider an ordinance to prohibit the use of combined fire suppression and domestic water supply services, which create stagnant water conditions that promote biofilm growth and aesthetic water quality issues. Alternately, require a flushing port be installed at the building entry point and flushing of the port twice per year.

There were a few questions and limited discussion.

Utility Program Coordinator Larry Roy indicated that the 2017 proposed budget includes funds for rehabilitation of the Well 3 pump and well hole. Andy Jacque, Water Quality Investigations will oversee the project.

#### Watershed Conservation Partnership Commitment-Presentation by MRWCP and Ozaukee County Land & Water Management

Utility Superintendent Tim Nennig explained that the Milwaukee River Watershed Conservation Partnership (MRWCP) is a coalition among county land and water conservation departments, Milwaukee Metropolitan Sewerage District (MMSD), Wisconsin Department of Natural Resources (WDNR), funding agencies, agricultural producers and land owners.

This coalition was formed to seek out and deliver high-performance agricultural land conservation programs and practices which ultimately would help to achieve improved water quality in the Milwaukee River watershed and provide incentives for agricultural landowners to invest in state-of-the-art soil management practices for water quality improvement.

Mr. Nennig stated that on October 19, 2015, Dave Murphy, former Director of Public Work/Village Engineer received authorization from the Grafton Village Board to issue a formal letter of support (LOS) to the MRWCP indicating a financial commitment of \$80,000 spread equally over a four-year time frame beginning in 2017.

Mr. Nennig further explained that the LOS detailed several conditions including one specific stipulation that no Village money would be spent until an agreement with the DNR and the Village Board was reached on the amount of phosphorous removal trading credits the Village would receive and the payment associated with those credits. The agreement would need to demonstrate substantial cost-savings to the Village for both the short- and long-term in reaching future total phosphorus (TP) and total suspended solids (TSS) Wisconsin Pollutant Discharge Elimination System (WPDES) permit limits.

Karen Nenahlo, Project Manager at MMSD, handed out a brochure which explains the partnership, their project goals, and the project boundary area.

Ms. Nenahlo stated they are in the very early stages of this process. They are currently trying to determine what funding agents they have on board and how the DNR will apply the trading credits.

The partnership is looking to assist the Village in their efforts to comply with more stringent Total Maximum Daily Load (TMDL) allocations and future effluent discharge permit limits recently issued in draft form by the DNR. The more stringent TMDL allocations and permit limits have the potential to cost the Village millions of dollars in future facilities construction at the Village's wastewater treatment plant. The partnership is working with and through its members to improve water quality within the entire Milwaukee River watershed. This is an effort to improve water quality naturally through improved land conservation programs and practices and thereby either reduce the extent of; or eliminate, the costly construction of new facilities which would provide physical and chemical phosphorus removal treatment.

The group will identify phosphorus and suspended solids reduction requirements; contact upstream landowners and producers to determine interest in participating in water quality trading or adaptive management with Grafton; identify applicable conservation practices and the load reductions achievable; prepare agreements between Grafton and landowners or producers to implement water quality trading or adaptive management.

It was the consensus of this board that they will would like additional time to review the Memorandum of Understanding and have this matter on the October 10, Board of Public Works agenda for additional review and approval.

#### Habitat for Humanity claim for reimbursement.

Utility Superintendent Tim Nennig explained that on the evening of Wednesday, April 20, 2016, the Utility was called-in by the Grafton Police Department to investigate a possible water main break located within the east side yard of an 8-family condominium building located at 2112 Pine Ridge Court. A nearby resident had noticed water running earlier in the day but did not contact the GPD until several hours later.

Upon arrival, Utility crews observed a fairly significant main break occurring in a grassy area adjacent to the building with large volumes of water flowing down a ditch line and in a southerly direction towards Wisconsin Avenue/Columbia Road. Flows were following existing grades along a path heading directly towards the Habitat for Humanity house under construction. Utility crews promptly throttled down the closest water distribution system valve minimizing the water loss; yet, still providing sufficient pressures for resident use within the adjacent building.

Utility crews observed several feet of standing water in the basement level of the home. It appeared that water was entering the home's foundation from the north following a ditch line created by the water and sewer main extensions to the property. A basement sump pump was in operation and discharging a steady stream of water from the

basement via an above-grade line; however, at a rate unable to keep up with the incoming basement flows. Construction equipment and building materials were observed either submerged or floating in the basement area. After controlling the main break water loss and investigating the damage to the home, the Utility promptly contacted Habitat's volunteer Robert Meier to meet with them at the construction site. Mr. Meier arrived onsite within 10-15 minutes to assess the damage that had occurred.

The failed water main was a 6-inch PVC line feeding the 8-family building and dead-ending in the east side yard. The water main failure was caused by defective materials of construction and questionable installation practices. It should be noted that the materials used and installation observed were likely acceptable according to the Village's standard specifications for construction at the time of installation. The Utility is aware that other preferred materials were available at the time of construction but the contractor chose not to use. It remains unclear whether any formal Village or contracted inspection of the construction work occurred.

Habitat for Humanity Ozaukee submitted a claim package to the Village with details of the equipment and materials that were damaged as a result of the break. The claim was submitted to the Village's insurance carrier EMC on June 20, 2016. After review and investigation EMC determined that the Village was not liable for any damages that occurred and denied the claim. EMC stated that the Village was not liable for the damages due to not having any prior notification that the main break was going to occur.

Tom Urban, President of Habitat for Humanity, stated that this is not an act of god. It is a result of human frailty. He noted that the best materials were not used for the installation, there are no inspection records, and no maintenance reports for the entire system at the Pine Ridge development. The Village of Grafton is responsible to maintain the infrastructure. He also noted that the claim did not include any labor costs, as that is all done by volunteer, and/or costs associated with delays in the project.

Robert Meier, stated that Robert Tillmann designed and developed the Pine Ridge development and then turned it over to the Village without proper documentation. There were changes in the building layout and construction due to rock. When these changes were made, there were changes made to the sewer and water lines within the development. He commented "How many more time bombs are there in that development just waiting to go off and when they do, will this house suffer?"

Trustee Krueger and Mr. Nennig did due diligence to find any inspection records or notes for the Pine Ridge development and were unable to find any. Trustee Krueger contacted Miller Engineers (the design engineer and as-built drawings) for any records they may have, however were unable to provide them today.

Trustee Harbeck questioned why EMC would deny this claim, why does the Village have liability insurance if they are not going to cover these types of claims. The Village has been with EMC since 2014 and have 5 to 7 claims for sewer backups and 0 claims for water damage. Why is there a difference between a sewer backup and water main break. It was her opinion that the Habitat claim should be paid.

Bill Harbeck, 907 17th Avenue, stated that insurance companies have a vested interest to deny a claim; however the reason they stated for denial makes no sense. How could the Village have prior notice that a water main was going to break? He suggested paying Habitat for their claim and then go after the insurance carrier for reimbursement.

After the facts were presented and comments made it was the consensus of the Board that that they disagree with the EMC insurance denial and that the Village is liable for the damages incurred and should reimburse Habitat for Humanity Ozaukee for their claim of \$5,057.

Motion by Mr. Blum, seconded by Trustee Liss to recommend the Village Board authorize payment of the claim reimbursement request to Habitat for Humanity in the amount \$5,057. Motion carried.

#### Review 2017 Proposed Budget-Utility

Utility Program Coordinator Larry Roy presented the Water and Wastewater proposed 2017 budget.

He noted that the revenues did include a 3 percent water rate increase and a 5 percent sewer rate increase as approved by the recent quick rate change.

#### Water Budget:

Mr. Roy noted that the capital projects include: Rehabilitation of Well 3 including special treatment to remedy iron bacterial bio-film growth, Andy Jacque will be overseeing this project. Project will include replacing the pump, rehabbing the well, and a mix of chemicals as recommended.

The Utility has budgeted for a Full Water Rate Study. As part of this study the Utility will be requesting to transfer some of the costs out of the usage based rates to the fixed cost rate. Water usage continues to decrease therefore having the costs in the fixed line allows for more even recovery.

Water system planning study: This budget item would essentially be for on-call and as-needed water system engineering services as requested by the Utility throughout the year and not an actual study of sorts. The Village's water utility master plan was updated in late 2015.

The Utility requested an additional field operator, however all additional staff request were denied by the Village Administrator and Finance Director; therefore those costs have been removed. Mr. Nennig indicated that in the future the Utility benchmarks will be set at the suggested DNR recommendations; he was pretty adamant that Utility staff would not be able to meet the benchmarks with current staffing levels.

Mr. Nennig stated that one of the proposed new employee's primary responsibilities would be to complete annual water system valve assessment and exercising. Currently valve exercising is contracted out at a cost of \$35,500 per year. A new person was requested beginning in April for a cost of approximately \$35,000 plus benefits. The cost

of a new employee would almost be fully offset by no longer contracting the valve exercising.

Additional security cameras have been requested to address some blind spots within the facility that pose employee safety concerns. There are areas within the plant where an employee may be working independently, these camera provide additional eyes in the case of an emergency.

Two special chainsaws to cut water mains were also budgeted.

#### Wastewater Budget:

An Operation Evaluation Report operation and equipment expenses; WWTP Process & Capacity Evaluation, WWTP tuck pointing and caulking, RNS and Screw Lift Pump Building painting, Milwaukee River Watershed Conservation Partnership, sewer rate study Screw Lift Pump covers and ventilation system.

Sewer and water project \*coincide with the Street Improvement Program and include: Sixth Avenue; Power Street; Elm Street; and Tenth Avenue

Rehabilitation of Final clarifier 2; re-roofing of the 4 remaining roofs; construction of the replacement Audubon Avenue Lift Station; design and engineering of 17th Avenue lift station and a joint purchase of quad axle dump truck.

The Utility has budgeted \$100,000 for the quad axle dump truck. This is the full cost of the vehicle and the Public Works Department will budget \$10,000 for the next 4 years to reimburse the Utility \$40,000 for their portion of the vehicle.

A Jet Vac truck was requested; however without the new employee this piece of equipment is not necessary. The existing machine can be used for an additional year at the reduced level. Staff was considering the replacement of their existing vac-all truck due to an anticipated doubling of work efforts in the years ahead based upon new DNR collection system guidelines.

#### Utility Projects update

Utility Superintendent Tim Nennig updated the board on various projects:

*Audubon Avenue Lift Station Replacement:* A meeting has been scheduled with the Park and Recreation Director to discuss the option of locating the lift station along the western edge of Wildwood Park. Engineering done in 2016, construction scheduled for 2017 with completion anticipated by September, 2017.

*Riverbend Road Lift Station, Interceptors, Force Main and Road Reconstruction:* Project substantially complete. Lift station start-up scheduled for the week of September 26.

*Collection System CMOM Program:* Written program is complete, ready for implementation.

## Report of benchmark measurements-Utility

The benchmark report was reviewed.

Field crews are currently focusing on hydrant replacements. Next week they will be focusing on rehabilitation of deteriorated manholes structures.

## **PUBLIC WORKS**

### Resolution supporting forestry grant application

Director of Public Works/Village Engineer Amber Thomas explained that the Village will be applying for an Urban Forestry Grant for tree treatment and tree planting. The grant is funded by the DNR and is a 50/50 cost share. The grant application requires Village Board approval of a resolution committing to the matching funds.

Motion by Trustee Liss, seconded by Trustee Krueger to recommend the Village Board adopt Resolution xxx-2016 supporting the Tree Treatment/Planting Grant Application. Motion carried.

### Review 2017 Proposed Budget-Public Works

Administrative Assistant Melissa Depies explained that the 2017 proposed budget includes funds for and Engineering Intern. The intern would assist the engineering department with additional inspections, keeping of the files, mapping and other general duties. This was approved by the Administrator as this is not an addition to staff or the personnel structure.

An additional crewperson was also requested by the Department of Public Works however because that was an addition and change in personnel it was removed by the Administrator and Finance Director. The justification for the new staff member was that this addition would allow for the department to do the sidewalk replacement program in house rather than contracting the project out. By doing the project in house it is anticipated to save the Engineering Technician inspection time; the area is inspected and marked in fall so we can determine quantities, and then it needs to be re-inspected/marked in the spring, our inspector is also onsite during the project to ensure that the Village gets a quality project. If the project is done in house it was anticipated that some of this time could be eliminated as this would be a Village employee that would have the Villages best interest in mind when doing the work.

The Capital Projects Fund includes funds to complete the 2017 Street Improvement Program which consists of Elm Street, Power Street, Sixth Avenue, Seventh Avenue, Tenth Avenue, and Hickory Street. The budget request did also include Spring Street – Ninth Avenue to 12th Avenue however that portion was removed by the Administrator and Finance Director. Capital projects also includes \$41,000 for the sidewalk replacement program and funds for street trees. The tree budget was increased by \$5,000 to fund the Village share of the two grants that have been applied for.

The equipment fund includes replacement of a 5 yard dump truck with plow and wing, a pickup truck, a generator, a pavement saw, a paint stripper, a flail mower, and a tool box for the mechanic.

Mr. Blum questioned why there was overtime budgeted in Administration. Ms. Depies responded that is for her if needed.

Ms. Depies also noted that additional funds were budgeted for the security system. Recently there have been some issues with the DVR so funds were budgeted to replace that if necessary. Currently the issue has been resolved with the recent camera and panel replacement. \$5,750 was budgeted for stone pylasters repairs on the bridge. No other notable changes.

### Major Projects Update

Director of Public Works/Village Engineer Amber Thomas gave a quick overview of the projects:

*Falls Road / 16<sup>th</sup> Avenue:* The final layer of asphalt has been installed, pavement markings and shouldering are complete. Road is open to traffic. Only remaining item on the project is to install the rumble strips.

*Veterans Memorial Park Riverwalk:* Project is nearly complete with final landscaping underway. Waiting on the light poles; therefore the lighting will be installed this fall.

Mr. Blum noted that the ramp is underwater. Ms. Thomas stated that this was blasted on facebook and the Village has responded. The dam was opened proactively before any flooding occurred, however the river rose very quickly as communities to the north of us received 6.5 inches of rain as well as the rain we received.

Mr. Blum stated that with the gates open and the water flowing the lime stone below the dam is eroding.

*Riverbend Road Resurfacing/Lift Station:* Project is substantially complete, landscaping and restoration work is underway.

*2016 Street Improvement Program:* The last section of this project is Seventh Avenue-Wisconsin Avenue to Beech Street. Binder was placed on the street today and is scheduled for surface coat tomorrow, weather permitting.

### Report of benchmark measurements-Public Works

The benchmark report was reviewed.

Superintendent of Public Works Gary Helm stated that crews have been busy with tree removals due to the Emerald Ash Borer. This will be doing some open ditch maintenance on 11th Avenue

### **OLD BUSINESS**

Trustee Krueger questioned when the contractor would be cleaning the underside of tower 2. Utility Program Coordinator Larry Roy explained that when the maintenance contract was negotiated exterior pressure washing was discussed and implied, however the actual signed contract does not include the exterior pressure washing for tower 1 or

2, it is included for tower 3. This has been discussed with the contractor and they have agreed to take care of tower 2 in the near future.

### **NEW BUSINESS**

Trustee Harbeck questioned if the cross walk at Cedar Drive and Falls Road could include the hash marks similar to the cross walk at 16th Avenue and Falls Road. She also stated that the crosswalk appears to be faded or lighter than the others. She questioned if there was a brighter white paint that could be used to make it stand out more. Mr. Helm stated that there are only 2 locations in the Village that have the hash marks and 16th Avenue is not one of them. The hash marks are only used at very busy locations. As far as paint brightness; the crosswalks were recently done with the same paint they are all the same brightness.

Trustee Harbeck questioned if installation of a bright yellow pedestrian crossing sign could be installed to draw attention to the crosswalks in this area. Signs are typically used for busy crossings; which this does not constitute as a busy crossing.

### **ADJOURN**

Motion by Mr. Blum, seconded by Mr. Murray to adjourn the meeting at 9:28 p.m.  
Motion carried.