

VILLAGE OF GRAFTON

BOARD OF PUBLIC WORKS MEETING MINUTES

MONDAY, OCTOBER 9, 2017

The Board of Public Works meeting was called to order at 6:02 p.m. by Chair Sue Meinecke.

Board members present: Trustee Sue Meinecke, Trustee Tom Krueger and Trustee David Liss.

Members absent: Les Blum and Pat Murray.

Staff present: Village Administrator Jesse Thyges, Superintendent of Public Works Jake Arndt, Utility Superintendent Tim Nennig, and Administrative Assistant Melissa Depies.

Others present: Greg Gunderson – MSA Professional Services, and John Tillmann.

HEAR PERSONS REQUESTING TO BE HEARD

Trustee Meinecke informed the Board that a request has been made to the Public Safety Commission for handicap parking designation at 1525 Wisconsin Avenue. She suggested that if handicap parking cannot be designated then maybe a loading zone area so people can be dropped off and/or picked up.

MINUTES

Trustee Krueger has two minor corrections to the minutes.

Motion by Trustee Liss, seconded by Trustee Krueger to approve the September 11, 2017 Board of Public Works meeting minutes, as presented. Motion carried.

WATER & WASTEWATER

Facilities Planning Study Update

Utility Superintendent Tim Nennig stated that Utility staff has been working with MSA Professional Services on a Facilities Planning Study for the Wastewater Treatment Plant since April. The primary purpose of the study is to evaluate the current performance, limitations and future needs and identify capital improvements required to serve current and future Utility customers over a 20 year planning period. He noted that the last major facility expansion was completed in 1983 and population growth in the Utility sewer service area is projected to increase by 25 to 30 percent over the next 20 years.

Greg Gunderson – MSA Professional Services, gave an overview of the study highlighting what a Facilities Planning Study is and what it is meant to do, the current state of the wastewater treatment facility, and recommendations for repairs or upgrades.

A Facilities Planning Study is required by the DNR as a guideline for current and future capital improvements. The study was broke down into five main sections:

Primary Treatment:

Screening & Grit Removal – removes large solids: System is in poor condition and has insufficient peak flow capacity. Trustee Kruger questioned if the screen was marginal in size and if there has been any diversions around the screen. Utility Superintendent Nennig responded that the diversion channel works well; they have not had to use the manual system. Superintendent Nennig stated that the current system collects very little grit; the reason is unknown.

Influent Pumping: It was noted that the screw pumps are energy inefficient and lack sufficient peak flow capacity. Trustee Krueger was surprised that they lacked peak flow capacity. Superintendent Nennig responded that the screw pumps have lost some of their efficiency because the tolerances are worn out.

Primary Clarifiers – reduces velocity to promote settlement of heavy solids; solids transfer to digesters for future processing. Clarifiers are not achieving desired removal efficiencies of pollutants thereby passing on excess organic loadings to aeration tanks.

Secondary Treatment:

Aeration Basins provide oxygen for biological treatment of organic material and ammonia conversion to nitrates. Equipment and piping is in good condition.

Final Clarifiers provide settling for biomass grown during treatment. Equipment/piping is in good condition.

Aeration Blowers provide oxygen/air for aeration system. The current blowers date back to 1982 and are oversized for current aeration needs. An upgrade would potentially provide significant energy savings. Grants to upgrade the blowers may be available through Focus on Energy.

Return/Waste Sludge Pumping. These pumps need to be upgraded for better automation and control, this can be done with any related project.

Tertiary Treatment:

UV Disinfection - kills bacteria/viruses before effluent discharge. System is in good condition.

Chemical Phosphorus Removal – Ferrous Chloride dosing bonds with phosphorus and settles as a solid with the sludge. Current storage tank shows evidence of chemical seepage and is located outside which is not recommended and has no containment feature in the event of leak.

Biosolids Processing:

Thickening – reduces volume of sludge to be stored and hauled off-site.

Digestion – stabilizes sludge for land application and produces methane gas used for heating. The combination boiler heat exchanger needs replacement and lacks long term capacity. Construction of a 3rd digester and additional heat exchanger likely needed.

Storage: DNR requires 180 days of on-site storage. The Utility has minimal onsite storage and contracts with Badger State Waste for sludge storage or land application.

Electrical & Controls:

SCADA system: Multiple WWTP motor control centers dating back to the 1982 facility upgrade are aging; repair parts are obsolete. Upgrade/consolidation is needed.

Based on the study results there are some priority upgrades needed which include: the headworks building and primary clarification, aeration blowers and related controls, and simplifying operations for sludge thickening and digestion.

Trustee Meinecke questioned if there would be Focus on Energy grants available for the headworks project or the future digester project. Mr. Gunderson believed that the Utility would have a better chance at receiving a Focus on Energy grant for the aeration blower upgrades.

Trustee Krueger stated that in early 2000 the Utility did projections for growth, not based on a 20 year window, rather on the service area as Grafton is limited in expansion areas. He questioned if those same projections were used. Mr. Gunderson indicated that they were.

Affidavit of easement correction: Lot 67 Blackhawk Valley Subdivision Phase III

Utility Superintendent Tim Nennig explained that John Tillmann, partner for Blackhawk Valley Development Co., LLC, is requesting an affidavit of easement correction for Lot 67 of Blackhawk Valley Subdivision-Phase III. The existing sanitary sewer easement was recorded in February 2006 and shows the easement running the full length of Lot 67; from north to south, just to the west of the lot centerline. The existing easement does not effectively allow for new home construction due to various site restrictions.

Municipal sewer service will be provided by private sewage lift pump within the home and small diameter force main discharge therefore the easement is necessary; however, having a 35 foot easement run the entire length of the property is not necessary. The easement at the northern end of the lot will remain and the 10 foot utility easement on the property's western boundary will also remain.

Motion by Trustee Krueger, seconded by Trustee Liss to recommend the Village Board approve the affidavit of easement correction as presented for Lot 67 of Blackhawk Valley Subdivision – Phase III. Motion carried.

Utility projects update

Annual Water System Valve Exercising: Nearly 400 distribution system valves were operated. Project complete.

Annual Water System Leak Survey: Is scheduled to begin following completion of fall hydrant flushing.

WWTP Final Clarifier #2 Rehabilitation: During the clarifier structure dismantling, several areas of the tank's center column immersed steel showed signs of significant degradation requiring repair or replacement.

Audubon Avenue Lift Station Replacement: All below ground structures including new force main and gravity sewer; with the exception of a new sanitary manhole on Audubon Avenue;

have been constructed. Remaining electrical work includes control panel installation and wiring-in of all circuitry. Anticipated completion date remains October 31.

Radio Telemetry Work: Remote Site SCADA: Trustee Meinecke questioned if the space on top of the tower at the Police Department could be utilized for this system. Superintendent Nennig responded that this might not be allowed. Village Administrator Thyges stated that this would need to be investigated; the area may be reserved for emergency services only.

Report of benchmark measurements – Water and Wastewater Utility

The benchmark report was reviewed.

Fire Hydrants Operated/Flushed: Hydrant flushing is complete. All hydrants are flushed two times each year and the dead end hydrants are done three times each year.

Sewer Mainline Jetting (Cleaned): Utility staff has not been able to complete the mainline cleaning; therefore under the benchmark goal.

PUBLIC WORKS

Report of benchmark measurements – Public Works Department

The benchmark report was reviewed.

Superintendent of Public Works Jake Arndt stated that the crew continues to be swamped with tree removals and stumping. Tree planting will occur in the next couple of weeks.

Superintendent Arndt stated that the elevator at the Multi-Purpose Senior Center is not operational. A quote for repairs came in at \$43,000. Additional quotes are being requested from various other vendors, however this is a repair that will need to be made.

ADJOURN

Motion by Trustee Krueger, seconded by Trustee Liss to adjourn the meeting at 7:05 p.m. Motion carried.