

Oct. 15, 2020

The Town Board of the Town of Lyons met for a workshop on Thurs. Oct. 15, 2020 at 6:30 p.m. at the Community Center.

Present: Jake Emmel, Supervisor
Jim Brady, Councilman
John Paliotti, Councilman
Joanne Greco, Councilwoman
Ralph D'Amato, Councilman
Sal Colatarci, Town Clerk

Absent:

Also Present: Dave Doyle, Bill Davis, Marty Aman, Jim Wedman, Jason Schwartz

This workshop was duly noticed by contacting the Times of Wayne newspaper, as well as posting a notice on the Town bulletin board and on the Town's web site.

All stood for the Pledge of Allegiance.

Supervisor Emmel introduced Dave Doyle and Bill Davis from MRB Group. They then gave a presentation to the Board regarding the findings from a proposal for professional services to perform a study of the intent to modify the State Pollutant Discharge Elimination System (SPDES) permit at the wastewater treatment plant on Clyde Road. A summary of the study results are as follows:

The Town of Lyons was notified on May 18, 2018 by the New York State Department of Environmental Conservation (DEC) with a "Notice of Intent to Modify" the State Pollutant Discharge Elimination System (SPDES) permit for the Town's WWTP. Specifically, the proposed permit modification included seasonal disinfection requirements for the WWTP effluent, and requires the Town to design, install, and make operational a disinfection treatment system within five (5) years of the permit modification. In order to meet this deadline proceed with a cost effective disinfection alternative, and have sufficient time to secure appropriate funding for construction, planning will start immediately.

Due to the potential for ongoing permit updates, both short and long term alternatives were considered. The short term evaluates and compares two separate alternatives to determine which new system implementation and modifications will provide an efficient and cost effective disinfection solution. The alternatives discussed are chlorination and subsequent dechlorination, and ultraviolet (UV) light radiation. A proposed layout of necessary facilities and equipment, as well as a full economic analysis are included for each.

Based on the results of a comprehensive disinfection alternative analysis, UV light radiation is the preferred short term treatment option for the WWTP based on the following reasons:

1. Lower long-term investment and O&M costs;
2. Streamlines operations and facilities in line with existing site plan;
3. Proven and effective treatment method under varying conditions;
4. Minimized hazardous chemical risks to employees;
5. Robust system with ability to meet future growth demands.
6. Less regulatory compliance issues when compared to chemical handling and storage facilities.

Relative to the long term alternatives considered; preliminary mixing zone analysis results, a brief review of the SPDES permit, and overall trends in SPDES modifications by the NYS DEC, nutrient removal limits for ammonia and phosphorus may be likely in the future. However, the costs associated with constructing additional infrastructure for nutrient removal far exceed those associated with disinfection alone. Therefore, WWTP improvements, to provide nutrient removal was evaluated as part of the long term alternative analysis. In comparison to this long term improvement project to the WWTP; an option to consolidate the wastewater flow with the Village of Newark was also evaluated. This includes the de-

commissioning of the existing Lyons WWTP, the construction of a pump station in Lyons, incorporation of equalization at the Lyons WWTP site, and the construction of a force main to the Newark WWTP. At the Newark WWTP facility, the composting solids processing will also need to be expanded to handle the added solids from processing the Lyons wastewater flow.

For long term, the study also evaluated the WWTP as a whole with respect to its condition and ability to meet current standards, as well as the scope and estimated capital costs of additional improvements needed to meet potential upgrades and changes in the treatment process. The study also evaluated the feasibility and cost-effectiveness of conveying the Town's wastewater to the Village of Newark WWTP for treatment. From a cost analysis standpoint, the construction, operation, and maintenance of a pump station and force main from Lyons to Newark is more economical (when considering both capital and operational costs) than upgrading the Lyons WWTP to accommodate disinfection and nutrient removal over to anticipated 30-year lifespan of the equipment.

The added flow and loading from the Lyons WWTP will result in the allocation of the majority of the remaining capacity at the Newark WWTP. This will also limit the ability for future expansion and growth (including the potential for industrial growth) and may eventually require additional improvements at the Newark WWTP should growth or additional flow and/or treatment be necessary. At this time, it is recommended that both municipalities evaluate and discuss these options thoroughly before committing to a long term decision. In addition, a projection of future growth should be evaluated in order to determine to what extent the Newark WWTP should be evaluated for improvements in order to accommodate development.

It is recommended that this Preliminary Engineering Report be used as a starting point for a more extensive study that evaluates the growth potential of both the Newark and Lyons sewer service area and determine what, if any, further improvements would be necessary to accommodate the future growth. In addition, treatment charges by Newark to treat the Lyons waste stream should be considered in order to more accurately determine the long term pay back of a consolidation project.

For the short term alternatives, it would be in the Town of Lyons interest to utilize this PER to pursue funding assistance from the DEC Water Quality Improvement Project (WQIP) program. According to the 2017 American Community Survey (ACS) issued by the United States Census Bureau, the Median Household Income (MHI) for the Town was \$49,266, which falls below the New York State average of \$62,765 and well as the national average of \$57,652. Therefore, the Town will qualify for hardship financing with the Environmental Facilities Corporation (EFC) which would help supplement the share costs that would be needed with a WQIP grant.

For the short term alternative, it is recommended the Town pursue funding assistance from the DEC WQIP program. For the long term alternatives, it is recommended to use this PER as a starting point for a more extensive study that evaluates the potential growth of both the Town of Lyons and Village of Newark sewer service areas, and determine what (if any) further improvements would be necessary to accommodate the future development.

The short term alternatives included upgrades to the existing WWTP equipment and a comparison of disinfection methods. Based on the short term alternatives analysis, UV light radiation is considered the best disinfection alternative to meet the modified requirements issued by the DEC. The following points support this conclusion:

- A chemical Free process;
- Requires no transportation, storage, or handling of toxic or corrosive chemicals, which is a safety benefit for plant operators and the surrounding community;
- No carcinogenic disinfection by-products are created during the treatment process that could adversely affect water quality;
- Highly effective at inactivating a broad range of microorganisms (including chlorine-resistant pathogens like Cryptosporidium and Giardia);
- Can be used (alone or in conjunction with hydrogen peroxide) to break down toxic chemical contaminants while simultaneously disinfecting;
- Lower overall project cost and long term 30-year investment cost is economically advantageous with chlorination/dechlorinating.

It is estimated that UV disinfection would save users about \$76 a year based on 1,800 EDUs, and under the assumption the project qualifies for hardship financing through the EFC. In addition, the overall project cost is about \$822,000 less than installation of chlorination and dechlorinating equipment. The overall O&M costs associated with UV save about \$20,000 per year. Therefore, UV light radiation is safer and more cost-effective than chlorination and dechlorination.

It is estimated that equalization and consolidation with the Village of Newark would cost users about \$42 a year more than upgrading the existing plant for nutrient removal based on 1,800 EDUs. This assumes the project qualifies for hardship financing through the EFC. In addition, the overall project cost is about \$5.8M more than upgrading the Lyons WWTP. However, from a cost analysis standpoint, the construction, operation, and maintenance of a pump station and force main from Lyons to Newark is more economical (when considering both capital and operational costs) than upgrading the Lyons WWTP to accommodate disinfection and nutrient removal over to anticipated 30-year lifespan of the equipment by about \$6.3M.

Therefore, there are significant costs associated with either the construction of additional infrastructure and modification of the existing treatment process to accommodate nutrient removal, or consolidating operation at Lyons to send to Newark. It is important to consider added flow and loading from the Lyons WWTP will result in the allocation of the majority of the remaining capacity at the Newark WWTP. This will also limit the ability for future expansion and growth (including the potential for industrial growth) at the Newark WWTP, and may eventually require additional improvements should growth or additional flow and/or treatment be necessary. At this time, it is recommended that both municipalities evaluate and discuss these options thoroughly before committing to a long term decision, with the understanding that ongoing negotiations and inter-municipal agreements are anticipated.

As a starting point for this undertaking, MRB Group is recommending that the Town fund a flow monitoring study for the sanitary sewer collection system. The purpose would be to identify and quantify potential areas of inflow and infiltration (I&I) entering the Town sewer collection system. The cost of this study would be \$14,800.00. After a discussion, Councilman Brady moved to allow the study at the cost specified. Motion seconded by Councilman D'Amato. Vote:

Councilman Brady voting aye
Councilman D'Amato voting aye
Councilman Paliotti voting aye
Councilwoman Greco voting aye
Supervisor Emmel voting aye

Meanwhile, Councilman Brady then moved that the Town proceed with the recommended alternate plan 2 (UV radiation disinfection) as a short term plan, subject to a review and approval of the proposal from the Town Attorney. Motion seconded by Councilman Paliotti. Vote:

Councilman Brady voting aye
Councilman Paliotti voting aye
Councilman D'Amato voting aye
Councilwoman Greco voting aye
Supervisor Emmel voting aye

As there was no further business, the workshop was adjourned at 7:45 p.m.

Sal J. Colatarci

Lyons Town Clerk

