

VILLAGE OF ROSENDALE  
PUBLIC HEARING FOR WWTF FACILITY PLAN  
February 25, 2019

I. Why is the project needed?

The original plant was constructed in 1961, and underwent significant upgrades in 1981 and 1990. The Village began the Wastewater Facility Planning process in 2018 in response to aging treatment infrastructure, and operational challenges created by variable organic loadings to a facility that is at or near its existing capacity in many regards. The purpose of this Facility Plan is to evaluate the existing treatment facility and collection system and assess their ability to meet the 20-year wastewater treatment needs of the Village.

*Primary project drivers*

- Capacity: The plant is currently not in compliance with WDNR codes for clarifier and biosolids storage capacity. Additional treatment process structures and equipment are required to meet the capacity standards.
- Condition/Age: The plant ranges in age from 30 to 50 years old and of the equipment is outdated and needs to be replaced.
- Permit Compliance: The Village will be getting a new, stricter effluent phosphorus limit which will require a new treatment process structure and equipment to remove phosphorus.

II. What alternatives were considered?

Several improvement alternatives were evaluated in the Facility Plan. Many of these alternatives were eliminated from further analysis due to their inability to meet the proposed effluent limits or cost effectiveness. The alternative evaluation focused on variations of the packaged activated sludge treatment process. This process is proven to be a low maintenance, cost effective option that can meet the stringent treatment requirements. The alternatives considered included:

*No Action*

- Legally, the “no action” alternative would eventually lead the Village to be in violation with its WDPES permit. The continued failure to meet the requirements of the WDPES permit could subject the Village to legal action by the Wisconsin Department of Justice, and subsequent fines and other penalties. Failure to comply with the requirements and standards set forth in the WDPES permit is also grounds for the WDNR to refuse to allow new sanitary sewer extensions. Without sewer extensions, the community’s ability to continue to grow is lost. The power of local government to shape the future character of the Village would be lost if the “no action” alternative were chosen.

*Regional Treatment*

- This alternative assumes a new pump station and forcemain and odor control system would be constructed from the existing WWTF site to the City of Fond du Lac. The cost of the forcemain, lift station, building, odor control stations, chemical feed equipment, and additional fees to the regional treatment facility was the costliest of all alternatives considered. As a result, this alternative was not considered for further evaluation.

*Treatment Alternatives*

- Five treatment alternatives were developed. All alternatives were a variation of the packaged activated sludge treatment system. The alternatives are summarized in the table below.

Alternative	Description
Alternative 1	AeroMod Treatment process on new site
Alternative 2	AeroMod Treatment process on existing site
Alternative 3	Sanitaire Treatment process on existing site
Alternative 4	Sanitaire Treatment process on existing site, reduced scope
Alternative 5	Sanitaire Treatment process on existing site, no tertiary filter

**III. What is the cost of each Alternative?**

Alternative	Cost
Alternative 1	\$11,300,000
Alternative 2	\$10,000,000
Alternative 3	\$9,800,000
Alternative 4	\$7,900,000
Alternative 5	\$6,400,000

**IV. Which alternative is recommended upgrades and why?**

Based on the economic analysis and non-monetary comparison of alternatives, it is recommended that Alternative 5 – Sanitaire Treatment process be considered for implementation. This is the most cost effective alternative and is also predicted to be capable of meeting future effluent phosphorus limits. The primary components of the WWTF upgrade would include the following major items:

1. Mechanical fine screening and raw wastewater pump station upgrade
2. Convert Aeration Tank to Sanitaire treatment process
3. Replace Clarifier #1 Equipment
4. New Clarifier #2 and Splitter Box
5. New RAS Pump and Chemical Building
6. New Sludge Digester
7. Convert Aeration Tanks 2, 3, 4 to Thickened Sludge Storage
8. New Aeration Blowers
9. New Sludge Thickening Equipment
10. New Office, Lab and Garage Building
11. New Potable Well
12. Demolition of existing buildings, process tanks & piping
13. Electrical –control system upgrades and permanent emergency generator

**V. What is the cost of the recommended alternative?**

The following table presents the estimated capital cost of the project, and operations and maintenance (O&M) costs. Note that the O&M cost was estimated based on historic as well as projected costs.

Alternative	WWTF Upgrade and Waste Screening Building
Capital Cost	\$6,400,000
Annual O&M	\$177,000

**VI. Where are we going to get the money to pay for this?**

It is recommended that the project be funded through a combination of existing funds, sewer use charges, and the WDNR Clean Water Fund (CWF). This program is available to finance wastewater treatment plant improvements with low interest loans and grants. This project is eligible for a Clean Water Fund grant of approximately \$1.0M. The current estimated rate for the proposed project is estimated to be approximately 1.98%. The term of a loan under the Clean Water Fund program is 20 years. Below is a summary of the project cost, financing, and sewer rate impacts.

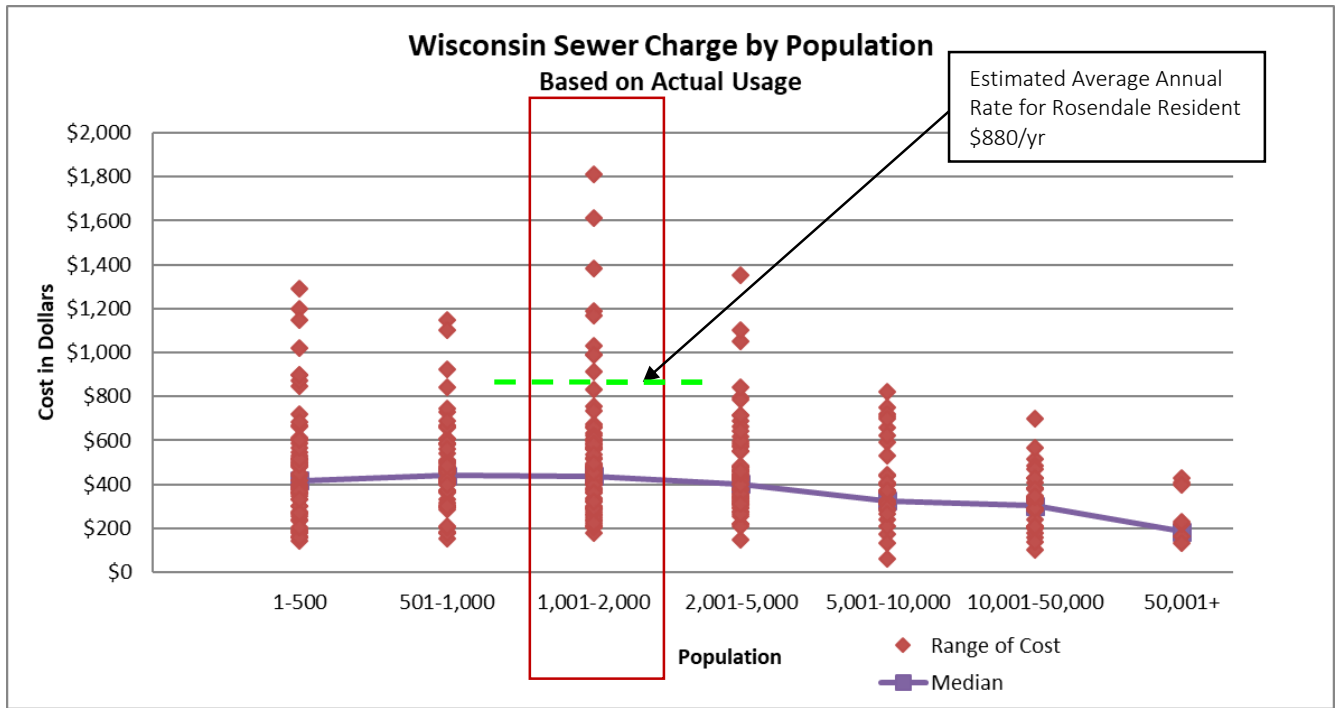
**VII. How much am I going to pay for sewer services as a result of the project?**

Even with a significant grant contribution, the Village sewer users will be faced with increased sewer rates as a result of the recommended project. The amount of the increase will depend on which financing alternative is selected, based on negotiations with the funding agencies. The project will result in rates of approximately \$195 to \$220 per quarter, or \$780 to \$880 per year, depending on the amount of grant received from the WDNR CWF. The following table provides a summary of new sewer rates, based on the different possible financing options.

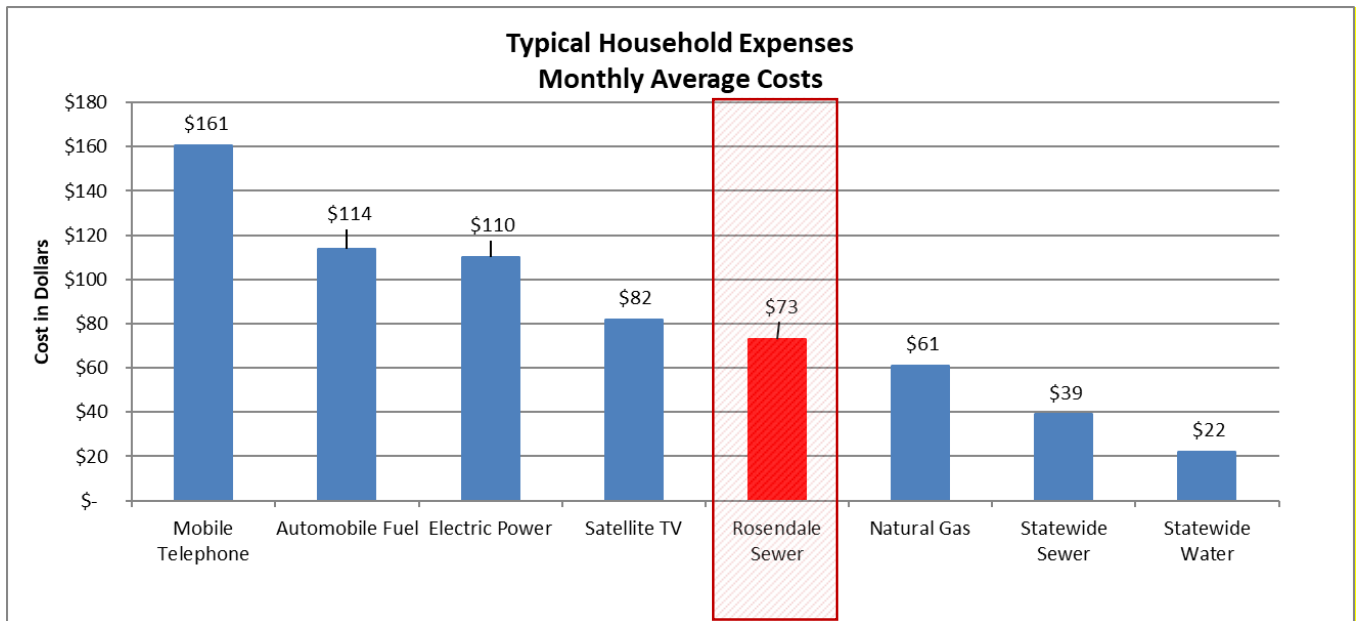
	State of Wisconsin 2016 Sewer User Charges		
	High	Average	Low
1,001 - 2,000 Population Class	\$1,820	\$464	\$180
Village of Rosendale 2018 Annual Sewer User Charge	\$604		
Village of Rosendale Proposed Annual Sewer User Charge	<b>\$880</b>		

**VIII. How do the new estimated user rates compare to other communities?**

In general, residents of smaller communities pay more for sewer service than those living in larger communities. Based on a statewide sewer user charge survey, the estimated new sewer user rates for the Village users will be above the average rate for communities of similar size. The charts on page 4 illustrate how the Village's new sewer rates will compare to other communities, and other typical household expenses.



Finally, it should be pointed out that the cost of sewer service is still a relative bargain. A comparison of sewer rates to other necessary and optional services shows that clean and safe water in Wisconsin is still relatively inexpensive.



IX. What is the schedule for the proposed project?

Action	Date
Facility Plan Public Hearing	February 25, 2019
Village Board approves Facility Plan for submittal to WDNR	February 25, 2019
Submit Final Facility Plan to WDNR	March 1, 2019
Village proceeds with project design	March 2019
Design plans and funding application submitted to WDNR	September 30, 2019
Bid Project	December 2019
Commence Construction	April 2020
Complete Construction	July 2021