



CITY OF LANESBORO

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Response to Questions, Issues, and Concerns Wastewater Treatment Facility City of Lanesboro, MN

During recent public meetings, several questions, issues, and concerns have been raised about the proposed Wastewater Treatment Facility (WWTF) for the City of Lanesboro. The City would like to respond to these items and clarify misinformation that has been presented by others.

Site Selection

The City's current WWTF is over 80 years old, having been constructed in 1938. Although some rehabilitation was completed in 1997 and 2005, the facility is well past its expected life and is currently experiencing significant operational and mechanical issues due to the age of the facility.

Between the Fall of 2014 and March 2018, the City worked with its engineer to determine the most feasible solution to address the City's wastewater treatment needs. As a part of the evaluation, several sites were considered. The selection of a site was challenging because very few feasible sites are available due to topography and property ownership.

Ultimately, the City chose to proceed with what is referred to as the Sales Commission site, located along Highway 250. The advantages to this site include availability, minimal land cost, and proximity to the existing plant and outfall location.

The City recognizes there are challenges with this site Sales Commission site related to floodplain, zoning, and aesthetics. These items are addressed separately in this document. However, all the sites that were considered during the process had similar challenges as well as additional challenges related to land acquisition and distance from the existing collection system discharge point and outfall location.

The ability to utilize the existing outfall location to the Root River helps to minimize costs and eliminates significant challenges related to permitting a new outfall location with the Minnesota Pollution Control Agency (MPCA). Pursuing a new outfall location also creates the potential for receiving more stringent permit limits and associated higher costs for treatment.

The City chose the Sales Commission site because it was the most feasible, cost-effective site available, and plans to take reasonable measures to mitigate the aesthetic issues associated with the proposed location.

Further information on site evaluation and selection can be found in the Public Information Meeting Presentation, available on the City's website here: <https://www.lanesboro-mn.gov/cmsAdmin/uploads/wwtf-information-meeting.pdf>

Aesthetic Concerns

Although the proposed site is zoned for industrial use, the City recognizes that the placement of a WWTF on the proposed site is not ideal from an aesthetic standpoint. The City acknowledges the need to provide appropriate visual screening for the proposed facility, through landscaping and fencing, to mitigate the visual impact of the facility. The Public Information Meeting Presentation, referenced above, provided examples of what the proposed facility could look like with various screening alternatives. The final design of the visual screening will be determined by the City during the design approval process.

In addition to screening, the referenced presentation also showed examples of various building façade treatments that could be customized to emulate existing brick and stone buildings within the City. To assist in providing additional buffer space between the proposed facility and adjacent residential properties, the City is currently pursuing the purchase of property adjacent to the proposed site.

With respect to noise and odors, the proposed facility is not expected to produce noise and odor issues beyond what is currently produced in the area from the existing facility and adjacent uses. As noted later in this document, the treatment process for the proposed facility is expected to produce less odor than the existing facility, which is located just on the other side of the Root River Trail.

Zoning Issues

The proposed site for the new WWTF is currently zoned for industrial use. The City is aware that the proposed facility will require a variance from setback requirements on this site. However, it should be noted that due to the size of the lot and the setback requirements in the City's zoning code, it would not be possible to construct any type of facility on this site without a variance from setback requirements.

Therefore, the need for a variance from setback requirements is not unique to the construction of a WWTF on this site. The City will follow its zoning ordinance in the consideration of a variance to setback requirements for the proposed WWTF as it would for any other proposed industrial development on the site.

In addition, as mentioned above, the City is currently pursuing the purchase of property adjacent to the proposed site for the purpose of providing additional buffer space between the proposed facility and adjacent residential properties.

Floodplain Issues

It has been suggested that the City's existing WWTF is outside of the 100-year floodplain, and that the proposed WWTF will be built within the 100-year floodplain. This is a misrepresentation of the actual situation.

While current FEMA mapping makes it appear that most of the existing WWTF is outside of the 100-year floodplain, critical portions of the facility are below the 100-year flood elevation. In the event of river levels reaching 100-year flood elevations, the existing WWTF would be inundated and would no longer provide treatment.

In the case of the proposed WWTF, although the proposed site is located within the 100-year floodplain, the proposed facility will be built above the 100-year flood level to protect it from flooding, in accordance with the City's DNR approved floodplain ordinance. Fill for the facility will be limited to flood fringe areas and no fill will be placed within the floodway to avoid impacting river flood elevations.

In addition, the proposed WWTF will be located further back from the riverbank than the existing WWTF. The existing WWTF is currently located approximately 75-ft from the bank of the Root River, while the proposed facility will be located approximately 100-ft from the riverbank. This will provide additional protection from potential river impacts such as erosion and sedimentation, which have not had any significant impact on the existing WWTF over the last 80-years.

Treatment Process

It has been suggested that the proposed suspended growth, extended aeration activated sludge treatment process for the new WWTF is not the best treatment process for the City's needs. Specifically, it has been stated that an attached growth treatment process, like the existing WWTF trickling filter process, would provide better treatment, be more adaptable to low flows, and would take up less space. These statements are not true.

Both treatment processes can treat wastewater to the current limits required by the MPCA and can be designed to handle variations in flows. However, in this case, the proposed extended aeration activated sludge treatment process is a better fit because it is relatively easy to adapt the system to achieve expected future nutrient removal requirements, specifically for total nitrogen and/or phosphorus. The existing fixed film process is not technologically capable nor easily adaptable for removing these pollutants below expected permit limits. In addition, the proposed facility has a smaller footprint and will produce less odor than a fixed film process. It will also discharge higher quality water to the Root River and utilize the same outfall location as the existing facility.

Construct New WWTF on Existing WWTF Site

It has been suggested that the City could construct a new WWTF on the same site as the existing WWTF. This is not a feasible alternative. There is not enough space available on the existing WWTF site to build a new facility while keeping the existing facility in operation. The only way to do this would be to bring in a temporary treatment system to operate while the new facility is being constructed. The estimated cost of a temporary treatment system is approximately \$3 to \$4.8 million, adding over 50% to the expected project cost.

Rehabilitation of Existing WWTF

It has been suggested that the existing WWTF could be rehabilitated to meet the City's current and future treatment needs. The Preliminary Engineering Report that was prepared for the project evaluated rehabilitation of the existing WWTF as an alternative. Rehabilitating the existing facility to address the current mechanical system deficiencies would cost between \$1.75 to \$2.5 million in initial capital cost.

However, these improvements would not fully address the needs of the buildings and structures that are over 80 years old, nor would they address future nutrient removal limits (total nitrogen and/or phosphorus). Since nutrient limits are expected within the next 10-15 years, and the existing fixed film treatment process is not adaptable to achieve nutrient removal, any investment in rehabilitation would be sunk cost.

In addition, since the existing facility does not include redundant systems, providing treatment during rehabilitation would not be possible without significant additional expense (refer to discussion above on temporary treatment system cost). Therefore, this alternative was deemed infeasible.

Further information on this issue can be found in the Preliminary Engineering Report for the project, available on the City's website here: <https://www.lanesboro-mn.gov/cmsAdmin/uploads/per-2018.pdf>