



New Ulm Public Utilities

City of New Ulm Minnesota

White Paper

Front Street Gravity Sewer Main Project w/ Water Main Replacement

The New Ulm Public Utilities is requesting funding to complete a gravity sewer flow system which would allow for the decommissioning of an aged lift station. Along with the completion of the gravity sewer flow system, an aging water main and storm sewer would be replaced. We are requesting funding of **\$4,021,000** through the 2023 MN bonding bill for completion of this project.

The New Ulm Public Utilities has a lift station that receives industrial, commercial and residential flow, which is rapidly declining. Maintenance and small capital investments in this lift station are inadequate to continue full operation and reduce safety concerns. The preliminary engineered estimate of rehabilitation of this lift station is \$2,234,000. Due to the age of the infrastructure and construction inflation, this estimate could be low once the project is further reviewed in the design stage.

Long term plans of the City of New Ulm's Street Reconstruction CIP was to replace the sewer main accessing the lift station with a gravity sewer flow system. This would allow for the decommissioning of the aged lift station. Significant dollars (over \$6.9M) have been spent to reconstruct the beginning and the end of this deep gravity sewer flow system, with the remaining center three blocks in front of the lift station remaining to be completed. Currently due to budget constraints, the three blocks needed to be completed to finish the project are not part of the City of New Ulm's Street Reconstruction CIP budget for the foreseeable future. The urgency at this time is that the condition of the lift station is at a pivotal point. A significant amount of money would be needed to bandage the system together to maintain a safe work environment (see attached photos). Within the three blocks to be reconstructed, the water main needs to be replaced due to age and condition as well. Two of the three blocks of water main are of cast iron material and installed in 1897. The other block is 1937 asbestos cement water main.

Funding for the completion of the gravity sewer flow system is limited by the future needs of the New Ulm's wastewater treatment plant which is at this time going through an Asset Condition Assessment. This assessment and the potential of additional regulatory requirements will require significant capital investments in the near future.

The City of New Ulm Public Utilities is requesting \$4,021,000 in funding to complete the gravity sewer flow system, removal of the lift station and replacement of aging water main and storm sewer. This will finalize a project that was started many years ago and by decommissioning the lift station, reduce the maintenance costs and electrical usage of operating a lift station. The gravity sewer main and water main should have an average life of 75-100 years as opposed to the rehabilitated life of the lift station of 20 to 40 years.

New Ulm Public Utilities/City of New Ulm						
Cost Breakdown						
Front Street Infrastructure Improvements						
				Cost Breakdown		
	Cost per Block	No. of Blocks	Total	Sanitary Sewer	Water Main	Storm Sewer
Sanitary Sewer	\$ 452,000	3	\$ 1,356,000	\$ 1,356,000	\$ 360,000	
Decommission Lift Station	\$ 1,000,000		\$ 1,000,000	\$ 1,000,000		
Water Main	\$ 120,000	3	\$ 360,000			
Storm Sewer	\$ 85,000	3	\$ 255,000			\$ 255,000
Roadway Imp.	\$ 350,000	3	\$ 1,050,000	\$ 350,000	\$ 350,000	\$ 350,000
		Totals	\$ 4,021,000	\$ 2,706,000	\$ 710,000	\$ 605,000

Center Street Lift Station Photos



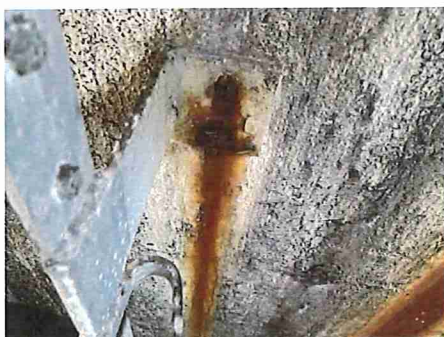
View looking inside the lower wet well area showing the corroded and non-operable influent slide gate and lower portion of the corroded ventilation duct on west side.



View of exterior of lower wet well end of lift station showing aging fiberglass cover. Concrete corrosion, cracking, and delamination areas visible on lower part of exterior wall faces, especially on northeast corner.



View looking down at corroded and inoperable overflow flap check valve on east side of lower wet well and corroded conduit.



View of corroded steel support anchors for access ladder



View interior of upper pump room showing motor drives for existing open screw pumps

