

Project: 825331 - Replacement/Repair/Rehabilitation of Sanitary Sewer System

Category:	Infrastructure	Project Type:	Wastewater	Project Manager:	Bennett Chun
Year Identified:	2006	Project Phase:	Underway	Project Coordinator:	Mansour Nasser
Est. Completion Year:	Ongoing	Department:	270 - Environmental Services	Fund - Sub-Fund:	6085 - Wastewater Infrastructure Subfund

Project Description/Scope/Purpose:

This project is for repair, replacement, and rehabilitation of sewer pipes and associated appurtenances, including but not limited to, manholes, lateral piping, and surface restoration. The goal of this project is to reduce sanitary sewer overflows as well as reduce inflow and infiltration which results in higher treatment costs. Alternative technologies are evaluated to select the best, most cost-effective rehabilitation method for each location. These methods include traditional open-trench replacement as well as "trenchless" methods including pipe-bursting/replacement, or Cured-in-Place pipe lining.

The City has over 310 miles of sewer lines, ranging from 6 inches to 48 inches in diameter, and valued at over \$330 million. Many of the sewer lines are over 50 years old and have reached the end of their useful life. Pipe failures have been increasing. Recent video inspection has revealed significant deficiencies at multiple locations that require rehabilitation to prevent failure.

Specific projects will be identified based on need from CCTV findings and as identified in the Wastewater Master Plan. The projects will be constructed in a three-year cycle, with the first two years for planning and design and the third year for construction. Projects will be built to fall within allocated budget, therefore linear footage of pipelines to be replaced/repared/rehabilitated will vary.

Project Evaluation and Analysis:

This project is necessary to comply with regulatory standards which require agencies to rehabilitate and/or replace sanitary sewer system piping and associated components. The alternative to replacement of sewer pipes in poor condition would be to repair them segment by segment on an emergency basis. Public health and the environment could be threatened, and fines could be levied against the City, should overflows occur as a result of a structural failure. Further, repairing or replacing segments of pipeline on an emergency basis would be significantly costlier than scheduled replacements.

Fiscal Impact:

This project is funded by Wastewater Management Fund revenues. The projects will be constructed in a three-year cycle, with the first two years for design including permitting and the third year for construction. Projects will be built to fall within allocated budget, therefore linear footage of pipelines to be replaced/repared/rehabilitated will vary.

Funding Sources:

Wastewater Management Fund

Plans and Goals:

EM - Environmental Management - EM-6: Effective Wastewater Collection System

Project Financial Summary

	Project Costs	Revenues	Transfers In	Operating Costs
Prior Actual	11,025,659	-	-	-
2021 - 22	4,942,718	-	-	-
2022 - 23	1,700,485	-	-	-
2023 - 24	1,263,781	-	-	-
2024 - 25	506,189	-	-	-
2025 - 26	-	-	-	-
2026 - 27	3,163,298	-	-	-
2027 - 28	569,394	-	-	-
2028 - 29	-	-	-	-
2029 - 30	3,558,279	-	-	-
2030 - 31	640,490	-	-	-
2031 - 32	-	-	-	-
2032 - 33	4,002,580	-	-	-
2033 - 34	720,464	-	-	-
2034 - 35	-	-	-	-
2035 - 36	4,502,358	-	-	-
2036 - 37	810,424	-	-	-
2037 - 38	-	-	-	-
2038 - 39	5,064,541	-	-	-
2039 - 40	911,618	-	-	-
2040 - 41	-	-	-	-
2041 - 42	-	-	-	-
20 Year Total	27,413,903	-	-	-
Grand Total	43,382,281	-	-	-