

Capital Plan

2024 *thru* 2028

Department 4f-WWT Secondary Treatment

Grand Rapids Public Utilities Commission

Contact Steve Mattson

Project #	WWSP1804
Project Name	Secondary Aeration Basin Mixer Repairs

Type Unassigned

Useful Life 20

Category Equipment

Priority 02 - Significant Need

Status Active

Total Project Cost: \$1,270,000

Description

The thirty-plus year old aeration basin mixers need to be overhauled in order to provide the mixing needed within our activated sludge process. This work will include rebuilding the gearbox and replacing the shaft and both lower and upper impellers of two mixers when necessary.

Justification

Upon inspection of aeration basins, lower impellers have fallen off, mixer shafts have sheared off. Additionally the gearboxes need to be rebuilt. The project will include removing the existing gearbox, shaft and impellers and replacing with a rebuilt gearbox and a new shaft and impellers. We started this process a few years ago and our industrial partner would like us to continue to work at revamping these.

Prior	Expenditures	2024	2025	2026	2027	2028	Total
725,000	Purchases	60,000	135,000	175,000	175,000		545,000
Total	Total	60,000	135,000	175,000	175,000		545,000

Prior	Funding Sources	2024	2025	2026	2027	2028	Total
725,000	Customer Contributions-Cohasset	1,375	4,925	4,011	4,011		14,322
Total	Customer Contributions-LaPrairie	814		2,373	2,373		5,560
	Customer Contributions-UPM	42,000	94,500	122,500	122,500		381,500
	Reserves-Unrestricted	15,811	35,575	46,116	46,116		143,618
	Total	60,000	135,000	175,000	175,000		545,000

Budget Impact/Other

By replacing the worn components we can extend the life of the mixer for years as well as prevent the hundreds of thousands of dollars for new.