

# Capital Plan

2022 thru 2026

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: \$1,345,000

| 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 | 2022           | 2023           | 2024           | 2025           | 2026           | Total          | Future       |
|--------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|
| 425,000      | Purchases    | 125,000        | 175,000        | 135,000        | 135,000        | 175,000        | 745,000        | 175,000      |
| <b>Total</b> | <b>Total</b> | <b>125,000</b> | <b>175,000</b> | <b>135,000</b> | <b>135,000</b> | <b>175,000</b> | <b>745,000</b> | <b>Total</b> |

| Prior        | Funding Sources                  | 2022           | 2023           | 2024           | 2025           | 2026           | Total          | Future       |
|--------------|----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|
| 425,000      | Customer Contributions-Cohasset  | 2,820          | 4,011          | 3,094          | 4,925          | 4,011          | 18,861         | 175,000      |
| <b>Total</b> | Customer Contributions-LaPrairie | 1,695          | 2,373          | 1,831          |                | 2,373          | 8,272          | <b>Total</b> |
|              | Customer Contributions-UPM       | 87,500         | 122,500        | 94,500         | 94,500         | 122,500        | 521,500        |              |
|              | Reserves-Unrestricted            |                |                | 35,575         | 35,575         | 46,116         | 117,266        |              |
|              | Rplcmt Fund-WWC Infrastructure   | 32,985         | 46,116         |                |                |                | 79,101         |              |
|              | <b>Total</b>                     | <b>125,000</b> | <b>175,000</b> | <b>135,000</b> | <b>135,000</b> | <b>175,000</b> | <b>745,000</b> |              |

| 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. |