



## Staff Report

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**File #:** 23-171

**Version:** 1

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**Item #:** 3.3a.

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**TO:** Mayor and City Council

**THROUGH:** Keith Stahley, City Manager

**FROM:** Brian D. Martin, PE, Acting Public Works Director

### **SUBJECT:**

Request to create a mid-year project and submit an Energy Trust of Oregon incentive application to replace a centrifugal blower with a turbo blower at the Willow Lake Water Pollution Control Facility.

Ward(s): All Wards

Councilor(s): All Councilors

Neighborhood(s): All Neighborhoods

Result Area(s): Safe, Reliable, and Efficient Infrastructure

### **SUMMARY:**

The Willow Lake Water Pollution Control Facility previously operated on four 400-horsepower centrifugal blowers that provided the air to the aeration basin. In 2017, one centrifugal blower was replaced with a 200-horsepower turbo blower that is more energy efficient. Recently, staff requested a preliminary study from Energy Trust of Oregon to replace another centrifugal blower with a turbo blower.

### **ISSUE:**

Shall City Council authorize the creation of a new wastewater project "Willow Lake Blower Replacement" in the FY 2022-23 Wastewater Non-Assessed Construction Fund 255, funded with Utility Rates, and apply for and, if granted, accept up to \$300,000 in incentive funding from Energy Trust of Oregon to offset project costs?

### **RECOMMENDATION:**

Authorize the creation of a new wastewater project "Willow Lake Blower Replacement" in the FY 2022-23 Wastewater Non-Assessed Construction Fund 255, funded with Utility Rates, and apply for and, if granted, accept up to \$300,000 in incentive funding from Energy Trust of Oregon to offset project costs.

## FACTS AND FINDINGS:

- A preliminary study from Energy Trust of Oregon shows that the replacement of another centrifugal blower with a turbo blower will result in significant annual savings and an incentive.
- The turbo blower is more energy efficient and will consume less energy than the centrifugal blower.
- The total estimated project cost to design and construct the Willow Lake Blower Replacement project is \$485,000; however, the energy savings and incentive will offset the cost within just a few years.
- The project will be funded with \$485,000 of City Utility Rate funds. There is sufficient budget and expenditure authority in the Wastewater Non-Assessed fund for this project.
- The incentive available from Energy Trust of Oregon after design and construction of the turbo blower is estimated to be up to \$300,000.
- Installation of the new blower will allow for approximately \$58,000 of electricity savings per year.

## BACKGROUND:

Staff have been researching ways to reduce energy consumption and costs at Willow Lake. The replacement of the centrifugal blower with a turbo blower will not only result in a significant annual energy cost reduction, it will also help reduce greenhouse gas emissions resulting from energy consumption at the facility.

Allen Dannen, PE  
Acting City Engineer

Attachments:  
None