

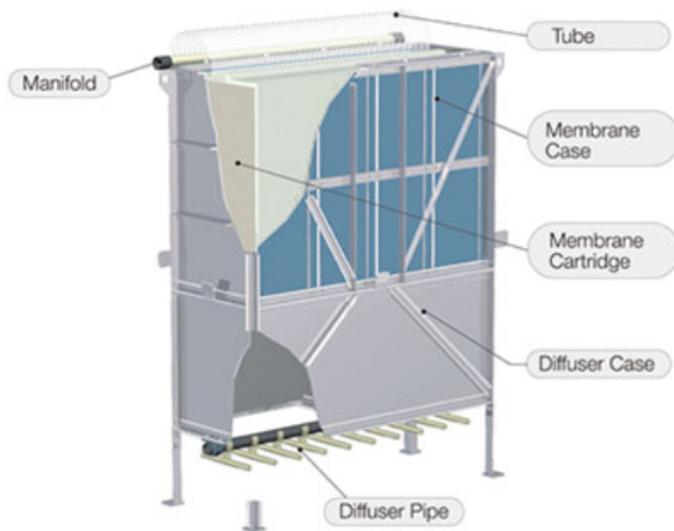


# CITY OF ARLINGTON PROJECT SUMMARY

## Wastewater Reclamation Facility Membrane Replacement Project

### COST OF PROJECT: \$3.8 Million

The City of Arlington owns and operates a Water Reclamation Facility (WRF) that uses a Membrane Bioreactor (MBR) process to treat wastewater from the Arlington community. The MBR process was placed into operation in 2010 and utilizes Kubota RW400 flat plate membranes in six MBR trains, however the City currently only has four MBR trains in active service with two MBR trains ready for expansion as needed. Membranes were expected to have a service life of approximately 10 years, these membranes are currently 12 years old and past their recommended operational life. The City replaced membranes in MBR train #2 d in 2021, membranes in MBR trains #1, #3 and #4 will be replaced in 2022.



Kubota RW400 Membrane Cassette

### The Problem

The City of Arlington's Water Reclamation Facility (WRF) was built in 2010. The Arlington WRF uses Kubota RW400 membranes in a double stack cassette with an aeration diffuser located beneath each cassette. Treated wastewater is filtered by the Kubota flat plate membranes that have effective pore openings of 0.2 microns; for comparison a human hair is 70 microns. These membranes operate 24 hours a day and have a operational life expectancy of 10-years. Membranes at the City's plant are currently 12-years old.

### The Solution

Replace membranes with same Kubota RW400 style flat plate membranes. There are 13 double-stacked membrane cassettes in each MBR train holding a total of 5,200 membranes. When this project is complete with all four MBR trains, a total of 20,800 new membranes will have been installed. Once the membrane replacement process is complete, the City will work with Kubota representatives and BHC Consultants to optimize the Membrane Bioreactor process and Biological Nutrient Removal process to insure peak operating efficiency.

### Project Funding and Timeline

#### Project Funding:

- City of Arlington Utility Fund

#### Estimated Schedule:

- Design & Planning: 2020
- Construction (MBR #2): 2021
- Construction (MBR's #1, #3 & #4): 2022

City of Arlington  
238 N. Olympic Avenue  
Arlington, WA 98223

Paul Ellis, City Administrator  
Phone: 360-403-4603  
Email: [pellis@arlingtonwa.gov](mailto:pellis@arlingtonwa.gov)

Barb Tolbert, Mayor  
Phone: 360-403-3442  
Email: [btolbert@arlingtonwa.gov](mailto:btolbert@arlingtonwa.gov)

Jim Kelly, Public Works Director  
Phone: 360-403-3505  
Email: [jkelly@arlingtonwa.gov](mailto:jkelly@arlingtonwa.gov)