

Train 4 Expansion

PROJECT DETAILS

ARROW Utilities is proceeding with expanding the conventional biological nutrient removal (BNR) Wastewater Treatment Plant (WWTP) with a fourth secondary treatment train using membrane bioreactor removal (MBR) technology.



Why is this project important?

The goal of the project is to:

- Implement a fourth secondary treatment train using MBR technology for a forecasted demand up to year 2040,
- Produce treated effluent for reuse by an industrial client and possibly for other future reuse water customers, and
- Be designed, constructed, and commissioned on an accelerated schedule to allow for the delivery of MBR quality water to an industrial client by mid-2025.

PROJECT TIMELINES

It is anticipated that the project will begin excavation in October 2023 for the tunnels, deep underground utilities, and structures. Foundations will follow with a significant amount of concrete being placed during winter conditions starting in the fall of 2023 and continuing into the winter of 2024.

Once the concrete structures have been erected, building electrical, process mechanical and building mechanical trades will mobilize to site in March/April 2024. Major equipment is planned to be delivered by Q1 2025 in order to begin start-up and commissioning in Q2 2025. Train 4 is expected to be operational and ready to provide reuse water to an industrial client in July 2025.

WHAT TO EXPECT

Workspace

Residents and nearby businesses can expect increased construction traffic starting in September 2023 through project commissioning in mid-2025 from construction vehicles and personnel travelling in personal vehicles down Range Road 232 and Township Road 540. Note that all heavy construction vehicles will only access the site via Highway 21 to Township Road 540.

The majority of the construction traffic will be trucks related to the placement of concrete over 14 months. The site expects to see 30-40 trucks per week on average between concrete trucks and deliveries of formwork, rebar, and miscellaneous construction material. Approximately 120 personal vehicles are expected each day for workers and staff during peak construction in spring and summer of 2024.

Trail Access

During construction, multi-use trail access may be impacted along Range Road 232 and Township Road 540 with the increased construction traffic. Work will be taking place within ARROW's right-of-way, and the Strathcona County Riverside Trail located along the North Saskatchewan River is not expected to be impacted. Should access to the trail's parking lot need to be temporarily closed to maintain a safe environment for both the public and workers, signage will be placed at existing access points to notify the public of closures. Trail users looking for alternative options during the construction can visit www.strathcona.ca/trails.

Environmental Protection

As an environmental leader, ARROW is committed to following all applicable legislation and regulatory requirements. We are ISO 14001 certified for Environmental Management and we also hold this same high standard for contractors working on our behalf.

A detailed Environmental Protection Plan (EPP) was prepared by our design consultant during the planning phase of this project. The EPP identifies applicable legislation and regulatory requirements that apply to the project and provides suitable site-specific mitigation measures to be incorporated into construction planning. During the final design phase and prior to construction, these measures

will be incorporated into an Environmental Construction Operations (ECO) Plan and verified for compliance with the EPP. Some of the measures that will be detailed in the ECO plan include following:

- erosion and sediment control
- wildlife protection
- vegetation
- spill response
- watercourses and waterbodies (fish)
- wetlands
- soils handling

Hours of Work and Noise

Hours of operation during construction are Monday through Saturday and the team will abide by Strathcona County Bylaw 57-2022 Schedule B for Construction Noise

Safety

Work areas will be kept safe and secure and work will be conducted in accordance with Strathcona County bylaws, Alberta Occupational Health and Safety Requirements, and the ARROW's safety policies.

WHO IS ARROW UTILITIES (FORMERLY THE ALBERTA CAPITAL REGION WASTEWATER COMMISSION)?

Established in 1985, ARROW is a not-for-profit commission operating under the Municipal Government Act that provides wastewater transmission and treatment services to approximately 330,000 residents in 13 municipalities within the Edmonton Area.

FOR MORE INFORMATION

Please contact us at: info@arrowutilities.ca or 780-467-8655