



**ARROW  
UTILITIES**

# Treatment and Capital Planning

February 2024

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# History of the Alberta Capital Region Wastewater Commission

For nearly 40 years, ARROW Utilities has provided an essential service to residents and industries by processing and reclaiming water, thanks to active participation and guidance from its 13 members:

- > City of Beaumont
- > City of Leduc
- > City of Fort Saskatchewan
- > City of Spruce Grove
- > City of St. Albert
- > Town of Bon Accord
- > Town of Gibbons
- > Town of Morinville
- > Town of Stony Plain
- > Leduc County
- > Parkland County
- > Strathcona County
- > Sturgeon County

While serving the environment, we also seek opportunities to provide more value through the circular economy. Recovered wastewater can unlock boundless new forms of energy, and together we're taking aim at that better future.

The 1970's saw rapid growth in Edmonton and surrounding municipalities. This growth taxed existing sewage management systems to an extent that the Province of Alberta felt that a review of the system and treatment facilities was needed.

- > **1977** *Edmonton Regional Utilities Study was conducted and recommended centralizing sewage treatment.*
- > **1980** *Design and construction for a plant and trunk sewers to support a regional wastewater treatment system began.*
- > **1985** *In May, ten Edmonton-area municipalities formed the Capital Region Sewage Commission.*
- > **1985** *Morinville and Gibbons joined the Commission in December.*
- > **2000** *The name of the Commission was changed to the Alberta Capital Region Wastewater Commission (ACRWC).*
- > **2002** *Town of Bon Accord joined the Commission.*
- > **2023** *The name of the Commission was changed to ARROW Utilities.*



- > Not-for-profit entity, governed by the Municipal Government Act
- > Board of Directors comprised of an elected official from each of the 13 member municipalities
- > Board members are appointed by their respective Councils
- > Board members annually sign a covenant, inclusive of their responsibilities such as:
  - > *Guide the Commission by establishing a strategic planning framework and reviewing it regularly.*
  - > *Make decisions which we believe to be in the best interests of the Commission recognizing that the needs of our members as well as other stakeholders need to be thought through and reflected in such decisions.*
  - > *Seek to participate actively in decision-making by welcoming and encouraging diverse ideas and viewpoints and having purposeful discussion to determine which to act on.*



# What Do We Manage

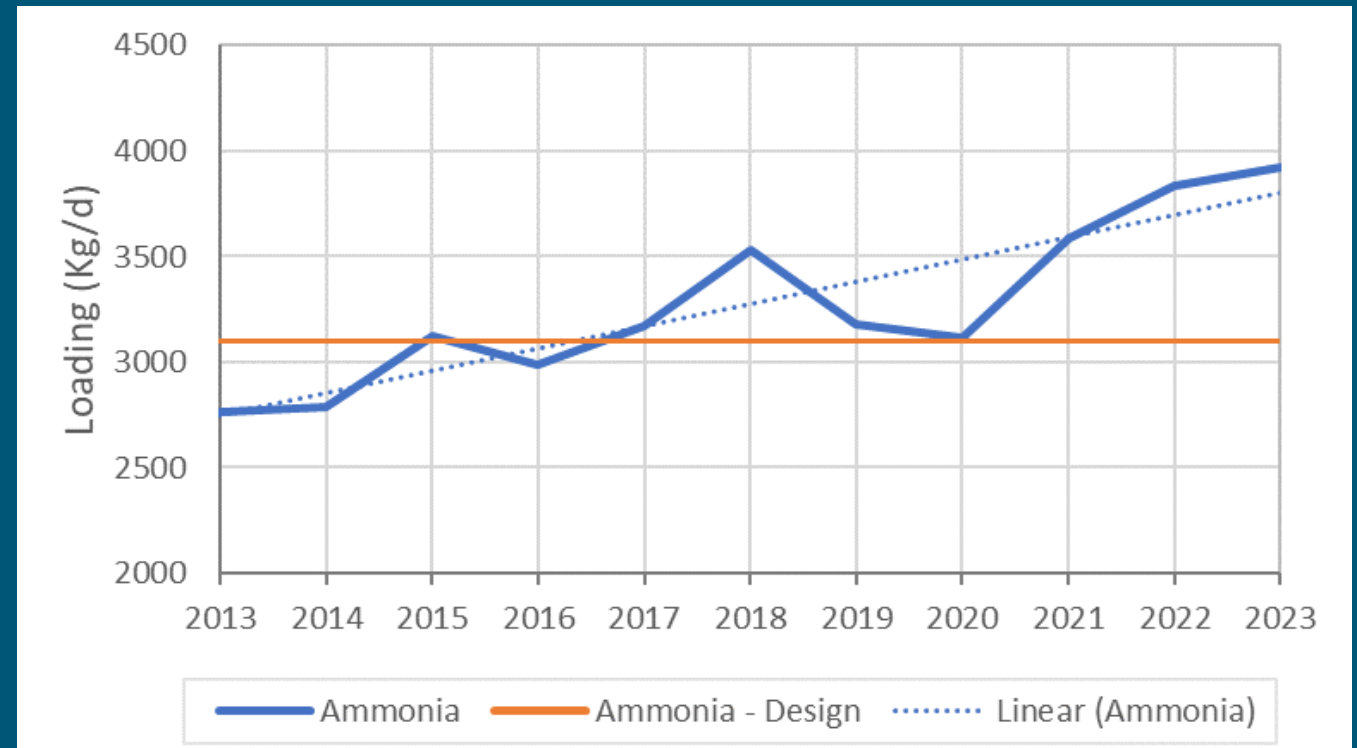


- ARROW Utilities manages the transmission pipes from the municipalities and the plant that conducts the treatments.
- EPCOR reciprocal agreement
- Influent characteristics
- Single provincial permit
- Biosolids Management



# Project Background

- **WHY?**
  - An expansion was always required to meet the growth needs and provide contingencies for emergency and maintenance



# Timing or delay considerations



- A fourth treatment train was originally planned for design in 2023 and construction beginning in 2024.
- Delaying the project would have serious implications (financial, legal, growth related, and reputational) and does not preclude the fact that this expansion is required to increase the influent wastewater capacity
- This project started one year earlier to seize the opportunity to sell the treated water to industry
  - Allowing revenues to be used to stabilize the rate and invest in the aging infrastructure without significant rate increases.





# Communication



- While preliminary discussions on the necessity of this expansion began over 10 years ago, we recognize need to increase the communication on a multitude of levels
  - Continued meetings with the Technical Advisory Committee (TAC)
  - A two year cycle to continuously getting updates from Planning Departments to plan for regional growth
  - Commencement of a Communications Advisory Committee and Financial Advisory Committee
  - Annual meeting with all CAOs



# Project Logistics



- To meet the tight timelines to be able to sell our wastewater to industry we utilized a Construction Management at Risk Process
  - Bringing a contractor on board early to support the project
    - Providing construction perspective during design
    - Considering construction methodology for critical path
  - Mobilizing materials during design
    - To mitigate the impact of long lead items (5KV<sub>a</sub>, Switchgears, etc) and additional years of inflationary impact
  - Reducing risk of re-work and change orders
  - Creating better costing at the 60% stage as oppose to the tender submission phase.



# MBR vs BNR



- Membrane Bioreactor was chosen for:
  - It is better for dealing with densely loaded wastewater that ARROW's plant experiences
  - It provides cleaner effluent which will allow for the plant to adapt to future effluent limitations for evolving environmental permit requirements
  - It allows for water re-use opportunities that could be revenue generating providing reserve stabilization opportunities and reducing the long-term need to borrow for capital in the future.





# Continuous Improvement Initiatives



- Changes in Budget timelines and processes
  - Draft Budget completed by June for consideration in September annually
- Initiation/reset of Board Committees
  - Governance and HR
  - Finance and Audit
  - Development
  - Advocacy and Awareness
- Culture Shift towards continuous improvement, and engagement



# 2024 Initiatives

- Train 4
- UMP/Asset Management Study
- Capital Charters for all projects and programs
- Long Term FTE Strategy
- Prioritization of the Long term Capital Plan
- Implementation of the CMMS system



# Questions?





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Wastewater  
Solutions*** 

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