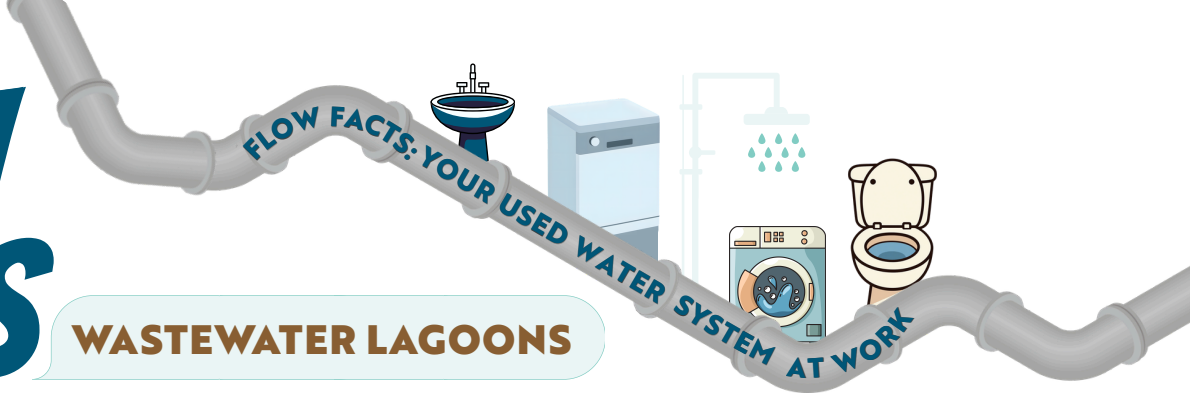
FLOW FACTS

WASTEWATER LAGOONS



What are wastewater lagoons?

A lagoon is an engineered pond system designed to store and biologically stabilize wastewater. Naturally occurring bacteria break down organic material while heavier solids settle to the bottom.

STORAGE
Temporary capacity during abnormal conditions.

TREATMENT
Natural biological processes help stabilize wastewater.

FLOW MANAGEMENT
Helps manage increased wastewater volumes.

OPERATIONAL FLEXIBILITY
Allows repairs and maintenance while helping protect the regional system.

Why do lagoons smell sometimes?

Odour is a normal part of lagoon operation. As organic material breaks down in areas with little or no oxygen, gases including hydrogen sulfide (H_2S) can be produced.

Odours can become more noticeable with:

- Increased solids accumulation
- Warmer temperatures
- Reduced mixing or turnover
- Higher wastewater loading
- Extended storage periods

SPRING 2026 DIVERSION

In March 2026, high wastewater flows and transmission infrastructure failures required repairs. ARROW diverted wastewater to the Spruce Grove lagoons beginning around March 20 to help protect infrastructure and reduce environmental risk while repairs were completed.

The diversion ended around April 7, with pump-back operations beginning around April 9.

The extended storage period contributed to increased solids accumulation in the anaerobic inlet cells, which contributed to elevated odours later in the spring.

What did we learn?

The event highlighted opportunities to strengthen future lagoon operations through better planning for both diversion and recovery, enhanced monitoring to identify changing conditions earlier, stronger communication with nearby residents and stakeholders, and evaluation of additional mitigation and water-management approaches.

How does ARROW manage lagoon operations?

1 Plan
Consider lagoon use, storage needs and recovery requirements.

2 Monitor
Track lagoon conditions and monitor for changes.

3 Mitigate
Use operational measures to reduce impacts and support lagoon recovery.

4 Improve
Apply lessons learned to strengthen future lagoon operations.

Lagoons help ARROW protect our system.

They provide the storage and flexibility needed to manage abnormal conditions, protect critical infrastructure and maintain reliable wastewater services across the Region.