

Gold Bar Community Newsletter

FEBRUARY 2023



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Director, Gold Bar
Wastewater Treatment Plant

A NOTE FROM CRAIG

All work and no play make January dull, so I hope you've been able to enjoy all our wonderful Gold Bar Park has to offer over these past winter months. As always, I'll be cross-country skiing and fat-biking at Gold Bar Park and other River Valley locations, and enjoying long walks with my dog, Oscar. All of us at EPCOR wish you and your family a happy and healthy 2023!

This edition of the community newsletter highlights the new Air Quality Monitoring Station (AAQMS), and some of our upcoming work in 2023. The centerfold provides some essential information about the AAQMS, and the data we have been collecting, including information about odours and Hydrogen Sulfide (H₂S).



Our shared goals with the community.

We worked together with the community to create these five shared outcome statements. We continue to strive to achieve the shared outcomes, and each of our projects at the Gold Bar plant is designed to align with them.

Gold Bar Park Ambient Air

In alignment with EPCOR's long-term plans and commitment to continued investment in odour mitigation and reduction, we measure air quality near the Gold Bar Wastewater Treatment Plant through our ambient air quality monitoring station (AAQMS).

WHAT DOES THE AMBIENT AIR QUALITY MONITORING STATION DO?

In addition to the proactive control measures we have throughout the plant, the AAQMS continuously monitors air quality in the area. This gives us information we can use to make any changes necessary to improve air quality.

Several air quality parameters are measured:

- ▶ Nitrogen Oxides (NO_x)
- ▶ Sulfur Dioxide (SO₂)
- ▶ Hydrogen Sulfide (H₂S)

The station also measures weather factors that can affect air quality:

- ▶ Wind Speed
- ▶ Wind Direction
- ▶ Temperature
- ▶ Relative Humidity
- ▶ Barometric Pressure

Concentrations of these substances are monitored and compared with the Alberta Ambient Air Quality Objectives (AAQOs). Information about AAQOs can be found at:

www.alberta.ca/ambient-air-quality-objectives.aspx



Quality Monitoring Station

WHAT HAPPENS TO THE DATA THAT IS COLLECTED?



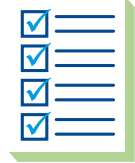
Data becomes publicly available from the EPCOR Gold Bar Air Quality Monitoring webpage every month.

www.epcor.com/goldbardata



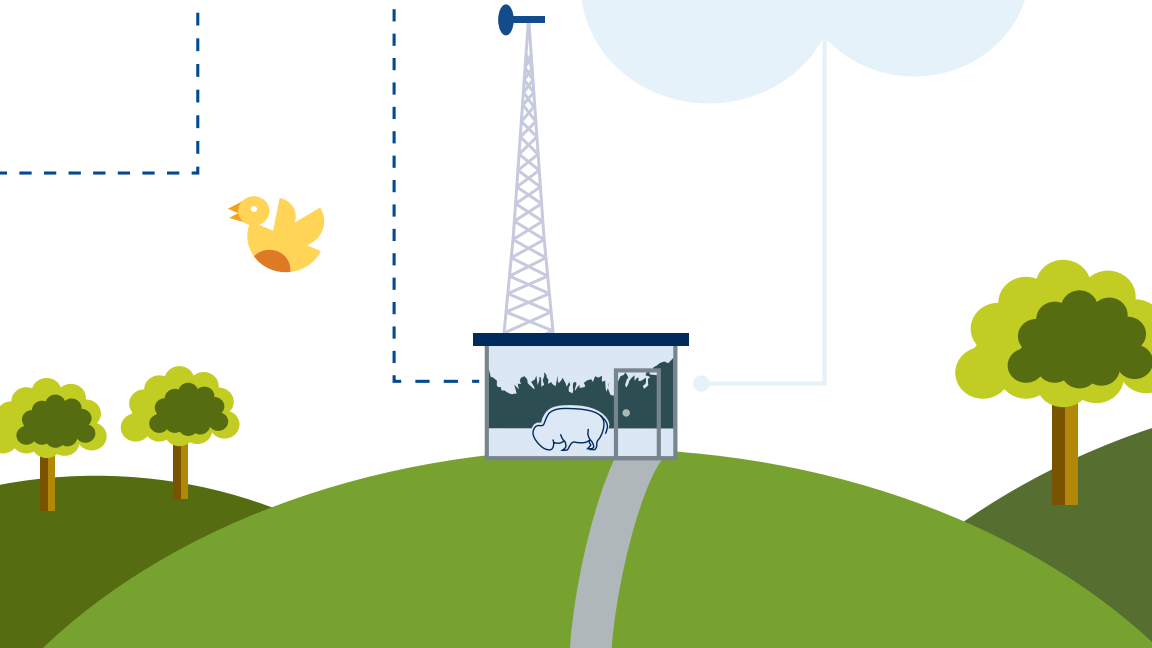
Alberta Environment and Parks

Hourly average data collected from the Ambient Air Quality Monitoring Station is submitted to Alberta Environment and Parks



This ensures we are complying with the Gold Bar Wastewater Treatment Plant operating approval.

EPCOR is honoured to present an Indigenous art installation at the AAMQS. This art installation provides an opportunity to share part of the culture of the Indigenous Peoples who used these lands and adjacent waters long before Edmonton became a city.



WHAT CAUSES ODOUR AT GOLD BAR?

Due to the wastewater treated at the plant it is normal for odours to sometimes occur. Most of these odours are related to hydrogen sulphide gas (H₂S). The gas, naturally produced by biological activity in wastewater, can be detected at very low levels.

UNDERSTANDING H₂S

	1 PPB	The air monitoring station equipment is more sensitive than the human nose. Humans start detecting hydrogen sulfide at 6-10 Parts Per Billion (PPB). Our equipment will measure it at 1 PPB.	
MANAGEMENT ACTIONS	3 PPB	AAQO 24-Hour	Ambient Air Quality Objectives (AAQOs) are set by Alberta Environment and Parks to assess general ambient air quality. Objectives are based on an evaluation of scientific, social, technical, and economic factors. An exceedance of the AAQOs might initiate a monitoring, reporting, or management action.
	10 PPB	AAQO 1-Hour	
HEALTH & SAFETY LEVEL	10,000 PPB	OEL 8-Hour	The Alberta Occupational Exposure Limit (OEL) for H ₂ S states that human health begins to be affected if exposed to concentrations higher than 10,000 PPB for eight hours. The likelihood that this concentration would ever be reached in the parkland and communities surrounding the Gold Bar plant is highly unlikely.

6-10 PPB ODOUR THRESHOLD

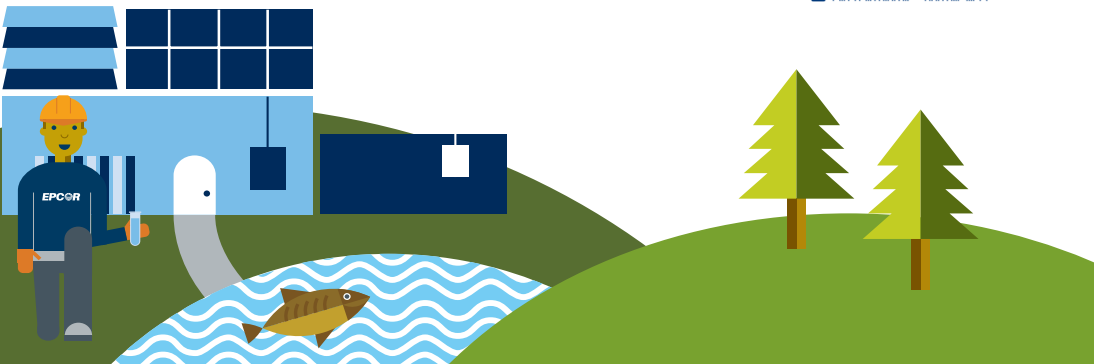
rotten egg smell may first become noticeable

IS H₂S LIKELY TO AFFECT ME OR MY FAMILY?

Levels of H₂S near the Gold Bar plant are at least 1,000 times lower than health and safety levels. Smelling hydrogen sulfide does not mean that it will harm your health.

WANT TO KNOW MORE?

To learn more about the Ambient Air Quality Monitoring Station, please visit the project website: www.epcor.com/goldbar-airstation



LOOKING FORWARD IN 2023

We continue to improve our operations and odour reduction at the Gold Bar plant. Here is a high-level summary of our planned 2023 activities that may interest you.

- We will be rehabilitating and upgrading digester #4, with work ongoing until mid-2025. This digester is one of the original structures at the plant, and is used to treat and stabilize the solids from the treatment process. Once construction starts, there will be the regular presence of a crane on-site.
- We are upgrading the Square 1 Biogas system, which houses safety systems and equipment to convey biogas for reuse in our boilers for heating. We are expecting compressors for this project to arrive in Summer 2023. The equipment is large and transportation will be brief, but noticeable, along 50 Street.
- Above-ground pipe racks were installed in 2020 to hold pipes that carry flows between processes, heating lines, some electrical cables and communications systems through the facility. We are fixing some deficient sections of the pipe racks and you can expect to see a crane on-site for this work.
- City Council approved the installation of a wooden stairway on the south side of the fence, replacing the current steep, bare-earth path to the access gate. This will ensure the safety of pedestrian visitors to the facility. Construction for this project will begin in Spring 2023.

As part of EPCOR's on-going commitment to odour reduction we are continually working to improve odour control at the plant.

- Ongoing maintenance activities include cleaning tanks and regular scrubber maintenance.
- Last year, we started building a facility that will hold additional scrubbers to address odours emitted from the Enhanced Primary Treatment building. This work is expected to be complete and the scrubbers will be operational by mid-2023.
- We are starting to design a system to capture and treat foul air from the Diversion Structure at the front end of the plant by 2026. The Diversion Structure has large underground chambers that allow us to manage and distribute wastewater flows coming to the plant that can be a source of odour during certain times of the year.

- We believe in the importance of working with communities around the Gold Bar plant. In 2023, we will continue to seek your feedback to guide operations and planning for our plant.

WHAT TO DO IF YOU SMELL AN ODOUR


- Check our water outages and alerts page to see if EPCOR has issued any notices about odour in your neighbourhood at epcor.com/wateroutage
- If you have concerns about an odour in your neighbourhood, you can contact our 24/7 phone line at (780) 412-4500.




We'd like to be more sustainable and produce fewer paper copies of the newsletter. Please sign up to start receiving the newsletter electronically.

THE GOLD BAR WASTEWATER TREATMENT PLANT WEBPAGE

Did you know that we regularly share facility updates about the Gold Bar plant, information about odours, and advertise future engagement activities on our website? Check it out at www.epcor.com/goldbar.

 twitter.com/EPCOR

 facebook.com/EPCOR

 [@EPCOR](https://instagram.com/EPCOR)

We believe in listening to and engaging with the community. Community input and involvement is an important part of our decision making and we want to hear what you think about our initiatives.

LET'S TALK

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