

Gold Bar Community Newsletter

June 2023



A WORD FROM CINDY

Cindy Shepel,
Director, Wastewater
Treatment Plant

Hello! My name is Cindy and I will be moving into the role of plant director in July. I have been with EPCOR for over 23 years. I started my career in Water Treatment before moving to leadership roles in Water Distribution & Transmission, and Drainage Operations. In my new role at the Gold Bar Wastewater Treatment Plant, I will continue to strengthen collaboration with the facility's stakeholders and community members and to achieve the Shared Outcomes that were created with the community. I am very much looking forward to my new role and meeting all of you at the community event on September 9. Stayed tuned for more details.



A WORD FROM CRAIG

Craig Bonneville,
Director, Engineering
& Technical Services

At the beginning of July, I am transitioning to a new role with EPCOR, focusing on providing engineering and technical services to all parts of the water and wastewater system. It has been an absolute honor working at the Gold Bar facility for the last 5 years and, particularly, working with our stakeholders and community members. We've strived to increase awareness of the work that we do at the facility and the improvements we have made to align with our jointly developed Shared Outcomes. Through all of this, we have listened to our community stakeholders and addressed concerns thoughtfully. All the best, and Gold Bar is in good hands.



Our Shared Goals with the Community

The Gold Bar facility operates under five shared outcomes that were established with the community. One of those outcomes is reducing impacts to stakeholders and improving quality of life, which includes reducing odours that occur as a result of our treatment processes.

WHY COULD YOU NOTICE ODOUR MORE IN THE SUMMER?

A number of different factors will affect how you experience odour around the facility, including weather conditions, your sensitivity to odour, and your physical location relative to sources of odour.

The prevalence of odour can be influenced by weather, including wind and air currents. Generally, higher wind speeds carry hydrogen sulphide (H_2S) molecules away from the facility, dispersing the molecules over a larger area and making it more difficult to smell. Mornings and evenings are generally calmer, with lower wind speeds, so you may notice odour more during these times.

During the summer, when the weather is hot and dry, solids and sludge are not flushed out of the sewer system. The sludge sits at the bottom of pipes and decomposes, causing odours. During rain events, rainwater helps to flush sludge out of the pipes and to the facility for treatment.

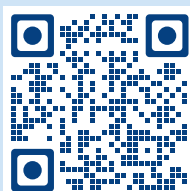
Where else does odour in Edmonton come from?

There are many sources of odour in the environment, including:

- **Animals:** Livestock farming, animal waste
- **Human activities:** Compost, sewage, garbage, fires, household cleaning agents
- **Industry:** Oil refineries, landfills, paper mills, wastewater treatment plants
- **Nature:** Moist soil, gardens, fires
- **Vehicles:** Diesel exhaust

WHAT CAUSES ODOUR AT GOLD BAR?

Treating wastewater is a smelly business, and we do our best to capture and treat the air that carries odours from the wastewater and our treatment processes. Most of these odours are related to hydrogen sulphide (H_2S). The gas, naturally produced by biological activity in wastewater, can be detected at very low levels.



Please visit our website for more information on understanding H_2S .

The ambient air quality monitoring stations at Gold Bar Park, Beverly, and Gold Bar Elementary School monitor air quality for the surrounding area, including the Strathcona Industrial Area, just east of Edmonton.

When odours are reported to us we start an investigation as soon as possible. The key information we need is the location where the odour was noticed, and when the odour was observed. With this information, we can investigate quickly and follow up as needed.





RESULTS FROM OUR INVESTMENTS IN ODOUR REDUCTION AT GOLD BAR

We are continually investing in changes at the facility to reduce odours and our investments are showing results. The number of odour complaints we receive has decreased steadily since 2017, and the data from the Beverly and the Gold Bar air quality monitoring stations also shows a decreasing trend of H₂S exceedances. (The new Gold Bar Park station has not been operational long enough to establish a trend).

WHAT WE ARE DOING TO FURTHER REDUCE ODOUR

Our completed odour mitigation projects have significantly helped to reduce odour emissions, but it doesn't stop there! The projects in this section showcase our efforts to continually invest in odour reduction at Gold Bar.

1 Diversion Structure

At the headworks of the facility, near the main entrance on 50th Street, the Diversion Structure transports wastewater from the sewage system into a series of distribution channels. Air containing H₂S and other odour causing compounds from the wastewater is carried into the channels along with the wastewater, so this area of the facility can be a source of odour. We are designing a system that will capture and treat this foul air by diverting it through a treatment system. We anticipate this project will be complete by 2026.

2 Primary Clarifiers

Heavy solids and grit are removed from the wastewater, and then it flows through large tanks called primary clarifiers, where most of the remaining solids settle to the bottom of the tank. The clarifiers can be covered to trap foul air, which can then be extracted and sent to treatment scrubbers.

At the facility, we have already covered Clarifiers 9, 10, 11, and 12 and planning is underway to cover Clarifiers 5, 6, 7, and 8.

3 Odour Scrubbers

Wet and dry scrubbers reduce odour by collecting and treating foul air using either a chemical solution or carbon filter. Four wet scrubbers and three dry scrubbers treat foul air from many areas of the facility.

4 Air Quality Monitoring

We continuously monitor air quality at the Gold Bar facility and use this information to improve our processes. We monitor air quality in the following ways:

- We have a facility-wide odour monitoring system, including H₂S monitors, an electronic nose (e-nose), a weather station and wind sensors. These all feed into a computer program that models air quality in the area, providing us with real-time data and helping us investigate the source of odour complaints.
- We continuously measure air quality near the facility through our Gold Bar Park ambient air quality monitoring station. This data is available publicly through EPCOR's website each month and is also submitted to Alberta Environment and Protected Areas to comply with our operating approval.

WHAT TO EXPECT OVER THE SUMMER




Our construction hours are Monday to Saturday from 7:00 a.m. to 7:00 p.m. and all activities comply with the City of Edmonton's Community Standards Bylaw for noise control.

- There is a crane onsite for Digester #4 rehabilitation and upgrades. The crane will be on-site until late 2024.
- Work on the additional scrubbers to address odours emitted from the Enhanced Primary Treatment building is completed and the scrubbers are in the commissioning phase (testing operational readiness).
- Construction is on-going for upgrades to the Square 1 Biogas system, which includes 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.
- To ensure the safety of pedestrian visitors to the facility, we are installing a stairway on the south fence, connecting the current steep, bare-earth path to the access gate. Construction will be ongoing through the summer, and impact to the recreational pathway will be minimal.

If you've been waiting for an opportunity to tour the facility, keep an eye out for details on our community event to be held on September 9.

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://www.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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