



# Gold Bar WWTP Update

Gold Bar Community League – Executive  
November 5, 2018

# Agenda

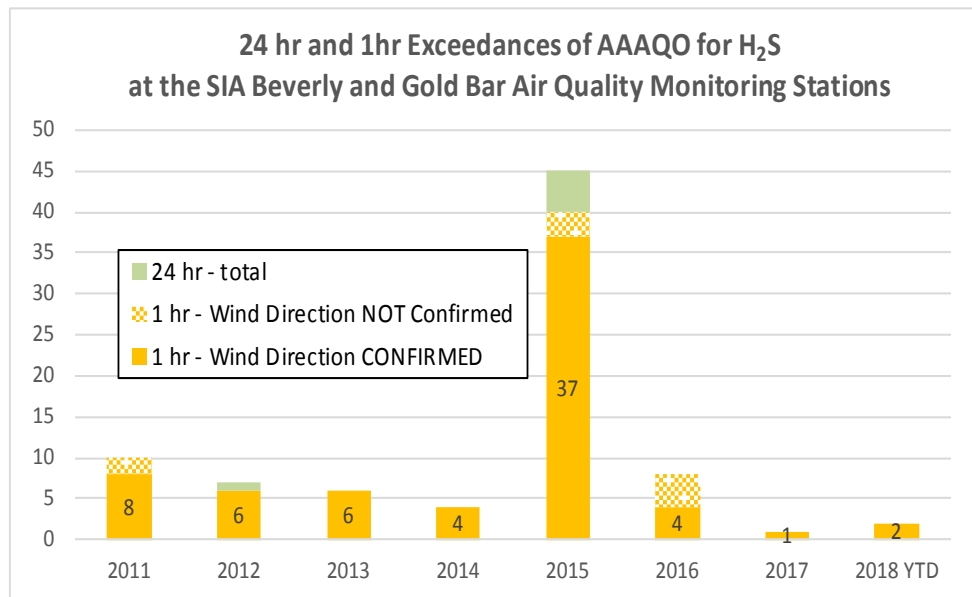
1. Welcome and Introductions
2. Recent Updates at GBWWTP
  - Odour Management
  - Gold Bar Lift Station
  - Diversion Structure Rehabilitation
  - Operations Centre Update
  - Utility Committee – SSSF Overview
  - Biogas Opportunity
3. Community Engagement Discussion

# Odour Management

- The conveyance of wastewater through the drainage system and through a wastewater plant has the potential to give off foul odours.
- The greatest source of odour is hydrogen sulphide gas ( $H_2S$ ) – which has a rotten-egg smell that can be detected even at very low levels.
- Health and Safety
  - $H_2S$  gas in high concentrations can be dangerous to people.
  - Alberta Occupational Health Regulations require that short term exposure be < 15,000 parts per billion (ppb) and daily exposure be < 10,000 ppb.
- Ambient Air Quality
  - $H_2S$  gas can be detected by people at levels as low as 10 ppb.
  - Alberta Environment has published the Alberta Ambient Air Quality Objective (AAAQO) which is an average of no higher than 10 ppb over a one hour period and an average of no higher than 3 ppb over a twenty-four hour period.

# Odour Management

- EPCOR is a member of the Strathcona Industrial (SIA) who conducts environmental monitoring across the region – reported on its website.
- Since 2011, EPCOR has been tracking average hourly and average daily H<sub>2</sub>S levels at the SIA Beverly and Gold Bar Stations.
- The number of one hour exceedances over the AAAQO average of 10 ppb (human perception) had been trending down since 2011 until 2015 when the odour scrubbing equipment at the GBWWTP failed.
- Results have improved considerably since 2015.



# Odour Management

- **2016 Odour Study Actions**
- **Operational Improvements Implemented:**
  - Clean tanks immediately after removing wastewater from tanks for maintenance
  - Keep doors to buildings closed as much as possible
- **\$10.2 M in Capital Upgrades Nearing Completion:**
  - Balance odour collection system ducting - \$2.5 M
  - Improvements to scrubbers - \$1.6 M
  - Enhanced Primary Treatment (EPT) covers and collection system - \$5.1 M
  - Continuous odour monitoring system to be completed in 2019 - \$1 M

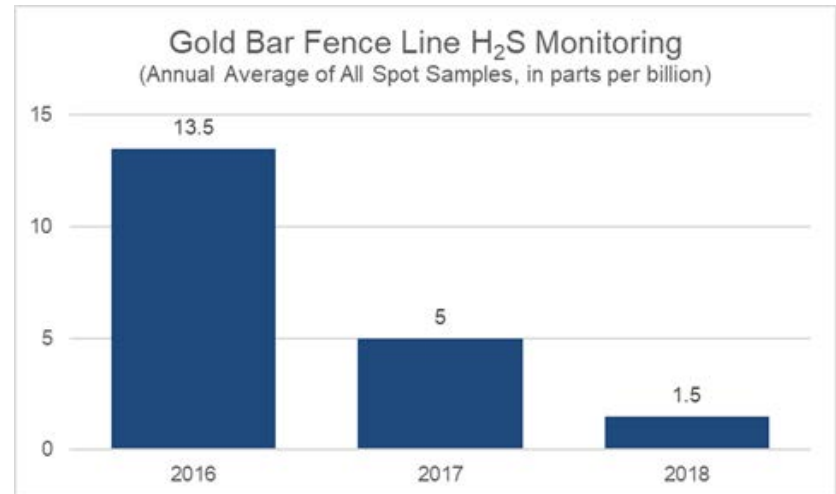
# Odour Management

- EPT tank covers and air collection system installed



# Odour Management

- EPCOR has been collecting “spot” air samples at 8 fenceline locations beginning in 2016 – which show significant improvement
  - 72% of spot samples taken in 2018 show H<sub>2</sub>S levels of 0 ppb.
  - 22 of 1,112 samples in 2018 show results above 10 ppb, the threshold for smelling odour (2%, vs 9% in 2017).



# Gold Bar Lift Station

- Starting in November, EPCOR will be upgrading infrastructure related to two wastewater influent pipelines coming in to the south side of the plant.
- This work is required to prevent the potential of backflow into residential and industrial customers.
- The work includes installing infrastructure both inside and outside of our existing fence line - along the utility corridor.
- Notification/Consultation has occurred.



# Diversion Structure Rehabilitation

- The Diversion Structure is located at the front end of the plant near 50<sup>th</sup> Street. It is the interconnection between the drainage collection system and the GBWWTP influent channels.
- This project will rehabilitate and upgrade the Diversion Structure.
- To safely isolate the structure, the construction area will extend towards 50<sup>th</sup> Street outside the current fence line.
  - Capilano Park access will be maintained.
  - Construction will be phased over the next two to three years.



# Operations Centre Update



- This project involves the development of a new office building inside the south fenceline of the plant to provide proper staff hygiene facilities.
  - Current facilities do not have proper separation of clean and dirty clothing (having showers between clean lockers and dirty lockers).
  - Some locker and shower facilities require staff to walk through process areas, and lockers themselves are in process hallways.
- The Operations Centre Project was funded in the 2017-2021 PBR.

# Operations Centre Update

- This project also involves the addition of parking to address longstanding congestion and safety issues.
- Based on feedback from our consultation process – we are actively considering additional options.
- Our plan is to bring them back to the community for further consultation in the new year.



# Utility Committee – SSSF Overview

- EPCOR and the COE will be making a presentation to the City of Edmonton Utilities' Committee on November 16, 2018 on a number of issues related to the Sanitary Sewer Servicing Fund (SSSF)
  - South Edmonton Sanitary Sewer (SESS) Decision
  - Gold Bar Integrated Resource Plan (IRP)
  - 2009 Land Swap
  - Operations Centre Update
  - Other projects at GBWWTP (mentioned above)

# Green Gas Opportunity

- A by-product of the wastewater treatment process is “biogas”.
  - Currently some of this gas is captured at the GBWWTP and utilized for process heating year round and plant heating in the winter.
  - Utilizing this biogas reduces the amount of non-renewable natural gas we buy to heat the plant.
  - The unutilized biogas is flared.
- Instead of flaring the gas, we see environmentally friendly opportunity to capture this unutilized green gas, clean it and inject it back into the ATCO natural gas distribution system to offset use of non-renewable natural gas.
- EPCOR is currently assessing these alternatives. If the project moves ahead, it will require some additional biogas cleaning and injection infrastructure.
  - The project will go through community consultation and permitting

# Community Engagement

1. How are we doing?
2. What would you like engagement to look like moving forward?

## **Current Lines of Communication**

- Community Liaison Committee (CLC)
- Community Newsletters
- Gold Bar Web content
- EPCOR Stakeholder Consultation Phone line
- Odour Report Process - 311
- Project related engagement

# Community Liaison Committee

- Two year term ends in 2018, recruiting for 2019-2020
- Community League involvement crucial
- Current Members:
  - Capilano Community League
  - Gold Bar Community League
  - Fulton Place Community League
  - Beverly Heights Community League
  - Highlands Community League
  - Nordic Ski Club

# Questions?