LONG RANGE PLANNING

Gold Bar WWTP is able to safely treat all flows that come to it through 2060 while remaining within its existing footprint and fenceline.

1. Gold Bar WWTP has **ample hydraulic capacity** meaning that it is currently sized to handle liquid flows through 2060. Growth in sanitary flows is expected to be flat due to the impact of water conservation.

2. Gold Bar WWTP also has **spare solids treatment capacity** in the digesters on site to treat solids growth through 2060. Solids loading to the plant is expected to increase in proportion to population growth.

3. As the amount of municipal waste grows with population and flows are moderated due to water conservation, wastewater strength is expected to increase over time. Gold Bar WWTP will **have to increase its nutrient removal capacity** to keep pace. This is accomplished by retrofitting existing secondary clarifier tanks with membrane technology. Current projections indicate that the earliest this would be needed is 2027. These retrofits will be required at a slower pace if future growth in sanitary flows from the SESS system is redirected to ACRWC.

Starting in 2027 EPCOR will start retrofitting existing secondary clarifier tanks with membrane technology.

Membrane technology that would be inserted into existing tanks.

SAFETY & HYGIENE

The following is EPCOR's recommended option to ensure safe movement on site and improve worker hygiene and safety.

PARKING

- Build a 150 stall surface parking lot at east end, and use 45 surface stalls in the south central area near the new Operations Centre. Reduce the laydown area.

BUILDINGS

- Operations Centre: one story, inside the fenceline.
- Maintenance/Admin offices moved from the centre to the east end, inside the fence.

OTHER

- City Parks Yard and Nordic Ski Club unchanged.
- No development outside the existing fenceline.
- Main entrance moved to east end of site (arriving vehicles will now use Gold Bar Park Road; exiting vehicles are unchanged).

ODOUR ACTION PLAN

ODOUR LEVELS

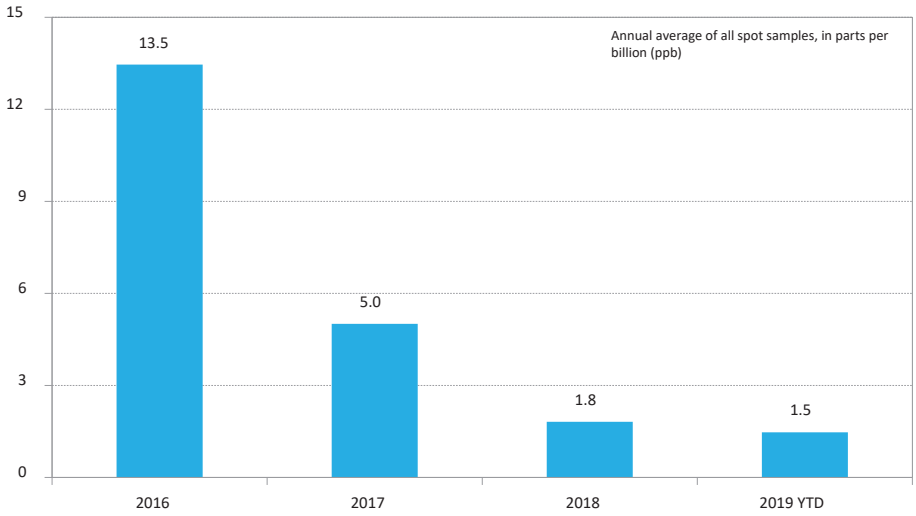
- Odour exceedances have been reduced at the two monitoring stations (Gold Bar and Beverly).
- Spot monitoring at the fenceline also shows reductions.

MONITORING AND REPORTING

- EPCOR publishes fenceline spot monitoring results monthly.
- There is no continuous air quality monitoring at the fenceline or in the adjacent part of Gold Bar Park.

EPCOR will be initiating additional capital and operating initiatives that will further reduce odour from existing operations, and meet current and future odour performance standards.

Gold Bar Fence Line H_2S Monitoring



RENEWABLE NATURAL GAS

Rather than flaring, technology exists to capture biogas on site, clean it, and deliver it into the ATCO natural gas distribution system as a source of **renewable natural gas.**

Upgrading biogas to renewable natural gas would require some additional biogas cleaning and injection equipment on-site, and building an underground connection to the ATCO gas line that runs next to Gold Bar Park Road.

EPCOR's recommended design is shown below:

- All equipment would be located within the fenceline

EPCOR'S GOLD BAR DESIGN PRINCIPLES

The following Shared Outcomes and Design Principles were collaboratively created by EPCOR and the Gold Bar Citizen Planning Committee.

These Design Principles define how EPCOR will achieve the goals described in the five Shared Outcome Statements and provide a framework to guide the evolution of the site.

They will be incorporated into the Integrated Resource Plan (IRP) and demonstrate our commitment to being a good neighbour and keeping future growth within the existing fenceline.

Shared Outcomes					
	QUALITY OF LIFE	SAFETY	RELATIONSHIP	ENVIRONMENT	RELIABLE, RESPONSIBLE, SUSTAINABLE
Design Principles	Accelerate odour reduction	Continuously improve safety	Communicate openly	Continuously improve environmental performance	Continuously maintain reliable operations
	Remain within the existing fenceline	Ensure safe movement on-site	Align operating protocols	Reduce environmental impacts	Plan for a range of scenarios
	Prevent increases to odour and noise	Improve worker hygiene and safety	Engage regularly	Increase resiliency	Prudently manage impacts to ratepayers
	Restore disturbed vegetation	Protect public safety from site-related traffic	Share options and optimize designs	Engage employees and stakeholders	
	Mitigate temporary impacts				