

Odour Control: McLoughlin Point Wastewater Treatment Plant

The McLoughlin Point Wastewater Treatment Plant has been designed so there will be no detectable odour by residents. Modelling shows odour will be approximately 2 OU at the plant’s property line.

The plant will have one of the highest levels of odour capture and treatment in the industry:

- All treatment processing tanks are covered
- All air is captured and treated

A 24-hour odour control monitoring system will ensure requirements are met or exceeded. Back-up odour control equipment and back-up power generators will be installed, reducing the possibility of odour escaping the facility if there is an equipment failure.

There will be detailed procedures for responding to odour issues, in the unlikely event that one occurs. The public will be able to call a CRD phone line and report any odour issues 24 hours a day, once the plant is in operation.

What is an Odour Unit (OU)?

- An odour unit is a standard measure used to describe the amount of odour present in one cubic metre of neutral air.
- Odour is not discernible at 5 OU or less.
- A typical residential neighbourhood has a background odour of 7 to 20 OU which may include:
 - Grass
 - Plants
 - Mulch
 - Marine environment

Odour Control at other Wastewater Treatment Plants

KELOWNA, BC WASTEWATER TREATMENT PLANT



- Kelowna Plant is in a residential neighbourhood
- Homes are within 20 metres of plant; Okanagan College is adjacent to the site
- 5 OU used for design limit
- Secondary treatment processing tanks are uncovered; by comparison, all McLoughlin Point Plant treatment processing tanks are covered
- No odour complaints

VERNON, BC WASTEWATER TREATMENT PLANT



- Vernon Plant is in a residential neighbourhood
- Homes are situated at the plant’s fence line
- 5 OU used for design limit
- Single stage odour treatment; by comparison, the McLoughlin Point Plant will have two stage odour treatment
- Secondary treatment processing tanks are uncovered; by comparison, all McLoughlin Point Plant treatment processing tanks are covered
- No odour complaints

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While the maximum allowable odour is 5 OU at the property line, modelling based on the current design shows odour during operations will be approximately 2 OU at the McLoughlin Point Wastewater Treatment Plant property line and dissipates quickly as it moves away from the plant.

About the Wastewater Treatment Project

The Wastewater Treatment Project will provide tertiary treatment for wastewater from the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Langford and Colwood, and the Esquimalt and Songhees First Nations. The Wastewater Treatment Project will be built so we comply with federal regulations by the end of 2020, and is being funded by the Government of Canada, the Government of British Columbia and the CRD.

Odour Model



Odour from McLoughlin Point Wastewater Treatment Plant. Odour model based on the worst-case wind conditions over the last five years, based on regional meteorological data.