

# SEASONAL TASTE AND ODOUR ISSUES IN DRINKING WATER

## Frequently Asked Questions

### *What causes the musty taste and odour in our drinking water?*

The odour causing compounds are more prominent during extended warm temperatures. When temperatures reach 19°C and above, naturally occurring compounds which can create a musty odour or taste are formed. Two compounds called Geosmin and 2-Methylisoborneol (2-MIB) are responsible for a musty or earthy odour that is detectable by some persons in concentrations as low as a few parts per trillion (ppt).

(One ppt is equivalent to one drop of water in 1000 Olympic-sizes swimming pools.)

### *Where do these compounds come from?*

Geosmin and MIB (2-Methylisoborneol) are produced in aquatic environments by cyanobacteria (blue-green algae) or mould-like, filamentous bacteria called actinomycetes. Very tiny concentrations of these compounds can create the earthy/musty taste and odours in water. Geosmin, the same substance that can be detected when rich soil is turned, is also found in some foods including beets.

### *Is the water safe to drink?*

Yes. City of St. Catharines residents are advised that the City's drinking water is safe; this odour poses no health impacts and is strictly aesthetic. The City's drinking water is sampled on a daily basis throughout the City to ensure its safety and compliance with the Safe Drinking Water Act.

### *When does the musty taste and odour occur?*

Although occurrence frequencies are difficult to predict, a Geosmin peak generally can occur anytime from the end of August through November each year. In the past it had been thought that taste and odour events only occurred periodically. It is now understood that the events likely occur each year but the intensity can vary widely.

### *How long will the musty taste and odour last?*

Depending on the weather temperatures, these tastes and odours could persist in our drinking water for a couple of weeks.

### *What can I do at home to reduce tastes and odours?*

In home water filtration systems that use activated carbon can help reduce or eliminate the tastes and odours. Storing water in a loosely sealed glass container in the refrigerator or mixing the water in a blender for five minutes can also be helpful.



City of St. Catharines

ENVIRONMENTAL SERVICES

