

## Harvest Fraser Richmond Organics

### Infrastructure Update – May 2016

Date: May 12, 2016

Prepared by: Greg Gillespie, A/ Regulatory Compliance Officer

Beginning in March 2016, we undertook an extensive upgrade to our composting system. Specifically, we regraded and replaced the underlying pipes of our Covered Aerated Static Piles (CASPs). The purpose of these pipes is to provide air flow through the compost piles to keep the organic material sufficiently oxygenated. Maintaining this air flow is integral to avoiding potentially odourous, anaerobic pockets of material.

All 48 pipes have now been replaced (24 in each CASP).

#### **BEFORE**

- In this picture, there are (at least) 3 problems: pipes are broken, clogged, and flooded. All 3 contribute to less oxygen and air flow in the piles, which leads to higher likelihood of anaerobic pockets and more odourous conditions.
- Furthermore, these problems also mean less efficiency in the collection system, i.e. less of the odourous air is captured and sent to the biofilters.
- In addition, ground saturation from heavy winter rains led to the pooling of water under the compost pile which also becomes odourous.



## AFTER

In these pictures, you can see how we are addressing the root causes:

- A new sand base will prevent pooling of water.
- New pipes will address the broken/clogged pipe issue.
- A more aggressive maintenance and repair program will prevent recurrence of these problems.

All of these measures lead to:

- Improved aeration, which reduces likelihood of anaerobic, odorous conditions.
- More thorough collection of process air and therefore,
- More extensive treatment.

