

# Adaptive Management Plan – Progress Report 1

7 July 2020

Christchurch City Council facilities located at Metro Place, Bromley

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## Overview

The Council developed an Adaptive Management Plan for mitigating odour from the two Council-owned facilities in Bromley – the Organics Processing Plant (OPP) operated by Living Earth and the transfer station operated by EcoCentral.

This Plan was approved by Environment Canterbury on 19 June.

The objectives of the Plan were to:

1. Understand the sources of odour at each site.
2. Reduce adverse environmental impacts from both Council-owned facilities.
3. Address community concerns and keep the community informed of key milestones and activities.

Three dates were set out in the Plan to assess and evaluate progress. This update provides the first of these progress reports, outlining the changes made at both facilities already along with next steps we plan on taking.

## Organics Processing Plant

Living Earth operate the Council-owned OPP under contract. As part of the Plan, Living Earth are planning to trial misters and odour treatment, compost 'recipe' and monitoring as well as investigating an independent expert to review onsite odour processes.

### Misters

Living Earth has used misters for a number of years. To further mitigate odour it has hired three portable mister canons, with a fourth scheduled for delivery this week. The new misters provide the ability to experiment with the different attributes each has, such as pressure, throw distance or fog output. As well as evaluating different odour treatment solutions that can be used with them.

Living Earth has received a proposal to install further fixed misters and will assess the suitability of this option based on the aforementioned testing of the mobile units.

### Compost 'recipe'

Living Earth is able to complete four trials of different compost blends through the tunnels at any one time. These trials are underway and odour is assessed at the following timeframes:

- Week 1 to 2 – Preliminary batch assessment
- Week 2 to 3 – Initial laboratory testing
- Week 3 to 6 – Additional laboratory testing
- Week 6 to 8 – Final results of batch

There are a number of variables being considered in the changes to the compost 'recipe'. These include:

- Modifying the size of the screen to increase the porosity of material,
- Trying to slow down the rate of temperature rise in the early stages of the tunnel process,

- Running various stages of the composting process at a slightly lower temperature (whilst still within the thermophilic range), and
- Reviewing the blend of overs or tailings used.

The initial findings of these trials are positive, with a number of changes showing at the laboratory testing stage. Living Earth has not placed any of the trial tunnels outside into windrows at this stage. It is important to note that if a blend does have a significant impact on the odour profile of the compost, it will take at least 12 weeks to cycle through all existing material onsite.

### **Monitoring**

Envirosuite hardware and software can provide useful data to assist with management decisions and odour mitigation. It has been shown to be utilised successfully at other facilities internationally.

Living Earth currently has three electronic noses onsite, and has engaged Envirosuite to acquire a further two ambient monitors currently being shipped from China. Once received we will then conduct a trial period with updated hardware to analyse the products usefulness for managing and mitigating odour.

### **Independent Review**

ELB Equipment Limited are due to review the tunnel composting process from a technical perspective. We anticipate this to be received in early September and will help feed into any investment decisions required at that stage.

Living Earth are commissioning an independent review of the Environmental Management Plan. It has received a proposal from PDP to complete this work and is awaiting a proposal from Tonkin and Taylor. Once this is received a preferred option will be selected and the review will be initiated.

## **Transfer Station**

EcoCentral operate the EcoDrop transfer station and recycling centre. EcoCentral has completed initial operational changes onsite and received the initial report from PDP.

### **Operational Changes**

As of 19 June 2020, EcoCentral has ensured all waste is cleared in to sealed containers each evening. It has also been actively clearing material into containers throughout the day more quickly and prioritising odourous waste.

EcoCentral is also carrying out daily off-site odour surveys to help improve the understanding of what impacts various operational activities have onsite and in the surrounding area.

### **Independent Review**

PDP has provided the initial findings of their review.

The next stage of the work PDP will complete is a review of onsite processes, providing further recommendations for odour mitigation.

### **Monitoring**

Envirosuite hardware and software used at Living Earth, is installed in the pit at the transfer station. Following the aforementioned review by PDP, EcoCentral will consider the requirement for further practical odour monitoring equipment.

## **Communications**

Throughout this process the Council has committed to updating the community with progress.

On 22 June the Council released the following information:

- Memos for Linwood-Central-Heathcote Community Board, Mayor, Councillors and Council Executive Leadership Team,

- Newline story published online and shared on Council Facebook page,
- Environment Canterbury emailed pilot study participants the link to the Newline story, action plan and summarised action plan via their newsletter,
- FAQs provided to the Council and Environment Canterbury media teams,
- Email to stakeholders sharing the Newline story, action plan and summarised action plan,
- Web page created containing summarised action plan and full action plan, and
- Customer contact centre at Christchurch City Council and Environment Canterbury updated.

On 1 July the Council sent out its first newsletter to the community, stakeholders, Mayor, Councillors and Linwood-Central-Heathcote Community Board. The newsletter was also emailed to the participants in Environment Canterbury's pilot project.

Further communications are scheduled to go out this week.

## Next Steps

### Living Earth

- Continue onsite trials on compost 'recipe',
- Trial misters and odour treatment,
- Begin initial review of Environmental Management Plan,
- Receive ambient electronic noses, and
- Review long-term investment options.

### EcoCentral

- Continue to clear material quickly and each evening, and
- Begin PDP review of processes.

### Communications

- Put out further communications this week, and
- Move forward with in person community engagement.