

# Organics Processing Plant Community Liaison Group Meeting

## Agenda

6:30pm to 8pm, Tuesday 20<sup>th</sup> February 2024

Waitai Coastal-Burwood-Linwood Community Boardroom

180 Smith Street, Woolston, Christchurch 8062

Welcome to the Community Liaison Group (CLG), a community forum to discuss consent compliance for the Organics Processing Plant; discharging contaminants to air, discharging contaminants to water, and use of land to store organic matter and decaying organic matter.

## Agenda

1. Welcome and introduction – Chair (*5 minutes*)
2. Confirm previous meeting's minutes – Chair (*5 minutes*)
3. Report back on actions from previous meeting – All (*15 minutes*)

**Action 1:** Carl Pascoe's (Chair) letter to Environment Canterbury (ECan) addressing points below;

- 1) CLG's disappointment that ECan staff did not attend.
- 2) CLG's request to expediate the resource consent variation process for the interim solution.
- 3) CLG's preference the upcoming OPP resource consent review to be an open review with public input.
- 4) Nathan Doherty to follow up with Carol Anderson regarding the black dust on her patio, as discussed at the August CLG meeting.

***Completed Wednesday 10 January 2024. Judith Earl-Goulet (ECan) replied Friday 12 January 2024 and invited the Chair to meet with her and Stephen Hall (Director of Operations, ECan).***

**Action 2:** Lynette Ellis to follow up on Katinka Visser's request for information on truck movements. ***Work in progress. David McArdle called Katinka Visser to discuss on Tuesday 23 January 2024. Living Earth has provided the data to CCC, which was shared with Katinka on Thursday 15 February 2024.***

**Action 3:** Carl Pascoe (Chair) to send a formal invite to Vanessa Weenik, MP to attend this meeting. ***Completed Monday 22 January 2024. Vanessa responded the same day and will confirm if she can attend the February CLG as it is during a sitting week meaning she has had to request leave.***

**Action 4:** David McArdle (CCC) to add MP's Vanessa Weenik and Reuben Ferguson to the CCC Bromley mailing list – ***Completed Friday 22 December 2023.***

**Action 5:** David McArdle (CCC) to arrange OPP drone shoot before February CLG meeting – ***Completed with drone shoots on Wednesday 17 January and Monday 12 February 2024. Images included in CCC report.***

**Action 6:** Lynette Ellis (CCC) to contact Amy Davidson (CCC) – ***Addressed with below action.***

**Action 7:** David McArdle (CCC) to find relevant wastewater treatment plant (WWTP) contact for Vickie Walker. – ***Completed. Council staff member emailed Vickie Walker on Wednesday 24 January 2024.***

4. Resident lived experiences since last meeting including the Geoffrey King odour report (10 minutes)
5. Living Earth & CCC discuss current site management and suggested processes moving forward (10 minutes)
6. CCC answer questions arising from their CLG report (10 minutes) **Note: The report will be taken as read.**
7. Living Earth answer any questions arising from their CLG report (10 minutes) **Note: The report will be taken as read.**
8. ECan answer questions arising from their CLG report (10 minutes) **Note: The report will be taken as read.**
9. General business (5 minutes)
10. Concluding remarks – Chair (5 minutes)

## **Attachments**

- a. Previous CLG meeting minutes, Tuesday 12<sup>th</sup> December 2023
- b. CCC CLG meeting report, Tuesday 20<sup>th</sup> February 2024
- c. Living Earth CLG meeting report, Tuesday 20<sup>th</sup> February 2024
- d. ECan CLG meeting report, Tuesday 20<sup>th</sup> February 2024
- e. Pattle Delmore Partners Review of Interim Solution report, Monday 12<sup>th</sup> February 2024

Any questions or feedback can be sent to [Bromley@ccc.govt.nz](mailto:Bromley@ccc.govt.nz)

# Organics Processing Plant Community Liaison Group Meeting

## Minutes

6:30pm to 8pm, Tuesday 12 December 2023

Waitai-Coastal-Burwood-Linwood Community Boardroom

180 Smith Street, Woolston, Christchurch 8062

### 1. Executive summary of minutes

Carl Pascoe (Chair) opened the meeting and shared Daniel O'Carroll's apology.

#### CCC update on the 6 December 2023 reports on the short and long term options

David McArdle (CCC staff) noted the CCC report attached to the agenda was finalised before the 6 December Council meeting. Before continuing to hand out a further CCC report with information now publicly available following the 6 December Council meeting and talking to this.

##### *Interim solution*

Summarised the two stages involved with the short-term solution. Key points below;

- First stage at the OPP completely indoors and within the processing hall.
- No movement of material between two building i.e., the processing hall and the screening shed.
- Trucks loaded directly from the enclosed tunnels and inside the processing hall to be transported to Kate Valley Landfill.
- Then at Kate Valley Landfill the material will be matured in outdoor windrows and screened before being sold as compost.

At the 6 December Council meeting, it was resolved that if any odour issues arise out of this process, staff will report back urgently to the Council with solutions that will address the problem.

##### *Long term solution*

Council approved Ecogas to establish a new long term Ōtautahi Christchurch Regional Organics Processing Facility, following a multi-stage procurement process.

The facility will deliver a different system from the existing OPP at Metro Place in Bromley through a fully enclosed operation and technology successfully used in cities around the world, including London, Sydney and Madrid.

In later discussions on the long-term solution, Lynette Ellis added the decision was made last Wednesday, elected members received a technical briefing last Friday and there are plans in place to share further information with the public.

## **Sources of odour discussion and the community's suggestion of the biofilter**

Whilst discussing sources of odour at the OPP members of the community suggested the biofilter. Council staff responded with advice received from external odour consultants Pattle Delamore Partners that the material being stored outside presents the highest odour risk. This advice has been factored into Council's decision to clear the site of unscreened and screened compost being stored outside by the end of the month (December) along with its interim solution. As requested by the community, CCC will provide photos at the next CLG in February to show the progress of the site being cleared come then.

Noting during the last CLG meeting in August the community requested an independent review of the biofilter. This has been completed by Tonkin + Taylor and attached to the agenda for this meeting. The report confirms the biofilter is operating within industry standards and included maintenance recommendations which will be actioned by Living Earth.

## **ECan's apology and message for the CLG**

The Chair shared ECan's apology and an accompanying update received through email. The update included that in the past week ECan has received a number of odour submissions. Concluding that on Friday they responded to an incident whilst carrying out proactive odour monitoring and substantiated a compost odour in the residential area of Bromley. ECan stated the incident is still under investigation.

## **Chair's letter to ECan**

In ECan's absence the Chair offered to write a letter to them addressing various points raised throughout the meeting and detailing the below;

1. CLG's disappointment that ECan staff did not attend.
2. CLG's request to expediate the resource consent variation process for the interim solution.
3. CLG's preference the upcoming OPP resource consent review to be an open review with public input.
4. Nathan Doherty to follow up with Carol Anderson regarding the black dust on her patio, as discussed at the August CLG meeting.

The Chair closed the meeting and asked for efforts to mitigate any odour over the Christmas period.

Any questions or feedback can be sent to [Bromley@ccc.govt.nz](mailto:Bromley@ccc.govt.nz)

## **2. Verbatim Minutes**

**Chair** – Carl Pascoe

**CCC staff** – Lynette Ellis, Alec McNeil, David McArdle, Rory Crawford

**CCC elected members** – Yani Johanson, Jackie Simmons

**Living Earth staff** – Jaco Kleinhans

**Community** – Andrew Walker, Bruce King, Geoffrey King, Katinka Visser, Margaret MacPherson, Vickie Walker.

**Minutes** – Beth Walsh

**Apologies** – Daniel O’Carroll (community)

### **1. Welcome and Introduction**

**Carl Pascoe, Chair** – Introduced the meeting. Shared Daniel O’Carroll’s (community) apologies.

### **2. Confirm previous meeting’s minutes**

**Carl Pascoe, Chair** – Assumed confirmed.

### **3. Update from CCC regarding short term options consultation results and 6 December short term options reports to Council**

**David McArdle, CCC staff** – Explained the agenda and reports for this meeting were sent out before the 6 December Council meeting, therefore information on the long-term solution had not been disclosed and could not be included. Handed out a second report with further information now publicly available.

Confirmed the resolutions made at the 6th of December Council meeting including two decisions for short and long term solutions for organics processing.

Described the short-term solution will consist of two stages;

1. Stage 1 - To take place at the OPP in Bromley and will all be indoors. Whilst the initial part of the process will remain unchanged, after the enclosed tunnel phase the material will be transported to Kate Valley. This change will be operational from April 2024 to allow for time to vary the resource consent to allow for increased truck movement.
2. Stage 2 - Everything that was previously done outdoors in Bromley will instead be carried out at Kate Valley.

Assured the group that CCC and LE are working to clear material being stored outside on the site as quickly as possible.

If any odours arise from the new process staff will report back to CCC and address these issues immediately.

Regarding the long-term solution, CCC has approved Ecogas as the supplier for the new regional processing solution following a procurement process. The new processing solution will be located in South Hornby and fully enclosed. It will utilise a different technology rather than a “lift and shift” of the current system.

**Q. Vickie Walker, community** - How long has this technology been around?

**A. David McArdle, CCC staff** - Pioneer Energy, a major partner in Ecogas have been around for 30 years. Ecogas currently processes Auckland’s kerbside food waste. Anaerobic digestion is used in major cities around the world like London, Sydney and Madrid.

**Q. Bruce King, community** - Will the consent be public notification for the Ecogas plant?

**A. Lynette Ellis, CCC staff** - That hasn’t been determined yet.

**Q. Bruce King, community** - What will happen if there is no consent?

**A. Lynette Ellis, CCC staff** - As part of procurement an independent planning assessment were done to see if this was consentable. This was part of the presentation to CCC during the decision making.

**Q. Bruce King, community** - The consent for the present plant is up for renewal next year, will that be publicly notified?

**A. Jaco Kleinhans, Living Earth** – Confirmed the OPP resource consent to discharge contaminants to air expires in 2033.

**A. Yani Johanson, CCC elected member** – Added ECan have signalled they will do a review of the resource consent before March as per their report. ECan need to answer if they have to consult the community about this.

**A. Lynette Ellis, CCC staff** – Added ECan can review the consent every March.

**Q. Bruce King, community** - What will you do if ECan say they need to close it?

**A Lynette Ellis, CCC staff** - CCC will make each decision as we need to.

**Carl Pascoe, Chair** – Summarised that a review has been signalled by ECan and asked what view the CLG would like to express to ECan. The CLG agreed that they would like it communicated to ECan their preference for an open review with public input. The Chair said he will include this in his letter to ECan.

**Action 1a** - Carl Pascoe to write a formal letter to ECan documenting;

- CLG's disappointment that ECan staff did not attend.
- CLG's preference the upcoming OPP resource consent review to be an open review with public input.

**Vickie Walker, community** - Regarding the resolution that staff will have to report any odour issues immediately with the new system, would like to express preference to have this done by an independent party rather than CCC staff.

**David McArdle, CCC staff** – Assured Vicky that one of the resolutions from the 6 December Council meeting was a commitment to continued proactive odour monitoring by Pattle Delamore Partners (PDP), an independent body.

**Geoffrey King, community** - Suggested CCC doesn't trust ECan if they have engaged PDP to carry this out.

**David McArdle, CCC staff** - Assured Geoffrey that PDP's approach to odour monitoring is with odour being subjective and to maximise data collection i.e., the more odour monitoring by different bodies the better.

**Carl Pascoe, Chair** - Acknowledged that Geoffrey's Odour Report forms part of the data and is as valid as other data collected. Also acknowledged there has been a positive shift in progress in the last six to nine months from the CCC staff and elected staff in trying to get on top of odour.

**Q. Bruce King, community** - Is it true that the odour watch system no longer works?

**A. Jaco Kleinhans, LE** - It was decommissioned years ago.

**Lynette Ellis, CCC staff** - Would like to go back to the timeframe for the new long-term solution, it aims to be operational by end of Dec 2026.

**Bruce King, community** - Expressed frustration that two years ago they were promised the plant would be closed that day.

**Carol Anderson, community** - Expressed frustration that it has already been 14 years.

**Geoffrey King, community** - Expressed frustration that he has repeatedly told CCC that the odour is because of the biofilter.

**Lynette Ellis, CCC staff** - Acknowledged that CLG has stated this repeatedly but respectfully disagrees. PDP's view is that the source of odour is the piles of materials outside the plant and CCC is working towards removing these piles. The biofilter is being fully refurbished every year.

**Carl Pascoe, Chair** - Acknowledged two opposing views of CLG and CCC regarding the source of odour.

**Q. Geoffrey King, community** - When was biofilter redone?

**A. Jaco Kleinhans, LE** - Refurbishment was completed between March and June this year.

**Katinka Visser, community** - The report states the biofilter needs to be redone in the next 12 to 18 months.

**Jaco Kleinhans, LE** - The entire rebuild was done recently, this doesn't need to be done every 12 months. The biofilter is continuously managed and redone every 12 months, these are standard recommendations for pH.

**Q. Katinka Visser, community** - What will happen in the interim? According to the website the piles of material outside were already gone.

**A. Lynette Ellis, CCC staff** - There have always been piles of materials outside (fines and tailings). We are working to have nothing outside.

**A. David McArdle, CCC staff** - Last June to September there was a programme of work to remove all excess tailings from the site. Now working towards removing all fines and tailings from outside.

**David McArdle, CCC staff** - Confirmed with the interim option there will be no movement of material between buildings, such as from the processing hall to the main screen.

**Bruce King, community** - References odour meter readouts, suggests the concentration confirms biofilter is source of odour and the system is obsolete.

**Geoffrey King, community** – Claimed the intensity of the odour is the same from a few piles outside as when we had the windrows.

#### **4. Resident lived experiences since last meeting including the Geoffrey King odour report**

**Geoffrey King, community** - References odour report from August to November 2023. 90 out of 122 days of odour. 44 days the odour was 5 out of 6 and 10 days 6 out of 6. This December so far, there have been 4 days of 6 out of 6. December 1, 2, 5, 8 and 11 were all 6 out of 6. On one occasion it was 6 out of 6 at 6:15am with no wind. In his opinion suggesting the source of odour is the biofilter.

**Q. Carl Pascoe, Chair** - Asks David McArdle (CCC staff) if PDP's odour monitoring has concluded anything.

**A. David McArdle, CCC staff** - PDP did monitoring in residential areas Monday, Tuesday and Wednesday last week and no offensive or objectionable odour was detected.

**Geoffrey King, community** - PDP have previously said there was no odour from January 2022 to January 2023.

**David McArdle, CCC staff** - PDP have suggested the material being stored outside has the highest risk of odour.

**Q. Katinka Visser, community** - Where do they do the monitoring?

**A. Lynette Ellis, CCC staff** - They do a walking circuit around the streets and also at the plant.



**Geoffrey King, community** - I have spoken to the PDP whilst they are monitoring, and they've said they can't smell anything when there clearly is an odour.

**Bruce King, community** - It's subjective, after 14 years of odour you become desensitised to it, and it becomes very strong even at the slightest smell.

**Yani Johanson, CCC elected member** - It's disheartening that every time there is a community event in Bromley there is a stench. Three out of four people that I speak to at an event at the weekend noticed an organics stench. Can we please try to have the Christmas period odour free? It's frustrating there is a contradiction between PDP not detecting any odour and odour clearly present to residents. If residents will have to put up with this for the next three years, is there a way that the biofilter can be enclosed?

**Katinka Visser, community** - Suggests that the fans may have been turned off during the independent biofilter review. The odour can sometimes be strong and dissipate quickly. As a result, wonders if this is due to a change in the wind or has a door been closed in the plant.

**Q. Geoffrey King, community** - Went to the plant three or four weeks ago to ask them to close the doors. Noted that the staff member working and the offices within the plant had a strong odour - how does this occur inside if the odour is as a result of the piles of materials outside?

**A. Jaco Kleinhans, LE** - Due to its design, the inside of the OPP has a strong odour but this a different odour profile to the one outside of the building.

**Carl Pascoe, Chair** - Referencing an email from ECan sending their apologies - *"In the last week ECan received a number of odour submissions. On Friday ECan responded to an incident received while carrying out proactive odour assessments in Bromley. The staff substantiated that a compost odour was in the residential area of Bromley. This incident is still under investigation. The odour appears to have been discharged from the wastewater treatment ponds and may be related to pond management changes. ECan are working with CCC to understand the cause of that discharge"*.

**Geoffrey King, community** - Expressed dissatisfaction that this incident is still under investigation four days later and believes that the odour has nothing to do with wastewater.

**Katinka Visser, community** – Believes the odour has been dreadful since the December 1.

**Q. Vickie Walker, community** - If you have identified the storage of materials outside as a source of odour, why can't you get rid of them now?

**A. David McArdle, CCC staff** - Assured Vicky Living Earth are doing this as soon as they can.

**Lynette Ellis, CCC staff** - Added no materials are being moved to Bridge Street or near the pond, that practice was stopped months ago.

**Q. Bruce King, community** - Is CCC going to need a resource consent to take materials to Kate Valley?

**A. Lynette Ellis, CCC staff** - Assured Bruce that this is what Waste Management are working.

**Q. Katinka Visser, community** - Asked Lynette Ellis about previously requested data on truck movements.

**A. Lynette Ellis, CCC staff** - Confirmed that she will email these to Katinka.

**Action 2:** *Lynette Ellis to follow up on Katinka Visser's request for information on truck movements.*

**Margaret MacPherson, community** - Would like a correction made on previous minutes - it was Carol Anderson rather than Margaret who stated they had black dust on their patio.

**Carol Anderson, community** - Nathan Dougherty from ECan offered to be my direct contact regarding this dust, there has been no communication from Nathan or ECan regarding this since.

**Carl Pascoe, Chair** - Will include this in the letter to ECan.

**Action 1b:** *Carl Pascoe to include the below in his letter to ECan:*

- *Follow up with Nathan Doherty on his agreement to contact Carol Anderson regarding the black dust on her patio.*

**Katinka Visser, community** - Regarding ECan's 'Smelt It' odour submissions, asked if it only compost related complaints that are getting counted in this data?

**Lynette Ellis, CCC staff** - ECan are not here to answer.

**Q. Katinka Visser, community** - Will often write feedback at the end of her 'Smelt It' submission. Does CCC ever receive these or just ECan?

**A. David McArdle, CCC staff** – Confirmed 'Smelt It' is an ECan system but ECan share the submissions relevant to the OPP.

**Carol Anderson, community** - Whilst I can identify the difference between a compost odour versus other type of odour, other people may not and so it's not fair that only reports of compost related smells are investigated.

**Bruce King, community** - Will post the contact numbers for the CCC, ECan and the MP on the Bromley Facebook page so people can ring to complain about the odour.

**Action 3:** *Carl Pascoe to send a formal invite to Vanessa Weenik, MP to attend this meeting.*

**Action 4:** *David McArdle to add MP's Vanessa Weenik and Reuben Ferguson to the CCC Bromley mailing list.*

**Yani Johanson, CCC elected member** - Is it possible to get a copy of the odour modelling that was done as part of the tender evaluation to see how this is performing? Can the biofilter be enclosed?

**Lynette Ellis, CCC staff** – The air will still have to be discharged and go outside.

**Carl Pascoe, Chair** - Summarised that in the last six to nine months particularly, Lynnette and CCC staff have worked to eliminate issues as they have arisen. In the context of the next three years, it would be helpful for the meeting going forward if LE and CCC look at the biofilter issues. It would also be helpful for Bruce and Geoffrey to share their own investigations and all meeting participants to have an open look at it.

**Q. Carol Anderson, community** - The system is from the 1930s, is there a better system?

**A. Lynette Ellis, CCC staff** - There is, we have just bought a new system.

**Q. Bruce King, community** - Presented an ideal solution to CCC ten years ago. A system which is in place in New South Wales by a French company where all processing takes place indoors. Did CCC approach this company for the new system?

**A. Lynette Ellis, CCC staff** - All companies had equal opportunity to partake in the procurement process.

**Q. Katinka Visser, community** - Is CCC clear about the plan for the next three years?

**A. Yani Johanson, CCC elected member** - CCC is concerned. There was a vote last week to continue to investigate immediate plant closure, but I didn't have the political support for it to pass. The mayor and my other colleagues have given a commitment to look at solutions if there are any issues with the interim plan. Living Earth and CCC staff have been approached about some new technology, but this timetable may not be feasible between now and April. The key focus for the group should be to put pressure on ECan.

**Action 1c:** *Carl Pascoe to include the below in his letter to ECan:*

- *Ask ECan to attempt to expediate the resource consent variation process for the short-term solution.*

**Bruce King, community** - Expressed concern as three-year plan will span into another elected Council and so may harm the CLG's progress to date.

**Lynette Ellis, CCC staff** - Assured Bruce the plan is set in stone now. There is an agreement in place and contracts will be signed in a number of months. Restated commitment to building a new plant. Commented that the nature of the waste management industry is that there are many differing opinions but is confident that they have an appropriate solution and reputable partners.

**Vickie Walker, community** - Why don't we go to Reporoa and talk to the community there about how they feel about the plant?

**Yani Johanson, CCC elected member** - Referencing a video shown at the briefing recently regarding the Reporoa plant. The construction was relatively quick as materials and workers could be sourced locally, reducing the risk of delays.

**Lynette Ellis, CCC staff** - The decision was only made on Wednesday and had the technical briefing with our councils on Friday. It has only been two working days since then. We are working hard to get as much information on the website as possible. I visited the site in Reporoa last year. The plant in Hornby will not be the same technology, not a "lift and shift". There are other examples of cities where this technology is used in built-up areas. We are looking at how to best implement the new solution for the community of Hornby.

**Carl Pascoe, Chair** - The CLG has spent 14 years battling this and would hate to see another community faced with the same issues. Called on the CCC to share any evidence they have that the new site will be as described.

**Lynette Ellis, CCC staff** - There is a plan to share this info as there has only been two working days since the technical briefing.

#### **4. Living Earth & CCC discuss current site management and suggested processes moving forward**

**Jaco Kleinhans, LE** - They are on track to have the outside material cleared by the end of December. There are currently extra truck movements on site as a result.

**Katinka Visser, community** - Could we get an updated photo of exactly what is onsite? Would like to see that by January the materials are gone.

**David McArdle, CCC staff** – Offered to arrange a drone shoot and photos before the next CLG in February.

***Action 3:** David McArdle to arrange OPP drone shoot and photos for the next CLG in February.*

**Q. Bruce King, community** - Referencing the Living Earth report, previously thought the source of the dust at his house was building works nearby which stopped months ago, indicating the dust is still coming from the plant. The dust was back today. Why aren't you using the water mister to offset the dust?

**A. Jaco Kleinhans, LE** - There are two water misters still onsite which are moved depending on operational activity. There are also water trucks, and dust monitors to track any changes in dust generated.

**Q. Bruce King, community** - At the last meeting there was a report which stated that the dust limit was being exceeded for three months. What was the consequence of this?

**A. Jaco Kleinhans, LE** - The dust limit was exceeded at the end of 2021. When the limit is breached the consent dictates that Living Earth are required to notify ECan and of what they will do. Living Earth advised CCC prior to this breach that the clearing of such large volume of material with the removal of outdoor windrows in such a short timeframe will generate more dust.

**Q. Bruce King, community** - What is the source of the dust?

**A. Jaco Kleinhans, LE** - The site will be cleared soon of any dust generating material.

**Q. Katinka Visser, community** - Who do we report dust to?

**A. David McArdle, CCC staff** - ECan

**Carol Anderson, community** - Has glass tabletops on her patio that need to be cleaned everyday due to the black dust. Nathan Doherty (ECan) was supposed to come to look at it.

**Carl Pascoe, Chair** – As mentioned earlier Carl will include this in the letter to ECan.

**Lynette Ellis, CCC staff** - The dust has been tested in the past, but it can be done again.

## 8. General business

**Carl Pascoe, Chair** - Any other business?

**Vickie Walker, community** - Emailed Amy Davidson on Monday and was informed that some aerators had been turned off in the waste water treatment pond.

**Bruce King, community** - Someone in CCC informed him that the bearings in the aerator are incorrect and cause it to seize.

**Lynette Ellis, CCC staff** - Will contact Amy Davidson and have someone follow up with Vickie about this.

***Action 4:** Lynette Ellis to contact Amy Davidson*

**Katinka Visser, community** - Last article on Newsline from 24 November 2024 stated that the CCC are able to turn off a number of aerators and will monitor to see if they need to be restarted. No wonder the odour was bad. I have a page of questions to ask ECan and will request a meeting with them.

**Lynette Ellis, CCC staff** - I can't answer any wastewater questions as it's not my area of the business.

**David McArdle, CCC staff** - Suggested that it's more appropriate to find relevant contact in CCC and put them in touch with Vickie as it's not the focus of this meeting.

***Action 5:** David McArdle to find relevant wastewater treatment plant contact for Vickie.*

**Carl Pascoe, Chair** - Jaco wants to respond to Katinka's statement earlier to clarify that during the independent review of the biofilter that nothing was turned off.

**Katinka Visser, community** - If a report can be done for two days, why can't it be monitored the rest of the time?

**Jaco Kleinhans, LE** - It is running the same, it will naturally degrade over time, and we will make sure it's replaced before it gets to a critical point.

**Katinka Visser, community** - Very concerned about getting through the interim period until the end of April next year. The non-residents at the meeting have the ability to go home after and not deal with these issues. Asks CCC to endeavour to please get it sorted as soon as possible.

**Q. Geoffrey King, community** - Can we have the biofilter fans turned off for Christmas day?

**A. Jaco Kleinhans, LE** - No, it's not possible to stop the biological process. There will be odour coming off the building if fans are off.

## **9. Concluding remarks**

**Carl Pascoe, Chair** - Asks that efforts are made to mitigate any smell for the Christmas period.

## **Organics Processing Plant Community Liaison Group Meeting**

### **CCC CLG meeting report**

**6:30pm to 8pm, Tuesday 20<sup>th</sup> February 2024**

**Waitai-Coastal-Burwood-Linwood Community Boardroom**

**180 Smith Street, Woolston, Christchurch 8062**

#### **Notice of Non-Compliance, Thursday 7 December 2023**

Three external hire screens were operating, and trucks were being loaded with compost and tailings to be removed from site. These activities were part of the work completed to clear the site of outdoor material.

This work resulted in a higher volume of material being moved on site and may have increased the risk of odour in the short term.

#### **Screening on site stopped, Saturday 23 December 2023**

We listened to the Community Liaison Group and actioned odour mitigations for the Christmas period. This included all screening on site ceasing on Saturday 23 December.

Screening will not resume as part of the interim solution of partial processing.

#### **Clearing of material being stored outside, Friday 13 January 2024**

The first image is from September 2022 when we cleared the tailings surplus to operational requirements.

The second image was taken on Wednesday 17 January and the third image on Monday 12 February 2024.

**Before...**



*Friday 23 September 2022*

**After...**



*Wednesday 17 January 2024*



*Monday 12 February 2024*



Living Earth will continue to keep the site clean with a water truck, and will sweep the paved areas to remove any residual material.

Thanks again for your patience as we work to deliver the interim solution of partial processing, with all the processing at the existing site now only to happen indoors.

### **Pattle Delamore Partners Review of Interim Solution report, Monday 12 February 2024**

Given the significant changes to the operation with no outdoor processing, Council have commissioned the Pattle Delamore Partners report you can find attached as item 'e'.

In summary;

- a) PDP have advised the residual odour risk is low.
- b) In PDP's opinion their odour scouting in 2024 has identified the transition to the short-term solution has resulted in a clear reduction in the level of compost odour detected compared to odour observed in 2023.
- c) No offensive or objection odour detected beyond the boundary in 2024 (to date).
- d) Odour observations were conducted whilst trucks were being loaded to remove from site the material from the tunnels. Odour observed at and beyond the boundary was not offensive or objectionable.
- e) PDP identified the below sources of odour on site and stated they do not consider any of them to present a risk of offensive or objectionable odour beyond the boundary of the site;
  - 1. Treated discharge from biofilter
  - 2. Leakage from venting ducts
  - 3. Small stockpile of old biofilter material
  - 4. Stockpile of green waste
  - 5. Fugitive emissions from processing hall and tunnels
  - 6. Loading of trucks outside processing hall



Living Earth's  
Organics Processing Plant  
Community Liaison Group Report

November 2023 to January 2024

Prepared by: Jaco Kleinhans

Victoria Henry

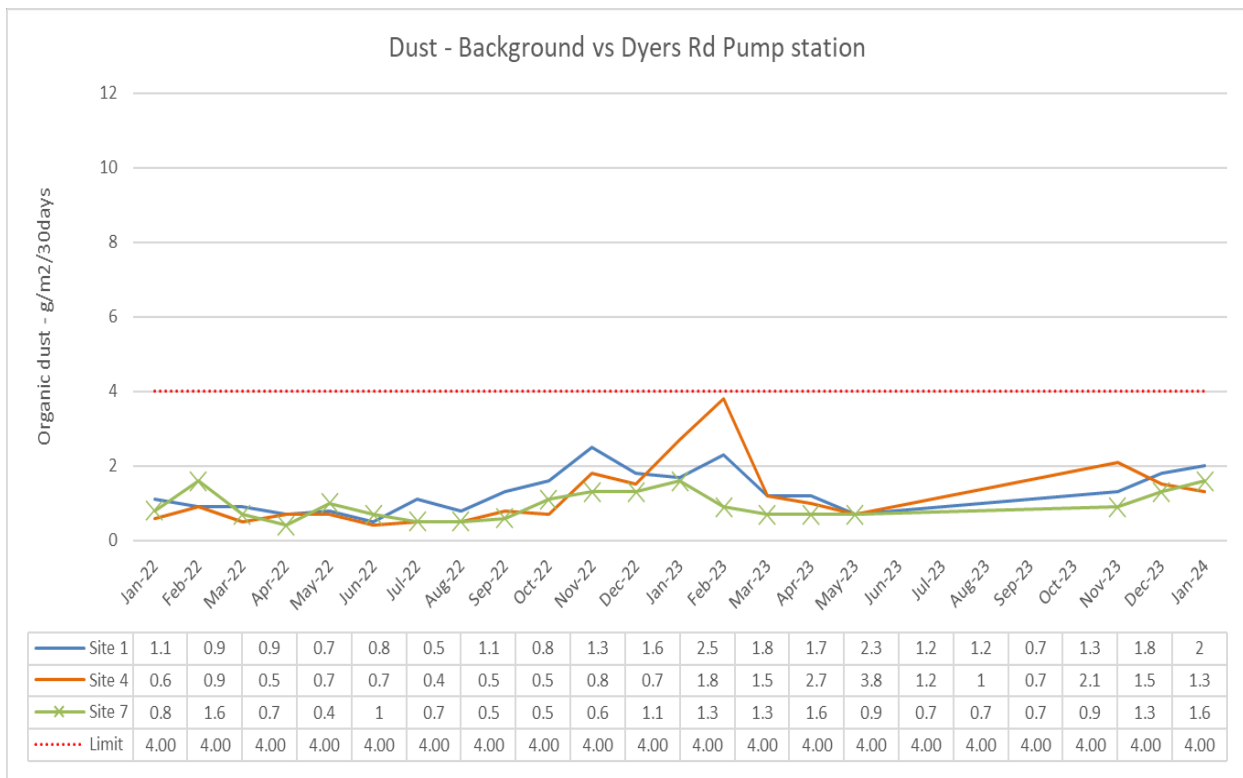
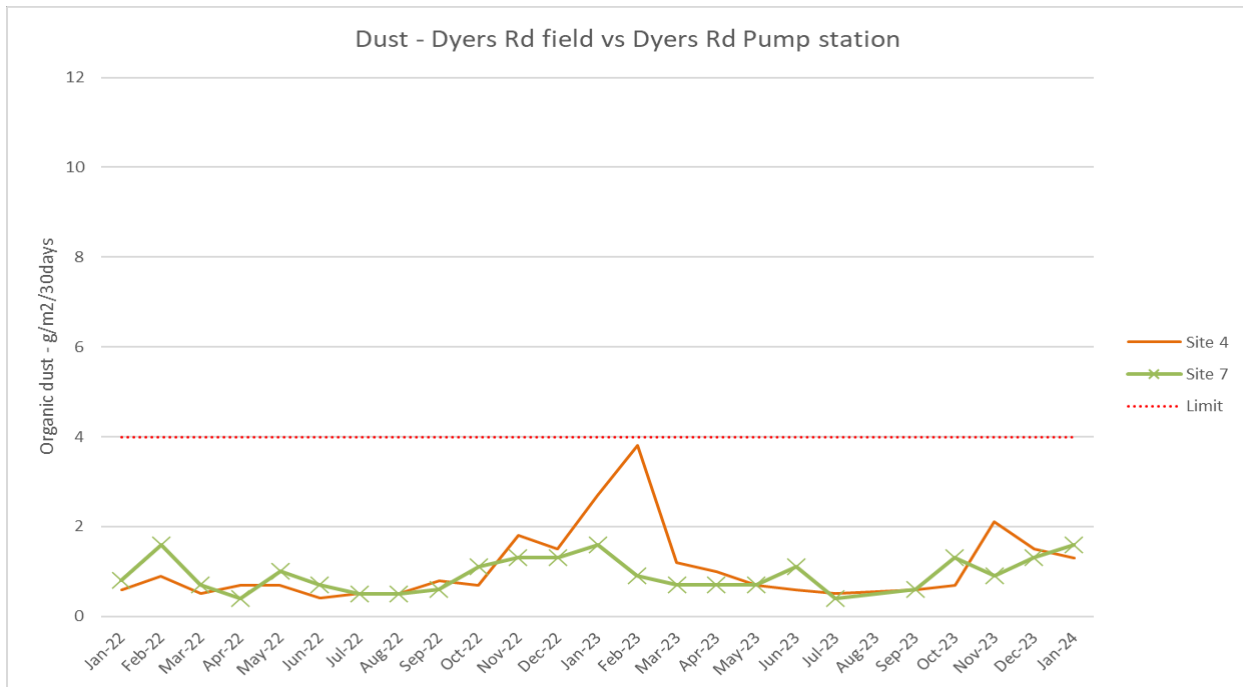
1 February 2024

The consent conditions of CRC 080301.1 are detailed in this report and comments are provided on the status. Key matters are discussed below:

**Dust (c25)**

No dust complaints received during this period.

We have two deposition gauges located along Dyers Road. One is situated in a field North of Metro Place (Site 4 (control), upwind of the Organics Processing Plant (OPP)) and the other is at the old pump station near the end of Maces Road (Site 7, downwind of the OPP and near the residential area of Bromley).



Offsite dust monitors 4 and 7 located along Dyers Road and downwind of the site.

Dust monitors located closer to the site boundary and on site remained well below the 4g/m<sup>2</sup>/30 consent limit for the period.

With a clear site we foresee a reduction in nay spike we may usually see. Dust control and monitoring procedures remain in place.

### **Boundary plantings (c25)**

Clear buffer zone created and maintained on-site. Perimeter replacement trees planted and maintained.

### **Odour (c27/c14)**

One Notice of Non-Compliance was issued during this period (Thursday 7<sup>th</sup> December 2023).

Ongoing site odour assessment conducted by staff with calibrated noses and proactive odour assessments completed by external odour consultant Pattle Delamore Partners.

Staff are conducting regular off-site odour assessments in the Bromley area.

### **On-site operations**

1. KSO is processed in the tunnels for at least 14 days and then loaded into trucks and sent off site for further processing and screening.
2. We have made significant positive recipe changes resulting in lower overall output.
3. New recipe should reduce peak season risk.
4. No tailings produced or stored onsite.
5. All green waste is processed inside the processing hall.
6. No material is stored, moved or screened onsite.
7. On average we cart six trucks loads four days a week to move pasteurised product off site.
8. During this period (December 2023 to February 2024) we moved more than 20,000 tonnes of material off site.
9. Lots of work and progress has been made in building good relationships with multiple trucking companies to ensure we have priority and reliable service.

RMA Authorisation Number: **CRC 080301.1**

	Description	Compliance (Y/N)	Findings Comments & Problems
1	The discharges shall be only odour and dust from an organics processing plant and green waste composting facility located at 40 Metro Place, Bromley, Christchurch at map reference NZMS 260 M35: 8627-4087 and indicated as "Applicant's Site" on plan CRC080301A attached as part of this consent.	Yes	No discharge except odour and dust occurs from the facility other than storm and wastewater that are covered under different consents.
2	The organics processing plant shall process not more than 90,000 tonnes of organic material per year.	Yes	The plant operates under the set limit.
3	The discharges of odour and dust shall only occur from the following sources: a. From construction activities associated with the establishment of the organics processing plant; b. From an odour extraction system on the process building that discharges to air via biofilters; c. From composting of organic material in managed windrows; and d. From screening, blending, packaging and stockpiling of matured compost.	Yes	a. n/a during this period b. The biofilter has been working with no issues. c. Activity was undertaken during this period. d. These activities have stopped.
	<b>Construction of Organics Processing Plant</b>		
4	The consent holder shall provide to the Canterbury Regional Council a Construction Management Plan to be submitted for approval before commencement of the works on site that includes but is not limited to the following requirements: a. Regular watering of dusty surfaces during dry windy conditions; b. Restricting traffic speed within the site to less than 15 kilometres per hour; c. Covering loads of excavated soil whenever visible dust occurs from this source; d. Locating stockpiles in areas that are less likely to be affected by prevailing winds and at least 50 metres from boundaries; and e. Stabilisation of exposed areas as soon as possible after work is completed.	Yes	No construction during this period
	<b>Organics Processing Plant</b>		
5	The consent holder shall provide to the satisfaction of the Canterbury Regional Council a Facilities Operation Manual before operating the organics processing plant.	Yes	A copy was provided in 2012 as required under the consent.
6	The material processed shall only include the following: a. Green waste; b. Food waste; and c. River weed.	Yes	No other items are accepted.
7	Organic waste containing putrescible material {food waste} shall be processed in a tunnel compost system contained within the process building.	Yes	All kerbside organics collection vehicles are emptied inside the processing hall and processed in the tunnels.

8	Organic waste not containing putrescible material may be composted in managed windrows.		This is no longer done.
	<b>Tunnel Compost System</b>		
9	The tunnel compost system shall consist of a process building, outdoor uncovered windrows and screening and stockpiling.	<b>Yes</b>	Tunnel system is the only process used.
10	The process building shall: a. House all receiving, shredding and blending of organic waste that is to be composted in the tunnel composting process; and b. Be operated under a negative pressure system with all discharges to air being treated via a biofilter.	<b>Yes</b>	a. All receiving, shredding, and blending of materials is completed in the process hall before being loaded into tunnels. b. The negative pressure of the biofilter fan (tunnel exit) is typically maintained at -100Pa and monitored via a computer control system.
11	The incoming organic material shall be placed into the tunnel composting system on a daily basis within 24 hours of receipt.	<b>Yes</b>	This is completed. OPP operates on public holidays in line with the kerbside collection trucks. We are open and processing on all days that collection occurs.
12	The tunnel composting process shall have a duration of not less than seven days, which includes an allowance of up to half a day for tunnel emptying, cleaning and filling. During the tunnel composting process, the temperature of all the compost shall be maintained at greater than 55 degrees Celsius for a minimum of three continuous days or less at higher temperatures, so that pathogen destruction has occurred in compliance with New Zealand Composting Standard NZ4454. At the same time or after the tunnel composting process, the compost shall be aerobically treated for 14 days or longer, during which time the temperature must always be over 40 degrees Celsius and the average temperature must be higher than 45 degrees Celsius.	<b>Yes</b>	During this period typical time was 16 days in the tunnel.
13	Records shall be maintained showing compliance with Condition (12). Such records shall be available to Canterbury Regional Council on request.	<b>Yes</b>	Reports were recorded via a computer control system recording time and temperature.
14	The maturation composting stage shall be an uncovered windrow system that allows the process to meet Condition (27) of this consent.	<b>Yes</b>	This is no longer done at this site.
	<b>Greenwaste Windrow Compost System</b>		
15	Organic wastes not containing putrescibles are to be shredded, blended and formed into windrows within 24 hours of receipt.	<b>Yes</b>	All green waste is processed in the OPP.
16	Any organic waste which contains putrescible material is to be redirected into the tunnel composting system.	<b>Yes</b>	
17	Not more than 30,000 tonnes per annum of green waste shall be composted in full in the outdoors windrows.	<b>Yes</b>	
18	The uncovered windrows shall meet the following criteria: a. The windrow shall be maintained in an aerobic state throughout; and b. The state of the windrows shall be monitored for oxygen, temperature and moisture as follows (and records retained):	<b>Yes</b>	We no longer have windrows, all these conditions are met within the tunnel composting system.

	<p>a. Oxygen: Weekly for the first four weeks after the row is constructed and thereafter if the row is suspected of turning anaerobic;</p> <p>b. Temperature: Weekly;</p> <p>c. Moisture Content: Every second day</p>		
	<b>Odour Extraction System – Organics Processing Plant</b>		
19	The odour extraction system on the process building shall be designed by a person competent in this area of technology to industry best practices.	<b>Yes</b>	n/a during the period
20	The odour extraction system shall be of sufficient capacity to prevent any fugitive discharge of odours from the process building under all operating conditions.	<b>Yes</b>	n/a during the period
21	The discharge shall exhaust via a biofilter with an average loading of not greater than 80 cubic metres of air per hour per cubic metre of bed material	<b>Yes</b>	Biofilter size 20.7m x 42.5m size. Maximum airflow ex fan is 90,000m <sup>3</sup> /hr. If media is > 1.17m deep, then 80m <sup>3</sup> /hr/m <sup>3</sup> of media cannot be exceeded. Bed depth is typically 1.3 – 1.5m. fan speed typically <90% of max. The fan can be limited in the control system to maximum speed as required. Fan operation is measured, controlled, and monitored by a computer control system.
22	The odour extraction systems shall operate at all times during processing of raw materials or products.	<b>Yes</b>	Operates 24/7 and is monitored by a computer system.
23	<p>The bio filters shall be maintained in such a way as to effectively reduce odours from the organics processing plant so Condition (27) is met. This shall include but not be limited to:</p> <p>a. Maintaining satisfactory moisture levels in the biofilter.</p> <p>b. Maintaining an appropriate pH range, typically 4 to 8.</p> <p>c. Maintain aerobic conditions at all times.</p> <p>d. Replace the biofilter media at an appropriate time, determined when any of the above operating parameters, odour levels, or, airflow backpressure are unable to be maintained within their operating limits.</p>	<b>Yes</b>	<p>a. Moisture tested for the period is 61%</p> <p>b. pH recorded in for this period 6.3</p> <p>c. Oxygen levels &gt;20%</p> <p>d. Back pressure monitored for bed media condition.</p>
	<b>Dust Control</b>		
24	<p>The consent holder shall implement the following measures to minimise the generation and discharge of dust:</p> <p>a. Use water sprays with any mechanical handling of compost when conditions are likely to generate dust.</p> <p>b. Provide an impervious base to all outdoor composting areas.</p> <p>c. Limit the height and slope of outdoor piles to less than five metres in height.</p> <p>d. Bulk carriers removing material from site shall be covered.</p> <p>e. Use water tankers and/or sprinklers to dampen down areas of heavy vehicle access when wind speed exceeds five metres per second (five-minute average) during dry conditions.</p>	<b>Yes</b>	<p>a. Mistlers and water trucks are used</p> <p>b. Site is asphalt sealed</p> <p>c. No piles outside</p> <p>d. Monitored on-site, data reported each minute.</p> <p>e. The asphalt is watered and swept regularly to remove any residual debris.</p>

	<p>f. Suspend all product load-out and windrow turning operations during dry conditions when the wind speed measured by the on-site meteorological station, blowing from between 10 degrees and 130 degrees, exceeds 10 metres per second for two consecutive five-minute averages. Recommendation of load-out and windrow turning operations may occur if recorded wind speeds from that sector are less than 10 metres per second for two consecutive five minute averages.</p>		
25	<p>a. Within 12 months of this consent coming into effect the consent holder shall establish and maintain suitable tree windbreaks around all areas where compost is stored.</p> <p>b. Notwithstanding condition 25(a), a further line of tree shelter shall be established along the boundary with Affordable Storage Limited and the boundary with Dogwatch Sanctuary Trust, to fill in gaps in the existing tree shelter plantings where establishment or growth has been poor such that a continuous shelter belt more than 1.8 metres high has not been formed. These additional shelter trees shall be planted within six months of commencement of the change to conditions. All shelter trees shall have a minimum height of 1.8 metres and shall be maintained and irrigated until they reach a height of at least five metres. Any dead, diseased or damaged trees shall be replaced immediately. The trees shall be protected from the prevailing wind during at least the initial three years of establishment of the trees by wind cloth fencing or similar in order to optimise tree growth.</p> <p>c. A plan showing planting and landscaping works to be undertaken to comply with Condition 25(b) shall be prepared by a suitably qualified person and shall be submitted to the Canterbury Regional Council within three months of commencement of the change to conditions.</p>	<b>Yes</b>	The open area is regularly cleaned.
26	On-site vehicle speeds in the outside windrow, compost storage and compost screening areas shall be restricted to not more than 15 kilometres per hour. A sign, capable of being read at a distance of five metres, shall be erected at the main vehicle entrance to the outside storage area to inform all drivers of this requirement.	<b>Yes</b>	Signs in place, all drivers, and contractors inducted with specific mention made of consent compliance.
27	The discharges to air shall not cause odour or dust which is offensive or objectionable beyond the boundary of the site on which this consent is exercised.	<b>Yes</b>	One Notice of non-compliance was issued during this period (7 <sup>th</sup> December 2023).
28	Notwithstanding Conditions 24 and 27, all product load-out, heavy vehicle operation and windrow turning activities shall cease at any time when these activities cause visible suspended particulate matter beyond the western site boundary, including at properties occupied by Affordable Storage Limited, Dogwatch Sanctuary Trust or their successors.	<b>Yes</b>	Monitored daily. No outside operations significantly reduce risk, and area is lined with water cannons and misters.
29	The consent holder shall maintain records of any odour or dust complaints received by the consent holder. These records shall include: <ul style="list-style-type: none"> <li>a. Location of complainant when odour or dust was detected;</li> <li>b. Date and time of odour or dust detection;</li> <li>c. Weather conditions, including wind direction, at the composting facility when odour or dust was detected;</li> <li>d. Strength of the odour complained of, assessed on a scale of 1 to 5 by the complainant with the following rating system: 1 odour noticeable but not persistent; 2 odour clear and persistent; 3</li> </ul>	<b>Yes</b>	Complaints made to Environment Canterbury are recorded by Environment Canterbury.



	<p>odour unpleasant and persistent; 4 odour strong, offensive and persistent; 5 odour very strong and offensive.</p> <p>e. The amount of dust complained of, assessed on a description of the visible quantities and extent of dust deposits on a scale of 1 to 5 by the complainant with the following rating system: 1 noticeable and not extensive; 2 clear and minor coverage; 3 nuisance and moderate coverage; 4 objectionable and extensive coverage; 5 significant extensive deposits, offensive. A description of the appearance of the dust shall also be recorded;</p> <p>f. Any possible cause for the odour or dust complained of; and</p> <p>g. Any corrective action taken.</p> <p>Records demonstrating compliance with the above condition shall be provided to the Canterbury Regional Council on request and shall be summarised as part of the Annual Environmental Report required under Condition 36.</p>		
30	<p><b>Monitoring</b></p> <p>The consent holder shall undertake site-boundary odour assessments at least once per day, in a manner consistent with Work Instruction W130 Issue 6, dated 1 September 2010, submitted with the application, or an equivalent later document. These assessments shall occur at no fewer than eight locations around the site boundary, including at least one location downwind of the composting tunnels and the maturation windrows. In the event of strong odours being detected, that may create adverse effects beyond the site boundary, then the consent holder shall take all practicable efforts to mitigate the odour using measures that may include the use of masking agents, capping the source, and returning odorous material to the tunnels. Records shall be kept that include the date and time of the assessment, meteorological parameters at the time, odour descriptions and odour intensities at each monitoring location. Staff members responsible for these assessments shall have calibrated noses, determined by suitably qualified persons at an accredited laboratory. These staff members shall be recalibrated for odour sensitivity at least once every three years.</p>	Yes	Completed.
31	<p>The consent holder shall, prior to unloading a tunnel, undertake an odour assessment of the compost material, in a manner consistent with Work Instruction W14 Issue 6, dated 1 September 2010, submitted with the application, or an equivalent later document. In the event of strong odours being detected, that may create adverse effects beyond the site boundary, then the consent holder shall return the assessed material to the tunnel and shall not empty the tunnel until it has been determined that the material is no longer odorous to the point where it may create an adverse effect beyond the site boundary. Staff members responsible for these assessments shall have calibrated noses, determined by suitably qualified persons at an accredited laboratory. These staff members shall be recalibrated for odour sensitivity at least once every three years.</p>	Yes	Odour assessments are completed on a continuous basis when tunnels are being emptied.
32	<p>a. At all times during exercise of this consent, wind speed and wind direction shall be measured by an anemometer established on the site.</p> <p>b. The anemometer shall be installed at a height of at least five metres above ground level at a location free from any obstruction that has potential to significantly affect wind flow.</p>	Yes	Weather station located on site.

	<p>c. Wind speed resolution of measurement shall be not more than 0.1 metres per second and wind speed accuracy of measurement shall be at least within +/-0.2 metres per second.</p> <p>d. The anemometer shall be established, located and operated to the satisfaction of the Canterbury Regional Council.</p> <p>e. Wind speed and direction shall be continuously recorded with an averaging time for each parameter of not more than five minutes.</p> <p>f. These data shall be:</p> <p>(i) recorded using an electronic data logging system; and</p> <p>(ii) provided to the Canterbury Regional Council upon request.</p>		
33	<p>a. Dust deposition monitoring shall occur in at least two dust gauges sited near to the boundary with Affordable Storage Limited or successor and the boundary with Dogwatch Sanctuary Trust or successor and at least one further control dust gauge. The location of the dust deposition gauges shall be determined by a suitably qualified person and shall be provided in writing to the Canterbury Regional Council. The method of monitoring shall be ISO DIS-4222.2 or a similar method to the satisfaction of the Canterbury Regional Council. Samples shall be collected monthly and the monitoring results shall be included and summarised in the Annual Environmental Report required under Condition 36.</p> <p>b. Dust control measures shall be implemented to maintain the rate of dust deposition at the consent holder's boundary, measured in accordance with Condition 33(a), at less than 4g/m<sup>2</sup>/30 days above the background concentration measured at the control site. Any exceedance of this trigger level shall be reported to the Canterbury Regional Council, including the likely reasons for exceedance and any remedial action undertaken.</p>	<b>Yes</b>	A total of eight dust gauges are used as controls (2), onsite (3) and offsite (3). Offsite gauges are in the immediate neighboring properties, and these are used to monitor compliance against this consent.
34	<p><b>Management Plan</b></p> <p>(a) The consent holder shall prepare and implement an Environmental Management Plan (EMP) that addresses the control of discharges to air from the site.</p> <p>(b) The EMP shall be prepared and provided to the Canterbury Regional Council: attention: RMA Compliance and Enforcement Manager, within three months of the granting of this consent variation and within one month of the completion of annual reviews.</p> <p>(c) The EMP shall be reviewed annually.</p> <p>(d) The EMP and any revisions shall include all measures necessary to achieve compliance with the conditions of this consent.</p> <p>(e) The EMP shall include, but not be limited to:</p> <p>a. A description of the dust and odour sources on-site;</p> <p>b. The methods to be used for controlling dust and odour at each source;</p> <p>c. A description of consent and monitoring requirements;</p> <p>d. A system of training for employees and contractors to make them aware of the requirements of the EMP; and</p>	<b>Yes</b>	

	e. Identifying staff responsible for implementing and reviewing the EMP.		
	<b>Community Liaison Group</b>		
35	<p>a. Within one month of the commencement of the change of conditions, the consent holder shall invite local residents and interested people to attend a meeting to establish a Community Liaison Group. The invitation to attend and establish a Community Liaison Group shall be extended to include:</p> <ul style="list-style-type: none"> <li>(i) all property owners and occupiers with boundaries adjoining, or but for the presence of roads, with boundaries immediately next to the site; and</li> <li>(ii) all parties who made a submission on the application to change consent conditions.</li> </ul> <p>b. A representative of the consent holder shall attend all meetings of the Community Liaison Group. The Canterbury Regional Council shall be invited to send a representative to attend all meetings.</p> <p>c. The consent holder shall ensure that members of the Community Liaison Group are provided with the opportunity and facilities to meet at least once every three months.</p> <p>d. The main purposes of the Community Liaison Group shall be to:</p> <ul style="list-style-type: none"> <li>a. Identify and address any adverse effects of discharges to air from the site, including possible remedial action; and</li> <li>b. Discuss the results of all monitoring and reporting required under this consent.</li> </ul>	<b>Yes</b>	Ongoing Community Liaison Group meetings are held as required, including this meeting.
	<b>Reporting</b>		
36	<p>The consent holder shall, no later than the 30<sup>th</sup> of June of each year, provide an Annual Environmental Report to the Canterbury Regional Council setting out all monitoring and reporting results required by conditions of consent and their interpretation by an appropriately qualified person, including dust deposition monitoring and complaints recording undertaken in relation to this consent over the previous period. Where the result of any test or monitoring undertaken in relation to this consent exceeds the relevant limit/trigger level or does not comply with the relevant condition, then the steps that were taken to rectify the non-compliance shall be specified.</p>	<b>Yes</b>	
	<b>Administration</b>		
37	This consent shall not be exercised concurrently with CRC930514.	<b>Yes</b>	
38	<p>The Canterbury Regional Council may annually, on or about the last working day of March each year, serve notice of its intention to review the conditions of this consent for the purposes of:</p> <ul style="list-style-type: none"> <li>a. Dealing with any adverse effect on the environment which may arise from the exercise of the consent; or</li> <li>b. Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or</li> <li>c. Complying with the requirements of an operative regional plan.</li> </ul>	<b>Yes</b>	

# Environment Canterbury Odour and Dust Report 01 Nov 2023 – 31 Jan 2024

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*Prepared on 9<sup>th</sup> February 2024 for the Community Liaison Group Meeting 20<sup>th</sup> February 2024*

## Living Earth odour monitoring

A total of **48 compost-type odour incidents in Bromley** were logged with Environment Canterbury during the reporting period.

During the reporting period, 30 in-field odour assessments were carried out by Warranted Officers from Environment Canterbury within the Bromley area. These assessments were conducted both in response to reports of compost-type odour and during proactive odour monitoring. Our Warranted Officers conduct proactive odour monitoring in high-risk weather conditions – namely when the wind direction is northeast.

Warranted Officers spent 29 hours responding to reports of compost-type odour and conducting proactive odour monitoring in Bromley during this reporting period. The average response time was 30 minutes.

Odour from Living Earth was substantiated beyond the property boundary on 3 of these assessments.

- On one of these occasions, odour was substantiated at an offensive and objectionable level in accordance with the Ministry for the Environment Guidelines. A Notice of Non-Compliance was issued to Living Earth to reflect this.
- On the remaining two occasions, odour was substantiated at low levels only. This means the odour would only be considered offensive and objectionable if it occurred on a regular or frequent basis.

Officers did not detect any odour on the remaining 27 assessments.

During the period Environment Canterbury received:

- 266 Smelt Its (with attributes across all manner of odour)
  - Of these reports 105 described a compost type characteristic
- 20 Calls and emails, which mentioned compost

We sorted the data to include reports where only compost was mentioned. Where reports appear closely related in time, we may combine them into one incident for administrative purposes. Doing this, we report that there were 48 incidents during the period reporting only compost odour.

## **Bromley Wastewater Treatment Plant - Odour Monitoring**

There were a total of 162 odour reported incidents across this monitoring period and the three main odour characteristics reported were:

- 116 incidents reported a faecal and sewer characteristics
- 10 incidents reported a faecal only characteristics
- 36 incidents reported faecal, sewer and various other odour characteristics

Correspondence with Christchurch City Council are ongoing to obtain further actions for mitigating and reducing the odour generated by the wastewater treatment facility to address the immediate odours experienced by the community.

Odour from the Bromley Wastewater Treatment Plant was substantiated beyond the property boundary on 3 occasions:

- In January there was one occasion where the odour was substantiated as an objectionable and offensive odour in accordance with the Ministry for the Environment Guidelines.
- In early February there was one occasion where the odour was substantiated at low levels only but also recognised as offensive or objectionable if exposed for longer periods of time.

On all substantiated occasions, email and phone conversations were engaged with CCC to obtain further actions and information around what the odour source is. CCC have been conducting their own odour monitoring and on all three occasions, were aware of the odour issues and working towards mitigating the source of the odours.

Environment Canterbury have noted an uptick in odour complaints with characteristics consistent with those experienced from the WWTP outside of the reporting period for this report. Conversations are ongoing and the enforcement actions being explored, we will be able to comment further at the next Community Liaison Group meeting.

### **Bromley Reporting Area**

The data used in this report relates to incidents received within the Bromley area, as outlined by the pink area in the map below. For consistency of reporting, only Smelt Its within the pink boundary are considered.



Please note: Each time an officer substantiates an offensive and objectionable odour, a thorough 360-degree assessment is undertaken in accordance with Ministry for the Environment Guidelines. This allows the officer to rule out other potential odour emitters in the area, and be confident of the source of discharge.

## Dust Monitoring

There was one report received by Environment Canterbury relating to dust in the Bromley area in the reporting period. This was not related to Living Earth.

We have undertaken to respond to concerns about black dust deposited on properties in the area following concerns raised at previous CLGs, to attempt to identify the nature and source of the dust. If community members identify dust deposited on surfaces that could be from an unknown source, please contact Environment Canterbury so we can collect a sample.

## Compliance Monitoring of Living Earth CRC080301.1

A compliance audit site visit was undertaken in December 2023 in follow up to issues identified in November at a previous site visit. During the site inspection Environment Canterbury identified some external air pipes on the process hall building need to be repaired or replaced. Environment Canterbury identified some external air pipes were unsealed, which increases the risk of fugitive odour discharges from the process hall building.

Environment Canterbury has issued a non-compliance for this, and we are in ongoing close communication with the CCC to resolve issues.

### **Consent planning**

We will touch on the question of consent review at the meeting.

Environment Canterbury hasn't received any applications to change or vary the resource consent. As mentioned in previous CLGs Environment Canterbury has been advised that the modified operations at the site remain within the scope of the resource consent.



# memorandum

TO Christchurch City Council FROM [REDACTED]  
DATE 12 February 2024  
RE Living Earth Odour Monitoring: Review of Interim Solution

## 1.0 Background

Living Earth Limited (Living Earth) operates an organics processing plant and composting facility located at 40 Metro Place, Bromley, Christchurch (the LE Site). Living Earth's air discharges are subject to the conditions attached to air discharge consent CRC080301.1 ("the consent") from Canterbury Regional Council (ECan) to discharge contaminants (odour and dust) to air.

While Living Earth operates the composting facility, Christchurch City Council (CCC) holds the consent.

Condition 27 of the consent states that:

*"The discharges to air shall not cause odour or dust which is offensive or objectionable beyond the boundary of the site on which this consent is exercised."*

Pattle Delamore Partners Limited (PDP) has been providing assistance to CCC and Living Earth regarding the assessment and management of odour effects from the site. This has included regular odour scouting.

The objectives of the odour scouting were to:

- ✦ Correlate the intensity and characters of observed odour (where possible) to:
  - Odour sources in the Bromley area.
  - Specific activities and/or sources on the LE Site.
  - Meteorological conditions.
  - Time of day.
- ✦ Undertake FIDOL assessments to determine if offensive or objectionable odours are present beyond the site boundary.
- ✦ Corroborate the content of community (i.e., Smelt-It) complaints.

Throughout 2023, PDP has, on occasion, informed CCC and Living Earth of instances where the odour scouting has identified offensive or objectionable odour beyond the boundary of the site<sup>1</sup>. These instances of offensive or objectionable odour were identified in the residential areas to the south-west of the LE Site.

<sup>1</sup> Various reports to CCC, as summarised in C04012800L007 - Estimation of Areas Affected by Offensive or Objectionable Odour (19 August 2023). *Pattle Delamore Partners Ltd.*



On the 12<sup>th</sup> of June 2023, PDP provided CCC advice<sup>2</sup> on the potential efficacy of a number of odour reduction strategies. A further assessment<sup>3</sup> of refined odour reduction strategies/operational changes was completed on the 1<sup>st</sup> of August 2023.

While several options were considered in these assessments, PDP's general advice was:

*"All indications from scouting are that the primary risk is from the outdoor storage of unscreened compost, fines, and tailings. Addressing the discharge of 'compost' odour from the outdoor material has the greatest potential to eliminate offensive or objectionable odours originating from the LE site during normal operation. It is not certain that, after addressing the 'compost' odour on the site, the remaining 'biofilter' odour will not be offensive or objectionable. The results of PDPs odour scouting indicate the residual risk is low."*

On the 6<sup>th</sup> of December 2023, councillors approved two major changes to the LE Site<sup>4</sup>:

1. A long-term shift of the organics processing to a new anaerobic digestion facility (the long-term solution); and,
2. A change in the management of kerbside organics at the current LE Site (the short-term solution) until the long-term solution is operational.

The short-term solution (called Interim Option 3 in the 1<sup>st</sup> of August 2023 assessment) involves two stages of organics processing:

1. The first stage involves mixing kerbside organics with garden waste, shredding the material, then moving the material into the in-vessel composting (IVC) composting tunnels at the OPP in Bromley.
2. The second stage involves loading partially composted material from the IVC composting tunnels into trucks and transporting it to Kate Valley Landfill for further processing.

PDP understands that LE started implementing this solution in December 2023, with the last of the unscreened compost, fines, and tailings being cleared from the site by the 12<sup>th</sup> of January 2024. CCC has subsequently asked PDP to complete an operational review of the short-term solution, and provide analysis of:

1. The efficacy of the changes made in reducing odour risk;
2. Any sources of residual odour risk at the site; and
3. The non-compliances detailed in the most recent ECan Compliance Monitoring Report<sup>5</sup>.

The operational review has focussed on the activities at the LE Site at 40 Metro Place, Bromley, and has not considered the activities at Kate Valley Landfill, which are covered under a different consent.

PDP's assessment, detailed below, has considered the following information:

1. A site walkover and on-site odour observations made by PDP on the 31<sup>st</sup> of January 2024; and,
2. The results of PDP's regular off-site odour scouting from January 2024.

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<sup>2</sup> Potential Effects on Offensive and Objectionable Odours from Possible Living Earth Operational Changes (12<sup>th</sup> June 2023), *Pattle Delamore Partners Ltd.*

<sup>3</sup> Potential Effects on Offensive and Objectionable Odours from Possible Living Earth Operational Changes (1<sup>st</sup> August 2023), *Pattle Delamore Partners Ltd.*

<sup>4</sup> <https://newsline.ccc.govt.nz/news/story/organics-processing-will-move-out-of-bromley>

<sup>5</sup> Compliance Monitoring Report, CRC080301.1 (14<sup>th</sup> December 2023). *Canterbury Regional Council.*

## 2.0 January Odour Scouting

PDP has continued regularly odour scouting throughout January 2024.

The scouts report odour intensity on a scale of 0-6 as per the MfE's GPG Odour. PDP applies the following descriptions to each odour intensity to ensure consistency between scouts:

0. No Odour: No odour.
1. Very Weak: Odour detectable but character not recognisable.
2. Weak: Odour detectable and barely recognisable.
3. Distinct: Odour readily recognisable.
4. Strong: Odour is strong but not causing discomfort to assessor.
5. Very Strong: The odour causes some discomfort; assessor can remain in area but will consider leaving/altering breathing patterns.
6. Extremely Strong: The odour causes assessor to feel nauseous or compelled to leave the area.

The outcome of the scouting is currently being communicated in fortnightly memorandums to CCC so the effectiveness of the short-term solution can be tracked.

The scouting in 2024 has identified the following:

1. That the transition to the short-term solution has resulted in a clear reduction in the level of compost odour detected offsite, relative to levels observed in January and February 2023.
2. That in the week prior to the 12<sup>th</sup> of January 2024 (when some material remained on the site), intermittent, weak (2) compost odour was detectable along Dyers Road. No compost odour was detected in the residential area.
3. That in the week(s) following the clearance of the site, no compost odour was detected beyond the boundary of the LE Site.
4. These observations stand in contrast to the observations made in January and February of 2023 in which distinct (3) compost odour was regularly observed along Dyers Road and was observed reaching the residential areas to the south-west of the LE site.

PDP has therefore not identified any offensive or objectionable odour beyond the boundary of the LE Site in 2024 (to date). This indicates that, under the short-term solution, the LE Site is being operated in compliance with Condition 27 of CRC080301.1.

## 3.0 Site Visit

PDP visited the site on the morning of the 31<sup>st</sup> of January 2024. The site was observed to be clear of unscreened compost, fines, and tailings. The day was clear and dry with a light north-easterly wind that increased in strength over the course of the visit.

PDP conducted a full site walkover, inspecting the:

- ∴ Downwind site boundary;
- ∴ Biofilter; and
- ∴ Remaining stockpiles of material.

Over the course of the site visit, compost was being removed from a tunnel and loaded into a truck for transport to Kate Valley. The site visit was timed to observe this activity and its potential effects.

### 3.1 Current Implementation of the Short-term Solution

A summary of the operation under the short-term solution is:

1. Kerbside organics (KSO) are delivered to the Organics Processing Plant (OPP) processing hall.
2. KSO are blended with Green Waste (GW) within the processing hall and loaded into the IVC tunnels (the tunnels). The GW is stored outside immediately to the south-west of the OPP.
3. Composting takes place within the IVC tunnels. The OPP and tunnels are maintained under a negative pressure due to all the air required for the composting operation being extracted from within the OPP, with all air discharged from the IVC tunnels treated through the biofilter to remove odorous compounds.
4. Finished compost (previously called unscreened compost) is loaded into trucks which are parked immediately outside the OPP. The full trucks are covered with tarpaulins before carting the material to Kate Valley Landfill.

During loading, a mist cannon is used to deploy a water curtain across the external loading area. The main doors into the OPP are kept shut, except for vehicle movements.

The only difference identified between the implemented short-term solution, and the solution as communicated in the 6<sup>th</sup> of December press release<sup>6</sup>, is that the trucks are loaded outside of the processing hall instead of inside. PDP understand this is due to space constraints within the processing hall.

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<sup>6</sup> <https://newsline.ccc.govt.nz/news/story/organics-processing-will-move-out-of-bromley>

The site layout is summarised in **Figure 1**.



**Figure 1: Observations During Site Walkover**

**3.2 Observations during Site Walkover**

The site was generally clean and free of stockpiled material. A thin layer of fine compost material was present on the ground. This material did not have an odour and was being watered during PDP’s visit as part of dust control.

Observations at the locations identified in **Figure 1** are summarised in **Table 1**.

Table 1: Site Walkover Observations	
Location	Observations
#1	No odour from the site (compost or biofilter) was detected. A pine odour, originating from the shelterbelt, was detected.
#2	A stockpile of the larger material removed during the renovation of the biofilter remains in a bunker by Location 2 (largely wooden plank sections or large bark material). A weak woody/yeasty odour was detected.
#3	No odour from the site was detected.
#4	No odour from the site was detected.

**Table 1: Site Walkover Observations**

Location	Observations
#5	The main screen and small biofilter were not in use. PDP understands the screen will be dismantled and removed from the site.  Fresh green waste and woodchips are stockpiled in bunkers located to the north-east, closer to the OPP. Odours from the green waste pile and OPP were intermittently detected.
#6	Two odour sources were observed in the alleyway space between the OPP wall and biofilter; a damp, bark-like odour from the biofilter and a yeasty/rancid/compost odour from the ventilation ducts/the leakage from the duct drain tanks.
#7	No odour from the site was detected, with the exception of during the loading of a truck with fresh compost from a finished tunnel.

A discussion of these potential odour sources is included in Section 5.2.

### 3.3 Odour Assessment of Truck Loading

PDP odour scouts were positioned at three locations downwind of the OPP (identified in **Figure 2**) during a 20-minute period that a truck was loaded with fresh compost in front of the OPP. The observations were made in two 10-minute blocks using the procedure outlined in previous monitoring reports<sup>7</sup>.



**Figure 2: Odour Scout Locations during Loading**

A summary of the observations by site is appended to this memorandum.

The results of the second 10-minute observation on Dyers Road did not record to the server correctly. Only the first 10 minutes of data is recorded at this location<sup>8</sup>.

No odour was detected 52% of the time on-site (approx. 90 m downwind), 72% of the time at the site boundary (approx. 225 m downwind), and 90% of the time on Dyers Rd (approx. 440 m downwind).

<sup>7</sup> E.g., Living Earth Odour Monitoring: 6<sup>th</sup> January 2024 to 19<sup>th</sup> January 2024 Summary (30<sup>th</sup> January 2024), *Pattle Delamore Partners Ltd.*

<sup>8</sup> The field notes by the scout record that there was no difference in the odour (or lack thereof) observed in the second 10-minute period, however the server only recorded null values for the odour observations made.

Weak (2) compost odour was detected 17% of the time on-site, 7% of the time at the site boundary, and was not detected on Dyers Rd.

Weak (2) green waste odour was detected 8% of the time on-site, and was not detected at the boundary or Dyers Rd.

The data shows a clear trend, with intermittent, weak (2) compost odour present close to the source onsite, rapidly reducing with downwind distance until undetectable off-site on Dyers Road.

Figure 3 shows a time-series comparison of the observations made by the scouts.

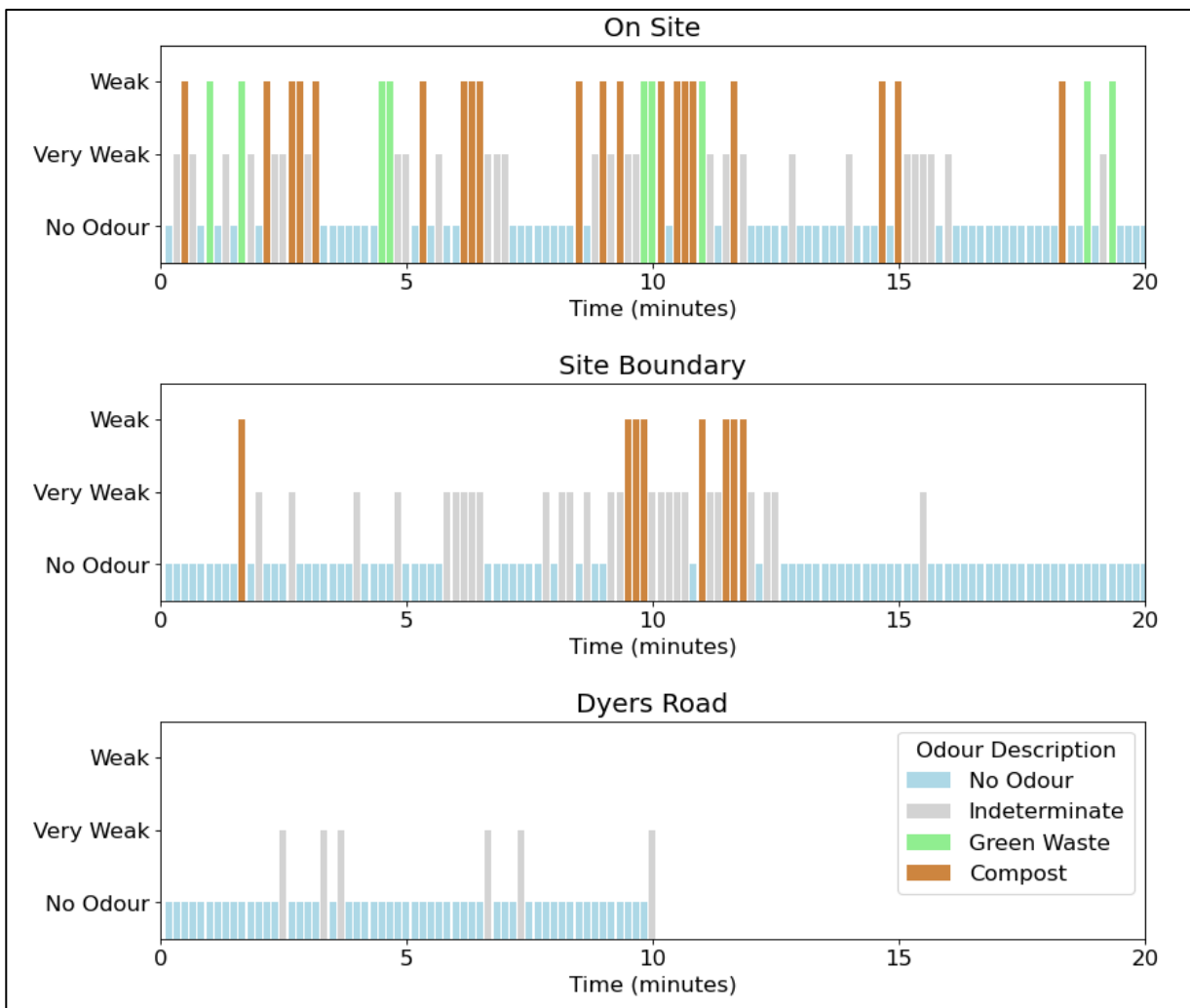


Figure 3: Odour Observations (20-minutes) During Loading of Truck

During the 20 minutes of observation, the truck was being actively loaded with compost for the first 15 minutes, after which the driver proceeded to cover the load. By the 19<sup>th</sup> minute, the first cover was installed over the truck - around the time that the last compost odour observation was recorded downwind.

The odour observed at and beyond the boundary of the LE Site was assessed to be neither offensive nor objectionable. The results of the scout show that the trucks can be loaded outside of the OPP without causing offensive or objectionable odour beyond the boundary of the site.

## 4.0 Current Consent Non-Compliances

ECan identified two non-compliances during their 14<sup>th</sup> December 2023 consent compliance monitoring report:

- ∴ Condition 10 – negative pressure in the OPP; and
- ∴ Condition 27 – objectionable or offensive odour beyond the boundary of the site.

These are discussed briefly below.

### 4.1 Condition 10

Condition 10 of the consent states that:

*“The process building shall:*

- a. House all receiving, shredding and blending of organic waste that is to be composted in the tunnel composting process; and*
- b. Be operated under a negative pressure system with all discharges to air being treated via a biofilter.”*

In PDP’s opinion, the purpose of Condition 10(b) is to ensure odours are not escaping from the OPP.

PDP understand from the report that ECan, while assessing compliance with Condition 10(b), were unable to demonstrate a strong flow of air through the main door while conducting their compliance investigation. Due to the size and nature of the building, it is unlikely that a strong flow of air would be observed through the main doors as the negative pressure within the building would be drawing in air from air gaps across the whole building fabric. Additionally, as the main doors are located on the leeward side of the building (in a north-easterly), a degree of turbulence around the door is to be expected.

PDP used a handheld digital manometer to measure the negative pressure differential between the OPP and its surroundings. The strength of the negative pressure differential (with the main doors closed) was measured to be approximately 0.011 kPa. Condition 10(b) does not provide a value for the minimum negative pressure to be maintained.

A better measure of the effectiveness of the negative pressure within the building is the extent to which fugitive odour can escape the building envelope, and whether that odour (if present) results in an offensive or objectionable effect.

Observations of the odour from the site indicate that the negative pressure within the building is sufficient to prevent significant emission of fugitive odour from the OPP.

### 4.2 Condition 27

Condition 27 of the consent states that:

*“The discharges to air shall not cause odour or dust which is offensive or objectionable beyond the boundary of the site on which this consent is exercised.”*

This non-compliance was issued in response to an incidence of odour identified by ECan to be offensive or objectionable on the 7<sup>th</sup> of December 2023, prior to the removal of the outdoor stockpiles of unscreened compost, fines, and tailings.

PDP odour scouting thus far in 2024, since the removal of outdoor stockpiles of material, has not identified any offensive or objectionable odour beyond the boundary of the site.

## 5.0 Conclusions

### 5.1 Efficacy of the Short-term Solution

PDP's odour scouting beyond the boundary of the LE Site in 2024 (to date), and observations from the site indicate that, under the short-term solution, the LE Site is being operated in compliance with Condition 27 of CRC080301.1.

### 5.2 Remaining Odour Sources

PDP observations indicate that several sources of odour remain at the site:

1. The treated discharge from the biofilter;
2. Leakage from the ventilation duct drain tanks;
3. A small stockpile of old biofilter media;
4. Outdoor stockpile of green waste;
5. Fugitive emissions from the OPP processing hall and IVC tunnels; and,
6. The loading of trucks with compost.

The biofilter odour does not have a strong negative hedonic tone, resembling a damp bark-like odour. Prior to adoption of the short-term solution, there was uncertainty as to how detectable the biofilter odour would be once the masking compost odour from the outdoor piles was removed. The observations thus far indicate the biofilter odour is only detectable very close to the biofilter and has not been detected at or beyond the boundary of the site. As such, PDP does not consider that the biofilter, under normal operating conditions, presents a significant risk of offensive or objectionable odour beyond the boundary of the site.

The odour of the liquid that can leak from the ventilation duct drain tanks has a strong negative hedonic tone. The size of the odour source appears to be small, limited to a few puddles in the alleyway between the OPP and the biofilter<sup>9</sup>. The observations thus far indicate the odour is only detectable very close to or within the alley and has not been detected at or beyond the boundary of the site. As such, PDP does not consider the leakage in the ventilation system to present a significant risk of offensive or objectionable odour beyond the boundary of the site.

The stockpile of old biofilter media has a mildly unpleasant hedonic tone, with a woody/compost character. The odour is not detectable within a short distance of the pile (while still within the site). PDP does not consider that the remaining old biofilter media presents a risk of offensive or objectionable odour beyond the boundary of the site.

The green waste odour does not have an unpleasant hedonic tone, with a character of freshly pruned branches. PDP does not consider the green waste stockpile (in its present state) to present a risk of offensive or objectionable odour beyond the boundary of the site.

Odour from the OPP is effectively captured and treated through the biofilter.

Odour emitted during the loading of trucks with compost was identified as having the highest potential risk of odour of the activities under the short-term solution. Odour scouting, detailed in Section 3.3, indicates that odour generated during the loading process is contained within the site boundary. As such, PDP does not consider the loading of trucks to present a significant risk of offensive or objectionable odour beyond the boundary of the site.

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<sup>9</sup> LE has also advised that they regularly clean the area in the alley to ensure no accumulation of water.



### 5.3 Summary

The transition to the short-term solution has resulted in a clear reduction in the level of compost odour detected offsite, relative to levels of odour observed in 2023.

PDP's odour scouting and site observations of operations under the short-term solution indicate that the LE Site can operate in compliance with Condition 27 of CRC080301.1, provided the site remains clear of outdoor stockpiles of unscreened compost, fines, and tailings. The negative pressure within the OPP is adequately containing and extracting odours through the biofilter. The loading of trucks outside of the OPP is the activity with the highest potential for odour generation, however observations to date indicate that the risk of this odour causing an offensive or objectionable effect is low as the odour is contained within the site.

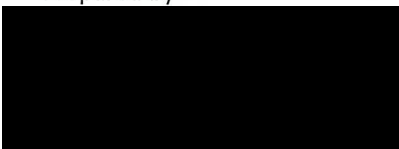
### 6.0 Limitations

This memorandum has been prepared by Pattle Delamore Partners Limited (PDP) on the basis of information provided by Christchurch City Council and Living Earth. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the memorandum. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This memorandum has been prepared by PDP on the specific instructions of Christchurch City Council for the limited purposes described in the memorandum. PDP accepts no liability if the memorandum is used for a different purpose or if it is used or relied on by any other person. Any such use or reliance will be solely at their own risk.

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Prepared by



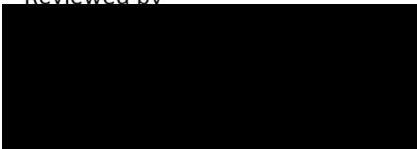
Air Quality Scientist

Reviewed by



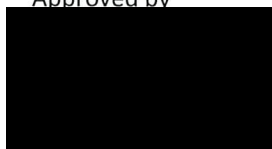
Air Quality Engineer

Reviewed by



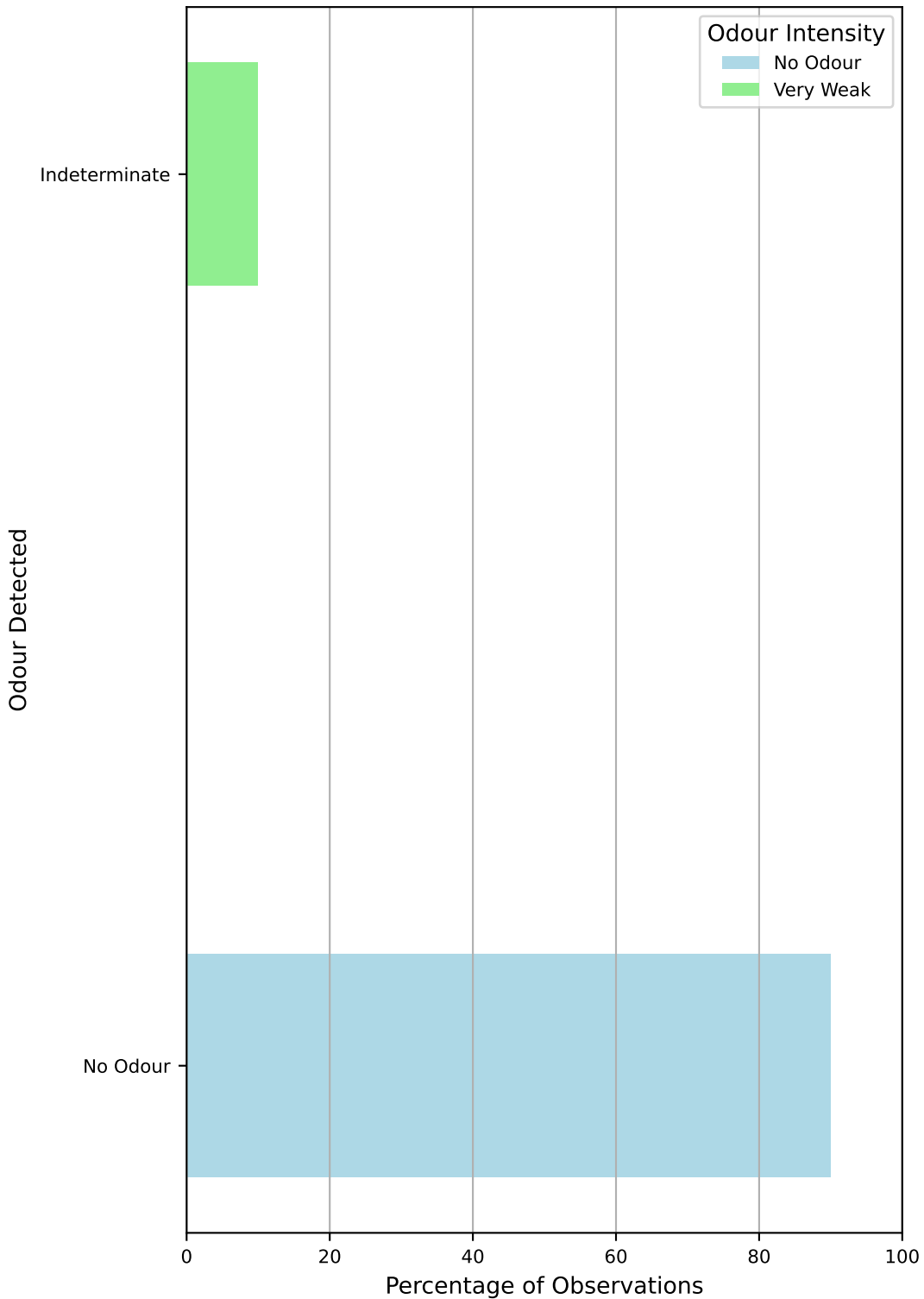
Senior Environmental Engineer

Approved by

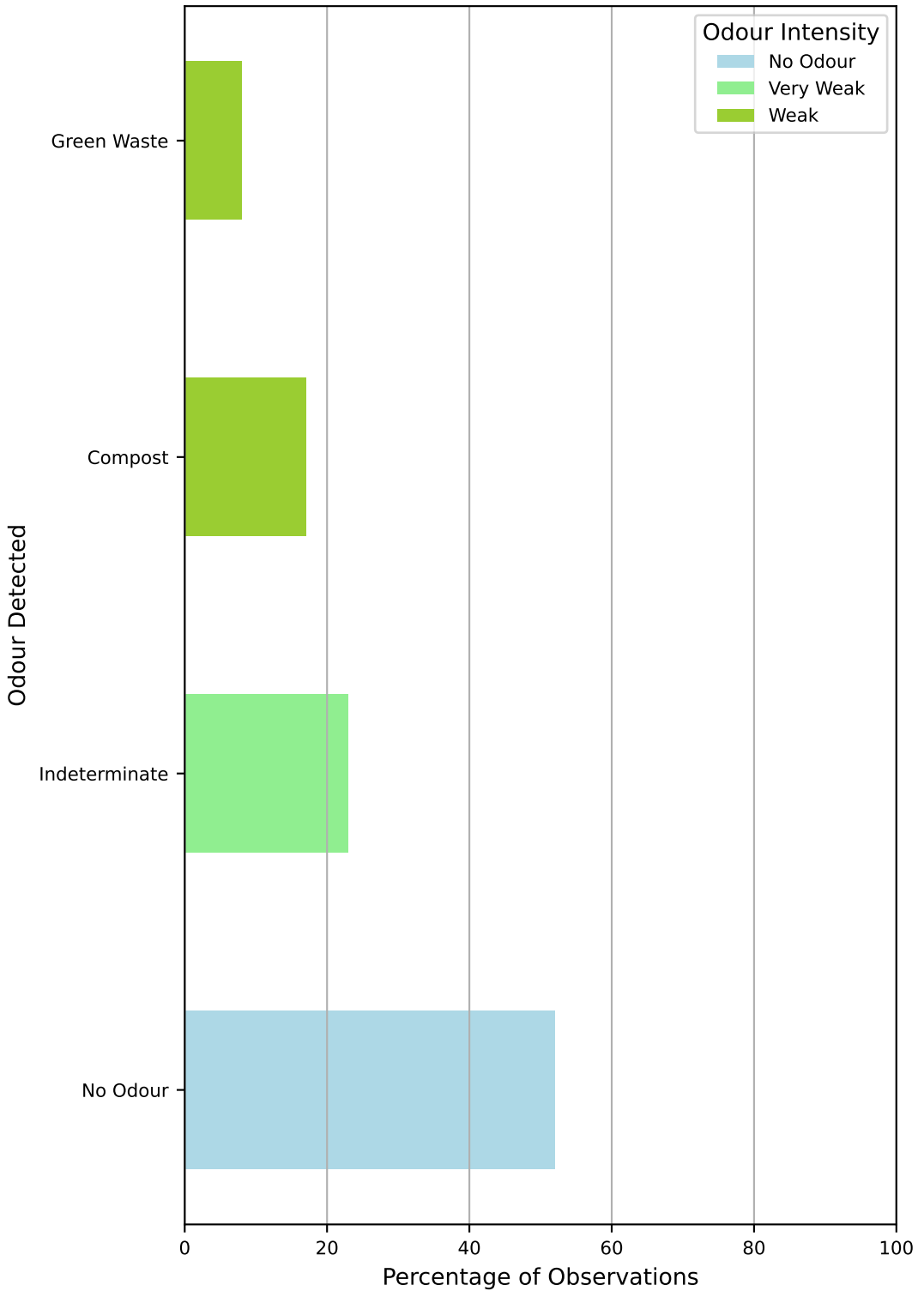


Group Director

# Dyers Road



# On Site



# Site Boundary

