

In The Matter of the Resource Management Act 1991 ("the Act") And
In The Matter Rolleston Plan Change 73 – Holmes Block

OFFICER COMMENTS OF ANDREW BOYD

Introduction

1. My name is **ANDREW GARETH BOYD**. My qualifications are BSc (Geography) and MASc (Environmental Management).
2. I am the Solid Waste Manager for the Selwyn District Council ("the Council") and I am authorised to present this statement on its behalf. I have been employed by the Council since June 2015, and prior to that, in the wider waste and resource recovery industry for 20 years.
3. I have the responsibility of managing Council's Solid Waste Activities for both strategic planning and operations. This includes the district kerbside collections, Pines Resource Recovery Park ("Recovery Park"), composting, as well as preparation of Activity Management Plans (AMP), Waste Minimisation and Management Plans (WMMP).
4. I have been involved in providing advice internally on the plan change application. This has included assessment of the application and the Request for Further Information (RFI) processes.
5. I have read the odour and acoustic reports provided with the application and the subsequent RFI responses.
6. Because of my role at the Council, my evidence considers the plan change application primarily in relation to the proximity of the dwellings within the plan change site, to the Recovery Park, and the operations associated with the Recovery Park. Specifically, my concerns are that the development of residential activities near to the Recovery Park would result in reverse sensitivity issues that would affect the ongoing operation of the Recovery

Park - a core Council service to residents and businesses, and a key facility for Selwyn to meet its obligations under the Zero Carbon Amendment Bill. The flow-on effects of reverse sensitivity issues would be significant increased costs associated with mitigating effects, the potential for Council to have to look at relocating the site or no longer being able to accept the district's kerbside, commercial and public organic material for composting.

Pines Resource Recovery Park

7. The Recovery Park is located at 183 Burnham School Rd, to the South-West of Rolleston township.
8. The site receives general waste from across the district. In the year ending 30 June 2021, the site received 21,136 tonne of general waste (an increase of 16% over 2019/20), and 7,957 tonne of organics as well as 982 tonne of hardfill and tonnes of other recyclable and hazardous waste streams. The general waste is received from kerbside bins, commercial and industrial waste from private collectors, building waste and the general public. Some sorting and separation of waste occurs, and this is expected to increase over time. Residual waste and recovered materials are consolidated before being (generally) trucked off site for further processing.
9. The facility is currently undergoing a significant expansion staged over several years. This will culminate in the provision of a reuse shop, salvage yard, micro enterprise units, education centre, garden hub, multipurpose waste hub, landscape supplies yard and high temperature pyrolysis plant processing waste materials into oil and gas for beneficial reuse.
10. As Council works towards meeting its obligations under the Climate Change Response (Zero Carbon) Amendment Bill, efforts to reduce waste are planned to intensify. Within the kerbside refuse bins, considerable food waste exists. Council plans to trial food waste caddies within households, with biodegradable liners in an effort to extract that material from the general waste. Food caddy liners would be placed in the kerbside organics wheelie bins. These are collected and taken to Pines Resource Recovery Park for composting. As the food waste content grows, the potential for odour increases.



Figure 1: Pines Resource Recovery Park site and activities in relation to PC73 - Holmes block.

Consents

11. The site operates under a District Plan Designation (#412) and Regional Council Air discharge consent CRC211594, as well as stormwater consent CRC201524.

12. Consent CRC211594 expires in December 2044 and provides for the following limits within condition 2:

- a. The quantity of waste received by the Recovery Park authorised by Condition (1) of this consent shall not exceed the following:
 - i. Organic material (feedstocks) to be composted - 53,000 tonnes per year;
 - ii. General waste - 120,000 tonnes per year;
 - iii. Hazardous waste - 1,000 tonnes per year;
 - iv. Cleanfill - 5,000 tonnes per year; and
 - v. Plasterboard - 5,000 tonnes per year.
- b. There shall be no limit on the volume of recyclable or reusable waste that can be received on site.
- c. The organic material (feedstocks) to be composted shall be limited to:
 - i. Kerbside organics;
 - ii. Commercial food waste; and
 - iii. Green waste.

13. Organic waste is defined in the consent as:

- a. **Kerbside organics** means organic waste, comprised mostly of domestic garden waste and food scraps, and includes compostable packaging and products.
- b. **Commercial food** waste means food waste generated by commercial operations such as restaurants, cafes, commercial food producers and events, and includes compostable packaging and products.
- c. **Green waste** means organic vegetation, garden waste, tree prunings, etc

Forecast tonnes

14. Projections for general waste and organic waste through to 2039 have been made, and these are reflected in the limits within the consent condition 2a (provided above in paragraph 12).

Reverse Sensitivity

15. Reverse sensitivity concerns noted in the introduction are well documented at other facilities. For example, Living Earth in Bromley has been undergoing a very public process where residents are complaining about odours from the plant. I am familiar with this site and its operations. Despite the composting operation being in place for decades, and with significant capital expenditure to upgrade the facility, complaints that originally were predominantly from two individuals eventually gathered enough momentum for the media to take hold of it and inflame the situation further. This increased the number of residents complaining about the site. While there is still reasonable doubt among parties about the Living Earth site being the cause of the odour complaints, Christchurch City Council looked to enclose the entire facility so that it could argue that the composting operation was not the cause of the complaints. The cost of this was expected to be \$23million, but tenders came back significantly higher, so much so, that the Council is now investigating moving the composting operation in its entirety. This scenario is what I want to avoid for Selwyn. The ratepayers of Christchurch will be paying for the composting plant upgrade or relocation.
16. Another example of a situation with similarities is the Gelita Factory in Woolston. The Tannery development of high end retail premises was established across the road from the 100year old Gelita factory, in the middle of a heavy industrial area. Signage at the Tannery advised customers to complain to ECan about the odours from the factory, listing the phone number to call. Complaints to ECan grew exponentially.
17. Other examples across other industries and sites exist where important facilities have been developed. Residential dwellings are permitted to be constructed nearby, and subsequently complaints arise about noise (like odour, noise can have reverse sensitivity issues). For example, at Western Springs Speedway, Eden Park, and Christchurch Airport. We have an opportunity now to not be the next example.
18. The Pines Resource Recovery Park, and the Pines Waste Water Treatment Plant were specifically located where they are, so as to avoid this situation. I understand that the Council has specifically planned for growth to occur to the south of Rolleston, so that urban areas did not encroach on this critical council infrastructure, and this is reflected in the Rolleston Structure Plan (2007).

19. To reduce potential complaints about odour, improvements to the composting methods could be made by way of forced aeration static piles, or tunnel composting. I would note that none of these mitigation measures are currently required, in large part due to the separation of the facility from sensitive activities. However, any mitigation measures such as these would come at considerable capital expense to the ratepayers of Selwyn.
20. Furthermore, as expanded on further below, in New Zealand the guidelines typically used when considering setback distances for new activities are the Victorian and South Australian EPA guidelines. These recommend setbacks of up to 2,000m for composting operations of the type conducted at Pines Resource Recovery Park. The odour experts may argue that the controls within the Odour and Dust Management Plan (ODMP) are such that the setback can be reduced down from 2,000m in the guidelines. However in my view the controls in the ODMP are typical of any well managed windrow composting operation and the EPA guidelines were established with those typical management controls in mind.
21. In the PC73 application, the proposed setback distances are taken from the edge of the active composting area. The consented composting area extends to the edge of the maturation area. Given that screening, and loading out of mature compost occurs from the maturation area, there is potential for odour and dust effects to result in reverse sensitivity issues on composting operations, from residences within the PC73 Holmes Block area. I would propose that a more appropriate point at which to take the setback buffer, would be from the edge of the maturation area, as marked in red in the figure below (using the applicant's current proposed 600m buffer). Albeit in my view a larger buffer, more in line with Victoria EPA guidelines would be more appropriate to protect Council infrastructure. A compromise between the current 600m and Victorian EPA recommended 2000m, could be a more agreeable 1000m setback.

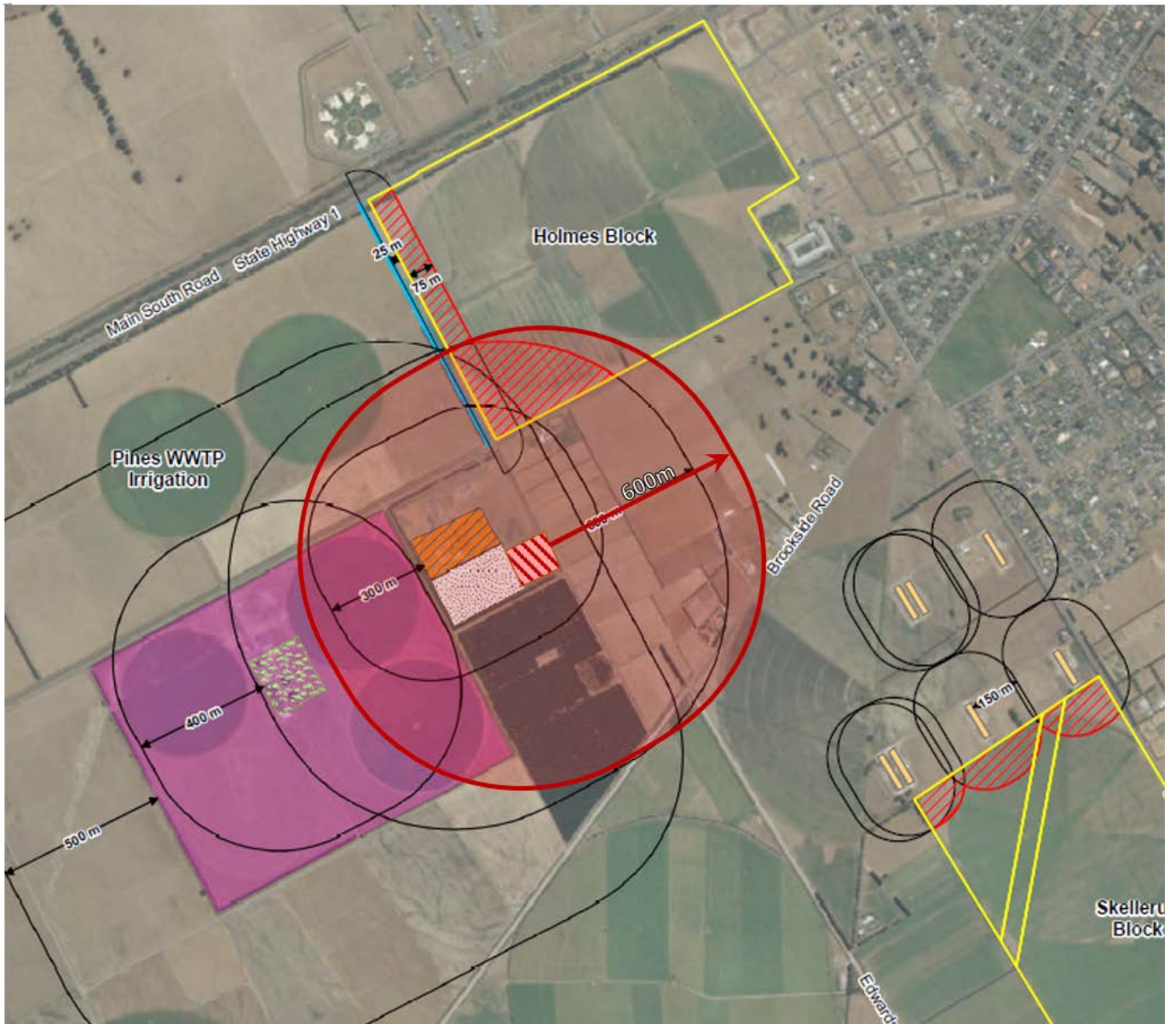


Figure 2: Pines Resource Recovery Park site using the applicants 600m buffer taken from the boundary of the maturation, screening and load out area.

Sensitive receptor density

22. Currently the Holmes block zoning allows for 97 properties of large section sizes (4,000-5,000m² up to 4ha). These sections are typical of lifestyle blocks where the residents are likely to have horses or a few sheep, and more familiar with 'rural odours'. At the typical occupancy of 2.8 people per house we would expect 271 residents. Under PC73 with 1,100 lots, we could expect 3,080 residents. Common sense would dictate if you have 271 people vs 3,080 people, that the mathematical probability of someone taking issue with odour would be greater.

Review of Odour Assessment (Appendix H)

23. The Golders odour assessment in Appendix H, refers to consents that were in place at the time this was reviewed (CRC19042). A number of assumptions have also been made that are incorrect.

Organics

24. I note that the assumed volumes were not clarified with Council prior to submitting the odour assessment. Incoming organics volumes were already at 8,000 tonne per annum at the time PC73 was lodged in November 2020.

25. Council had been seeking clarification from ECan on organic volumes because some risk of ambiguity still existed, as CRC190492 provided no limit on the volume of organic material composted at the Recovery Park. This review led to the variation being treated as a new air discharge consent (CRC211594). Within the new consent, limits were applied to the materials able to be received onsite. For this reason the assessment (Section 1.3.1, Appendix H) of odour effects based on 4200 tonne of organic waste is not accurate.

26. Section 2.2.2 of Appendix H states that *“In summary on the basis that the throughput is maintained close to the current throughput, i.e., limited to 4,200 tonnes/annum and there is a high degree of control in the manufacture of the compost, the leachate management (particularly maintaining both of these in an aerobic state), and given the location of the proposed residential area, a buffer distance of 600 m is considered to be reasonable. This is consistent with the distance to the existing dwelling to the north east of the compost operation”*.¹

27. At the time of lodging PC73, organics tonnes were at 8,000 tonne per annum. Condition 2a of CRC211594 provides for 53,000 tonne per annum. Council expects organic tonnages to increase to 53,000 tonne per annum over the duration of the consent, i.e., through to December 2044.

¹ Novo Group, *Golder Associates Odour Assessment*, (2020), 6

28. On the basis of the Australian guidelines referenced in Appendix H in the Plan Change application, I consider that the buffer distance should be increased to ensure an appropriate distance is achieved between the Resource Recovery Park and the Plan Change site:

- **South Australian EPA** Minimum Expectations: Existing composting facilities should be protected from encroachment from new developments. In the absence of site-specific risk information an effective buffer is 1,000 m between new developments and composting facilities, measured from the outer boundary of the area licensed to undertake composting.
- **Victoria EPA** recommend separation of 2000m for the tonnages Council forecast²:

Table 3 – reference facility 2

Types of feedstock	Technology being used	Size of the plant	Recommended separation distance (metres)
Green wastes	Open air receival Open turned windrow Open air maturation	1,200 tonnes per annum	>600
		14,000 tonnes per annum	>1,100
		36,000 tonnes per annum	>2,000
		50,000 tonnes per annum	>2,000

29. I note that this recommendation is for “Green Waste” – Garden and Landscaping Organics. The Recovery Park receives Food Organic and Garden Organic (‘FOGO’) waste, increasing the odour potential and therefore arguably the setback distance further than the 2,000m in the table above. The Victorian EPA classifies kerbside FOGO material as ‘#3 Medium to High risk category’.

30. The Golder letter dated 1 February 2021, responding to requests for further information, reads: *“Based on review of aerial photographs it is considered unlikely that the throughput will be able to substantially increase beyond what is currently being undertaken within the footprint defined in the current consent application, i.e., the area defined appears currently to be close to full utilisation. Accordingly, the conclusions reached by Golder in respect of reverse sensitivity effects associated with this activity and its location are considered to be robust”*.³

² Environment Protection Authority Victoria, *Designing, Constructing and Operating Compost Facilities*, (2017), 9

³ Golder Associates RFI letter dated 25 February 2021

31. This assumption regarding capacity is factually incorrect. During the issuing of Consent CRC211594, a maximum limit of 53,000 tonnes input per annum was established as appropriate for the composting area. The existing area is partially used for storage of overburden (which may appear as composting activity on aerial photographs). The existing area has been under-utilised (with current volumes) as there is no need to efficiently use the available space. Volumes of mature compost material onsite at any time varies because arrangements to sell compost vary from year to year, and seasonally within years. With more efficient utilisation of the entire available space, the maximum volume of 53,000 tonnes per year could be composted.

32. Golder's assumption that composting operations could be extended Westward is incorrect. Immediately adjacent is the Wastewater Processing Plant. Composting operations are directly adjacent to the border pine plantings – a requirement of the site designation.

Refuse

33. Section 1.3.2 of the Golders Odour Assessment (Appendix H) Refuse transfer Operations states that *"there has been no documented or consented changes associated with refuse handling"*.

Section 2.2.1 of the Golders Odour Assessment (Appendix H) states that *"the waste transfer operations have not changed since Golder (2008)"*.⁴

34. This is also incorrect. Refuse tonnages have increased (changed) considerably since that time. See table below containing weighbridge data for refuse tonnes⁵:

Year	Total waste to Landfill
2008/09	10462
2009/10	9959
2010/11	11479

⁴ Novo Group, *Golder Associates Odour Assessment*, (2020), 6

⁵ Pines Resource Recovery Park Weighbridge Tonnage Report

2011/12	11629
2012/13	12506
2013/14	14240
2014/15	17169
2015/16	18453
2016/17	19203
2017/18	18646
2018/19	18555
2019/20	18347
2020/21	21136

35. As per projections, tonnages are expected to continue to increase with the increasing population in Selwyn District.

Other

36. Golder's response regarding differences in sensitivity between rural and suburban dwellings reads: *Regarding the potential difference in sensitivity of a rural dwelling vs a suburban dwelling of a scale and character proposed by the plan change request. Golder considers that while rural dwellings may be generally less sensitive to rural odours, the potential odours effects from the composting operations and WWTP are not consistent with what would be considered rural odours.*⁶

37. I contend that composting odours are similar to silage odours – the nature of which is to be expected in rural environments. Furthermore, farmers are increasingly composting onsite to dispose of organic waste such as shelter belt trimming, as well as animal carcasses – ECan's preferred method for managing livestock mortalities.

Recovery Park Complaints

38. I have been asked to provide details about any complaints made about the current operations at the Recovery Park. ECan confirmed that one complaint was received several years back. However, this was found to be attributed to another premise and not the Recovery Park.

⁶ Golder Associates RFI letter dated 25 February 2021

Review of Acoustic Assessment (Appendix I)

39. In response to the 2 February 2021 Addendum⁷ to the Acoustic Assessment:

40. I can advise that tonnages of refuse may grow as much as six times their current volumes by consent end in 2044. This would increase the number of truck and trailer trips by a factor of 6 to 42 trips per day. To accommodate this, the number of early morning (pre 8am) trips would need to increase a corresponding amount from 3 to 18 to accommodate this growth. This has considerable potential to increase night-awakenings and complaints. I therefore contend that the effect on residents in properties adjacent to Burnham School Rd would be greater than the acoustic assessment indicates.

41. The 15min noise measurement period did not capture truck and trailers carrying empty bins, heading to the Recovery Park to exchange with full bins. Truck and trailers carrying empty bins create the loudest noise during transit. On that basis I would expect the effects on residents to be greater than the acoustic assessment has suggested.

42. I therefore support measures proposed such as greater setbacks and acoustic bunding.

43. I also support a reduction in the speed limit to 80km/hr for the section of Burnham School Rd from Dunns Crossing to beyond the Recovery Park.

Conclusions

44. I believe that the proposed sound reduction considerations along Burnham School Road, by way of increased setback and acoustic bund will resolve my concerns around noise from refuse related traffic. I support PC73 with regard to this.

45. I consider that the odour assessment should be revised and separation distances applied to the plan change site increased in line with Victorian EPA guidelines. On this basis, I do not support proposed Plan Change 73 as currently drafted. I believe that if the setback distances

⁷ Acoustic Engineering Services, *Acoustic Report*, (Addendum 2 February 2021)

are not sufficient, residents living close to the Recovery Park will invariably complain about real or perceived odour issues.

46. To safeguard critical Council infrastructure, I would recommend adopting Victoria EPA's separation distances for this new development proposed under PC73, with a minimum setback of 1000m from the compost maturation, screening and load out area.

47. Furthermore, should any part of PC73 proceed, I would request that the sections have a no-complaint covenant placed on them, in relation to operations at the Pines Resource Recovery Park. Although I believe this has limited effect at a regional council level.

Andrew Boyd
1 September 2021