



Stawell Landfill

Community Reference Group

23.7.2024

Site Plan

- Cell 4 is still active and is almost complete.
- Cell 5 construction finalized in May 2023. EPA has approved for waste acceptance in Cell 5. Waste was deposited in cell 5 in April 2024.








Cell 6

Cleanaway has started designing for cell 6. Once the design is approved by EPA, Cleanaway will commence quarrying works for cell 6 mid next year.

Quarry works included are drilling, blasting, rock crushing, loading, haulage and storage of rock.

Blasting dates and other requirements will be shared with the regulators and the community closer to the date.

Drilling	Blasting	Load	Haul	Rock Crushing
<ul style="list-style-type: none">• Mobilise drill rig to site• Set out of drill pattern• Drill hole to required depth	<ul style="list-style-type: none">• Explosives placed in pre-drilled holes• Area is evacuated• Explosives are detonated	<ul style="list-style-type: none">• Excavator is used to load blast rock into trucks	<ul style="list-style-type: none">• Trucks carry blasted material to stockpile location	<ul style="list-style-type: none">• Blast rock is fed through special crushing machinery to produce crushed rock products
				

Section 72 Permit Amendment– Stawell Landfill

- Cleanaway lodged section 72 permit amendment application to Northern Grampians Shire Council to relocate the office building, weighbridge, weighbridge office and workshop to the front of the site.
- The application was on public notice in April 2024. We have received 1 objection from our neighbour.
- There will be very minimal disturbance to the community as it is only relocating the building to the front of the site.



Environmental Management

- Surface run off is captured in series of storm water dams and reused onsite for dust suppression.
- Quarterly landfill gas and surface emissions are monitored and 6 monthly surface and groundwater monitoring is undertaken to ensure no environmental impact from landfill operation.
- All monitoring data are verified by EPA appointed auditors and submitted to EPA every 2 years.



Odour Impacts:

- Odour curtains are installed along Pomonal road, along northwestern corner of the active cell and next to leachate pond to minimise odour impacts to nearest receptors.
- Landfill gas extraction system is operational and connected to Flare since Nov 2022. This helps in minimizing landfill gas odour.
- Total gas flow through the flare is approx. 2011767 m³. There has been significant reduction in gas reading in the perimeter gas bores.
- 2 aerators are operational in new leachate pond to minimise odour impacts from leachate in the new pond since December 2022.



Noise

- Noise bunds around the site has been extended and improved to minimize noise from quarry, crushing, hauling and landfill activities.
- EPA issued an improvement notice to Cleanaway to generate a noise remediation action plan addressing how to mitigate unreasonable noise emitted from the premises.
- Cleanaway engaged a suitable qualified consultant to develop the Noise remediation action plan (NRAP) for Stawell Landfill in accordance with Environment Protection Regulation 2021 and EPA Noise Protocol.
- Noise remediation Plan was implemented, and it identified actions like:
 - Reviewing traffic management plan and minimise the use of reverse alarms on site;
 - New trucks and equipment to be cross checked to include croakers at the Site;
 - Replace reverse alarm on the existing yellow gear with croakers;
 - Cease using old 50T excavator in Clay pit and instead use 20T or 30T excavator; and
 - Regular maintenance of fleet equipment and haul roads on site.
- Noise remediation action plan was developed and was submitted to EPA for approval in March 2023. EPA has approved our plan and has revoked the improvement notice.

8 Conclusion

The EPA issued an Amended Improvement Notice to Cleanaway Pty Ltd.

Noise monitoring was undertaken to assess the emissions against the requirements of the Noise Protocol.

All works undertaken at the Cleanaway Site fall into the EPA's classification of daytime. No work at the Stawell Site is undertaken during the EPA's designated evening or night-time periods.

An analysis of the noise emissions from the site has been undertaken by SLR, based on the measured noise levels and site observations. The analysis concludes:

- Noise from the Cleanaway Site is (at times) audible at both of the monitoring locations.
- The presence of birds influenced the noise measurements, and consequently the measured $L_{Aeq,30 \text{ minute}}$ indices cannot be directly relied on, to assess the noise compliance from the site.
- The audio recordings were analysed to remove the effects of the birds (but not the presence of reversing beepers).
- During the measurement period, the measured noise from the Cleanaway Site (unadjusted) is generally considered to comply with the EPA Noise Limits. For some time periods though, the noise emissions contain audible reversing alarms, resulting in the additional of a 5 dB tonal character adjustment. The Effective Noise Level (ie the measured level and applied penalty) resulted in some minor exceedances of the Noise Limit.

A range of noise mitigation measures are recommended, which act to reduce the overall noise level, and minimise or eliminate the tonal adjustment, which may be applied to the measured levels (due to the presence of reversing alarms).

Whilst the GED requires the Site operators to minimise noise as far as reasonably practicable, the application of the proposed measures will not necessarily result in inaudibility of the Sites operation at surrounding residences.

Noise Remediation Action Plan

SLR Recommendation	Cleanaway Response
<p><u>Progressively introduce broadband alarms</u> on to the truck and mobile plant fleet that operates at the Site.</p>	<p><u>All yellow gear have been fitted with croakers</u> at the site. This includes the compactor, excavators, dump trucks, water carts and grader.</p>
<p>This type of alarm is less disruptive than traditional “beeper” alarms and should not qualify for the EPA’s 5 dB tonality adjustment. Broadband reversing alarms, produce a noise over a wide range of frequencies and make a 'pshh-pshh-pshh' type sound.</p>	<p>All yellow gear have been fitted with croakers at the site. This includes the compactor, excavators, dump trucks, water carts and grader.</p>
<p>The mufflers on Site operated trucks and mobile plant should be in good working order.</p>	<p><u>All plant are maintained by Cleanaway Fleet Services</u> as per manufacture specifications.</p>
<p>Develop an operational plan that summarises the proposed mitigation, including the timeframe for implementation and the justification.</p>	<p>This plan has been completed.</p>
<p>The <u>engines of all plant should be in good working order</u>, and not unduly loud.</p>	<p><u>All plant are maintained by Cleanaway Fleet Services</u>, as per manufacture specifications.</p>
<p>The following should also be considered, where feasible and reasonable to implement:</p>	
<p>Linkages on all excavators, <u>FEL and dozers should be maintained</u> to avoid undue loose movement, leading to impact-type noises potentially generated during use.</p>	<p>All excavators, FEL and dozers are maintained by Cleanaway Fleet Services as per manufacturer specifications. Greasing of linkages is included in planned preventative maintenance.</p>
<p>Where possible, <u>minimise the use of reversing alarms</u> by designing the access ways and paths so as to minimise the need to reverse.</p>	<p><u>Review the traffic management plan on site with a view to minimise the need to reverse on site.</u></p>
<p>When new internal roads are designed and constructed, minimise the gradient, (where feasible) to allow vehicles to use minimum power.</p>	<p>Review the traffic management plan on site with a view to minimise the need to reverse on site.</p>
<p><u>Undertake regular maintenance of the internal roads</u>, to remove irregularities (ie potholes or corrugation), as they are formed.</p>	<p><u>Roads are inspected regularly</u>, inspections are recorded on environmental checklists. Maintenance of roads is recorded on daily inspection checklist.</p>
<p>Further opportunities to mitigate sustained operational noise impacts would include management measures such as scheduling of noisy activities to provide periods of respite, or substitution of noisy equipment for quieter equipment.</p>	<p><u>Cease use of 50T Excavator in Clav Pit</u></p>
	<p>Review mobile plant used at site (Cleanaway and contractors) and investigate substitution of noisy equipment for quieter equipment.</p>

Ongoing Communications

- Cleanaway will continue to provide updates to the community about the site regularly through emails, letter drops, newsletters and CRG meetings.
- We appreciate your feedback and please contact us if you have any issues or if you require further clarification about our operation.

Questions?