

20 December 2024

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Re Group
Level 19, 100 Miller Street
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SLR Project No.: 610.031958

RE: Shellharbour FOGO
Addendum to the Odour Assessment (August 2024)

1.0 Introduction

SLR completed an odour assessment in August 2024, to accompany an application for the change of operating hours for the organic waste reception and processing facility (the Facility) at 44 Buckleys Road, Dunmore (the Site) since 2017. The Facility primarily accepts residentially sourced food and garden organics (FOGO), which undergo decontamination, shredding, and loading into enclosed compost tunnels.

The odour assessment (SLR 2024) assessed the implications of extending the operational hours based on the modelling assessment completed in the 2014 Air Quality Impact Assessment (Wilkinson Murray, 2014).

The odour assessment concluded that since there will be no alterations to the waste intake volume, facility layout, material types, or processing procedures, and importantly the odour sources were modelled as sources emitting continuously, the findings of the 2014 Air Quality Impact Assessment (Wilkinson Murray, 2014) for the facility will remain largely unchanged following the proposed modifications. The 2014 dispersion modelling results concluded that the predicted offsite ground level odour concentrations were unlikely to be exceed the applicable assessment criteria at the nearby discrete receptors.

Since the completion of the odour assessment (SLR 2024), the Council has requested that (2 December 2024):

“Please be advised that a deferred commencement for a dwelling house at 57 Buckleys Road has recently been issued, under DA0171/2024. Please provide an addendum to the noise and odour assessments to address impacts upon the dwelling house, and any required mitigation measures.”

The aim of this addendum report is to assess the implications of modelling results on the dwelling house at 57 Buckleys Road.

2.0 2014 AQIA Findings

Potential off-site odour impacts from the potential odour generating sources were predicted and presented in the form of contour plots as shown in **Figure 1**. The dispersion modelling results indicate that the predicted ground level odour concentrations are unlikely to exceed the applicable assessment criteria at the nearby discrete receptors.

Figure 1 Predicted 99th percentile nose-response average ground level odour concentrations (OU)



The modelling report assessed the offsite impacts at a total of 5 residential receptors, located from 170 m to 1 km from the nearest Facility boundary.

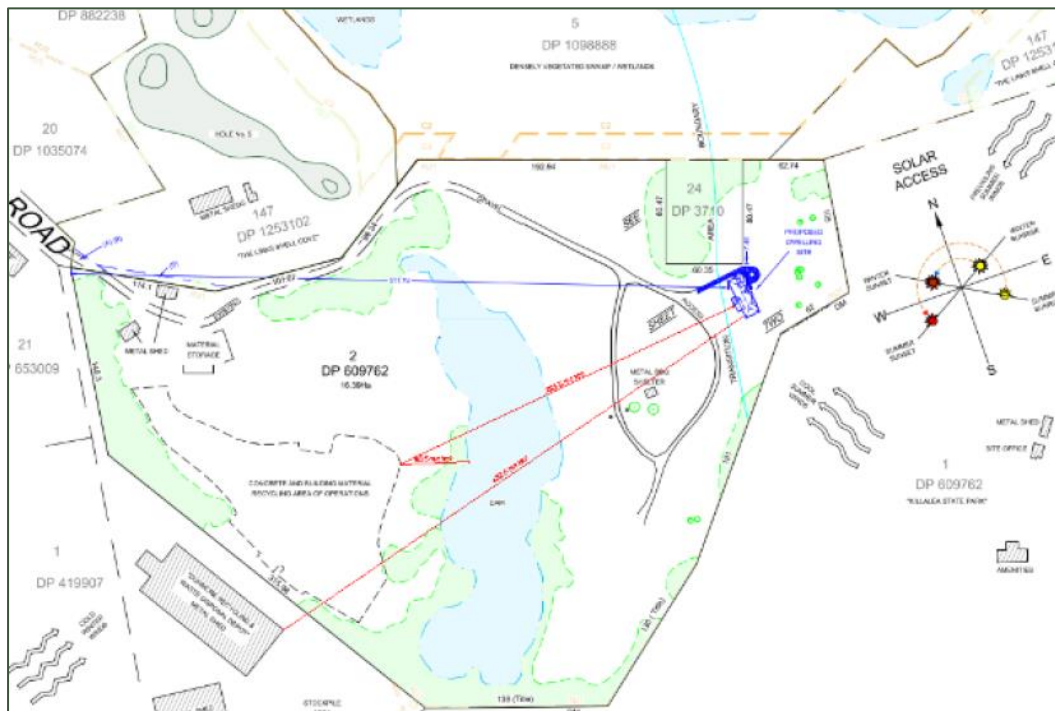
The modelling report also recommended a range of odour mitigation and management strategies and good composting practices, to minimise any offsite odour impacts.

3.0 New Sensitive Receptor

Since the completion of 2014 AQIA, a new sensitive receptor is proposed to be located at 57 Buckleys Road, approximately 400 m from the nearest Facility boundary. This is shown in **Figure 2**.



Figure 2 Proposed Location of 57 Buckleys Road



4.0 Overlaid Odour Contours

The predicted odour contours were overlaid on the new sensitive receptor location (57 Buckleys Road) and the results are presented in **Figure 3**.

Figure 3 Odour Contours



Note: 57 Buckleys Road shown in 'yellow' outline



It can be seen from **Figure 3** that the new receptor is likely to experience odour impacts similar to those predicted for existing receptor R4 ie within 5 ou and 7 ou. Due to the limitations of this assessment and unavailability of dispersion modelling files, a quantitative assessment of the predicted odour impacts at this new receptor is not possible at this stage.

5.0 Conclusions

It is concluded that the new receptor is likely to experience odour impacts similar to those predicted for existing receptor R4 ie within 5 ou and 7 ou.

The dispersion modelling study was conducted representing the existing sources (ie biofilter, waste composting windrows and transfer station) as emitting odour emissions continuously (i.e. 24/7), therefore extending the hours of operations does not have implications on the predicted downwind odour impacts at the new receptor, and the conclusions of the odour impact assessment are still valid and no additional mitigation measures are not warranted at this stage.

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6.0 References

- EPA. (2022). *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales*. Environment Protection Authority NSW.
- JEP. (2024). *Best Management Practice Implementation Plan*. Sydney: Jackson Environment and Planning.
- Wilkinson Murray. (2014). *Dunmore Recycling Waste & Disposal Depot (DRWDD) Air Quality Impact Assessment*.

