

EMISSIONS COMPLIANCE REPORT

The planned restoration of the former sand and gravel pit at Halverstown, Kilcullen, Co. Kildare and the operation of an inert soil recovery facility envisages the importation and use of approximately 1,200,000 tonnes of natural material, principally inert excess soil, stones and/or broken rock to backfill a disturbed landform to former ground level.

Planning permission and a waste facility permit for a smaller scale recovery facility (with a maximum lifetime intake of just 100,000 tonnes) was previously granted by Kildare County Council on 12 July 2016 (Planning Ref. No. 15/189). The associated waste facility permit was subsequently issued by Kildare County Council in August 2016 (Permit Ref. No. WFP KE 16 0085 01).

The existing permission / waste permit provides for the partial infilling of the lands previously used for sand and gravel extraction. This development commenced in 2016 and associated infrastructure, including a wheelwash and weighbridge with office, has been constructed in accordance with the requirements of the planning permission / waste facility permit. Both the existing planning permission and waste facility permit set threshold limits for noise and dust emissions. The compliance of the established recovery facility with these permitted emissions thresholds is reviewed herein and below.

AIR QUALITY

Condition 23 of the planning permission in respect the established permitted soil waste recovery facility at Halverstown (Ref 15/189) requires that

'The total dust demission arising from the on-site operations associated with the proposed development shall not exceed 350 milligrams per metre squared per day (350mg/m²/day) averaged over a continuous period of 30 days, when measured as deposition of insoluble particulate matter at any position along the boundary of the site'

The same condition is repeated verbatim as Condition 6.4 of the existing waste facility permit (Ref WFP-16-0085-01). Table B.1.1 in Appendix B of the permit stipulates that dust monitoring should be undertaken at 3 agreed locations. These are identified as D1, D2 and D3 in Figure 7-1-3-1-A. Table B2.1 of Appendix B stipulates that dust monitoring be undertaken on an annual basis and shall be monitored using standard Method VDI2119 (*Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute*).

The permitted soil recovery facility commenced operations in 2016. Dust monitoring results taken over a one month period in each of the years 2017 and 2018 are reproduced in Table 1 below :

Table 1
Halverstown WRF : Dust Monitoring Survey Results

Sample Date	Location D1	Location D2	Location D3	Recording Period	Period
08/11/2017	137.2	138.5	134.5	03/10/17 to 08/11/17	Annual 2017
07/11/2018	43.9	10.7	38.1	05/11/18 to 07/12/18	Annual 2018

The above monitoring data indicate that soil waste recovery activities at the existing Halverstown facility are operating comfortably within the threshold limit for dust emissions. Although this licence application provides for significant intensification of waste recovery activities, over and above current levels, it is considered that with continued implementation of mitigation measures, dust emissions will remain below the existing threshold limit of 350mg/m²/day.

NOISE

Condition 22 of the planning permission in respect the established permitted soil waste recovery facility at Halverstown (Ref 15/189) requires that

- (a) *Noise from the development shall not give rise to sound pressure (LAeq 30 minutes) measured at noise sensitive locations which exceed the following limits*
- *55dB(A) between the hours of 0800 and 1800 Monday to Friday inclusive (excluding bank holidays)*
 - *45dB(A) at any other time*
- (b) *There shall be no clearly audible tonal component or impulsive component in the noise emission from the development at any noise sensitive location.*

Condition 6.3 of the existing waste facility permit (Ref WFP-16-0085-01) requires

- (a) *The permit holder shall ensure that all operations on site shall be carried out in a manner such that noise levels from waste activities on site shall not give rise to sound pressure (LAeq 15 minutes) measured at noise sensitive locations which exceed the following limits*
- *55dB(A) between the hours of 0800 and 1800 Monday to Friday inclusive (excluding bank holidays)*
 - *45dB(A) at any other time*
- (b) *There shall be no clearly audible tonal component or impulsive component in the noise emission from the development at any noise sensitive location.*

Table B.1.1 in Appendix B of the permit stipulates that dust monitoring should be undertaken at 3 agreed locations. These are identified as N1, N2 and N3 in Figure 7-1-3-1-A. Table B3.1 of Appendix B stipulates that noise monitoring be undertaken on an annual basis and shall comprise 15 minute period monitoring of ambient noise (L_{Aeq}), background noise (L_{A90}), intermittent noise (L_{A10}) and frequency analysis (1/3 octave band analysis) to ISO 1996 Acoustics- Description and Measurement of Environmental Noise. Parts 1,2 and 3.

Noise monitoring results recorded on a one survey day in each of the years 2017 and 2018 are reproduced in Table 2 below :

Table 2
Halverstown WRF : Noise Monitoring Survey Results

Date	Location	Duration (hr:mins)	L_{Aeq} (dBA)	L_{A10}	L_{A90}	Wind Speed	Wind Direction
<i>2017 Noise Survey</i>							
08/11/2017	N1	00:15	49.1	52.3	41.5	1.5	NW
08/11/2017	N2	00:15	51.6	54.9	44.1	1.8	NW
08/11/2017	N3	00:15	53.0	56.1	46.9	2.0	NW
<i>2018 Noise Survey</i>							
20/12/2018	N1	00:15	45.4	46.5	43.0	3.5	SW
20/12/2018	N2	00:15	45.5	47.9	40.7	2.0	SW
20/12/2018	N3	00:15	47.0	48.5	45.0	2.9	SW

The above monitoring data indicate that soil waste recovery activities at the existing Halverstown facility are operating comfortably within the threshold limit for noise emissions. Although this

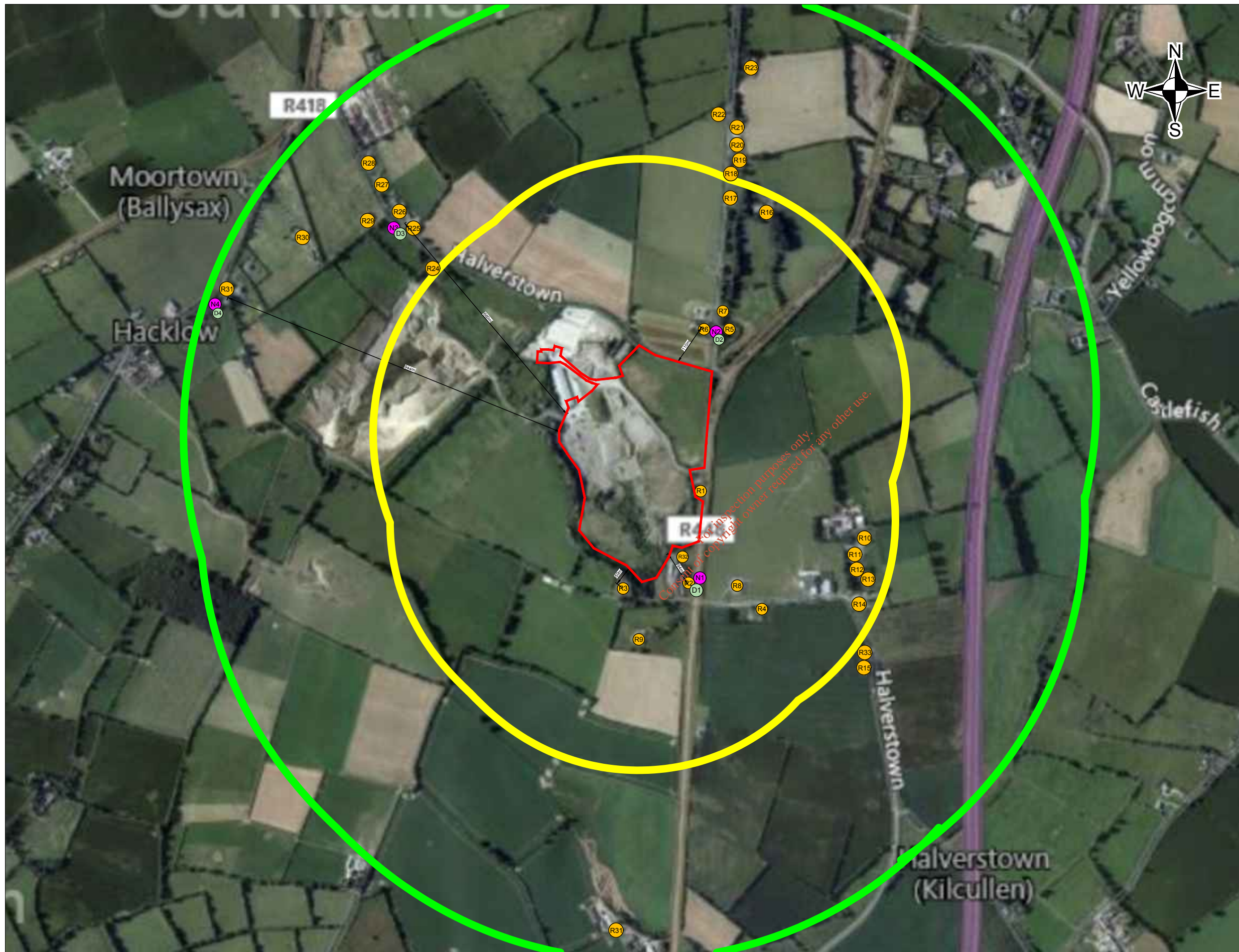
licence application provides for significant intensification of waste recovery activities, over and above current levels, it is considered that with continued implementation of mitigation measures, noise emissions will remain below the existing threshold limit of 55 dB(A) LAeq.

GROUND / GROUNDWATER

There is currently no requirement to undertake site-specific groundwater monitoring in the planning permission for the existing waste recovery facility at Halverstown (Kildare County Council Planning Ref. No. 15/189) or in the corresponding waste facility permit (Ref. No WFP-KE-16-0085-01), nor are there any specific restrictions or limits on emissions to groundwater.

That said, Kilsaran monitors groundwater quality and levels at a number of pre-existing groundwater wells at the existing recovery facility / application site. Details of groundwater monitoring are provided in Attachment 7-1-3-2 (Receiving Environment Report).

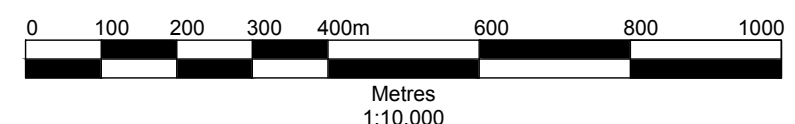
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NOTES
 1. ORDNANCE SURVEY IRELAND LICENCE NO. SU 0000719 (C) ORDNANCE SURVEY & GOVERNMENT OF IRELAND

LEGEND

	LICENCE APPLICATION AREA (c. 17.5 Ha.)
	LOCAL RECEPTORS
	500 METER OFFSET
	1 KM OFFSET
	NOISE MONITORING LOCATION
	DUST MONITORING LOCATION



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KILSARAN CONCRETE
 Proposed Waste Recovery Facility
 Halverstown, Co. Kildare

ENVIRONMENTAL MONITORING LOCATIONS

FIGURE 7-1-3-1

Scale: 1:10,000 @ A3 Date: JANUARY 2019