

ATTACHMENT I6 – ASSESSMENT OF NOISE IMPACT

Noise monitoring in and around the application site at Calary Quarry indicates that average ambient noise levels across the site typically range between 45dBA L_{Aeq} and 64dBA L_{Aeq} , depending on location and proximity to the R755 Regional Road and time of day. These noise levels are consistent with daytime levels in rural areas close to a busy regional road.

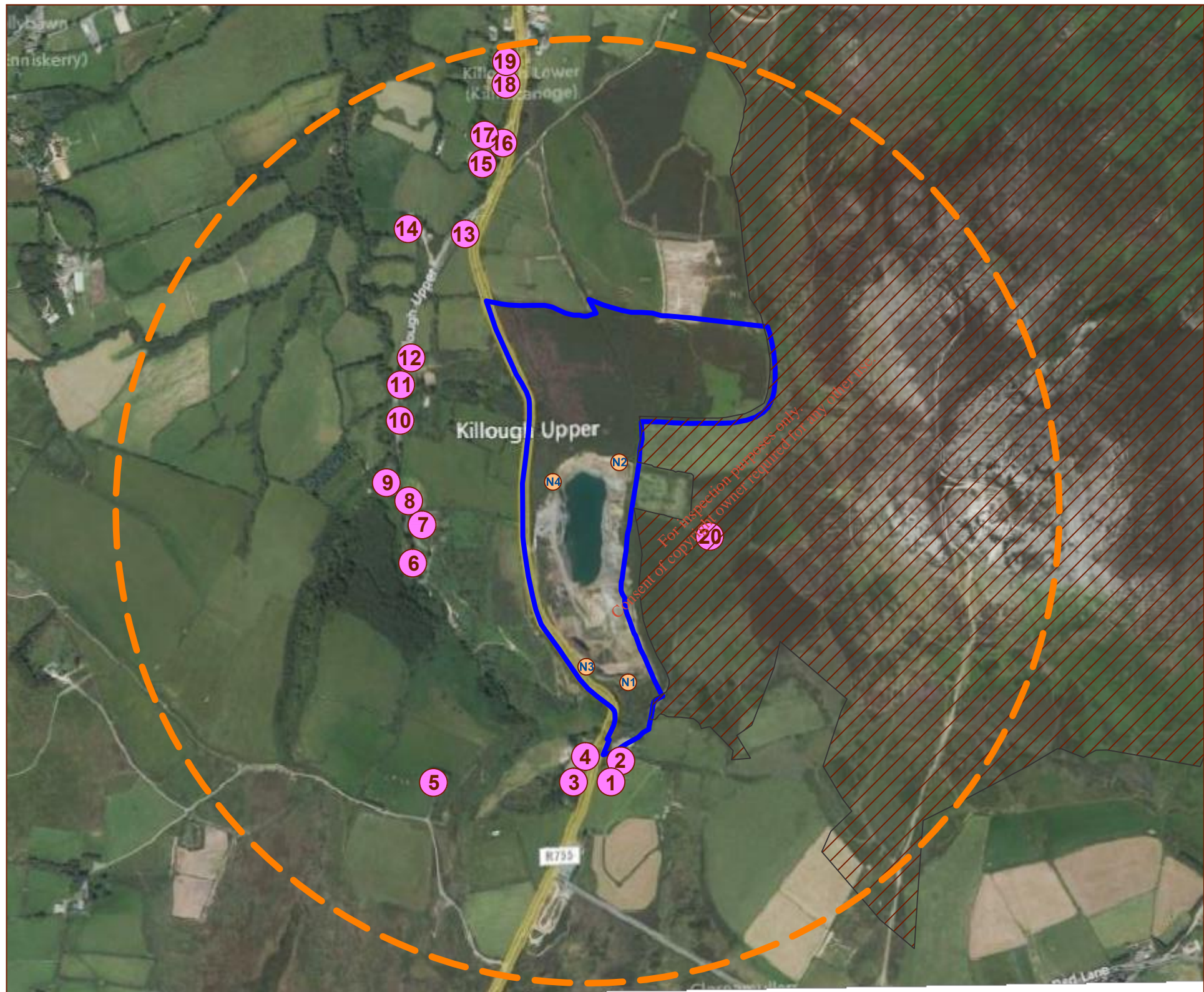
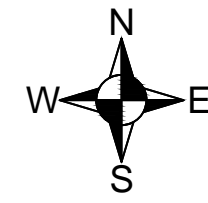
HGV movements and operation of mobile earthworks plant could potentially give rise to an increase in ambient noise levels at and around the recovery facility. Noise prediction assessments indicate that there will be minimal, if any, increase in noise levels arising at nearby residences under a worst case scenario when both a bulldozer and HGV trucks are generating noise 100% of the time close to the application site boundary (rather than intermittently and some distance inside it, as will most likely be the case in reality).

The resultant predicted (maximum) future noise levels at nearby sensitive receptors are comparable to, and only slightly elevated above, existing ambient levels, making it highly unlikely that any adverse noise impacts will be noticed or experienced by nearby residents. Note that existing ambient noise levels at the application site are reduced from those which applied prior to suspension of quarrying activities in 2010. In the medium to long-term, on completion of the quarry backfilling and restoration works, there will be no noise emissions from the application site.

In light of the impact assessment, it is considered that mitigation measures to reduce noise impacts associated with the planned inert soil waste recovery facility are not strictly necessary. Notwithstanding this, a number of measures are to be implemented at the facility to further mitigate potential noise emissions. These include retention and reinforcement of existing perimeter screening berms, maintenance of plant, fitting of plant silencers, maintenance of road surfaces, control of traffic speeds and of unloading activities within the facility.



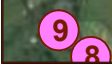

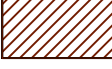
Further information on baseline noise levels and an assessment of predicted ambient noise levels arising from HGV movements and operation of earthmoving plant over the operational life of the waste recovery facility are presented in Chapter 9 of the Environmental Impact Statement which accompanies this waste licence application.

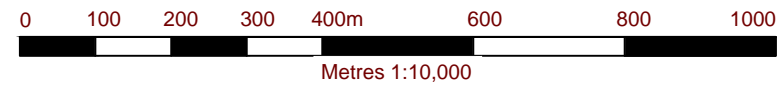
For inspection purposes only.
Consent of copyright owner required for any other use.



NOTES

1. ORDNANCE SURVEY IRELAND LICENCE NO. **SU 0000716 (C)** ORDNANCE SURVEY IRELAND & GOVERNMENT OF IRELAND
2. AERIAL IMAGE EXTRACT FROM www.bing.com

- LEGEND**
-  ROADSTONE LIMITED LAND INTEREST (c.25.45 Hectares)
 -  PROPOSED OPERATIONAL MONITORING LOCATIONS
 -  NOISE RECEPTOR LOCATIONS
 -  1KM RADIUS FROM SITE
 -  NPWS pNHA - GREAT SUGAR LOAF (001769)



SLR
 SLR CONSULTING IRELAND
 7 DUNDRUM BUSINESS PARK
 WINDY ARBOUR
 DUBLIN 14
 T: +353-1-2964667
 F: +353-1-2964676
www.slrconsulting.com

**ROADSTONE LIMITED
 WASTE LICENCE APPLICATION**
INERT SOIL WASTE RECOVERY FACILITY
 CALARY QUARRY,
 KILMACANOGE, CO. WICKLOW
NOISE MONITORING / RECEPTOR LOCATIONS

DRAWING I6-1

Scale: 1:10,000 @ A3 Date: JUNE 2016

00180.00109.016-1.Noise Monitoring_Receptor Locations.dwg

ATTACHMENT I6 : NOISE IMPACT ASSESSMENT
(Refer to Drawing I6-1)

Table (i) Soil placement

Receptor	Plant type	Average L_{Aeq} at 10m (dB(A))	Screening (dB(A))	Reflection (dB(A))	Tone / Impulse Penalty (dB(A))	Activity Distance (m) Direction from Site Activities	Attenuation with Distance (dB(A))	Activity L_{Aeq} (dB(A))
R1	HGV/Dumper Truck	80	-20	+3	+5	210(S)	26	42
R2	HGV/Dumper Truck	80	-20	+3	+5	195(S)	26	42
R3	HGV/Dumper Truck	80	-20	+3	+5	240(S)	27	41
R4	HGV/Dumper Truck	80	-20	+3	+5	225(S)	27	41
R5	HGV/Dumper Truck	80	-20	+3	+5	400(SW)	32	36
R6	HGV/Dumper Truck	80	-20	+3	+5	195(W)	26	42
R7	HGV/Dumper Truck	80	-20	+3	+5	250(W)	28	40
R8	HGV/Dumper Truck	80	-20	+3	+5	260(W)	28	40
R9	HGV/Dumper Truck	80	-20	+3	+5	270(W)	29	39
R10	HGV/Dumper Truck	80	-20	+3	+5	340(W)	30	38
R11	HGV/Dumper Truck	80	-20	+3	+5	355(NW)	31	37
R12	HGV/Dumper Truck	80	-20	+3	+5	400(NW)	32	36
R13	HGV/Dumper Truck	80	-20	+3	+5	540(NW)	35	33
R14	HGV/Dumper Truck	80	-20	+3	+5	600(N)	35	33
R15	HGV/Dumper Truck	80	-20	+3	+5	670(N)	36	32
R16	HGV/Dumper Truck	80	-20	+3	+5	690(N)	37	31
R17	HGV/Dumper Truck	80	-20	+3	+5	725(N)	37	31
R18	HGV/Dumper Truck	80	-20	+3	+5	800(N)	38	30
R19	HGV/Dumper Truck	80	-20	+3	+5	890(N)	39	29
R20	HGV/Dumper Truck	80	-20	+3	+5	120(E)	21	47

Table (ii) Soil compaction

Receptor	Plant type	Average L _{Aeq} at 10m (dB(A))	Screening (dB(A))	Reflection (dB(A))	Tone / Impulse Penalty (dB(A))	Activity Distance (m)/ Direction from Site Activities	Attenuation with Distance (dB(A))	Activity L _{Aeq} (dB(A))
R1	Bulldozer	73	-20	+3	+5	210(S)	26	35
R2	Bulldozer	73	-20	+3	+5	195(S)	26	35
R3	Bulldozer	73	-20	+3	+5	240(S)	27	34
R4	Bulldozer	73	-20	+3	+5	225(S)	27	34
R5	Bulldozer	73	-20	+3	+5	400(SW)	32	29
R6	Bulldozer	73	-20	+3	+5	195(W)	26	35
R7	Bulldozer	73	-20	+3	+5	250(W)	28	33
R8	Bulldozer	73	-20	+3	+5	260(W)	28	33
R9	Bulldozer	73	-20	+3	+5	270(W)	29	32
R10	Bulldozer	73	-20	+3	+5	340(W)	30	31
R11	Bulldozer	73	-20	+3	+5	355(NW)	31	30
R12	Bulldozer	73	-20	+3	+5	400(NW)	32	29
R13	Bulldozer	73	-20	+3	+5	540(NW)	35	26
R14	Bulldozer	73	-20	+3	+5	600(N)	35	26
R15	Bulldozer	73	-20	+3	+5	670(N)	36	25
R16	Bulldozer	73	-20	+3	+5	690(N)	37	24
R17	Bulldozer	73	-20	+3	+5	725(N)	37	24
R18	Bulldozer	73	-20	+3	+5	800(N)	38	23
R19	Bulldozer	73	-20	+3	+5	890(N)	39	22
R20	Bulldozer	73	-20	+3	+5	120(E)*	21	40

Table (iii) Combined Noise Levels

Receptor	Plant type	Activity L _{Aeq} (dB(A))
R1	Combined Noise Level	43
R2	Combined Noise Level	43
R3	Combined Noise Level	42
R4	Combined Noise Level	42
R5	Combined Noise Level	37
R6	Combined Noise Level	43
R7	Combined Noise Level	41
R8	Combined Noise Level	41
R9	Combined Noise Level	40
R10	Combined Noise Level	39
R11	Combined Noise Level	38
R12	Combined Noise Level	37
R13	Combined Noise Level	34
R14	Combined Noise Level	34
R15	Combined Noise Level	33
R16	Combined Noise Level	32
R17	Combined Noise Level	32
R18	Combined Noise Level	31
R19	Combined Noise Level	30
R20	Combined Noise Level	48