

**ATTACHMENT I.6**  
**EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY – NOISE**

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## I.6 Existing Environment – Noise

To assess the current noise impact of Goff Recycling Ltd's waste operations within the surrounding locality, a noise survey was carried out at the waste management site on the 21<sup>st</sup> March 2005 between 11am and 5pm. Noise monitoring was carried out to the International Standard ISO 1996/1 'Acoustics – Description & measurement of environmental noise', using a Larson Davis Model 812 Sound Level Meter with outdoor equipment. The monitoring equipment was manned and regularly calibrated throughout the sampling period and comments/notes taken to assist the interpretation and assessment of results.

Noise survey results are attached, and summarised in Table I.6.1 below. Sampling was carried out at the following locations (Map I.6.1):

- N1 – corner of site
- N2 – North-west corner of site
- N3 – North East corner of site
- N4 – South east boundary of site
- N5 – Outside the Unit 3
- N6 – Outside the residence opposite the site entrance
- N7 – Outside a residence 3 houses down from the site entrance
- N8 – Same location as N5

The main potential noise sources from the Goff Recycling Ltd's operations include:

- Waste vehicle movements in and out of the site
- Loading and un-loading of vehicles within the waste processing sheds
- Waste processing and handling (mechanical sorting of waste, baling)

**Table I.6.1: Noise Levels Recorded at the Site Boundary**

Ref	Description	Time	Duration	LA <sub>eq</sub>	Comments
N1	corner of site	11:28	30 min	58.7	Noise sources included 2 skip trucks entered and left the site during measurements. Waste handling activities included a teleporter moving material and the intermittent running of a pump within the facility. Passing traffic on the country road: 13 cars and 6 lorries
N2	North-west corner of site	12:03	33 min	51.5	No noise audible from site activity. 2 trucks left the site during measurements. Background noise from cattle and tractor at farm nearby and from traffic on the road.
N3	North east corner of site	12:38	31 min	56.6	Noise sources included the teleporter moving rubble outside to the yard. Baled recyclables were being loaded to a truck in the facility. Background noise was predominated by the nearby tractor. A truck, van and car passed directly by the monitor.
N4	South east boundary of site	13:16	30 min	59.5	Site activity had ceased during this period. 28 cars passed by on the country road. The tractor and 2 Wextrans trucks passed the monitor.
N5	Outside Unit 3	14:00	30 min	58.9	Mechanical sorting of waste in transfer station. The pump from the facility was a constant source. 2 REL were moving around the yard onto the weighbridge. 1 skip truck and van left site while 2 vans entered. Constant background noise from Morrissey Engineering across the yard.
N8	Same location as N5	15:58	30 min	60.5	3 RCV's entered site. Forklift and its reversing alarm were audible from the site. 3 trucks from another business were moving around the yard. Constant background noise from Morrissey Engineering.

**Table I.6.1: Noise Levels Recorded at Noise Sensitive Locations (NSL's)**

Ref	Description	Time	Duration	LA <sub>eq</sub>	Comments
N6	Outside the residence opposite the site entrance	14:33	30 min	66.3	Noise from the facility was only intermittent during this period. A skip truck entered site and left again. A Wextrans truck passed the site. Background noise from Morrissey Engineering. Traffic on road included 21 cars and 10 vans.
N7	Outside a residence 3 houses down from the site entrance	15:23	30 min	63.6	2 skips were unloaded and material was being baled but these activities were barely audible from the NSL. The reversing alarm of a RCV was though. Background noise from passing traffic (14 cars and 8 vans), birdsong and the oil heating system of the NSL.

The above results show that the main noise sources at the boundary locations come from site vehicle movements and site operations around the transfer station. Background noise from other facilities in the small business park also played a significant role as did traffic for the boundary sites located close to the road. At the noise sensitive locations (NSL'S) traffic was the predominant source with vehicle movements around the yard being the only audible sources resulting from site activity.

There are currently no statutory limits for the control of environmental noise in Ireland. The EPA have issued a separate BATNEEC Guidance Note relating to noise from industrial sites. This states that:

*'Ideally , the total noise level from all sources is taken into account, the noise level at sensitive locations should be kept below an L<sub>A,T</sub> value of 55dB(A) by daytime. At night, to avoid disturbance, the noise level at noise sensitive locations should not exceed an L<sub>AeqT</sub> value of 45dB(A). In some particularly quiet areas, such as pastoral, rural settings, where the background noise levels are very low, lower noise limits may be more appropriate.'*

These results show that most measurements taken at the boundary locations were above the stipulated guidance notes of the EPA. The noise monitoring location close to the site entrance (N1 Laeq 58.7dBA) was heavily influenced by the passage of traffic on the main road. During the survey period 13 cars and 6 lorries passed the monitor. The pump that was observed was running because one of the company's trucks had a flat tyre and was being re-inflated at the time. The only other audible noise from the facility was due to the movement of a teleporter. Both processing sheds at Goff Recycling Ltd are insulated thus helping to mitigate against noise generated within. It is concluded therefore that the majority of noise at this location was due to background noise from passing traffic.

Location N2 had the lowest Laeq at 51.5dBA. This monitoring location was situated at the disused part of the site. There was no audible noise from site activity apart from the movement of site vehicles. The transfer station effectively reduces the noise coming from the activities inside and this is reflected in the monitoring results. Background noise from cattle and a tractor at the farm nearby were the dominant sources during this period

Location N3 had a noise level just above the EPA guidelines (Laeq of 56.6dBA). This noise measurement location was right at the site boundary. Baled recyclables were being loaded to the truck at the time and a teleporter was moving rubble around the yard. This location was even closer to the farm mentioned previously and the tractor was still operating during this survey period. A number of vehicles from another business in the area also contributed to this slightly elevated reading.

N4 was located at a site boundary adjacent to the main road. This fully explains the elevated Laeq of 59.5dBA as on average one vehicle passed the monitor every minute during the survey period. The facility was quiet at the time as it was lunch hour.

Two surveys (N5 & N8) were carried out at this site boundary point, as it was located opposite the entrance to the second processing shed. Hence it was exposed to the full array of on-site waste processing activities. These included the unloading of skips, the loading of waste wood into the back of a 40-foot truck and other mechanical sorting of waste. A lot of vehicles were also moving in and out of the facility at the time. The Laeq's of 58.9dBA and 60.5dBA although above the E.P.A.'s recommended limits, are still relatively low considering the close proximity and the amount of work that was being undertaken. The insulation of the waste processing sheds was again a contributing factor. It should also be noted that significant background noise was audible from Morrissey Engineering on the other side of the business park during both survey periods.

A line of roughly 8-10 private residences are located opposite the Kilrane Business Park that Goff Recycling Ltd. is situated in. Two of these residences were chosen as noise sensitive locations (NSL's). Both locations (N6 & N7) had higher readings (Laeq's of 66.3dBA and 63.6dBA respectively) than all the site boundary locations. The monitor for each survey was located alongside the road and observed on average one vehicle movement per minute during both measurement periods. Although there was some vehicle movement around the facility at the time, the volume of passing traffic alone can explain both elevated readings.

It is concluded that Goff Recycling Ltd. operations do not have a significant impact on noise levels in the surrounding area especially at noise sensitive locations such as the immediate local dwellings. It has been demonstrated that background sources such as the relatively high volume of traffic has much more of an impact on the results compared with normal site operations. Traffic volumes also heavily influence noise levels at boundary points located close to the road. Noise from normal processing activities is buffered against as a result of the insulation of the transfer station sheds.

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