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Trigon Hill Landfill Site

Noise and Vibration Management Plan

Valencia Waste Management Limited

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1 Introduction

1.1 Report Objectives

This Noise and Vibration Management Plan (NVMP) supports an application by Valencia Waste Management Limited (Valencia) to vary the current Trigon Hill Landfill permit, referenced EPR/BX4054ID, to add a Materials Recycling Facility (MRF). As part of the permit variation, it is proposed to extend the existing permit boundary to incorporate land on which the MRF will be located.

The amendments to the permit will not impact the existing non-hazardous landfill to the west of the proposed MRF.

The purpose of this NVMP is to identify which aspects of the MRF operations may cause noise and vibration emissions if uncontrolled and how noise and vibration will be minimised and mitigated.

A copy of this NVMP will be included in the Site's Environmental Management System (EMS) held at the Site Office and all members of staff will have access to this document.

1.2 Responsibility for Implementation

The site manager would be responsible for implementing the NVMP. Additional support will be provided by the Technical Competent Managers (TCMs). The site manager and/or TCM would be responsible for the training of other site staff.

Valencia operates an Environmental Management System (EMS) at their other active sites and head office and the NVMP would form part of the EMS.

All staff to be employed on site would be given training and instruction on implementing the NVMP. Training will be part of the initial induction process and reviewed annually.

1.3 Site Operations

Trigon Hill Landfill Site is located approximately 2.2 km to the northwest of Northport and 2.4km northwest of Wareham town centre in Dorset. The approximate National Grid Reference for the MRF is SY8960089400. The proposed MRF location is bounded: to the west by the landfill (adjacent to Cell 2 Phase 3); to the north by woodland; to the east by a solar farm and woodland; and to the south by the landfill and woodland.

The wider Site including the landfill and proposed MRF is located on a former opencast ball clay pit with planning consent for restoration by landfilled wastes.

An Environmental Permit (EP) referenced BX4054ID was issued on 21st June 2006 to Viridor Waste Management Limited for landfilling at the Site. The landfill is comprised of 6 phases and 25 cells and has accepted non-hazardous household, commercial and industrial wastes. The permit has

been varied numerous times with the current extant permit issued on 13th March 2023 for a minor technical variation recording Valencia Waste Management Limited, update of the associated company name, address and financial provision.

The proposed permit variation is to extend the existing boundary to the east to incorporate additional land for the proposed MRF. The proposed MRF will have an annual throughput of up to 250,000 tonnes of predominantly commercial and industrial wastes.

The materials recycling activity are to be undertaken within a purpose built steel portal frame building with internal push walls. The building will measure circa 85 m by 39 m with an eaves height of approximately 9m and a ridge height of circa 12.5 m.

The building will have two 8 m wide vehicular fast acting roller shutter doors on the northern and southern aspect to allow delivery of waste and the export of materials only.

Vehicle access and egress to the MRF will be via the Bere Road landfill entrance. Vehicles entering via the Bere Road entrance will progress to the existing landfill weighbridge where waste acceptance procedures will be completed. Vehicles will then progress along an internal road which follows a southerly direction along the east of the landfill to the proposed MRF. All vehicles leaving the MRF will progress along the internal road and utilise the wheel wash prior to exit onto Bere Road.

2 Noise Impact Assessment

A Noise Impact Assessment (NIA) was undertaken by Rappor Consulting according to the Planning Statement[1]. The NIA has assessed the measurements from an existing MRF and the predicted noise to the closest sensitive receptors. Background noise levels were compared with the predicted noise levels in accordance with BS4142.

The results indicated that the proposed MRF will generate noise below the existing background level and therefore will have a low impact. The transport assessment indicated that the proposed development would result in an increase of 2dB in HGV noise. The NIA concluded that this was not significant and that there would be no significant impact on sensitive receptors.

The NIA has been utilised to develop this Noise and Vibration Management Plan. Reference has also been made to Environment Agency guidance[2] dated 31 January 2022.

[1] INNOV8PLANNING (2023) Supporting Planning Statement (including the design and access statement, statement of community involvement, EIA screening statement), for Materials Recovery Facility, Trigon Landfill site, July 2023

[2] https://www.gov.uk/government/publications/noise-and-vibration-management-environmental-permits/noise-and-vibration-management-environmental-permits

3 Scope of the Activities

3.1 Operational Overview

3.1.1 Current Activities

Trigon Hill Landfill Site is currently permitted to accept 290,000 tonnes per year of non-hazardous waste. The landfill has a number of directly associated activities (DAA's), including: pre-treatment and utilisation of landfill gas <50MW; treatment of leachate <50t/day; temporary storage of leachate; flaring of landfill gas; discharges of site drainage; storage of fuel; and filtration of landfill gas using an activated carbon filter.

3.1.2 Proposed Activities

The new MRF will be located to the east of the existing landfill. It will comprise a building upon impermeable steel reinforced concrete surfacing with sealed drainage located in an area external to the current landfill permit boundary. Access and egress will be via the existing designated access from Bere Road. The MRF operations will comprise primarily of physical treatment to recover recyclable from mixed waste.

The mixed wastes will predominantly arrive at the MRF in articulated heavy goods vehicles. All vehicles would arrive sheeted and would only remove their sheets once at the point of material inspection / deposition.

All vehicles would pass over the existing weighbridge before travelling along the internal access road and entering the MRF. Waste delivered to the MRF would be visually inspected. If wastes are rejected for treatment at the MRF they would be required to be rejected in accordance with the rejection procedures.

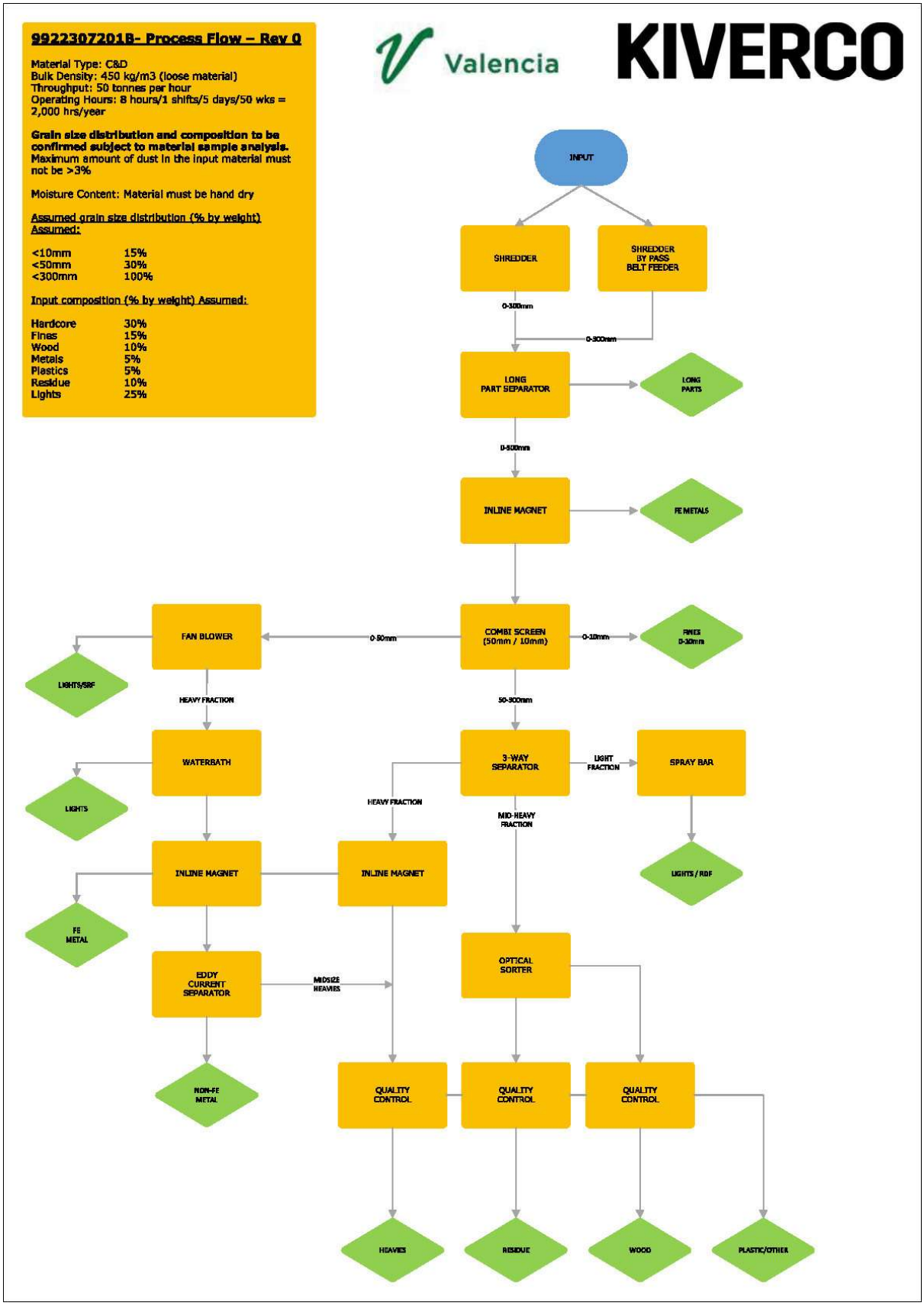
The MRF physically separates wastes into different recoverable components. The recycling plant to be installed in the MRF comprises the following as shown in Figure 1 and includes, shredders, screens, magnetic and eddie current separators, fans and associated conveyors. All of which are capable of generating noise and vibration.

A dust suppression system will be in place within the building, the design and installation to be confirmed on construction of the building and appropriate liaison with a specialist contractor.

All treatment and storage is proposed to be within a purpose built building with two 8m wide vehicular fast acting roller shutter doors on the northern and southern aspect only to be utilised to allow delivery of waste and the export of materials.

Nevertheless, this NVMP includes measures to manage potential noise and vibration emissions.

Figure 1. Flow Diagram of Treatment in MRF



3.2 Maintenance and Review of NVMP

The Site Manager is responsible for the NVMP and ensuring staff are suitability trained in the content of the NVMP. A copy of this NVMP will be included in the Site Management System held at the Site Office and all members of staff will have access to this document.

The NVMP will be reviewed on a two yearly basis with the scheduled review of the Site's EMS or with every major decrease, or alteration to the noise and vibration.

4 Potential Emissions

4.1 Noise and Vibration

4.1.1 On-site Sources

The current and proposed activities associated with the MRF that have the potential to produce noise and vibration emissions are:

- Vehicle movements to and from the MRF building.
- Waste loading and unloading.
- Recycling Plant within MRF building.

Noise and vibration emissions are also associated with operations associated with the existing non-hazardous Trigon Hill Landfill Site. These are not the subject of this assessment or this management plan however the control measures provided are applied to the landfill activities where applicable.

A NIA was undertaken by Rappor Consulting in accordance with BS4142:2014+A1:2019.

The NIA sets out the results of measurements of an existing MRF and predictions to the nearest noise-sensitive receptors. The predicted noise levels are compared to derived background sound levels in accordance with BS4142.

Based on the predicted HGV movements presented in the Transport Assessment, the development would lead to an approximate 2dB increase in HGV noise which is considered to be not significant.

Noise prediction results show that the rating noise levels at the Nearest Sensitive Receptors (NSRs) are shown to be below background sound levels and therefore a low impact is predicted in accordance with BS4142:2014+A1:2019.

4.1.2 Off-Site Sources

Trigon Hill Landfill site and quarry is located to the west of the proposed MRF with commercial and industrial premises also located in proximity to the MRF (surrounding agricultural land, plantations). An extension to Trigon ball clay works was granted in 2018 and has allowed for an extension of quarrying to the west of Trigon Hill Landfill site.

There are a few roads in immediate proximity (<500m) to the MRF which primarily consist of landfill internal roads and local access roads near Little Trigon Plantation and near Cold Harbour Heath

The industrial / commercial facilities and the roads surrounding the MRF have the potential for generating noise.

5 Potential Receptors and Pathways

5.1 Site Setting

The Trigon Hill Landfill Site, including the landfill and MRF, is located approximately 2.2 km to the northwest of Northport and 2.4km northwest of Wareham town centre in Dorset. The wider site (Trigon Hill landfill site and MRF) is bounded: to the north by the Bere-Regis to Wareham road and North Trigon Farm; to the east by a bridleway, caravan park and solar farm; to the south by agricultural land; to the west by agricultural land and a solar farm; and, in all directions by woodland. The proposed MRF location is bounded: to the west by the landfill (adjacent to Cell 2 Phase 3); to the north by woodland; to the east by a solar farm and woodland; and to the south by the landfill and woodland.

5.2 Receptor Locations

When choosing the receptors, the closest or the most sensitive (if different from the closest) have been considered in each direction from the hazard. Account has been taken of the mechanism of transport to the sensitive receptor e.g. wind direction or a physical connection to the MRF. The probability of exposure is determined by the distance of the receptor to the MRF and the likelihood of the hazard reaching the receptor. This stage of the assessment assumes that exposure has resulted from an uncontrolled emission i.e. without mitigation.

The nearest sensitive receptors to the MRF and the distance of these receptors to the MRF boundary and their direction relative to the MRF is detailed in Table 1.

Meteorological data from Hurn weather station[3] which is located 22.9 km northeast of the MRF boundary and is expected to provide representative meteorological data for the area. The windrose data available for the MRF has been used to determine the prevailing wind direction which is from the west-southwest.

Table 1.Sensitive Receptor

No	Description of Receptor	Type	Direction	Distance (metres)	Frequency Downwind (%)
1	Landfill site, associated surface water bodies and site roads	Commercial/Industrial/ Surface Water/Road	S to NNW	<10	2.64 to 6.12
2	Local Wildlife Sites (Trigon Heaths, Stokeford Heath, Old Ram Plantation,Budden's Farm, South Heath Binnegar, Bloxworth and Morden Heaths, Hyde House, Wareham Lodge, Worgret Heath)	Protected habitat	SW to NNE	<10	2.64 to 6.26
3	Priority habitat (deciduous woodland)	Protected habitat	E to SSE	50	0 to 8.14

[3] https://wind.willyweather.co.uk/sw/dorset/coldharbour.html

No	Description of Receptor	Type	Direction	Distance (metres)	Frequency Downwind (%)
4	Priority habitat (lowland heathland, deciduous woodland and no main habitat), Trigon Hill Plantation and road	Protected habitat, commercial/industrial and road	NW to SE	80	3.35 to 19.27
5	Public right of way (PROW)	Bridleway/Footpath	N to S	95	0 to 19.27
6	Drainage ditches	Surface Water	ENE to SW	98	0 to 19.27
7	Solar power farm	Infrastructure	E to SE	132	3.35 to 8.14
8	Pond at the Covert	Surface Water	NE	217	12.4
9	Little Trigon Hill Plantation, Clean Hallow Plantation & Brick Kiln Plantation	Commercial/Industrial	S to W	248	2.64 to 6.12
10	Properties off Bere Road in Cold Harbour	Residential	ENE to E	480	8.14 to 19.27
11	Protected habitats (Dorset Heaths (SAC), Morden Bog and Hyde Heath (SSSI)	Protected habitat	ESE	999	5.17
12	Protected habitats (Dorset Heathlands (Ramsar) (SPA), Dorset Heaths (SAC), Morden Bog and Hyde Heath (SSSI)	Protected habitat	SW to NE and SSE to SW	1031	0 to 12.4
13	Protected habitats (Dorset Heathlands (Ramsar) (SPA), Dorset Heaths (Purbeck and Wareham) & Studland Dunes (SAC), Morden Bog and Hyde Heath (SSSI)	Protected habitat	NE to SE	1488	3.35 to 19.27
14	Morden Bog	National Nature Reserve	NE to E	1686	8.14 to 19.27
15	Protected habitats (Dorset Heathlands (Ramsar) (SPA), Dorset Heaths (SAC), Stokeford Heaths (SSSI)	Protected habitat	SW to NW	2000	2.64 to 4.72
16	Protected habitat Poole Harbour (Ramsar) (SPA)	Protected habitat	E to SE	2726	3.35 to 8.14
17	Protected habitat Solent and Dorset Coast (SPA) & Studland to Portland (SAC)	Protected habitat	S to SW	9809	4.33 to 6.12

Table 2. Types of Receptors Sensitive to Noise

Receptor Type	Sensitivity to Noise
Habitat	Medium
Watercourse/ body	Low
Residential	High
Highway/ Railway/ Footpaths	Medium
Recreational	High
Industrial	Medium
Commercial	Medium

5.3 Receptor Types

5.3.1 Residential, Recreational, Industrial, Commercial and Educational Premises

The potential noise emissions from the MRF are likely to have a similar impact on persons occupying residential, recreational, industrial, or commercial premises. Exposure of emissions to persons at industrial or commercial premises may be lower however as they are more likely to be inside during the working day or they may be transient visitors to the premises.

The closest residential areas to the MRF are located off Bere Road in Cold Harbour. There are no schools identified within 500m of the proposed activity. For conservatism, this management plan assumes the residences are occupied during the operational hours of the MRF by members of the public most sensitive to emissions from the MRF. The combination of operational controls, physical barriers (building, roller doors, acoustic seals, vegetation), distance to the receptors and the prevailing wind direction will prevent noise from reaching receptors.

5.3.2 Footpaths and Highways

The transitory nature of highways means receptors using those locations will be exposed to potential emissions from the MRF for shorter (albeit variable) periods of time than residences or businesses. Pedestrians will have longer and more direct exposure to emissions compared to vehicle users. A number of unnamed roads and footpaths are located in proximity to the MRF.

5.3.3 Habitats

The potential noise emissions from the MRF are likely to have similar impacts on wildlife occupying Local Wildlife Sites (LWS), Local Nature Reserves (LNR), Priority Habitats, European habitats (SPA and SAC), SSSI's, Ramsar wetlands and National Nature Reserved (NNR). Studies suggest that disturbances such as noise can have an impact on wildlife.

A review of magic maps shows 6 Priority Habitats within 500 m of the MRF. Four areas of priority habitat deciduous woodland one area of priority habitat of lowland heathland and one area of priority habitat identified as no main habitat.

Three special areas of conservation (SAC) were identified within 10km of the MRF: Dorset Heaths; Dorset Heaths (Purbeck and Wareham) & Studland Dunes; and Studland to Portland. The following special protection areas (SPA) were identified within 10km of the MRF: Dorset Heathlands; Poole Harbour; Solent and Dorset Coast.

Two RAMSAR wetlands were identified within 10km of the MRF and comprised Dorset Heathlands and Poole Harbour.

The habitat screening tool identified four sites of special scientific interest (SSSI) within 2km and comprise the following: Morden Bog and Hyde Heath; Stokeford Heaths; Wareham Common; and Worgret Heath. However, based on the screening tool on magic map both Wareham Common and

Worgret Heath were over 2km from the proposed MRF and have therefore not been considered further.

One national nature reserve (NNR) was noted within 2km of the MRF (Morden Bog). Additionally, the following nine local wildlife sites (LWS) were recorded within 2km of the MRF: Trigon Heaths; Stokeford Heath; Old Ram Plantation; Budden's Farm; South Heath Binnegar; Bloxworth and Morden Heaths; Hyde House; Wareham Lodge; and Worgret Heath.

According to the Agency, a protected species (sand lizard) has been identified within 500m of the proposed MRF.

The closest habitats are the Local Wildlife Sites and priority habitats (deciduous woodland, lowland heathland, no main habitat). The remaining habitats (including SPA, SAC, RAMSAR, SSSI) are located over 500m from the MRF. It is likely that the combination of operational controls, physical barriers (building, doors, vegetation, acoustic seals), and distance to the receptor prevent most potential emissions from reaching receptors.

6 Noise Risk Assessment

The risk potential to each receptor from noise and vibration generated at the is presented in Table 3 below. This table evaluates the nuisance to sensitive receptors from noise and vibration emissions and the control measures to be implemented at the MRF in order to minimise this risk, producing a revised residual risk to receptors.

Table 3.Noise and Vibration Risk Assessment and Management Plan

Hazard/Pathway	Receptor				Probability of Exposure	Unmitigated Consequence	Initial Risk	Risk Management	Residual Risk
	ID No.	Distance from Site (m)	Direction from Site	Freq. Downwind (%)					
Noise through air and Vibration through ground from: Vehicle movements associated with the delivering and handling of waste on site. Site plant	1	<10	S to NNW	2.64 to 6.12	High - close proximity to the site, moderately downwind	Medium- staff/users sensitive to noise. Surface water not sensitive to noise.	Medium	Control measures as listed in Section 7.2.	Low
	2	<10	SW to NNE	2.64 to 6.26	High - close proximity to the site, moderately downwind	Medium - potential to disturb wildlife	Medium		
	3	50	E to SSE	0 to 8.14	High - close proximity to the site, moderately downwind	Medium - potential to disturb wildlife	Medium		
	4	80	NW to SE	3.35 to 19.27	High - close proximity to the site, frequently downwind	Medium - potential to disturb wildlife, staff and users	Medium		
	5	95	N to S	0 to 19.27	High - close proximity to the site, frequently downwind	Medium - noise nuisance to users	Medium		
	6	98	ENE to SW	0 to 19.27	High - close proximity to the site, frequently downwind	Low - receptor not sensitive to noise	Medium		
	7	132	E to SE	3.35 to 8.14	High - close proximity to the site, moderately downwind	Low - receptor not sensitive to noise	Medium		
	8	217	NE	12.4	High - moderate proximity to the site, frequently downwind	Low - receptor not sensitive to noise	Medium		
	9	248	S to W	2.64 to 6.12	Medium - moderate proximity to the site, moderately downwind	Medium - noise nuisance to staff	Medium		

Hazard/Pathway	Receptor				Probability of Exposure	Unmitigated Consequence	Initial Risk	Risk Management	Residual Risk
	ID No.	Distance from Site (m)	Direction from Site	Freq. Downwind (%)					
	10	480	ENE to E	8.14 to 19.27	Medium - distant from the site, frequently downwind	High - noise nuisance to residents	Medium		
	11	999	ESE	5.17	Medium - distant from the site, moderately downwind	Medium - potential to disturb wildlife	Medium		
	12	1031	SW to NE and SSE to SW	0 to 12.4	Medium - distant from the site, frequently downwind	Medium - potential to disturb wildlife	Medium		
	13	1488	NE to SE	3.35 to 19.27	Medium - distant from the site, frequently downwind	Medium - potential to disturb wildlife	Medium		
	14	1686	NE to E	8.14 to 19.27	Medium - distant from the site, frequently downwind	Medium - potential to disturb wildlife	Medium		
	15	2000	SW to NW	2.64 to 4.72	Low - distant from the site, infrequently downwind	Medium - potential to disturb wildlife	Low		
	16	2726	E to SE	3.35 to 8.14	Medium - distant from the site, moderately downwind	Medium - potential to disturb wildlife	Medium		
	17	9809	S to SW	4.33 to 6.12	Medium - distant from the site, moderately downwind	Medium - potential to disturb wildlife	Medium		

7 Noise and Vibration Controls

7.1 Overview

The proposed physical treatment in the MRF will be undertaken within a building located to the east of the existing Trigon Hill Landfill site. The proposed MRF is located on elevated land with trees located to the north, east and south.

7.2 Controls

As part of the development and operation of the MRF, the following measures are in place to minimise noise and vibration from the MRF:

- The new MRF recycling area will be located within a new building to the east of the existing footprint of Trigon Hill Landfill site
- All treatment activities associated with the MRF recycling will be undertaken within the MRF Building.
- All plant within the MRF consists of modern machinery fitted with insulation designed to minimise noise levels that are generated during operations. It is proposed that mobile plant would have noise emission levels that comply with limit levels as defined by the EC Directive 2000/14/EC and subsequent amendments.
- Where possible, use equipment with lowest sound power level and without any dominant tonal or impulsive characteristics available for the required purpose.
- All plant is properly serviced, maintained, and operated in accordance with the manufactures' instructions to ensure that the occurrence of malfunctions which can give rise to elevated noise levels is reduced and any malfunctions that do occur are swiftly repaired.
- All equipment will be regularly maintained to ensure that no item will produce excessive noise, following the manufacturer's recommendations. Where faulty equipment makes excessive noise which is shown to be having an impact beyond the MRF building, it will be taken out of use until it can be repaired or replaced.
- The building will be properly maintained to ensure it provides noise attenuation.
- Local communities to be kept informed of general site activities, including working hours.
- Plant and/or equipment should be shut down when not in use.
- If necessary and practicable, emissions from sources of significant noise can be controlled using acoustic enclosures.

- Appointment of a site contact to whom complaints or queries about operational activities can be directed. Any complaints to be investigated and action taken where appropriate (see Section 8.3).

Additional controls are in place for vehicles. Vehicles arriving or exiting the MRF or drivers of mobile plant should consider the following general management procedures:

- Consideration to noise and the neighbours is to be shown by all drivers as they approach the wider site (Trigon Hill landfill and MRF) and manoeuvring in the facility.
- The vehicle horn is not to be used to alert the wider site (Trigon Hill landfill and MRF) on arrival/waiting at the entrance to the wider site (Trigon Hill landfill and MRF).
- Wherever practicable reversing of vehicles should be avoided.
- Engines are to be switched off when not manoeuvring.
- All reasonable steps will be taken to limit the number of vehicles queuing or waiting to enter / exit the wider site (including the MRF and Trigon Hill landfill). This will be achieved through the management systems at the weighbridge.
- Internal haul roads are, where possible, routed to allow maximum acoustic screening and separation distances to noise sensitive receptors. Haul roads are to be kept clean and maintained in a good state of repair and subject to a 10 mph speed limit to avoid unwanted noise and vibration from vehicles.
- Load retaining straps/bars/chains are to be carefully restrained or placed in stowage points and not allowed to drop onto the floor.
- Drivers are to minimise excessive air braking noise.
- Switch off engines for prolonged stops but minimise unnecessary start-ups and engine revving. Start-up plant and vehicles is to be undertaken sequentially rather than simultaneously.
- Drop heights are to be minimised.
- Unloading is to take place in the designated delivery areas.
- All drivers are to report any circumstances to management where adherence to these instructions cannot be fulfilled.
- Where front loaders are being used to move waste, drivers are instructed to avoid unnecessary scraping, rattling or banging of loading bucket to minimise impact noise.

8 Community Engagement, Reporting and Contingencies

8.1 Overview

Prevention will be viewed as the most effective means of controlling noise and vibration before an impact occurs. The Source → Pathway → Receptor model determined above allows for the identification of the critical control points where noise and vibration can arise, how it can travel to a receptor and the likely impact.

The performance of the NVMP will ultimately be judged by the impact of the MRF on the receptors. Should complaints be received, a procedure will be in place to effectively deal with the issue in a sensitive, efficient and auditable manner. The controls are detailed in previous sections of this report. The management of those controls will be based on the on-going monitoring regime on MRF. The monitoring regime can work as an early warning system against potential problems or a diagnostic tool to establish the cause of a noise or vibration event.

8.2 Noise Monitoring

This section provides the procedures, instrumentation and specification for undertaking noise monitoring if required.

Noise monitoring may be undertaken where the following occur:

- Complaints are received for noise and vibration emission.
- Introduction of new plant or activities that could create potential noise and vibration emissions.
- New receptors around the MRF are developed therefore changing the site setting

8.2.1 Noise Monitoring Instrumentation

Ambient noise levels would be monitored using an integrating-averaging sound level meter (SLM) or equivalent system of BS EN 61672-1 & 2 (or the equivalent UK adopted standard in force at the time of the monitoring). This would be set to monitor using the fast time weighted response as specified in BS EN 61672-1 & 2 (or the equivalent UK adopted standard in force at the time of the monitoring).

The SLM would be field calibrated before and at the end of each survey by applying the acoustic calibrator or pistonphone conforming to Type 1 of the current versions of BS EN 60942 (Electroacoustics – Sound Calibrators) or any subsequent update, to the microphone to check the sensitivity of the measuring equipment. Any drift in calibration levels would be noted and survey repeated where necessary in the event that the drift was outside of acceptable tolerances.

The equipment used for the noise monitoring should also have undergone more extensive independent laboratory test of performance within 2 year period as specified in BS EN 61672 (Electroacoustics. Sound level meters - Pattern evaluation tests) or any subsequent update, although 1 ear is advisable for acoustic calibrators.

Monitoring of meteorological parameters (including wind speed and direction) should be made by the use of a handheld anemometer or a site based meteorological station if available.

8.2.2 Noise Survey Specification

Noise monitoring during MRF operations would be the responsibility of the Site Manager or their appointed representatives. If noise monitoring would only be undertaken by suitably experienced or qualified personnel.

Noise monitoring would be undertaken during the normal working day. Periods would be chosen to avoid meal breaks and times when plant and equipment in the MRF is not operating.

The microphone height would be between 1.2 m and 1.5 m above ground level. To minimise the influence of reflections the microphone position would be at least 3.5 m from any reflecting surface other than the ground. In the event of monitoring having to be made within 3.5 m of reflecting facades, a correction of 3 dB would be made to all results to convert them to free-field levels.

To minimise the influence of extraneous sources of physical interference on monitored noise levels, the following would be adopted:

- Providing a suitable foam windshield is fitted to the microphone, monitoring would only be undertaken when wind speeds were below 5m/s.
- No monitoring would be undertaken during periods of heavy precipitation; and
- No monitoring would be undertaken immediately adjacent to sources of electrical interference such as overhead power cables or radio transmitters.

At each monitoring location, noise levels would be measured in sample periods of not less than 15 minutes during the daytime. Sufficient sample periods would be accumulated to determine the site attributable LAeq, other additional noise parameters would also be simultaneously measured in order to more accurately define the acoustic environment. These would include LA90, LA10, T and LAFmax.

Wherever possible noise monitoring would be made during calm conditions (average wind speeds of less than 5 m/s) or at location with a positive wind component from the MRF operations. However, due to the variability of the British climate, the latter may not always be possible and such occasions should make a note of the uncertainty introduced by weather conditions on monitored sound levels and repeated where necessary.

Notwithstanding the above, as part of the monitoring schedule, a note of the prevailing weather conditions during the monitoring period would be made. This would include details such as wind speed, wind direction, estimate of cloud cover, presence of precipitation or fog and details of any other factors such as conditions likely to lead to a temperature inversion. These observations would be corroborated by data from the onsite meteorological station if available.

A note of the type of instrumentation used for the surveys would be made including manufactures model and serial number and any calibration details.

Observations would be made regarding the audibility of the MRF and the items of plant operating at the time of the surveys. A detailed log of any extraneous events affecting noise levels would also be made. Any use of the 'pause' feature on the SLM to limit the influence of extraneous noise events on the monitoring results would be recorded.

8.3 Complaint Process

Any complaints received at the MRF or via the regulatory bodies including the Environment Agency and Local Authority, will be recorded using the Compliant Report Form contained in the Site Management System. This will instigate further monitoring at the location of the complaint and on site to determine the extent of the noise and / vibration and whether any of the actions outlined in Section 8.2 should be employed. Where possible, as much information and detail about the complaint will be recorded, whether this is from the relevant authority or complaint direct to the MRF. This information will assist in the investigation and determining the source of the noise and / or vibration e.g. differentiating between potential off-site sources.

All complaints and queries will be logged in accordance with the management system as soon as is practicably possible. All complaints logged will be subject to investigation and complainants responded to within 48 hours of receipt, where possible.

Complaints regarding noise and / or vibration from the MRF will be investigated in accordance with the protocol, and appropriate records maintained which may include:

- Complaints received including name and contact details of complainant (if known), and complainants description of the noise and / or vibration.
- Nature of problem including date, time, duration, prevailing weather conditions and cause of the problem.
- Onsite activities and operational condition at the time of the complaint.
- Records of the likely source of the emission even if it is clearly not from the MRF.
- Details on the corrective action taken, and any subsequent changes to operational procedures.

- If considered necessary after investigation, operations identified as generating unacceptable noise will be reduced or suspended until effective remedial actions have been taken to limit the noise emissions from the MRF.

The Environment Agency will be informed by the Site Manager or appointed deputy of the complaint and where available the information described above will be provided.

The Operator will ensure that the complainant has all the relevant contact details of the MRF (e.g. the Site Manager) and the officer responsible at the Environment Agency. The Operator will be in regular contact with the complainant and the Environment Agency whilst the cause of the emission is being investigated and remediated.

An evaluation of the effectiveness of the techniques used will be carried out on completion of any remedial measures or if the complaints persist. Records of the above will be retained by the Operator for future reference.

8.4 Means of Contact

Valencia will be readily contactable to outside organisations and to members of the public. The wider site (Trigon Hill landfill and MRF) signage board (placed in a readily visible location) will contain the necessary contact details for both the MRF operations and Environment Agency. The company website also contains the necessary contact details for each individual Site.

Any complaints received directly to the MRF will be notified to the Environment Agency. Should an offsite issue arise, therefore, the complainant has a readily available means of getting in touch with Valencia.

8.5 Complaints Investigation

As part of each complaint received, these will be objectively assessed against the wider environment to ensure that the source of the emission is traced back to the correct source. As discussed earlier, it is essential that the source is correctly identified in order that mitigating measures can be applied effectively and correctly. The complaint will also be assessed against previous records to place the nature of the complaint into context.

8.6 Records and Review

A daily record relating to the management and monitoring of noise and / vibration will be maintained. It will include the following details:

- The results of inspections and noise monitoring carried out by personnel.
- Weather conditions including atmospheric pressure, wind speed and wind direction.

- Problems including date, time, duration, prevailing weather conditions and cause of the problem.
- Complaints received including address of complainant; and
- Details of the corrective action taken, and any subsequent changes to operational procedures.

The Noise and Vibration Management Plan will be reviewed on an annual basis with the scheduled review of the site management system or with every major increase, or alteration to the noise and/ or vibration generated at MRF (i.e. a change to source term, pathways or receptors).

8.7 Abnormal Events and Contingencies

The NVMP assumes that the MRF will be running under expected operational conditions. There are however circumstances that could result in a noise and vibration emission from the MRF above that has the potential to impact receptors and cause off-site complaints.

8.7.1 Breakdown of plant and equipment

Elevated levels of noise may escape from the MRF due to the breakdown of the waste treatment equipment or plant. Machines not operating to the manufacturer's specification may create unacceptable levels of noise and vibration. Any damage to plant and equipment that results in abnormal operational conditions of the recycling plant when identified during inspections will be rectified as soon as practicable. The plant and equipment will not be used until any damage or lose part is rectified or replaced to ensure normal operational conditions of the recycling plant.

8.7.2 Damage to MRF Building

Any damage to the MRF building including doors may result in the lack of containment of potential noise and vibration emissions from the operations. Operations within the MRF will be suspended into a formal inspection is undertaken by a suitably qualified engineer to determine that the structural integrity of the building / doors are maintained and inform repairs.

Valencia has contingency plans in place in the event that abnormal events result in noise and vibration emissions above the normal expected noise and vibration emissions from the MRF activities. This may include suspending operations until the noise and vibration emissions are rectified.

8.7.3 Implementation of Contingency Plan and/or Emergency Plan

Unscheduled unavailability should only take place due to unscheduled maintenance, emergency situations and for Health and Safety reasons such as a fire. In such cases the plant staff will initially inform the plant manager who will in turn inform service managers, the Authority and the Agency.

Site staff will implement measures to store or divert wastes as required with consideration to divert wastes to the landfill.

8.7.4 Operator's Experience with Contingency/Emergency Situations

Valencia has a policy of continuous review of emergency and contingency procedures which helps improve procedures across the Valencia's operations.

8.7.5 Review and Update of Contingency/Emergency Plans

The Contingency Plan and Emergency Plan will be reviewed following any incident where they have had to be followed. They will be updated as necessary with any lessons learned.

Drawings

A1

GENERAL NOTES

LEGEND

1. DO NOT SCALE
2. ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM
3. ANY ANOMALIES ON THIS DRAWING ARE TO BE BROUGHT TO THE ATTENTION OF BYRNE LOOBY LTD

KEY

- PERMIT BOUNDARY
- PROPOSED BOUNDARY
- 2K BUFFER ZONE
- PROPOSED MRF LOCATION
- (4) RECEPTOR MARKER

Rev.	Date	Description	By	Chk	App.

BYRNELOOBY

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IRELAND | UK | UAE | BAHRAIN | KSA

CLIENT: Valencia Waste Management Limited

PROJECT: TRIGON

DRAWING TITLE: 2K SENSITIVE RECEPTOR PLAN

STATUS: FINAL

Date: 02.11.23	Scale: 1:7500	Drawn: JM	Chk: GH	App: JB
Project No: K0485	Drg. No: K0485.1.002			Rev: 00

A1

GENERAL NOTES

LEGEND

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2. ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM
3. ANY ANOMALIES ON THIS DRAWING ARE TO BE BROUGHT TO THE ATTENTION OF BYRNE LOOBY LTD

KEY

- PERMIT BOUNDARY
- PROPOSED BOUNDARY
- 10K BUFFER ZONE
- PROPOSED MRF LOCATION
- 4 RECEPTOR MARKER

Rev	Date	Description	By	Chk	App

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IRELAND | UK | UAE | BAHRAIN | KSA

CLIENT:
Valencia Waste Management Limited

PROJECT:
TRIGON

DRAWING TITLE:
10K SENSITIVE RECEPTOR PLAN

STATUS:
FINAL

Date: 02.11.23	Scale: 1:35000	Drawn: JM	Chk: GH	Appr: JB

Project No:	Drg. No:	Rev:
K0485	K0485.1.003	00

Appendix A – Noise Impact Assessment

Trigon Landfill

Valencia Waste Management Ltd

Noise Assessment

July 2023

Document Control

Job No.	23-0409	
Project Name	Trigon Landfill	
Document Title	Noise Assessment	
Status	Issue 01	
Client	Valencia Waste Management Ltd	
	Name	Date
Prepared By	Trevor Olver	July 2023
Checked By	Freya Hoyle	July 2023
Approved By	Brendan Quinn	July 2023

Record of Revisions

Revision	Date	Details	Made By

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Appendices

1 Introduction

General

1.1 Rappor have been instructed by Valencia Waste Management Limited to prepare a Noise Assessment in support of a planning application for a proposed Materials Recovery Facility (MRF) at the former Trigon Landfill, Wareham. As part of the proposals the landfill element of the site will accept up to circa 225,000 tonnes per annum (tpa) of waste and exports from the site as a result of the recycling of waste materials at the proposed MRF to circa 75,000tpa.

1.2 Dorset Council (DC) has been consulted to confirm the scope of works and agree that a baseline noise survey should be undertaken to establish the background sound levels in the area.

1.3 This Noise Assessment sets out the predicted noise levels from the proposed operations based on measurements from a comparative operation and compares the results to the background sound levels in accordance with BS4142. Where applicable, mitigation measures to reduce any identified adverse impacts have been set out.

1.4 A glossary of acoustic terminology is provided in **Appendix A – Acoustic Terminology**.

2 Site Description and Application

Site Location

2.1 The proposed development is located at the Trigon Landfill Site, Bere Road, Wareham. The approximate redline boundary and nearest noise-sensitive receptors are identified in **Figure 2.1** below.

Figure 2.1 Site Location and Noise-sensitive Receptors

2.2 The proposed MRF is to the east of the landfill area with Bere Road approximately 615m to the east with an intervening solar park.

2.3 Whilst Trigon Landfill is not currently in operation and has been mothballed since 2017, it has extant permission for a waste disposal site accepting household, commercial and industrial waste with a permitted capacity input of 150,000tpa, which is consented to operate until 2027. At the time of writing, it is understood that the site will re-open in Summer 2023.

Proposed Development

2.4 The proposed development is shown in **Figure 2.2** below and consists of a new MRF. The proposed development will see the current permitted level of 150,000tpa of waste increased to circa 225,000tpa and exports to circa 75,000tpa.

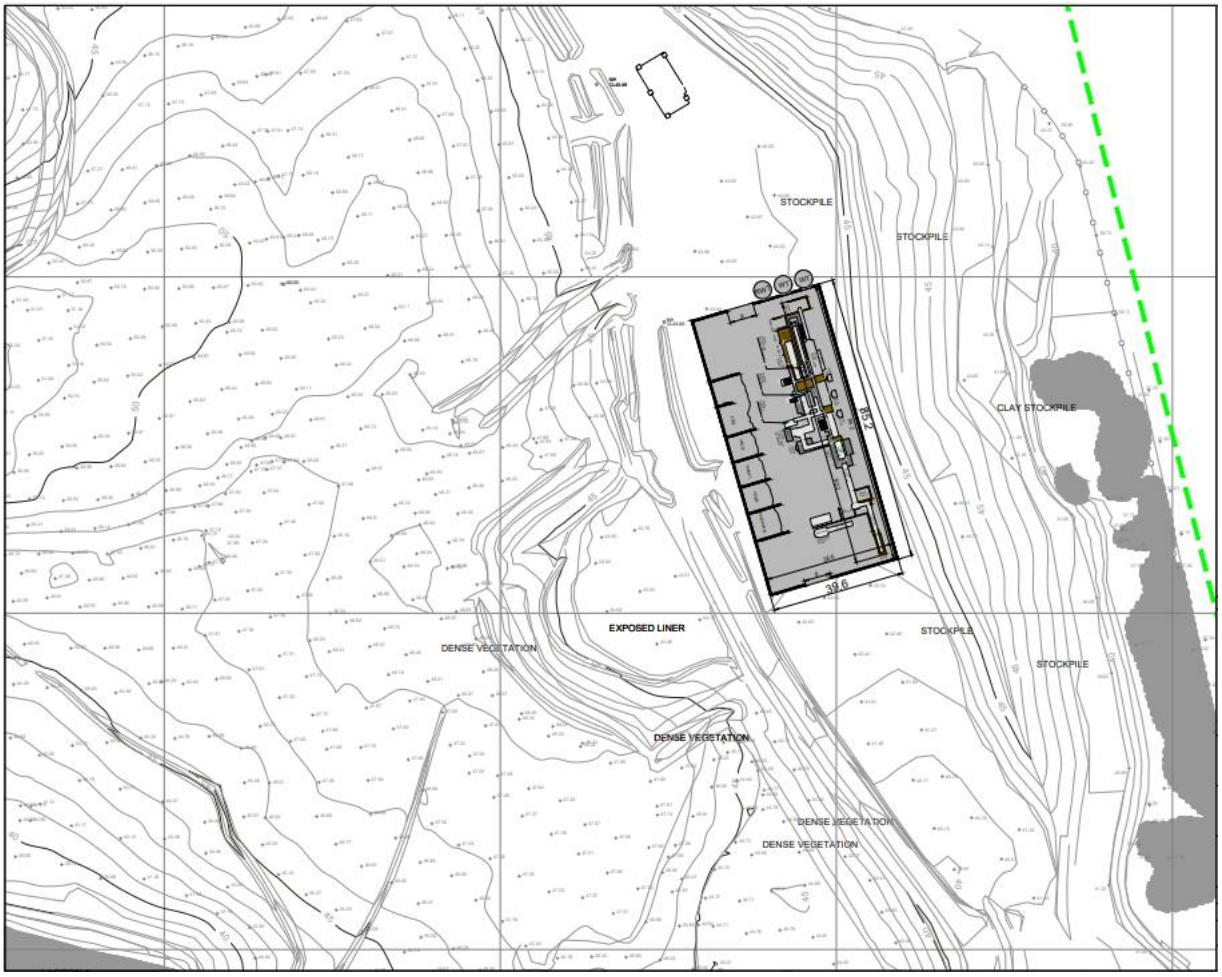

Figure 2.2 Proposed Development Layout

2.5 The Transport Assessment that has been submitted as part of this planning application indicates that the proposed increase in the permitted level from 150,000tpa to 225,000tpa of waste and exports to 75,000tpa including the MRF would result in an additional 96no. HGV movements over the 12-hour day. This is compared to the existing consented movements to the landfill of 144no. HGV movements over a 12-hour day.

3 Consultation and Guidance

Consultation

3.1 Prior to undertaking the noise assessment, Rappor consulted with the DC to agree the scope of the assessment.

3.2 It was agreed that a background noise survey would be undertaken to establish the baseline noise levels at representative locations of the nearest noise-sensitive receptors.

3.3 As the exact make and model of equipment to be used within the new MRF are yet to be finalised and are subject to change as a result of commercial considerations, it was agreed that noise measurements from an existing operation would be used within the assessment.

3.4 Furthermore, it was agreed that the predicted noise levels from the operation of the MRF would be assessed in accordance with BS4142.

3.5 Details of applicable guidance to the assessment are set out below.

National Planning Policy Framework (2021)

3.6 The National Planning Policy Framework (NPPF) sets out the government's planning policies for England and how these are expected to be applied. It states that 'The purpose of the planning system is to contribute to the achievement of sustainable development' and in relation to the natural environment it states at Paragraph 174:

> *"Planning policies and decisions should contribute to and enhance the natural and local environment by:*
>
> *… preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability".*

3.7 Paragraph 185 goes on to state:

> *"Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:*
>
> *a) mitigate and reduce to a minimum potential adverse impact resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;*
>
> *b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason…".*

3.8 Finally, Paragraph 188 states:

> *"The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or*

emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities."

3.9 Where considering adverse impacts, the NPPF makes reference to the Noise Policy Statement for England (NPSE).

Noise Policy Statement for England (NPSE)

3.10 The aim of the NPSE states:

"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

avoid significant adverse impacts on health and quality of life;

mitigate and minimise adverse impacts on health and quality of life; and

where possible, contribute to the improvement of health and quality of life."

3.11 With reference to Significant Observed Adverse Effect Level (SOAEL), the document notes that:

"It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available."

Planning Practice Guidance (PPG) – Noise

3.12 The latest version of the PPG – Noise was published in July 2019 and provides advice on how planning can manage potential noise impacts in new developments.

3.13 It states:

"Plan-making and decision making need to take account of the acoustic environment and in doing so consider:

whether or not a significant adverse effect is occurring or likely to occur;

whether or not an adverse effect is occurring or likely to occur; and

whether or not a good standard of amenity can be achieved."

3.14 **Table 3.1** presents the noise exposure hierarchy based on the average response of those affected.

Response	Example of outcomes	Increase effect level	Action
No Observed Effect Level			
Not present	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level (NOAEL)			
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level (LOAEL)			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level (SOAEL)			
Present and disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

Table 3.1 Noise exposure hierarchy table

British Standard 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound

3.15 BS4142 describes methods for rating and assessing sound of an industrial and/or commercial nature. The method uses outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling or premises used for residential purposes.

3.16 The standard requires the determination at the assessment location(s) of the representative background sound level without the specific sound source, the level of the specific sound (distinct and free from other influences contributing to the ambient sound), and the acoustic features of the specific sound (which increases the significance of impact).

3.17 A character correction is applied to the specific sound level to account for the acoustic features to obtain a rating level. The corrections to be considered are:

3.18 Tonality – For sound ranging from not tonal to prominently tonal the Joint Nordic Method gives a correction of between 0 dB and +6 dB for tonality. Subjectively, this can be converted to a penalty of 2 dB for a tone which is just perceptible at the noise receptor, 4 dB where it is clearly perceptible, and 6 dB where it is highly perceptible.

3.19 Impulsivity – A correction of up to +9 dB can be applied for sound that is highly impulsive, considering both the rapidity of the change in sound level and the overall change in sound level. Subjectively, this can be converted to a penalty of 3 dB for impulsivity which is just perceptible at the noise receptor, 6 dB where it is clearly perceptible, and 9 dB where it is highly perceptible.

3.20 Intermittency – When the specific sound has identifiable on/off conditions, the specific sound level should be representative of the time period of length equal to the reference time interval which contains the greatest total amount of on time. This can necessitate measuring the specific sound over a number of shorter sampling periods that are in combination less than the reference time interval in total, and then calculating the specific sound level for the reference time interval allowing for time when the specific sound is not present. If the intermittency is readily distinctive against the residual acoustic environment, a penalty of 3 dB can be applied.

3.21 Other sound characteristics - Where the specific sound features characteristics that are neither tonal nor impulsive, nor intermittent, though otherwise are readily distinctive against the residual acoustic environment, a penalty of 3 dB can be applied.

3.22 An initial estimate of the impact is found by subtracting the background sound level from the rating level with the results compared to the criteria presented in **Table 3.2**.

Rating Level	Impact
Equal to or less than Background	Indication of Low Impact, depending on context
+5dB above Background	Indication of Adverse Impact, depending on context
+10dB or more above Background	Indication of Significant Adverse Impact, depending on context

Table 3.2 Impact Assessment

3.23 However, the significance of the sound depends on both the margin above background and the context in which the sound occurs. The above estimate should therefore be modified to consider factors such as absolute level of sound, character and level of residual sound, and the sensitivity of the receptor.

4 Noise Survey

Survey Details

4.1 A baseline noise survey was undertaken on Tuesday 18th July 2023 to capture the prevailing noise climate.

4.2 Noise meters were installed at Noise Monitoring Position 1 (NMP1) and NMP2 as indicated in Figure 4.1 below. The monitoring locations are considered representative of the nearby noise-sensitive receptors.

Figure 4.1 Noise Monitoring Locations

4.3 The noise meters were installed at a height of approximately 1.5m in free-field conditions with the data logged every 15-minutes.

4.4 Details of the monitoring equipment can be found in **Appendix B – Monitoring Equipment**. On-site calibration was undertaken before and after measurements with no significant drift observed.

Weather Conditions

4.5 Weather conditions throughout the monitoring were suitable for noise monitoring being dry and calm with negligible wind.

Noise Climate

4.6 The noise climate at NMP1 consisted of distant road traffic and occasional aircraft with natural sounds such as bird song and grasshoppers.

4.7 At NMP2 the noise climate included noise from the nearby children's activity centre and occasional aircraft. Natural sounds were also noted including birdsong.

Monitoring Results

4.8 The results of the noise survey are presented in **Table 4.1**.

Location	Time	$L_{Aeq, T}$	L_{A10}	L_{A90}	L_{Amax}
NMP1	10:00	39.2	42.3	30.8	56.5
	10:15	38.4	39.5	32.3	58.0
	10:30	37.6	39.5	32.3	55.6
	10:45	42.2	41.2	30.6	68.5
	11:00	38.0	38.9	30.9	59.7
	11:15	35.1	38.2	29.7	49.1
	11:30	38.2	40.3	31.5	50.8
	11:45	39.1	40.3	31.5	58.1
NMP2	10:30	45.3	46.6	35.9	67.3
	10:45	41.9	42.0	33.5	66.4
	11:00	38.8	41.7	33.0	53.4
	11:15	42.0	42.8	31.4	64.6
	11:30	43.8	43.6	33.2	66.9

Table 4.1 Summary of Measured Noise Levels, dB

4.9 The results of the noise survey indicate that the area is quiet with consistently low background sound levels. Based on the noise climate generally being natural sounds it is considered that the data represents the daytime period well.

5 Noise Impact Assessment

5.1 The exact make and model of equipment to be used within the new MRF are yet to be finalised and are subject to change as a result of commercial considerations.

5.2 During the application to extend operating hours of an existing MRF at Mason's Landfill (ref: Suffolk County Council - SCC/0093/20MS/VOC), a number of short-term noise measurements were captured of site activities which are considered representative of the proposed development.

5.3 Noise breakout from the building with the shutters open (i.e. worst-case breakout) was found to be 62dB at 10m, while the operation of a grab truck was measured at 59dB at 10m.

5.4 Distance and soft ground attenuation has been applied to the measured sound levels accounting for the distance between the proposed development and the noise-sensitive receptors in accordance with the methodology detailed in BS5228. The results are presented in **Table 5.1** below.

5.5 It is considered the predictions are worst-case as there is potential for some barrier attenuation from the landform in the area.

5.6 Given the distance between the site and nearest noise-sensitive receptor it is not considered that there will be any perceptible impulsive or tonal noise. However, the site may be audible at times and the character will be distinctive compared to the existing noise environment. Therefore, a 3dB rating penalty is considered relevant.

Location	Distance (m)	Predicted Noise Level, dB(A)	Rating Level, dB
Location 1	473	25	28
Location 2	609	22	25
Location 3	539	24	27
Location 4	626	22	25

Table 5.1 Predicted Noise Levels from Proposed MRF and Two Grabs

5.7 It can be seen from the above table that rating level from the proposed MRF is less than the measured background sound level throughout the baseline noise survey.

5.8 In accordance with BS4142, a rating level below the background sound level would result in a low impact. Therefore, it is considered that the proposed development would not have a significant adverse impact on the nearby noise-sensitive receptors.

5.9 Notwithstanding, during detailed design of the development, consideration should be given to plant selection to minimise noise levels as far as practicable.

5.10 As set out in Section 2, the proposed increase in the permitted level from 150,000tpa to 225,000tpa of waste and exports to 75,000tpa including the MRF would result in an increase in HGV movements from the currently consented level of 144 to 240 over a 12-hour period. A 66% increase in HGV traffic equates to an approximate 2dB increase in noise level. A 3dB increase in noise is the threshold of perception and therefore a 2dB increase is not considered significant.

6 Summary and Conclusions

Summary

6.1 Rappor have been instructed by Valencia Waste Management Limited to prepare a Noise Assessment in support of a planning application for a proposed MRF at the former Trigon Landfill, Wareham. As part of the proposals the landfill element of the site will accept up to circa 225,000tpa of waste and exports from the site as a result of the recycling of waste materials at the proposed MRF will be circa 75,000tpa.

6.2 This report sets out the results of measurements of an existing MRF and predictions to the nearest noise-sensitive receptors. The predicted noise levels are compared to derived background sound levels in accordance with BS4142.

6.3 The results indicate that noise from the proposed MRF will be below the background sound level and therefore result in a low impact.

6.4 Based on the predicted HGV movements presented in the Transport Assessment, the development would lead to an approximate 2dB increase in HGV noise which is considered to be not significant.

Conclusions

6.5 Rappor concludes that the development would not have a significant adverse impact on the nearby noise-sensitive receptors, and as such, there are no significant noise matters that would preclude the Local Planning Authority from approving this planning application.

Appendix A – Acoustic Terminology

Glossary of Acoustic Terminology

Term	Description
Ambient Sound Level, $L_{Aeq,\ T}$	Equivalent continuous A-weighted sound pressure level of the totally encompassing sound in a given situation at a given time, usually from many sources near and far, at the assessment location over a given time interval, T
Background Sound Level, $L_{A90,T}$	A-weighted sound pressure level that is exceeded by the residual sound at the assessment location for 90% of a given time interval, T, measured using time weighting, F, and quoted to the nearest whole number of decibels
Specific Sound Level	Equivalent continuous A-weighted sound pressure level produced by the specific sound source at the assessment location over a given reference time interval, Tr
Rating level, $L_{Ar,Tr}$	Specific sound level plus any adjustment for the characteristic features of the sound

Appendix B – Monitoring Equipment

Details of Monitoring Equipment

Location	Item Description	Serial Number
1	Svantek SV307A Class 1 Sound Level Meter	116148
2	Svantek SV307A Class 1 Sound Level Meter	116137
All	Svantek SV36 Acoustic Calibrator	122250

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