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Green Waste Company (Abergavenny) Limited - Variation

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Refusal of a variation

We have decided to refuse the permit variation for Maindiff Court Farm.

The applicant is Green Waste Company (Abergavenny) Limited. We refer to Green Waste Company (Abergavenny) Limited as “the applicant” in this document.

The permitted facility is located at Maindiff Court Farm, Abergavenny, Monmouthshire, NP7 8AY. We refer to this as “the permitted facility” in this document.

What this document is about

This is a decision document which details the determination of the above permit application.

It explains how we have considered the applicant's application, and why we have refused the proposed variation to their permit. It is our record of our decision-making process, to show how we have considered all relevant factors in reaching our decision.

This decision document only discusses the reasons for refusal to grant a permit variation. Where details are not discussed in this document it means that we have considered the application and accepted the details are sufficient and satisfactory, or do not have a material effect on the overall conclusions.

We consider in reaching that decision, we have considered all relevant considerations and legal requirements.

Preliminary information and use of terms

We gave the application the reference number PAN-016253. We refer to the application as “the application” in this document in order to be consistent.

The application was considered to be duly made as of 8 April 2022.

Key issues of the decision

1 Our decision

Based on the information currently available to us we are refusing the application to vary the permit.

We carefully considered the application and all other relevant information before we reached a decision. Having considered the information submitted with the application and further information submitted during the determination, we are not satisfied that the applicant has adequately addressed the impact of noise resulting from the proposals introduced by this variation.

Our decision has been influenced by the following principal factors that in combination may increase the overall risk of impact of noise from the proposed facility. These are:

1. The **methodology used by the applicant in their NIA (Noise Impact Assessment) has not been adequately explained** (e.g., derivation of background sound level) and therefore we cannot be confident in the conclusion within the NIA.
2. **The NIA indicates that significant noise pollution is likely from the facility.**
3. The applicant has not provided a **fully justified context argument** to demonstrate significant noise pollution is not likely.
4. **Failure to demonstrate proposed control measures** will address likely significant noise pollution at local receptors

Our Noise and Vibration Management: Environmental Permits guidance states '*The environment agencies will not grant you a permit if significant noise pollution is expected*', the applicant's NIA simply outlines that noise emissions from the whole site, with the proposed changes from this variation, are likely to cause *significant adverse* impact at local receptors. We are therefore unable to agree to this variation and have no choice but to refuse the application.

2 How we reached our decision

2.1 Receipt of application

On 3 December 2021, Green Waste Company (Abergavenny) Limited submitted an application to vary their bespoke permit. The application was accepted as duly made on 8 April 2022. This means we considered it was in the correct form and contained sufficient information for us to begin our

determination, but not that it necessarily contained all the information we would need to complete that determination. Further information was requested during the determination, and this is explained in this document.

The applicant made no claim for commercial confidentiality. We have not received any information in relation to the application that appears to be confidential in relation to any party.

2.2 Consultation on the application

In accordance with the Environmental Permitting (England and Wales) Regulations 2016, our statutory Public Participation Statement (PPS) and our Working Together Agreements we did not consult on this application.

2.3 Requests for further information

Request for Information at Duly Making Assessment Stage

In order for us to be able to consider the application duly made, we needed more information. We requested further information relating to the application forms, the application fee, the Operational Risk Appraisal (OPRA) profile, the risk assessment, site layout, compliance with Industrial Emission Directive (IED) thresholds, and the NIA. Upon receipt of this information, we were able to consider the application duly made.

During the application determination process, we are able to request further information that we require in order to complete our determination. We can do this formally or informally.

When we request information formally, we do this by serving a 'Schedule 5 Notice' on the applicant. A Schedule 5 Notice is a legal notice that clearly specifies what information we require to determine the application, why we need that information and by when the applicant must submit the information. The applicant must provide all of the information specified in the notice.

Schedule 5 Notice 1 (dated 4 July 2022)

During the application determination process, further information was requested by way of a Schedule 5 Notice requiring information to clarify aspects associated with the following:

- Proposed Waste Codes
- Compliance with Industrial Emissions Directive
- Fire Prevention and Mitigation Plan
- Site Specific Bioaerosol Risk Assessment
- Dust Emissions Management Plan
- Odour Management Plan

The Schedule 5 Notice was sent on 4 July 2022 with a deadline of 25 July 2022. We agreed with the applicant to extend the deadline for a response to this

Schedule 5 Notice to 3 August 2022 in line with Schedule 5 Notice No.2 (see below). The applicant's initial response to the Schedule 5 Notice was provided on 3 August 2022, however two documents were missing from the initial response these were received on 8 August 2022 (Site Capacity Assessment) and 25 August 2022 (Odour Management Plan). The additional information supplied by the applicant satisfied the requirements of the Schedule 5 Notice issued on 4 July 2022.

Schedule 5 Notice 2 (dated 20 July 2022)

The applicant had submitted a NIA and Noise Management Plan (NMP) in support of their application. We had a number of queries regarding the NIA and NMP and these included but were not limited to the following:

- derivation of the background sound levels ($L_{A90,T}$)
- application of the derived background sound levels in the NIA
- justification of the octave spectra used for the waste treatment plant
- sound sources and mitigation relating to site traffic
- risk of vibration due to the operation of shredder, screener, and stone crusher
- noise management plan

This Schedule 5 Notice was sent on 20 July 2022 with a deadline of the 3 August 2022. The response was received on 3 August 2022. The additional information supplied by the applicant satisfied the requirements of the Schedule 5 Notice issued on 20 July 2022. The response however did not fully satisfy all of our concerns regarding the NIA and NMP.

Schedule 5 Notice 3 (dated 4 October 2022)

We undertook a follow up review of the amended NIA and NMP provided in response to Schedule 5 Notice No.2 dated 20 July 2022. The amendments made by the applicant lead to queries regarding the following:

- additional background monitoring over weekend periods (consistent with proposed weekend operations)
- discrepancies within the assessment and report regarding background values
- derivation of the background levels ($L_{A90,T}$)
- further explanation regarding the derivation for the correction applied to the specific sound of the shredder
- terminology used within the report (ambient noise level and residual sound values)
- additional explanation as to how the -7dB correction had been calculated
- the provision of the entire monitoring data (1 hour period) for the shredding process to substantiate the claim the noise levels settled.

This Schedule 5 Notice was sent on 4 October 2022 with a deadline of 25 October 2022. To assist the applicant in satisfying our queries NRW hosted a virtual meeting with the applicant's consultant (James Hay – Walker Resource Management Limited) and the applicant's specialist noise consultant (Nick Myerscough – Walnut Acoustics Limited) this occurred on 11 October 2022.

Following this meeting a summary email was sent on 14 October 2022 that clarified the approach discussed to address the questions outlined in the Schedule 5 Notice.

The deadline for a response to this Schedule 5 Notice was extended on the request of the applicant to 1 November 2022. The applicant's initial response was provided on 1 November 2022 but a further response including the associated noise modelling files was received 7 November 2022.

The additional information supplied by the applicant satisfied the requirements of the Schedule 5 Notice issued on 4 October 2022. The response however did not fully satisfy all of our concerns regarding the NIA and NMP.

Copies of the information notices and e-mails requesting further information have been placed on our public register.

3 The legal framework

The application is subject to the Environmental Permitting Regulations (England and Wales) 2016. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope.

In particular, the proposed facility is:

- A *regulated facility* as defined in regulation 7 of the Environmental Permitting Regulations.
- A *waste operation* covered by the Waste Framework Directive because it accepts waste.
- Subject to aspects of the Well-Being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 which have also been considered.
- Subject to our general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources”.

In taking this decision, NRW has had regard to Schedule 5, Part 1, Paragraph 13 of the Environmental Permitting (England and Wales) Regulations 2016, which states:

*13.—(1) Subject to sub-paragraph (3), **the regulator must refuse an application for the grant of an environmental permit or for the transfer in whole or in part of an environmental permit if it considers that, if the permit is granted or transferred, the requirements in sub-paragraph (2) will not be satisfied.***

*(2) **The requirements are that the applicant for the grant of an environmental permit, or the proposed transferee, on the transfer of an environmental permit (in whole or in part), must—***
(a) be the operator of the regulated facility; and
*(b) **operate the regulated facility in accordance with the environmental permit.***

*(3) **The requirement in sub-paragraph (2)(b) does not apply to an applicant for the grant of an environmental permit authorising the carrying on of only a stand-alone water discharge activity or stand-alone groundwater activity.***

Note: the relevant passages in the extract above have been emphasised for ease of reference.

In addition, NRW has considered the Environmental permitting: Core guidance for the Environmental Permitting (England and Wales) Regulations 2016 (SI 2016 No 1154), which sets out the views of the Secretaries of State for Environment Food and Rural Affairs (Defra), for Business, Energy, and Industrial Strategy (BEIS), and the Welsh Ministers on how the Regulations should be applied and how particular terms should be interpreted in England and Wales. This states:

“9.3 Following an application for the grant or transfer of an environmental permit, there is also a specific duty on the regulator not to grant or transfer the permit if it considers that the operator/new operator will not operate the facility in accordance with the permit (see paragraph 13 of Part 1 of Schedule 559). In making this decision the regulator should consider whether the operator cannot or is unlikely to operate the facility in accordance with the permit. The regulator might doubt whether the operator could or is likely to comply with the permit conditions if for example, the operator:

- has an inadequate management system;*
- demonstrates inadequate technical competence;*
- has a record of poor behaviour or non-compliance with previous regulatory requirements; or*
- has inadequate financial competence.”*

“7.7 The regulator may also decide to refuse an application in certain circumstances. Examples of cases where this might be appropriate are:

- the regulator has reason to believe that the operator is not competent to run the regulated facility in accordance with the permit (see chapter 9 on Operator competence);*
- **the environmental impact would be unacceptable** (for instance, an operator might propose siting a new facility close to an extremely sensitive environment, but with no means of providing adequate control);*
- the information provided by the operator does not provide a reasonable basis to determine the permit conditions, taking into account the operator’s responses to requests for more information (see the chapter 6 section on Requests for more information); and*
- the requirements of relevant EU Directives cannot be met.”*

We also referred to a range of guidance throughout our determination of this proposed variation. Whilst we will not list all this guidance here it is important to outline the sections of the guidance relevant to the refusal decision.

We expect applicants to assess the impact of noise from their proposed activities in their risk assessment and where relevant undertake a NIA. This should be undertaken in line with our guidance [Noise and vibration management: Environmental Permits guidance](#), [Noise impact assessments involving calculations or modelling - GOV.UK \(www.gov.uk\)](#), and [Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](#).

We also expect that all applicants follow the methodology outlined in BS 4142:2014+A1:2019 (referred to in this document as BS 4142) when undertaking a NIA in support of an application to vary their permit.

4 The proposed changes to the permitted facility

4.1 The permitted facility

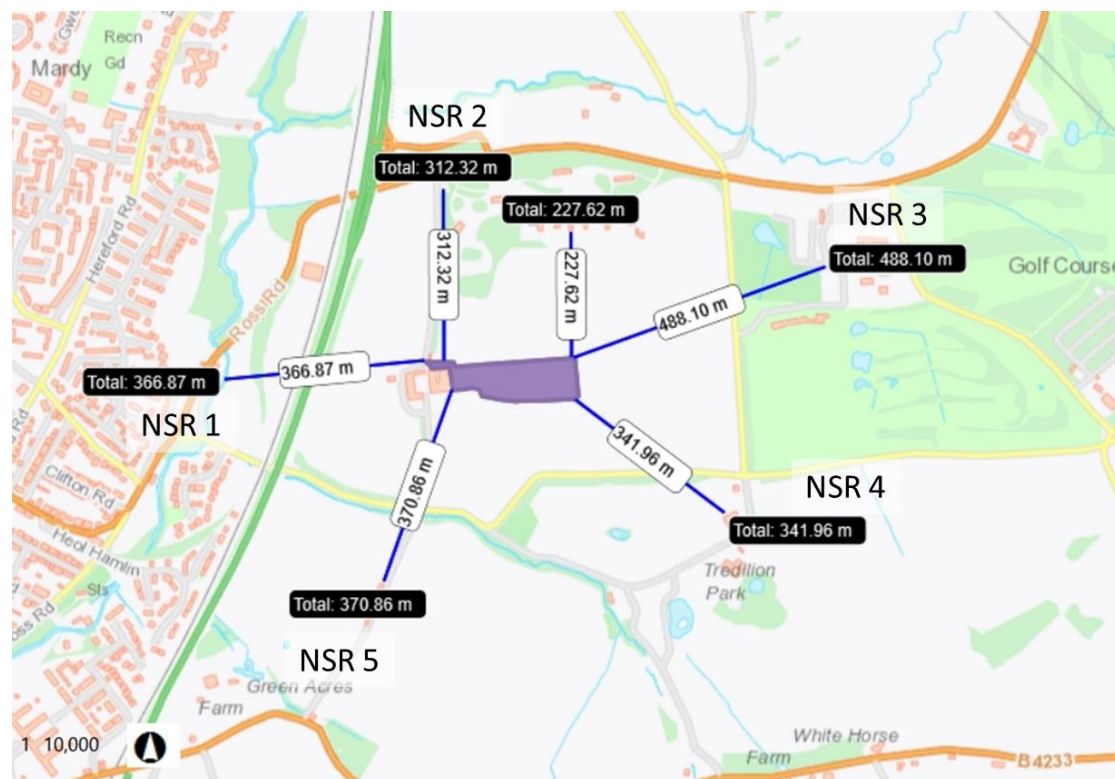
The facility is located on Maindiff Court Farm which is predominantly in a rural location.

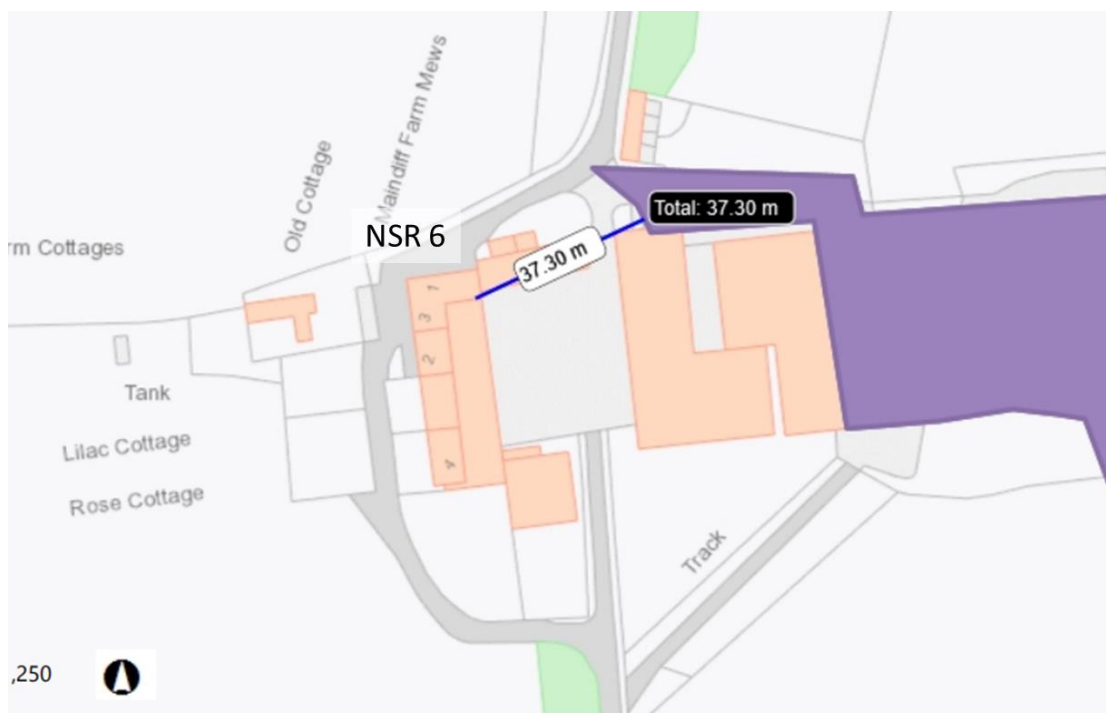
There are a number of industrial, business, and residential receptors located within the vicinity of the proposed facility. These include but are not limited to:

- The town of Abergavenny is located within 400m south, southwest of the site's boundary.
- Numerous residential receptors located around 300m from the site boundary in all directions. The nearest residential receptors are within 40m of the site's western boundary. These cottages are owned by the applicant but are occupied by other residents.
- Tredillion Park (residential and wedding venue) is located 350m south-southeast of the site boundary.
- Maindiff court hospital is located around 230m north of the site boundary

Several main/trunk roads run near to the proposed facility, including the A465 which is around 150m west of the site boundary. The B4521 (Ross Road) is also west and north of the facility.

In later sections of this Decision Document (Section 5) we will discuss the applicant's NIA. Within this document the applicant has identified 6 key receptors. These receptors and their locations from the site are shown on the figures below. (For clarity the site has been demarked by the purple polygon).





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For ease of reference, we have also produced the following table which identifies each of these noise sensitive receptors (NSR), its distance to the site boundary and how it is referred to in the applicant's NIA. This table is shown below.

Receptor Name	Distance From Site Boundary	NIA Reference
Railway Cottages <i>Residential</i>	366m	NSR 1
House <i>Residential</i>	312m	NSR 2
Maindiff Court Hospital <i>Healthcare</i>	227m	Not assessed directly. NIA assumes similar to NSR 2.
Wern Ddu Golf Club and Caravan Park <i>Leisure/Residential</i>	488m	NSR 3
Tredilion Park Residential / Wedding Venue	341m	NSR 4
House <i>Residential</i>	370m	NSR 5
Maindiff Court Farm Flats	37m	NSR 6

4.2 The facilities current activities

The site currently holds a bespoke permit that enables them to carry out an open windrow composting activity which includes the storage, physical treatment and composting of specified green, biodegradable wastes. No hazardous wastes are permitted to be treated and composting must occur under aerobic conditions.

The current permit allows for more than 500 tonnes of waste to be composted at one time with the total quantity of waste accepted at the site not exceeding 13,163 tonnes per year.

The activity is subject to the Industrial Emissions Directive over a specified threshold. Section 5.4 A (1) (b)(i) of the Environmental Permitting Regulations (2016) biological treatment of non-hazardous waste for recovery treatment capacity threshold of 75 tonnes per day applies to the site.

The permit does not allow for any point sources emissions into surface waters or groundwater. Leachate or surface water run-off from areas of the site associated with permitted waste activities is directed by engineered drainage channels to sealed drainage tanks or lagoons. Leachate is recirculated to assist with the maintaining the correct moisture balance in the composting windrows.

4.3 The proposed changes to the permitted activities

The changes being proposed by this permit variation application are as follows:

- Increase the annual throughput for the open windrow composting activity from 13,163 tonnes per annum to 27,222 tonnes per annum
- Inclusion of a physical treatment of waste stones and aggregate activity into their permit. The proposed annual throughput for the aggregate processing plant is 5,100 tonnes per annum.
- The inclusion of additional waste codes related to the aggregate crushing activity to be included into the permitted waste code table within the permit.

5 Key issues in the determination

The key issue arising during this determination was the impact of noise resulting from the proposed activities.

Our Noise and Vibration Management: Environmental Permits guidance states *'The environment agencies will not grant you a permit if significant noise pollution is expected.'* The applicant's NIA simply outlines that noise emissions from the whole site, with the proposed changes from this variation, are likely to cause an adverse and a significant adverse impact at NSRs. We are unable to agree to this variation and have no choice but to refuse the application.

It is also evident through the requests for information (Schedule 5 Notice 2 and Schedule 5 Notice 3) that NRW have raised multiple concerns regarding the methodology implemented by the applicant in their NIA. Despite multiple

requests for information, the methodology used within the NIA has not been adequately explained (e.g., the derivation of the background values selected for the BS 4142 NIA) and therefore we do not have confidence in the conclusions from the assessment undertaken.

That said, our main concerns regarding the NIA are as follows:

- 1) The **methodology used by the applicant in their NIA (Noise Impact Assessment) has not been adequately explained** (e.g., derivation of background sound level) and therefore we cannot be confident in the conclusion within the NIA.
- 2) **The NIA indicates that significant noise pollution is likely from the facility.**
- 3) The applicant has not provided a **fully justified context argument** to demonstrate significant noise pollution is not likely.
- 4) **Failure to demonstrate proposed control measures** will address likely significant noise pollution at local receptors

These will each be further explored in detail in the following sections of this document. In the following sections if we do not clarify a different version of the report when we say NIA, we are referring to the final version (Noise Impact Assessment – Revision 2, GWC Limited Permit Variance Application, Dated: 01/11/, Document Reference: /0422/NIA-488rev2).

The following sections of this decision document should be read alongside the applicants final NIA.

5.1 Concerns over methodology used with the NIA

5.1.1. Derivation of the background sound levels $L_{A90,T}$

Despite Schedule 5 Notices No.2 and No.3 asking the applicant to provide further explanation in regard to the background sound levels (L_{A90}) used in the report. We are still unable to understand how background L_{A90} values have been derived. We therefore cannot be confident that the applicant's NIA is not underestimating the impacts at local receptors.

To be more specific, in the NIA the applicant stated the following with regards to the methodology used to determine the most typical and representative background sound levels; "The value chosen is one where total occurrences of higher and lower values are similar." Table 23 and Table 24 of the NIA also provide brief notes on the derivation of the background sound levels, these notes often simply stated "analysis of measurement" as the explanation. No further information was supplied on that analysis, for example there was no provision of statistical method used, such as histograms, or sufficient qualitative explanation of the analysis.

Background monitoring is required to be undertaken at assessment locations, or where this is not possible, at alternative locations with detailed justification provided for the chosen location. The monitoring duration should reflect the range of background sound levels for the period being assessed.

Within the Schedule 5 Notice No.3, in the virtual meeting, and within the follow up email notes, we have been clear that we required the background sound levels used in the assessment to be based on the longer duration monitoring (e.g. monitoring of similar duration to that undertaken at BG 1, BG 2 and BG 3). The applicant's longer duration background monitoring was undertaken at three locations during the weekday with a fourth location added (BG 4) during the weekend monitoring. Background monitoring locations BG 1, BG 2 and BG 4 were reasonably close to sensitive receptors NSR 5, NSR 4 and NSR 2 respectively. NSR 1, NSR 3 and NSR 6 are not reasonably close (see figure below) to the background monitoring locations. The notes in Table 23 and Table 24 of the NIA do not provide satisfactory explanation for the choice of background sound levels at all NSR.



There is no exact prescribed method for the determination of a background sound levels within BS 4142 and alongside the guidance given, the standard relies on professional judgement. When considering the information provided it is not possible to verify with confidence the typical L_{A90} background sound levels used in the BS 4142 assessment for all receptors. This has the knock-on effect to undermine our confidence in the NIA as a whole.

5.1.2 Categorisation of impacts.

Whilst it will be further explored in Sections 5.2 and 5.3 below, it is important to highlight in this section of the decision document the method the applicant has used to consider context within the BS 4142 assessment.

BS 4142 states users should obtain an initial estimate of the impact of the specific sound by subtracting the measured background sound level from the rating level. BS 4142 states that:

- A difference of **around** +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.
- A difference of **around** +5 dB is likely to be an indication of an adverse impact, depending on the context.
- Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

In this document we will refer to the difference between rating level and background as the assessment level. This term has also been used by the applicant.

Where the initial estimate of the impact needs to be modified due to the context, all pertinent factors should be taken into consideration. BS 4142 and our noise guidance contains a comprehensive description of factors that can be taken into account within context.

The overall impact at a receptor depends on the context in which the sound occurs, there may be reasons which may make a receptor more or less sensitive to the specific sound, e.g. time of day, the character and level of the residual sound compared to the character and level of the specific sound, the absolute level of sound etc. For example, whilst a difference of +5dB could indicate a likely adverse impact, it could be considered a *low* impact should there be a valid contextual argument that makes a receptor less sensitive. Likewise depending on context, a difference of +5dB may also be able to be considered as *significant adverse* impact, if the context makes a receptor more sensitive.

The applicant's NIA states, "*The context of the noise climate in the surrounding areas has been considered and the noise impacts used for assessment levels are as follows.*"

<i>Assessment levels at NSRs Rating level compared to background noise level</i>	<i>Noise impacts in context</i>
<i>Below background noise level</i>	<i>None</i>
<i>Background noise level and above up to + 5 dB</i>	<i>Low</i>
<i>More than 5 dB above background noise level</i>	<i>Potential for adverse</i>
<i>More than 10 dB above background noise level</i>	<i>Potential for significant adverse</i>

As outlined above the applicant indicates they have considered context by modifying the BS 4142 "assessment levels" such that the criteria relating to difference states "**more**" rather than "**around**".

The applicant's method of applying criteria inclusive of context is shown in Tables 29 and Table 31. Numerous +5dB levels are assigned as "low impact" rather than the original BS 4142 descriptor of "adverse impact".

Whilst we are able to understand the method that the applicant is trying to implement, this is not an approach regularly implemented in submitted NIA. Importantly, the applicant has provided no information and/or detailed discussion regarding the context in which the sound occurs and thereby demonstrating why the assessment levels should be modified and to what extent. It should also be noted that each sensitive receptor may have specific contextual arguments due to their different locations, applying the same criteria to each receptor fails to consider this possibility.

Further discussion on assigned assessment impacts is provided 5.2 and 5.3

The above has the knock-on effect to undermine our confidence in the NIA as a whole.

5.2 Likely significant noise pollution from the facility

The NIA indicates that there is likely significant adverse impact from the activities. Our guidance equates this to likely significant pollution caused at the receptor.

Our guidance states:

Unacceptable level of audible or detectable noise

*This level of noise means that **significant pollution is being, or is likely to be, caused at a receptor** (regardless of whether you are taking appropriate measures).*

*You must take further action, or you may have to reduce or stop operations. The environment agencies **will not issue a permit if you are likely to be operating at this level.***

*The closest corresponding BS 4142 descriptor is '**significant adverse impact**' (following consideration of the context).'*

Therefore, as a result we are unable to agree to an activity, or any changes to an activity that will likely result in significant pollution. The NIA provided in support of this application demonstrates significant pollution is likely to occur as a result of the activities on site following the proposed variation.

5.2.1 Likely Significant Adverse Impact from the Open Windrow Composting Activity.

Section 7.3.1 *Shredding and Screening (Existing Operations)* of the NIA assesses the noise impact of the treatment activities (screening and shredding of green waste) associated with the Open Windrow activity undertaken on site.

This section of the NIA predicts that on a 'weekday' the following rating levels are likely to be experienced at each of the receptor locations assessed. It also demonstrates the *assessment levels* (the rating level compared to the background) at each NSR. These results are shown in the table below.

Assessment Location	Acoustic Feature Correction dB	Rating Level at NSR dB	Background noise level dB	Assessment level dB
NSR 1	+ 5	39	45	- 6
NSR 2	+ 5	51	46	+ 5
NSR 3	+ 5	44	39	+ 5
NSR 4	+ 5	50	37	+ 13
NSR 5	+ 5	49	44	+ 5
NSR 6	+ 5	48	45	+ 3

The NIA indicates a likely significant adverse impact from the current screening and shredding of green waste at NSR 4. The NIA also shows that at NSR 2, 3, and 5 there is a likelihood for adverse impacts to receptors as a result of noise emissions from the current screening and shredding of green waste, depending on context.

The applicant has categorised in Table 29 of their NIA the impacts at NSR 2, 3, and 5 as *low* rather than *adverse* without providing a detailed context argument (explored further in Section 5.3 below). The applicant has not provided a satisfactory context argument to support their conclusion that the impacts at NSR 2, 3 and 5 are "low" rather than potentially an "adverse impact", as indicated by the BS 4142 criterion. This uncertainty in potential impact is compounded given our limited understanding of how the applicant has derived the background sound levels used within this assessment (and explained further in Section 5.1 above).

Similar results are demonstrated for weekend operations by Table 30 and Table 31 of the applicant's NIA and repeated here for simplicity in the table below:

Assessment Location	Acoustic Feature Correction dB	Rating Level at NSR dB	Background noise level dB	Assessment level dB
NSR 1	+ 5	39	43	- 4
NSR 2	+ 5	51	49	+ 2
NSR 3	+ 5	44	39	+ 5
NSR 4	+ 5	50	37	+ 13
NSR 5	+ 5	49	42	+ 7

NSR 6	+ 5	48	43	+ 5
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These results are an assessment of the current operations undertaken on site, and they are also important for the risk assessment of the potential impacts from noise emission from site operations following the variation.

The applicant argues in Section 7.3.2 of their NIA that '*The worst-case scenario for the existing composting operations is unlikely to change during a 1-hour BS 4142 assessment for further throughput of green waste.*' Whilst we agree that the predicted rating levels from the proposed changes in the variation may be the same as the existing operations, due to the way specific sound is determined, this does not consider the changes in the overall risk of noise from the site in context.

The applicant has not considered that the proposed increase tonnage will result in an increase in operational times for the shredder and screener on site. As a result of operating the screener and shredder more frequently, there may be an increase in the amount of time that receptors may experience the adverse/significant adverse impacts. The proposed variation therefore not only fails to provide betterment in the BS 4142 rating levels of the noise emissions from the screening and shredding of green waste but also increases the potential risk that these emissions will impact local receptors.

As outlined above, our guidance is clear that we cannot permit an operation that is likely to cause significant pollution. Based on the assessment provided we are unable to confidently rule out that significant pollution could be caused by permitting this activity and as a result we cannot agree to this aspect variation.

5.2.2 Likely Adverse to Significant Adverse Impact from the aggregate crushing activity

Section 7.3.3 *Stone Crushing* of the NIA assesses the noise impact of the proposed aggregate processing activity being introduced by this variation.

This section of the NIA predicts that on a 'weekday' the following rating levels are likely to be experienced at each of the receptor locations assessed. It also demonstrates the *assessment levels* (the rating level compared to the background) at each NSR.

Assessment Location	Acoustic Feature Correction dB	Rating Level at NSR dB	Background noise level dB	Assessment level dB
NSR 1	+ 5	35	45	- 10
NSR 2	+ 5	47	46	+ 1
NSR 3	+ 5	42	39	+ 3
NSR 4	+ 5	45	37	+ 8
NSR 5	+ 5	41	44	- 3
NSR 6	+ 5	40	45	- 5

It can be seen in the above table that the receptor most likely to be impacted by the proposed stone crushing operation is NSR 4. In Table 34 of the NIA, the applicant characterises the likely impact at NSR 4, using the BS 4142 descriptors, as *potential for adverse*. The applicant has not provided enough information for us to agree with this characterisation on a technical and contextual basis. Based on the predicted information the impact is interpreted as potential for adverse impact, however the applicant's context argument is insufficient for us to rule out the potential for a significant adverse impact. We expand on this reasoning in the below points:

- 1) BS 4142 (as outlined above) states that *around* a +10dB difference is likely to indicate a significantly adverse impact. This does not mean +10dB is the threshold of when significantly adverse impacts are likely.
- 2) As outlined in Section 5.1 we do not have sufficient confidence in the methodology used to derive the background sound levels used within the NIA.
- 3) The applicant has not considered the contextual argument that the type of sound being introduced by this proposed new permitted activity is a new type of sound. Whilst it could be argued that local receptors might be accustomed to the sound of shredding and screening of green waste, they are likely to be less accustomed to the sound of stone crushing and be more sensitive to it.

Again, the applicant provides an additional set of results to demonstrate potential impacts for weekend operations. These results are broadly the same as those for weekday operations. This is outlined in Tables 35 and Table 36 of the applicant's NIA and repeated here for simplicity in the table below:

Assessment Location	Acoustic Feature Correction dB	Rating Level at NSR dB	Background noise level dB	Assessment level dB
NSR 1	+ 5	35	43	- 8
NSR 2	+ 5	47	49	+ 2
NSR 3	+ 5	42	39	+ 3
NSR 4	+ 5	45	37	+ 8
NSR 5	+ 5	41	42	- 1
NSR 6	+ 5	40	43	- 3

As outlined above, our guidance is clear that we cannot permit an operation that is likely to cause significant pollution. Based on the assessment provided we are unable to confidently rule out that significant pollution could be caused by permitting this activity and as a result we cannot agree to this aspect variation.

5.3 Absence of a valid context argument

As discussed in Section 5.2.1 and Section 5.2.2 the NIA indicated that there is a likely significant adverse, and adverse to significant adverse impact at local receptors (as outlined above). The applicant has not however provided a

sufficient context argument within their report that enables us to be confident that the operations will not cause adverse to significant adverse impacts at receptors. The applicant's NIA presents the result which are outlined above, which shows likely significant impacts at local receptors at levels we cannot permit.

The applicant should have clearly considered within their NIA the context in which the noise occurs and this should have been done in line with '*How context affects an assessment*' section of our *Noise and Vibration Management: Environmental Permits guidance*, BS 4142, and any other relevant guidance. The NIA should consider the aspects that make the situation more, and less sensitive, and draw an overall conclusion as to how the context affects the overall assessment levels in the NIA.

In the current assessment the applicant has altered the BS 4142 criteria to reflect the "context of the noise climate in the surrounding areas", no detailed justification has been provided that qualifies the decision made. Applying the same context altered criteria to all receptors suggests that actual consideration of the "noise climate" or the varying potential contextual conditions at each receptor has not been undertaken. No evidence was provided to suggest the sound climate was the same at all receptor locations and warranting this approach, in fact the NIA notes that background noise levels are significantly lower at the most impact receptor (NSR 4).

It should be noted however that our guidance states '*BS 4142 allows the context of the situation to inform the assessment outcome. Whilst context allows you to interpret impact thresholds (to a degree), there are practical limits to the extent of the interpretation. It is unlikely you could adjust the assessment outcome beyond the next band (for example, modifying a BS 4142 outcome of more than 10dB to be less than an 'adverse impact')*'. So, there is a limit to how far the context can affect the assessment, control measures are therefore also likely to be required.

5.4 Absence of robust control measures

As discussed in Section 5.2, Section 5.2.1, Section 5.2.2, and Section 5.3, the applicant has outlined that there is likely adverse and significant adverse impact at NSRs (as outlined above) and has not provided a valid context argument that enables us to be confident that the operations will not cause significant pollution at NSRs. The applicant has also not provided robust control measures

The onus is on the applicant to avoid causing significant pollution as a result of their application. They should be able to demonstrate that they have prevented or minimised noise emissions as far as reasonably practicable.

The NIA should demonstrate clearly that they have robustly considered the following points from our guidance (Step 4 BAT or Appropriate Measures Justification).

- concentrate on the dominant noise sources (and where necessary consider the influence of individual sub-components within a system)
- detail all existing noise attenuation measures (enclosures, silencers, location of kit, operating time restrictions and maintenance regimes)
- for dominant noise sources, consider all noise reduction techniques and come to a reasoned determination of what is achievable
- where upgrades are identified – state the predicted impact of the works and commit to firm completion timescales
- develop a noise management plan (if there will be a noise impact beyond the site boundary)

The applicant has not demonstrated that they have considered all the potential control measures available (e.g., for example upgrading waste treatment plant and machinery, installing additional sound barriers etc). The NIA has not considered the process for this in our guidance (*suggested NIA Structure – 9. Noise control*) which outlines the following:

- Rank the identified noise sources on site from highest to lowest (based on level of impact at each receptor).
- Target the dominant noise source with appropriate noise control measures that will prevent or minimise noise at the receptors.
- Quantify the noise control options in decibels, so you can achieve a noise control target based on the noise impact assessment.
- This can be an exercise which explores several potential actions and then recommends the most practicable option. Take into account cost, timescales and potential benefit.
- Outline why you made your final choice of action.

We do recognise that the applicant has provided a NMP that broadly is in line with the appropriate measure outlined in our guidance. However, it should be noted that in applications such as this one (where the predicted impacts are *significantly adverse*) we would expect the applicant to demonstrate a robust and thorough consideration of the above options to minimise emissions to ensure that significant pollution is avoided. Again, this is outlined in our guidance.

The NIA predicts an *unacceptable level of audible noise or detectable noise* at NSR 4 Tredilion Park (approx. 460m Southeast of the site boundary) and *audible and detectable noise* at NSR 5 a residential dwelling (approx. 440m southwest of the site boundary). The NIA does not currently demonstrate that the applicant has robustly considered all control measures outlined or quantified any control measures in line with our guidance. Once this has been done, should the likely impact still be *significant adverse* as per our guidance NRW would still be in a position where a refusal is the only option going forward.

5.5 Further Requests for Information

In regard to the NIA and NMP we made the applicant aware of the standards and guidance they must meet in our request for information email of 13 March

2022. As outlined in Section 2.3 above, we have also given the opportunity for the applicant to review and amend their NIA multiple times during this determination.

We must draw the line somewhere and move to make a determination decision. In some instances, this means we will base our decision on the information provided to us instead of sending additional requests for information. In this case, we made the applicant aware in advance (see our email of 4 October 2022) when issuing the third Schedule 5 Notice that we would unlikely be in a position to request any further information and following the response to Schedule 5 No.3 we would likely complete our determination on the information we have at the time. We gave the applicant every opportunity to fully understand the requirements prior to the submitting the final version of the NIA, during the meeting held on 11 October 2022, through the Schedule 5 Notices and our published guidance.

Once the applicant has addressed the above, they would be in a position to reapply should they still wish to make the proposed changes.

6. Conclusion

In Section 5.1 of this document, we have outlined the reasons why we cannot be confident in the conclusions of the NIA provided by the applicant.

Section 5.2 demonstrates that the activities are likely to result in significant pollution. In line with our guidance, we cannot allow an activity, or a change to an activity that is likely to result in significant pollution.

In Section 5.3 we summarised that the applicant has failed to provide a fully justified context argument to modify the assessment outcome to reduce the likelihood of significant pollution at NSR 4 resulting from the site activities.

We have outlined in Section 5.4 that the applicant has not demonstrated within their application documents (NIA / NMP) that they have exhausted all opportunities to prevent or minimise the impact from noise emissions from their proposed operations. Instead, they simply demonstrated that significant pollution is likely to be caused as a result of the proposal.

Finally in Section 5.5 we have summarised the opportunities the applicant has had to review and amend the NIA provided in support of their application. We also provided evidence that clear instructions of the guidance requirements in regard to the NIA were provided at the earliest opportunity. It is clear that they have failed to provide an NIA that meets our guidance in full.

The NIA provided provides a clear demonstration that *significant pollution at NSR 4* is likely. Our guidance states that we cannot permit an activity that has the potential to cause significant pollution, and as a result we have no other choice but to refuse this variation application.