Sharon Queeney

From: Chris Shields <Chris.Shields@durham.gov.uk>
Sent: 11 March 2021 19:32
To: Sharon Queeney
Cc: Claire Teasdale
Subject: DM/20/03267/WAS - Consultation responses and request for additional information
Attachments: Air Quality.pdf; Consultation Responses.pdf; Landscape.pdf; Noise.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sharon

The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 – Regulation 25

Please see attached the compiled responses from all statutory and non-statutory consultees who have responded to the consultation exercise. You will note that consultees have provided comments, advice and, where appropriate, conditions that would be necessary to make the development acceptable in their specific subject area.

We have received an objection from Landscape and whilst you may wish to try to address the comments raised there is no specific request for additional information.

Additional information requests have been received from Spatial Policy, Low Carbon and Sustainability, Ecology and Environmental Health and Consumer Protection. Additional information necessary to supplement the topics covered within the environmental statement is requested under the provisions of Regulation 25 and this is as follows:

- An analysis of the carbon reduction benefit and energy production value of the development against a landfill site with gas recovery.
- A cumulative impact assessment of the proposal in respect of air quality (dust and odour) with existing and committed developments in the vicinity, including the adjacent Greencore facility and the Anaerobic Digestion Plant at Thomas Swan to the north east

Further information required for the determination of the application but not falling under the provisions of Regulation 25 is as follows:

- Details of where the waste is coming from including the origin and any intermediary waste transfer stations.
- Details of the locations, type and number of bat and bird boxes to be provided should be shown on the landscape plans for the site and resubmitted.

I trust this is of assistance and I look forward to hearing from you.

Regards

Chris Shields
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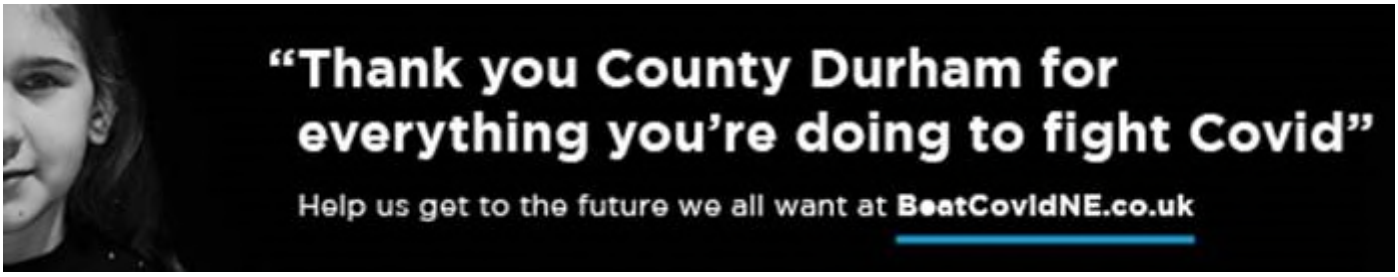

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Project name:
DCC Planning Reviews

Project ref:
DM/20/03267/WAS

To:
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From:
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Date:
12 January 2021

Memo

Subject: DM/20/03267/WAS Land Adjacent to Hownsgill Industrial Park, Templetown

With reference to the above request for planning application advice, I would confirm that I have considered the information provided to date and would comment in relation to the following environmental impacts:

- Local Air Quality
- Dust
- Odour

Introduction

It is understood that the planning application for the site above concerns the construction and operation of an Energy from Waste facility (here on referred to as EfW).

AECOM have reviewed the following documents that were made available on the Durham Council Planning Portal on 10th and 13th November:

- Environmental Statement Chapter 10 – Air Quality
- Environmental Statement Appendix 10.1 – Air Quality
- Environmental Statement Appendix 10.3 – Odour Assessment
- Environmental Statement Chapter 14 – Amenity
- Environmental Statement Appendix 1 – Scoping Opinion Request
- Proposed Site Plan
- Site Location Plan
- Aerial photography[1]

[1] https://www.google.com/maps/place/Consett/@54.8423383,-1.8384425,1805m/data=!3m1!1e3!4m5!3m4!1s0x487dc96755fffb07:0xd6fc354d831d7bbe!8m2!3d54.851797!4d-1.833026

Summary

The highest priority concerns are summarised as follows. However, I would not necessarily consider them to alter the conclusions of the assessments:

- No operational dust impacts considered – Would have been useful to refer to such impacts, even if they are likely to be negligible before additional mitigation is considered.
- No consideration of emissions from the odour control system stack – Would have been useful to refer to such impacts, even if they are likely to be negligible.
- ES Chapter 14 Amenity refers to an odour management scheme and dust management plan, but these documents are not referred to in ES Chapter 10 Air Quality, or the Appendix 10.3 Odour. It is recommended that commitment to the required level of dust and odour control is secured by some means, such as planning condition.
- No reference to the Medium Combustion Plant Directive relating to the backup boilers. Even if the boilers do not need to comply with the directive, it would be useful to acknowledge why.
- No cumulative industrial or waste sources are included in the assessment. The nearby Greencore Prepared Meals facility is operated subject to an Environmental Permit. It would have been useful to refer to this other facility in the assessment, even if to confirm cumulative impacts are unlikely. There is also an anaerobic digestion facility 2km to the northwest of the EfW. It would have been useful if consideration had been given to the possibility of cumulative odour impacts occurring at receptor locations between the two sites. Particularly as Durham Council are aware of odour complaints relating to the anaerobic digester.

Comments on the documents reviewed are provided in the following table.

Relevant section	Notes	Comments
Environmental Statement Chapter 10 – Air Quality		
Introduction/Scope	Paragraph 10.1.1 Air quality assessment prepared by AQC on behalf of Enzygo Ltd.	
	Assessment considers impacts associated with the following sources: - Construction phase dust emissions - Operational phase stack emissions - Operational phase road traffic emissions - Operational odour emissions A Human Health Risk Assessment is also included.	Operational stack emissions assessment includes the quantification of emissions from the main EfW stack and backup boilers. Emissions from the emergency generator are screened out. This emergency plant will only be in operational for 13 hours/year for testing. The assessment does not provide an estimate of hours/year for emergency operation. An estimate would have been useful. It does not include emissions from the stack associated with the odour control system. If odour emissions from this source are considered to be negligible then justification should be provided. The assessment does provide a combined operational assessment where impacts from road traffic emissions are added to stack emissions impacts, if not in a slightly unconventional way. ES Chapter 10 refers to the operational odour emissions assessment being described Appendix 10.3. Comments are provided on that appendix. ES Chapter 10 refers to the Human Health Risk Assessment being described Appendix 10.2.
	Assessment screens out impacts associated with the following: - Construction phase site plant and site vehicle emissions - Construction phase vehicle movements on the public highway	Construction phase site plant is screened out due distance between the construction site and the nearest relevant sensitive receptors.

		Construction phase road traffic emissions is screened out of the assessment, due to the limited number of construction vehicle movements anticipated, with reference to EPUK/IAQM guidance. The actual number of construction vehicle movements per day is not provided and it is assumed not known at the time of the assessment. The assumption that the number of construction vehicles per day will be less than the EPUK/IAQM screening criteria is considered reasonable.
	Assessment does not refer to the following sources: - Operational dust emissions	It may very well be the case that operational dust emissions are negligible even before mitigation. However, I think some mention of this as a potential source should have been included, whether relating to the Refuse Derived Fuel or the bottom ash.
	Assessment considers stack emissions impacts on: - Discrete ecological receptors, selected in line with appropriate Environment Agency (EA) guidance relating to Environmental Permit (EP) applications. - Discrete human health receptors, including the nearest air quality sensitive receptors in each direction of the source. - A nested cartesian receptor grid	All relevant ecological receptors appear to have been accounted for, following relevant EA EP guidance. Human health receptors appear to represent locations of greatest impact in each direction, based on the contour plots provided in Appendix 10.1. Receptor grid is considered suitable for identifying the maximum off-site impacts and preparing suitable contour plots.
	The assessment of stack emissions considers all of the pollutants listed within the Industrial Emissions Directive.	The full suite of stack emissions pollutants is considered in line with EA EP guidance.
Legislation and Planning Context	Chapter lists relevant documents and refers to Appendix 10.1 as providing more detail on these.	The list in ES Chapter 10 and the descriptions in ES Appendix 10.1 seems to include all relevant documents.
Assessment Methodology	Consultation undertaken through formal Scoping exercise.	Scoping report (ES Appendix 1) is comprehensive and Durham County Council (DCC) did provide a Scoping Response. However, it is felt that some further consultation with DCC would have been beneficial, including discussions on receptor selection and other model inputs not defined within the Scoping Report, local knowledge on existing sources that could have cumulative impacts with the EfW, and amenity complaints history, considering the potential for dust and odour impacts associated with the EfW.
	Study area and receptors selected in line with relevant EA EP guidance	Commented upon previously. Operational odour receptors include nearest residential properties and industrial/commercial premises in each direction of the site.
	Baseline air quality is established through the usual secondary sources of information, including outputs from Defra's Pollution Climate Mapping (PCM) model at background and roadside locations.	In the absence of local monitoring data and difficulties in gathering new data due to the ongoing pandemic, this is considered to be a sensible approach.
	A stack height assessment for the main EfW stack has been undertaken and is described in ES Appendix 10.1.	Comments are provided on that appendix.
	Construction dust assessment in line with IAQM construction dust guidance, with more details provided in ES Appendix 10.1.	Industry standard approach.
	Further confirmation is provided that the emergency generator has been screened out	Reasonable to screen out such limited emissions. However, it would be useful to include

	of the assessment due to the limited number of known operational hours (given as approximately 13 hours/year).	an estimate of anticipated emergency operation, if possible (potentially based on experience from other sites operated by the applicant). Where sources that have limited hours of operation are discussed, reference and consideration should be given to the IAQM Position Statement on the Assessment of Air Quality Impacts from Combustion Plant with Limited Hours of Operation.
	Operational road traffic emissions impacts are screened using the relevant EPUK/IAQM screening criteria given in guidance.	Industry standard approach.
	Model parameters for the main EfW stack provided by the applicant, with emission concentration data taken from the relevant BAT Reference (BREF) Document and Industrial Emissions Directive.	Industry standard approach.
	Backup boilers anticipated to operate for 760 hours per year, when the EfW is down for scheduled maintenance. Model parameters for the backup gas boilers sourced from technical datasheets for that plant	Noted that the EfW is still modelled assuming 8760 hours/year, for conservatism. Presumably stack height and internal diameter at release point was provided by the applicant. No mention of Medium Combustion Plant Directive. If the backup boilers fall under the remit of the MCPD, then this should be accounted for within the assessment.
	Dispersion model accounts for the influence of buildings, varying terrain and varying surface roughness.	Industry standard approach.
	Post-processing of model outputs in line with EA EP guidance (NO_X to NO_2 conversion, calculating deposition rates)	Industry standard approach.
	Significance criteria in line with EA EP guidance, but NO_2 and PM_{10} effects also considered in line with EPUK/IAQM guidance	Industry standard approach.
	The assessment does not consider there to be any major proposed developments that would contribute to local emissions to the extent that the baseline would change. The assessment does include nearby committed development as air quality sensitive receptors.	Confirmation of proposed emissions sources in the area should be confirmed with Council Planning Officers. Likewise, Council Planning Officers should also confirm if all new receptors that are representative of local committed developments have been accounted for.
	List of limitations provided, associated with model input data. Limitations offset by conservative assumptions, including operation of the EfW for 8760 hours/year, when in reality it will have 4-5 weeks downtime/year, and emission concentrations at regulatory maxima.	Would have been helpful if anticipated emission concentrations could have been provided, based on other plant operated by the applicant. But that is of course dependent on if such comparable data exists.
Baseline	Assessment states that no existing industrial or waste management sources have been identified that could likely affect air quality in the study area. It also states that no significant existing sources of odour have been identified in the vicinity of the proposed development, and it is assumed that no cumulative odour impacts need to be considered.	It is noted that Greencore Prepared Meals Limited have a facility close to the EfW that operates under an EP. Although it is also noted that the EP for that facility does not include set limits for emissions to air[2]. The Decision Notice for the EP[3] states that dispersion modelling was not undertaken considered required for that facility by the EA. The EP also provides some reference to potential odour emissions from the site. It would have been useful for the assessment to consider this facility as cumulative source of emissions to air, even if it was just to confirm the low risk of such impacts.

[2] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/617602/Permit_.pdf
[3] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/617603/Decision_document.pdf

		It is also noted that the operation of an existing anaerobic digester facility, located approximately 2km northeast of the EfW site, has led to a number of complaints with regards to odour. If complaints have been raised by receptors potentially affected by odour emissions from the EfW, then cumulative impacts may arise. DCC may be able to correlate complaints with locations close to EfW receptors.
	The assessment notes that there is no existing monitoring data undertaken in the area. As such, background/baseline data is sourced from a number of secondary sources, as described in ES Appendix 10.1.	Standard Industry Practice.
Identification and Evaluation of Key Impacts	Construction dust assessment identifies a low risk of impacts regarding dust soiling and human health (no ecological receptors within the zone of potential impacts).	Assessment appears to follow the guidance and assessment of impact risk seems valid on the information reported (in Appendix 10.1).
	For operational impacts, screening of the stack process contributions at the point of maximum offsite impact identified that annual mean contributions to NO_2, Total Organic Carbons and some group III metals (cadmium, arsenic, lead, chromium, Manganese and nickel) could not be deemed insignificant at this stage. Screening of the stack process contributions at ecological receptors identified that all impacts are considered insignificant, in line with EA EP guidance.	Standard Industry Practice for industrial stack emissions. Note at this stage, impacts are reported at point of maximum offsite impact, which many not be (and in this instance unlikely to be) a location with sensitive exposure. It would have been useful if the assessment had included the coordinates of the maximum offsite impact.
	The Predicted Environmental Concentration (PEC) (the Process Contribution from the stack, plus the ambient baseline concentration) is then reported for the pollutants that were not previously screened as insignificant. All pollutants covered by this part of the assessment are reported to have PEC that are below the EA EP guidance screening criteria	Upon first review, the PEC results reported here seem confusing. Previously the PC reported for some pollutants showed an exceedance of some of the Environmental Assessment Level as a result of the stack contribution alone. However, the PEC reported shows no exceedances and the ES Chapter 10 does not clearly explain why this occurs. ES Appendix 10.1 provides clarity. The PEC reported in ES Chapter 10 is actually based on the worst-case selected receptor, rather than the location of maximum impact. Furthermore, the Group III metals that could not be screened as insignificant at the previous stage have also been factored down by comparison with measured Group III metal monitoring data. This approach is consistent with the relevant EA EP guidance, although some discussion would have been useful in the ES Chapter 10, to avoid confusion.
	The assessment then considers the combined impact of stack emissions and road traffic emissions, after confirming that anticipated traffic impacts fall below the screening criteria given in EPUK/IAQM guidance. The assessment identifies that the combined impact of road traffic emissions and stack emissions would be negligible following EPUK/IAQM guidance and remain insignificant following the EA EP guidance.	The contribution of road traffic emissions is not quantified by detailed modelling. Instead, the assumption has been made that as the traffic impact falls beneath the most conservative screening criteria set out by EPUK/IAQM guidance (<25 two-way HGV movements per day) then the contribution of emissions associated with those flows cannot be more than negligible. The consultant assumes the top end of the negligible scale of contributions possible in the guidance (0.2 $\mu g/m^3$) and adds that contribution on to the PEC at the worst affected receptor to provide an estimate of combined road traffic and stack emissions.

		Whilst this is an unconventional approach, the logic does make sense and the modelling of the road traffic contribution from the operation of the EfW is unlikely to be any higher than the impact assumed and would not alter the conclusions of the assessment.
	Reference is then made to the HHRA and Odour assessment, which are described in ES Appendix 10.2 and 10.3 respectively, with no significant effects reported.	ES Appendix 10.2 and ES Appendix 10.3 are reviewed separately.
Design response and Mitigation	Refers to the appropriate levels of construction dust mitigation suggested by IAQM for the level of risk identified. Refers to ES Appendix 10.1 where the measures are listed.	In line with industry standard practice. However, there is no mention of a Construction Environmental Management Plan or Dust Management Plan within ES Chapter 10. It is recommended that commitment to the required level of dust control is secured by some means, such as planning condition.
	Refers to the all necessary abatement and Continuous Emissions Monitoring of stack emissions, and that no additional measures are proposed.	The necessary abatement presumably refers to the stack height determination described in ES Appendix 10.1.
	No additional mitigation measures are suggested for odour.	Mitigation measures that aren't additional presumably relate to the odour abatement described in ES Chapter 5 and ES Appendix 10.3.
Environmental Statement Appendix 10.1 – Air Quality		
Introduction	Paragraph 1.1 states that the Air quality assessment described in the appendix is prepared by AQC on behalf of Project Genesis.	
Assessment Criteria	Table 2 provides Environmental Assessment Levels	It is not clear which cells footnote b and c refer to. Assume b relates to 24-hour NO_X and c to nitrogen and acid deposition Critical Loads
Assessment Approach	Table 4 provides receptor heights	It is noted that all ecological receptors are modelled at a height of 1.5 m. Ecological receptors are commonly modelled at a height of 0m, particularly when the habitat of concern is not woodland.
	Paragraph 4.8 discusses the emergency generator and its infrequent use being the reason why it is not included in the assessment.	An estimate of anticipated hours of emergency operation would have been useful, as well as a description of what constitutes an emergency scenario.
	Table 5 lists the modelled emission parameters for the main EfW stack	These have been reviewed and appear reasonable. Calculated values (exit velocity and normalised flow rate) have been recalculated using the parameters provided and we calculate very similar values (any difference likely due to rounding error).
	Table 7 lists the modelled emission parameters for the backup boiler stacks	These have been reviewed and appear reasonable. Calculated values (exit velocity and normalised flow rate) have been recalculated using the parameters provided and we calculate very similar values (any difference likely due to rounding error). Clarity should be provided as to whether the backup boiler plant will need to meet the requirements of the Medium Combustion Plant Directive.
	Paragraph 4.17 sets out conservative assumptions made, including the modelling of the EfW in operation for 8760 hours/year, when in reality, it will be down for routine maintenance for 4-5 weeks of the year; boilers only operational for 760 hours/year, but	Agree that this approach is more conservative than could have modelled.

	assumed could be operational at any hour, including the worst met conditions at each receptor.	
	Paragraph 4.19 states that Albemarle meteorological station is the most representative of met conditions in the study area.	Consultation was not undertaken for agreement on the most representative met site for this assessment. However, upon review, Albemarle is likely to be the most representative source of met data available due to its proximity to the site, set back from coastal influences. Would have been useful to see a sensitivity analysis comparing at least 1 year of data from another nearby met site.
	Paragraph 4.20 and Figure 5 relate to how building downwash is treated in the dispersion model.	Whilst Figure 5 does provide a useful illustration of how buildings are accounted for in the model, the inclusion of a table listing building dimensions would have made the approach more transparent. Would have been useful to see a sensitivity analysis of model output with the building downwash module turned off.
	Paragraph 4.21 describes the terrain data used to inform the dispersion model.	Resolution of terrain data considered proportionate to the assessment. Would have been useful to see a sensitivity analysis of model output with the terrain data not applied.
	Paragraph 4.22 described the variable Surface Roughness file used to inform the modelling.	Good level of detail considering varied landscape. Would have been useful to see a sensitivity analysis of model output with alternative Surface Roughness assumptions.
	Paragraph 4.23 described the stack height assessment, whereby no model parameters were change. Stack heights modelled between 25m and 60m at 5m intervals.	Reasonable approach.
Baseline Conditions	Paragraph 5.2 states that a search of Defra's UK Pollutant Releas and Transfer Register was undertaken, which did not identify any significant industrial or waste management sources that are likely to affect the study area, in terms of air quality.	It is noted that Greencore Prepared Meals Limited have a facility close to the EfW that operates under an EP. Although it is also noted that the EP for that facility does not include set limits for emissions to air. The Decision Notice for the EP states that dispersion modelling was not undertaken considered required for that facility by the EA. The EP also provides some reference to potential odour emissions from the site. It would have been useful for the assessment to consider this facility as cumulative source of emissions to air, even if it was just to confirm the low risk of such impacts. It is also noted that the operation of an existing anaerobic digester facility, located approximately 2km northeast of the EfW site, has led to a number of complaints with regards to odour. If complaints have been raised by receptors potentially affected by odour emissions from the EfW, then cumulative impacts may arise. DCC may be able to correlate complaints with locations close to EfW receptors.
	Paragraph 5.5 describes the use of Defra's PCM roadside output to represent baseline conditions for NO_2, in the absence of local monitoring data. The nearest PCM road link is 2km away from the site. As there are no PCM	In the absence of local NO_2 monitoring data, this is considered more conservative than using the PCM background concentration data.

	links closer to the site, this is used to represent a conservative estimate of baseline conditions adjacent to roads close to the site.	
	Paragraphs 5.6 to 5.13 summarises the background concentration and flux data and the various sources where it was obtained from.	All appropriate sources of background data referred to.
Construction Phase Impact Assessment	Paragraph 6.1 screens out construction vehicle movements based on the assumption that HGV movements will fall below the 100 two-way movements given in EPUK/IAQM guidance.	I suggest this is a relatively safe assumption given the scale of the site and works involved.
	Paragraph 6.3 concerns the screening out of NRMM and site traffic emissions.	It is stated that the NRMM and site traffic will operate more than 400m away from any sensitive receptors. However, this measurement seems to apply to existing sensitive receptors and does not account for the committed development c.200m to the north. Despite this, we are still in agreement that NRMM and site traffic emissions will have limited impact even over this shorter distance.
	Paragraph 6.13 described summarises the various dust sensitive receptors within 350m of the site.	Again, this paragraph does not seem to account for the committed development c.200m to the north of the site. However, its inclusion would not alter the conclusion of the assessment
Stack Height Testing	Paragraphs 7.1 to 7.3 describe that the stack height assessment focuses on the pollutants that could not be screened as insignificant in the first stage of the main assessment (annual mean NO_2, annual mean Total Organic Compounds, annual means for a selection of Group III metals).	Approach described is reasonable. Minor point, but stack height assessment also focused on 1-hour mean NO_2, which was screened as insignificant at the first stage of the main assessment.
	Tables 19, 20 and 21 provide analysis of stack height assessment results	Tables all seem to contain the same error – labelling of Max on Grid and Max at Sensitive Receptors are assumed to be the wrong way around. Tables currently report higher concentrations at the sensitive receptor. This contradicts the data as presented in Figures that follow each table. It would have been useful to know the max grid coordinate and the max receptor number.
Operational Phase Impact Assessment	Paragraph 8.6 confirms that the detailed assessment, following the screening of insignificant pollutants at the point of max offsite impact, now focuses on the worst-impacted receptor.	This particular point was not clear in ES Chapter 10
	Table 26, 27, 28, 29, 30, 31 and 32 provides the impact and PEC for the pollutants not previously deemed insignificant.	Would have been useful to see listed which receptor is being referred to as the worst-case impact, although the contour plots provided for some pollutant do help.
	Figure 15 shows a contour plot for 1-hour mean NO_2	Not a big issue, but the scale for contours not particularly useful. A further band (2 – 5) may have helped?
	Paragraph 8.18 describe how the Group III metals were factored down following the screening of the PC.	This particular point was not clear in ES Chapter 10. Would have been useful if this calculation could have been presented in the Appendix.
	Paragraph 8.22 describes the contribution from road traffic emissions	The contribution of road traffic emissions is not quantified by detailed modelling. Instead, the assumption has been made that as the traffic impact falls beneath the most conservative screening criteria set out by EPUK/IAQM

		guidance (<25 two-way HGV movements per day) then the contribution of emissions associated with those flows cannot be more than negligible. The consultant assumes the top end of the negligible scale of contributions possible in the guidance (0.2 µg/m^3) and adds that contribution on to the PEC at the worst affected receptor to provide an estimate of combined road traffic and stack emissions. Whilst this is an unconventional approach, the logic does make sense and the modelling of the road traffic contribution from the operation of the EfW is unlikely to be any higher than the impact assumed and would not alter the conclusions of the assessment.
Environmental Statement Chapter 14 – Amenity		
Baseline Conditions	Paragraph 14.5.8 bullet points refer to Odour Management Scheme and Dust Assessment, and another bullet refers to the odour abatement system.	None of the other air quality related documents reviewed seem to reference an Odour Management Scheme. DCC should confirm with the applicant that this is an anticipated deliverable, pre or post-planning submission. Nowhere in the air quality related deliverables are operational phase dust impacts considered. Even if such impacts are negligible without additional mitigation, I would have thought it worth a mention, given the nature of refuse derived fuel and bottom ash. The Odour Abatement System is described in some detail the ES Appendix 10.3 and ES Chapter 5.
Identification and Evaluation of Key Impacts	Paragraph 14.6.9 refers to a Dust Management Plan for the construction phase only.	None of the other air quality related documents reviewed seem to reference a Dust Management Plan. DCC should confirm with the applicant that this is an anticipated deliverable, pre or post-planning submission. Again, nowhere in the air quality related deliverables are operational phase dust impacts considered. Even if such impacts are negligible without additional mitigation, I would have thought it worth a mention, given the nature of refuse derived fuel and bottom ash.
	Paragraph 14.6.17 describes odour controls and states that the EfW will only accept waste that has already been segregated and cleaned, the building will be operated under negative pressure with the implementation of an odour management system.	This is described in more detail in the ES Appendix 10.3 and ES Chapter 5.
Environmental Statement Appendix 10.3 – Odour Assessment		
Introduction	Paragraph 1.3 states that the odour assessment follows the IAQM's risk-based methodology	Considered appropriate given the fugitive nature of the majority of potential emissions.
Assessment Approach	Paragraph 3.14 describes the odour sensitive receptors considered	This includes the committed developments to the north and north-northwest.
Odour Impact Assessment	Paragraphs 4.1 to 4.5 provide a detailed description of site processes, including odour mitigation: - Delivery of waste by sealed lorry - Storage and handling of all refuse derived fuel with process building that is operated under negative pressure, with roller doors and air knives. - Treatment of internal air by odour management system, including oxidation	Odour control measures described here and in ES Chapter 5. Measures sound comprehensive.

	and activated carbon, followed by a bag-house filter before treated air is released to atmosphere via a stack situated on the roof of the main building. - Deodoriser misting system will be used periodically within the building Bottom ash not expected to be odorous, but will still be stored within the odour-managed process building	
	Paragraphs 4.6 to 4.11 defines the potential for odours. It is stated that the majority the refuse derived fuel is not particularly odorous in the first instance, as it has already been treated and aged before it is delivered to site. Any residual odorous materials within the waste that is fed into the incinerator will be destroyed by the combustion process	Overall Odour Source potential is defined as small. Whilst the in-built mitigation measures are comprehensive. A more precautionary approach could have been undertaken, considering odour is likely to be a key issue with local stakeholders. However, due to the other factors considered in the odour assessment (namely pathway effectiveness), a more conservative source odour potential would have given slight adverse risk at a limited number of receptors and still likely arrive at the same insignificant conclusion.
	Paragraph 4.13 and Table 6 describe the pathway effectiveness of receptors, based on their proximity to the site and their orientation to the site, relative to predominant wind directions.	Takes into account committed development to the north and north-northwest of the site and uses met data from Albemarle met station. Majority of receptors have an effective pathway, with the nearest industrial/commercial premises and the committed development directly to the north having a moderately effective pathway.
	Paragraph 4.16 states that physical barriers would increase dispersion and reduce odour concentrations at these receptors.	Minor point, but whilst I agree the barriers will reduce odour concentrations at receptors, it will because they hinder the dispersion between source and receptor, not increase dispersion.
Environmental Statement Appendix 10.2 – Human Health Risk Assessment		
Introduction	Paragraph 1.2 states that the HHRA is based on the USEPA Human Health Risk Assessment Protocol, and uses the IRAP model.	As noted in the paragraph, this is considered appropriate by the Environment Agency, and is considered to be suitable for this assessment.
Scope	Paragraph 2.2 states that the standard EA practice for a HHRA is to consider only PCDD and PCDFs, and that metals, acid gases and PM are adequately assessed by comparison against relevant criteria, as detailed in the AQA (Appendix 10.1).	It is noted in the Scoping Opinion Request (Paragraph 10.3.13) that the assessment would consider emissions of dioxin-like PCBs as well as dioxins and furans. However, no assessment of these substances has been undertaken. In our experience of the assessment of similar facilities, the EA has requested that these substances be included as part of a permit application, and we would consider it necessary to include these substances within the HHRA. In addition, dioxin-like PCBs are included in the BAT Reference document for Waste Incineration. From our experience, we would consider metals to present the greatest risk to human health through both carcinogenic and non-carcinogenic health effects. Polyaromatic Hydrocarbons (PAHs) can also present a risk to health on a comparable scale to dioxins and furans. We would consider the absence of these substances to cause an underestimate of the potential health effects of emissions from the facility. Furthermore, the AQA only compares metals, acid gases, PAHs and PM against ambient AQ standards, and does not consider Soil Guideline Values, dietary intake, or carcinogenic and non-carcinogenic risk. As metals and PAHs can

		present a significant risk to human health, we would consider it appropriate to include these within any HHRA.
	Paragraph 2.3 states that ingestion of contaminated drinking water has not been considered, nor dermal routes of exposure.	Considered appropriate given the scale of the facility and the distance from the reservoirs.
	Paragraph 2.4 states that locally caught fish is unlikely to form a substantial part of the population's diet.	This is considered appropriate, as the consumption of freshwater fish is not considered to constitute a significant proportion of protein within the UK diet.
Assessment Approach	Paragraph 3.3 states that the maximum permissible emission rate for the sum of all dioxins and furans as 0.1 ng I-TEQ/Nm^3, as stated in the IED.	An updated BAT Reference document (BRef) for Waste Incineration (WI) was formally adopted in December 2019, and includes an updated emission rate of 0.04 ng I-TEQ/Nm^3 for the sum of all dioxins and furans, and 0.06 ng WHO-TEQ/Nm^3 for dioxins, furans and dioxin-like PCBs. The AQA used the updated emissions rates from the BRef where these are lower than in the IED, including for dioxins and furans. It is considered that the emission rate used in the HHRA should be consistent with that used in the IED.
	Paragraph 3.6 states that ADMS-5 dispersion model has been used.	While this model is considered appropriate for this assessment, model version number should be provided.
	Paragraph 3.7 states that a worst-case deposition velocity of 0.01m/s has been used for dry deposition	It is not clear on how this is considered 'worst-case', as a higher deposition rate would decrease concentration further from the stack, while a lower velocity would increase concentrations, thus affecting the point of maximum impact. Further justification should be provided on the use of a deposition velocity.
	Paragraph 3.8 states that the maximum parameters from each of the five years of meteorological data has been used for each receptor location.	This is considered to be appropriate and provide a conservative assessment.
	Paragraph 3.10 states that the IRAP model has been used.	This model is considered appropriate for this assessment, however model version details should be provided.
	Table 2 provides details of the receptors used in this assessment	Receptor locations used are considered to be representative of points of maximum impact. It would be useful to include the coordinates of each receptor, and a number of receptors at a greater distance from the facility to allow an assessment of how quickly impacts may change with distance from the facility, and the potential impacts on receptors in the wider area away from the point of maximum impact.
	Table 3 provides the site-specific parameters used in the assessment	The assumptions used are considered to be appropriate for this assessment, however no reference or justification has been provided for annual mean irrigation value.
	Paragraphs 3.22 to 3.26 set out the outputs of the IRAP model used in this assessment	For the pollutants assessed, these outputs are considered appropriate
Assessment Criteria	Section 4 provides the assessment criteria used in this assessment.	The majority of the assessment criteria used are considered to be appropriate. Further commentary is provided below on where criteria is not considered to be appropriate.
	Paragraphs 4.1 and 4.2 state the criteria for cancer risk used in this assessment.	The HHRAP uses a lifetime risk value of 1 in 100,000 to determine is cancer risk is considered to be acceptable. This is considered appropriate in this assessment. However, guidance published by the Chartered Institute of Water and Environmental Management use an annual risk value of 1 in 1,000,000, and this has

		been accepted for assessments in the UK. It is considered that both criteria should be used for a UK based assessment (although it is noted that if the lifetime risk is not exceeded, then the annual risk will not be exceeded either).
	Paragraphs 4.7 and 4.8 provide the assessment criteria for infant exposure through breast milk.	While it is agreed that there is no UK assessment criteria for acceptable infant exposure, the USEPA HHRAP reports a national average background for nursing infants of 60 pg TEQ $kg^{-1}d^{-1}$ for all dioxins and furans. The COT TDI for dioxins and furans is also significantly below the assessment criteria stated for 2,3,7,8-TCDD alone. The USEPA background value and/or the COT TDI would provide a higher level of protection that the assessment criteria used. In addition, no reference has been provided to support the use of the stated assessment criteria for 2,3,7,8-TCDD. A reference should be provided.
	Paragraphs 4.12 to 4.14 refer to the use of generic screening criteria from the Environment Agency.	The EA screening criteria relate to the potential change in ambient concentrations of substances emitted from a facility, and not in regard to health effects. It is therefore considered that the use of such screening criteria is not appropriate for use in this assessment.
Results	Section 5 provides the results of the assessment undertaken based on the inputs and criteria discussed in pervious sections.	The results appear to be consistent based on the stated inputs and assessment criteria.
Conclusions	Section 6 provides a summary of the conclusions of the assessment.	The conclusions are generally agreed with based on the results presented in the report; however it is not considered that the health effects should be discounted or reported as insignificant, but that health effects are unlikely to be significant on the population *as a whole.*

Spatial Policy – Officers have set out the local policy framework against which this application should be considered, which is set out below. The key information that we still need in terms of assessing the principle of development are details of where the waste is coming from including the origin and any intermediary waste transfer stations.

County Durham Plan

CDP Policy 2 (Employment Land). The application site is allocated employment and as shown on the polices map for B1 (Business), B2 (General Industrial) and B8 (Storage and Distribution) unless specifically stated. The sites also lies within the boundary of the Project Genesis site, which Policy 2 states, "In order to continue to progress the regeneration of Consett the council will support mixed use development on the Project Genesis site, as shown on the policies map, including a site of 10.8 hectares at Hownsgill Industrial Estate for general employment land, provided the development accords with relevant development plan policies".

Please note while the Project Genesis site boundary is shown on the Policies Map and employment land at Hownsgill Industrial Estate is allocated, with the exception of protected employment land and a 17.8ha housing commitment "Genesis Site Berry Edge South" no further land is specifically allocated within the County Durham Plan. The Concept Masterplan does not from part of the statutory development plan, other than the allocated employment land, the CDPs support for mixed used development of the Project Genesis Site is subject to proposals according with relevant development plan policies. See also CDP paragraph 4.38.

CDP Policy 21 (Delivering Sustainable Transport) advises that the transport implications of development must be addressed as part of any planning application, where relevant this could include through Transport Assessments, Transport Statements and Travel Plans. On the basis that the proposed development is waste development, footnote 70 applies and regard must be had to the remaining saved transport related policies of the CDWLP.

CDP Policy 25 (Developer Contributions) amongst its provisions advises that new development will be approved where any mitigation necessary to make the development acceptable in planning terms is secured through appropriate planning conditions or planning obligations.

CDP Policy 26 (Green Infrastructure) amongst its provisions advises that development will be expected to maintain and protect, and where appropriate improve, the county's green infrastructure network. In relation to Public Rights of Way it advises that proposals that would result in the loss of, or deterioration in the quality of, existing Public Rights of Way (PROWs) will not be permitted unless equivalent alternative provision of a suitable standard is made.

CDP Policy 29 (Sustainable Design) advises that all development proposals will be required to achieve well designed buildings and places having regard to supplementary planning documents and other local guidance documents where relevant and specific criteria are also provided which should be used where relevant to the proposed development. Please note policy W6 of the CDWLP is also saved. As stated below W6 advises, "Where appropriate, the opportunity should be taken to illustrate best practice by incorporating sustainable design principles in new building, using recycled materials

wherever possible". Relevant Policy 29 criteria appear to be a) to k). Criteria c) is particularly applicable it advises that proposals should "minimise greenhouse gas emissions, by seeking to achieve zero carbon buildings and providing renewable and low carbon energy generation and include connections to an existing or approved district energy scheme where viable opportunities exist". Criteria c) advises, "provide high standards of amenity and privacy, and minimise the impact of development upon the occupants of existing adjacent and nearby properties"; and criteria f) advises, "contribute towards healthy neighbourhoods and consider the health impacts of development…".

CDP Policy 31 (Amenity and Pollution). Given that waste management proposals and in particular incinerators can be controversial and that local concerns will include impacts of pollution upon human health and amenity issues (noise, odour and light pollution) this is a key policy for the determination of this planning application. The policy is a repetitive policy which has many elements and requires:

- A demonstration of no unacceptable impact, either individually or cumulatively, on health, living or working conditions or the natural environment. That development which has the potential to lead to, or be affected by, unacceptable levels of air quality, inappropriate odours, noise and vibration or other sources of pollution, either individually or cumulatively, will not be permitted including where any identified mitigation cannot reduce the impact on the environment, amenity of people or human health to an acceptable level. That development which does not minimise light pollution and demonstrate that the lighting proposed is the minimum necessary for functional or security purposes will not be permitted.
- That the development can be integrated effectively with any existing business and community facilities. Potentially polluting development will not be permitted near to sensitive uses unless satisfactory mitigation can be demonstrated.
- That any existing business and/or community facilities do not have any unreasonable restrictions placed upon them as a result of unacceptable impacts such as through overlooking, visual intrusion, visual dominance or loss of light, noise or privacy.
- A demonstration that that future occupiers of the proposed development will have acceptable living and/or working conditions.

CDP Policy 32 (Despoiled, Degraded, Derelict, Contaminated and Unstable Land). This policy is relevant given the history of the site which could have resulted in contamination being on the site and the application sites location in a coal mining high risk area.

CDP Policy 33 (Renewable and Low Carbon Energy). While the proposal is an energy from waste plant it is proposed that in addition to electricity for local users, heat would also be generated which could be supplied to customers within the nearby area. Through not using fossil fuels the proposal could be considered to be low carbon. Policy 33 affords support to low carbon energy development in appropriate locations. It also advises that significant weight will be given to the achievement of wider social, environmental and economic benefits.

CDP Policy 35 (Water Management) relates to flood risk and sustainable drainage systems would be applicable. The policy also addresses water quality and this matter is also addressed under CDWLP Policy W26.

CDP Policy 36 (Water Infrastructure) relates to a number of matters of which disposal of foul water would be applicable.

CDP Policy 38 (North Pennines Area of Outstanding Natural Beauty) amongst its provisions requires that development in or affecting the AONB will only be permitted where it is not, individually or cumulatively, harmful to its special qualities or statutory purposes. Given the location of the AONB boundary 2.5km west the council will need to consider these provisions of the policy.

CDP Policy 39 (Landscape) would be applicable.

CDP Policy 41 (Biodiversity and Geodiversity) and CDP Policy 43 (Protected Species and Nationally and Locally Protected Sites) would be applicable.

Policy 44 (Historic Environment) would be applicable.

Policy 47 (Sustainable Minerals and Waste Resource Management). In particular, this policy promotes, encourages and seeks to facilitate the development of a sustainable resource economy in County Durham. In particular:

- criteria a) seeks to ensure "that waste is managed in line with the waste hierarchy in sequential order". In this regard it will be essential that the operation of the facility does not prejudice this requirement, only residual waste which has been subject to recycling first should be used within the plant. In terms of the waste hierarchy as shown on Figure 4 of the CDP incineration falls within "other recovery".
- Criteria a1) is supportive of proposals which "increase the capacity and capability of the county's network of waste management facilities to reuse, recycle and recover value from waste materials".
- Criteria a2) seeks to resist, "proposals for the disposal of residual waste via landfill or via the incineration of waste without energy recovery unless a need can be demonstrated which cannot be met by existing facilities and by treatment solutions higher in the waste hierarchy".
- Criteria b) seeks to support opportunities for on-site management of waste where it arises and encourages the co-location of waste developments with industrial uses so that waste can be used as a raw material. A proposal which uses residual waste as a raw material in an incinerator to provide energy and heat to nearby industrial users would meet these criteria.

CDP Policy 60 (Waste Management Provision) is permissive towards the provision of new or enhanced waste management capacity will be permitted where they can demonstrate that they accord with criteria a, b and c.

- Criteria a) advises, "contribute to driving the management of waste up the waste hierarchy and do not prejudice the movement of waste up the waste hierarchy". In terms of the waste hierarchy as shown on Figure 4 of the CDP incineration falls within "other recovery".

- Criteria b) advises, “b. assist in moving the management of waste in County Durham towards net self-sufficiency and/or make an appropriate contribution to regional net self-sufficiency by managing waste streams as near as possible to their production.

  In relation to self-sufficiency, the forecasts set out in the County Durham Plan (Table 11 Baseline Arisings by Waste Type) were 2016 based and did not provide an indication of current County Durham or regional self-sufficiency but did show a sizeable deficit in non-hazardous residual disposal capacity (non-hazardous) which includes commercial waste which the proposed plant would use for incineration and also includes household and industrial waste.

  The Council’s latest CDP AMR has sought to start to monitor self-sufficiency, the latest 2019/20 AMR reports upon the sizeable flows of waste between local authorities in the North East with 363,858 tonnes of commercial and industrial waste being imported into County Durham in 2019 and 391,219 tonnes imported. While indicating a degree of self sufficiency these figures mask complex flows of waste between waste management facilities within the region. County Durham has significant non-hazardous transfer capacity (where recycling can occur) and some material treatment capacity but is largely reliant on incineration capacity in the Tees Valley. County Durham also has a forecast shortfall of landfill capacity (although it is now considered as outlined in paragraph 5.587, that some non-hazardous landfill capacity may remain available over the period to 2035). In these circumstances combined with the limited delivery of non-hon-hazardous residual waste treatment capacity in the planning pipeline across the region, a scheme which would utilise 60,000 tonnes of commercial waste could make a contribution to both County Durham and regional self-sufficiency.

  Criteria b) also refers to managing waste streams as near as possible to their production and is intended to reflect the established proximity principle which is an important part of European and National policy. The planning application refers to 60,000 tonnes of Refuse Driven Fuel which suggests that the commercial waste which is proposed to be used would originate from a material recycling facility, although reference is only made to collection and segregation prior to delivery. Information on the proposed origin and continued long term availability of this waste will be required to assess whether the proposal would accord with this element of this criteria. Given the application sites location in North West Durham, it is considered that residual commercial waste which did not arise within a proximate location which could include County Durham, and neighbouring areas of Northumberland and Tyne and Wear would likely fail to meet this element of the policy, although this is a matter which would need to be considered by the case officer.

- Criteria c) refers to “assist in meeting the identified need for new waste management capacity to manage specific waste streams over the Plan period or can demonstrate an additional need which cannot be met by existing operational facilities within County Durham or the North East.

  As outlined above, Table 14 (Surplus Capacity (Including Any Capacity Gap) by Site Type (to 2035)) of the County Durham Plan forecast a deficit of capacity for non-hazardous residual treatment and disposal of between 67,000 to 145,000 tonnes by 2035 (with an existing deficit in 2020 of 98,000 to 132,000 tonnes). In addition, Table 14 also identified a capacity gap of -

3,682,800 (m3) of Inert Landfill and Non-Hazardous Landfill by 2035. While paragraph 5.586 of the County Durham Plan advised, that it was understood that the forecast Non-Hazardous residual waste treatment/disposal capacity gap reflected the pattern of final management for LACW, whereby waste which cannot be composted or recycled is managed by incineration at the Suez Energy from Waste (EfW) plant at Haverton Hill in the Tees Valley, nevertheless a need was identified for further non-hazardous treatment/disposal, which has not been met though new planning permissions in County Durham since 2016.

As outlined above, in terms of the wider regional picture, the CDP at paragraph 5.586 advises, that the council's evidence base has also identified that a significant quantity of Non-Hazardous residual waste treatment capacity is in the planning pipeline across the North East and may come on stream in future years depending on the waste management industries ability to deliver the proposed schemes. However, the monitoring of these schemes to date as set out in the Waste Management Topic Papers (2019) has indicated a lack of delivery of past planning permissions. Since this document was published one further sizeable scheme (215,000 tonnes incinerator in Sunderland (Sunderland Renewable Energy Village)) was refused planning permission in July 2019. On the basis of the available information there is a future need for further residual treatment capacity which cannot be met by existing operational facilities within County Durham or the North East.

It should be noted that para 5.586 of the CDP advises, "In respect of the forecast Non-Hazardous residual waste treatment/disposal capacity gap it

is understood that the identified capacity gap reflects the pattern of final management for LACW, whereby waste which cannot be composted or recycled is managed by incineration at the Suez Energy from Waste (EfW) plant at Haverton Hill in the Tees Valley. The council's contact with Suez

runs until 2021 with options to extend to 2025" and "Nonetheless, the council will consider positively planning applications to provide additional treatment capacity. It is recognised that such facilities could assist in managing waste towards the top of the waste hierarchy and could contribute both to net and regional self-sufficiency. Such proposals will be looked upon favourably where the proposal is acceptable in all other respects taking into account all relevant Plan policies".

CDP Policy 61 (Location of New Waste Facilities) provides locational criteria to enable the consideration of the location of facilities. The proposed development would need to comply with criteria a), b), c) and either criterion d) or e). The policy is intended to be read alongside other relevant policies where appropriate.

- Criteria a) requires that they, "are located outside and do not adversely impact upon the setting or integrity of internationally, nationally and locally designated sites and areas". Given the application sites location outside such sites and areas it will therefore be necessary to consider whether the proposed development adversely impacts upon relevant sites and areas.
- Criteria b) refers to "are located outside the Green Belt or are in locations which do not impact upon its openness". It is noted that the application site lies outside of the designated green belt areas in County Durham. Due to the significant distance from these areas it is considered that the proposed development would be highly unlikely to impact upon its openness.

- Criteria c) refers to “minimise the effects of transporting waste including by locating as close to arisings as practical”, see comments above in relation to the proximity principle.
- Criteria d) states, “can be satisfactorily located as part of an existing waste management facility, or where the waste management facility can be satisfactorily co-located with complimentary activities and potential users of recovered materials, recyclates and soils, energy and heat, where appropriate and feasible and where this represents a sustainable option.
- Criteria e) refers to “can be satisfactorily located on suitable land identified for employment use, or on suitable previously developed land in the larger towns and villages where the site can serve a local or larger catchment except”.

The policy also advises, that “all proposals must demonstrate that there will be no unacceptable adverse impact on the environment, human health or the amenity of local communities”.

Relevant saved County Durham Waste Local Plan Policies are:

- W6 (Design) - This policy is considered to be up to date it is not time limited policy and has been assessed as consistent with the NPPF and the NPPW.
- W26 (Water Resources) - This policy is considered to be up to date it is not time limited policy and has been assessed as consistent with the NPPF and the NPPW.
- W29 (Modes of Transport), W31 (Environmental impact of road traffic); and W32 (Planning obligations for controlling environmental impact of road traffic) - These policies are not time limited and apart from W32 all accord with the NPPF as well as the NPPW. However, it should be noted that paragraph 109 of the NPPF is clear that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe. Please note Policy W32 is assessed as only partially consistent with NPPF and NPPW and can only be accorded some weight as the matter of planning obligations needs to align with the related legislation. The terminology used in the Policy W32 insofar as they fairly and reasonably relate to the proposed development' does not fully reflect section 122 of the CIL Regulations. Any planning agreements must meet all three tests: a) necessary to make the development acceptable in planning terms; b) directly related to the development; and c) fairly and reasonably related in scale and kind to the development.
- W35 (Cumulative Impact) - This policy is up to date it is not time limited policy and has been assessed as consistent with the NPPF and NPPW.

Details of Consultee responses are set out as follows:

NHS – has stated that Hownsgill Industrial Park, DH8 7NU, is not a residential area and no dwellings are anticipated within the Planning Application. The majority of risk to health services therefore arises from industrial accidents or road traffic accidents if increased traffic is anticipated. The closest Primary Care facility is Consett Medical Centre which is 1.2 miles distant, less than 5 minutes by car. The nearest Urgent Treatment Centre is at Shotley Bridge Hospital which is 2.6 miles distant and about 7 minutes by car. The nearest Major Trauma Unit is the Royal Victoria Hospital, 15 miles distant and there is space on site for helicopter landings.

Northumbrian Water – has stated that they have no comments to make as no process water appears to discharge to the public sewerage network. However, if this is not the case, and process water does discharge to the public sewerage network, then the development may require a trade effluent application for the disposal of wastewater to the sewerage network.

Archaeology – Officers have stated that the site in question has been the subject of intense development in the past followed by site levelling works on obsolescence. These have almost certainly disturbed and/or removed any archaeological features which may once have existed. Consequently, there is no requirement for archaeological conditions to be attached to any grant of planning permission.

Coal Authority - The Coal Authority concurs with the recommendations of the Phase I Preliminary Risk Assessment (June 2020, prepared by Enzygo Ltd) that shallow coalmine workings potentially pose a risk to the proposed development and that intrusive site investigation works should be undertaken prior to development in order to establish the exact situation regarding coal mining legacy issues on the site. Accordingly, the Coal Authority recommends the imposition of the following conditions:

1. No development shall commence until;
a. a scheme of intrusive investigations has been carried out on site to establish the risks posed to the development by past shallow coalmine workings, and;
b. any remediation works and/or mitigation measures to address land instability arising from shallow workings, as may be necessary, have been implemented on site in full in order to ensure that the site is safe and stable for the development proposed.

The intrusive site investigations and remedial works shall be carried out in

accordance with authoritative UK guidance.

2. Prior to the occupation of the development, or it being taken into beneficial use, a signed statement or declaration prepared by a suitably competent person confirming that the site is, or has been made, safe and stable for the approved development shall be submitted to the Local Planning Authority for approval in writing. This document shall confirm the methods and findings of the intrusive site investigations and the completion of any remedial works and/or mitigation necessary to address the risks posed by shallow coalmine workings.

The Coal Authority therefore has no objection to the proposed development subject to the imposition of the conditions to secure the above.

Design and Conservation – has not objected to the development. Officers have stated that the submitted historic environment assessment is well detailed and follows appropriate guidance for the preparation of such a document. The appropriate heritage assets are identified and the conclusions are considered to be reasonable. As the conclusions identify less than substantial harm, however low on the scale this may be, the requirements of para 196 of the NPPF must be applied in the determination of this application in regard to public benefits.

Drainage - We advise that the surface water from the vehicle circulation areas, parking and access road should be treated prior to leaving the site. Refer to the CIRIA Pollution Hazard Indices table for mitigation levels to be controlled. It should be noted that petrol / oil interceptors do not provide the levels of treatment. Ideally traditional SuDs features should be used to provide treatment, or a full retention device can be an alternative solution for this type of development.

Environment Agency – has raised no objections to the development. Advice has been provided in respect of permitting, piling and National Quality Mark Scheme.

Ecology – has raised no objections. Officers have commented that the ecological report recommends that bat and bird boxes are installed alongside hibernacula. Details of the locations, type and number of these should be shown on the landscape plans.

Environmental Health and Consumer Protection

Noise – has raised no objections. A detailed assessment of the submitted noise information has been carried out and broadly agrees with the conclusions. Conditions are recommended to secure the implementation of a scheme to control noise and vibration emissions, and to limit maximum noise levels at sensitive receptors. Full comments are attached.

Air Quality – has raised no objections. Concerns are raised in respect of a lack of consideration of operational dust impacts, no consideration of emissions from the odour control system stack. An explanation of why the backup boilers do not need to comply with the Medium Combustion Plant Directive. No cumulative industrial or waste sources are included in the assessment. The nearby Greencore Prepared Meals facility is operated subject to an Environmental Permit. It would be useful to refer to this other facility in the assessment, even if to confirm cumulative impacts are unlikely. There is also an anaerobic digestion facility 2km to the northwest of the EfW. It would have been useful if consideration had been given to the possibility of cumulative odour impacts occurring at receptor locations between the two sites. Particularly as Durham Council are aware of odour complaints relating to the anaerobic digester. It is recommended that control of dust and odour be controlled by condition. Full comments are attached.

Contaminated Land – has raised no objections to the proposals. Officers are satisfied with the information provided in relation to the phase 1 and agree with the risk assessment and proposals. The phase 2 is an interim report as ground gas monitoring is ongoing at the time of reporting. The exploratory hole location plan from Appendix B is missing and is therefore required to be submitted.

Made Ground has been identified on site up to 6.7m in depth. Brown sandy silty topsoil was identified across the site. No elevated levels of contamination were identified in the soils. The information provided indicates that the risks are low, however given further information is required in relation to the phase 2, the following contaminated land condition should apply.

Contaminated Land (Phase 2-3)

No development shall commence until a land contamination scheme has been submitted to and approved in writing by the Local Planning Authority. The submitted scheme shall be compliant with the YALPAG guidance and include a revised Phase 2 site investigation and ground gas risk assessment. If the Phase 2 identifies any unacceptable risks, a Phase 3 remediation strategy shall be produced and where necessary include gas protection measures and method of verification.

Contaminated Land (Phase 4)

Remediation works shall be carried out in accordance with the approved remediation strategy. The development shall not be brought into use until such time a Phase 4 verification report related to that part of the development has been submitted to and approved in writing by the Local Planning Authority.

The following should be added as an informative:

If unforeseen contamination is encountered, the Local Planning Authority shall be notified in writing immediately. Operations on the affected part of the site shall cease until an investigation and risk assessment, and if necessary a remediation strategy is carried out in accordance with the YALPAG guidance and agreed with the Local Planning Authority. The development shall be completed in accordance with any amended specification of works.

Low Carbon and Sustainability – has stated that they are not able to support the application. Concerns are raised in respect of the environmental value of the development due to the lack of an identified user, or users, for a district heating network or private wire electrical supply. Officers have suggested that the electricity supplied by the development may have a higher carbon factor than grid supplied electricity and therefore it would not assist with local and national carbon reduction targets. Further concern is also raised in respect of the absence of carbon capture storage. Officers have suggested that an analysis be carried out to compare the proposed plant to a landfill alternative (assuming a landfill with gas engine) with specific waste streams identified.

Highways – has raised no objections subject to a condition requiring the site access to be constructed to DCC highway standards in accordance with the submitted site plan. Advice is also provided in respect of obtaining a Section 184 (Highways Act 1980) licence for works in the public highway.

Landscape – has objected to the proposal due to the scale, massing and form being incongruent with the surrounding and area and existing development. Officers have stated that there would be substantial adverse and significant landscape effects, and overall unacceptable harm to the character of the surrounding landscape. Full comments are attached.

Access and Rights of Way – Officers have stated that here are no registered public rights of way affected by this proposal. Public use of the C2C cycle path to the north west is by permission.

GIS aerial photography indicates a number of desire lines across this land. This information is provided as public rights may be accrued over specific routes connecting public highways through 20 plus years uninterrupted use. Routes connecting a public highway to the C2C would likely not qualify as the C2C is permissive.

Sustainable Travel – has raised no objections or comments.

LANDSCAPE ADVICE - Waste application

Area	Strategic
Case Officer	Chris Shields
Application No.	DM/20/03267/WAS
Landscape Officer	David Gray
Date	1st March 2021

Site Address	Hownsgill Industrial Park Templetown
Proposal	Energy from Waste Facility

The proposed Waste Facility would include a main building of maximum height 22m at the ridge, one emissions stack 50m in height, a water storage tank at 25m in height, entrance and access road with security/gatehouse and weighbridge. There would be further ancillary development including external coolers, means of enclosure, hardstanding, offices and vehicle parking. In addition to this there would be vehicles carrying waste materials coming to and from the proposed site.

The proposal is accompanied by an Environmental Statement including a Landscape and Visual Impact Assessment as Chapter 7 which is informative. My understanding of landscape and visual effects in summary is as follows:

Summary / Overview

The site and its surroundings

Landscape Character

The site lies in the *West Durham Coalfield* County Character Area which forms part of the larger *Durham Coalfield Pennine Fringe* National Character Area (NCA 16).

It lies in the *Northern Coalfield Uplands* Broad Character Area which belongs to the *Coalfield Upland Fringe* Broad Landscape Type.

The site is made up of *Reclaimed Grassland* (*Disturbed Land* Local Landscape Type). The site lies within an elevated rectangular plateau and the north-west edge is mounded to a height of approximately 5 metres. To the north-west the site boundary comprises semi-mature deciduous trees adjacent to a strategic cycle path. To the north-east and south-west, the site boundaries are open and there are existing factory units with access roads and parking areas. To the south-east there is an access road which would serve the proposed development with scrubland to the east.

Landscape designations

The site doesn't lie in an area covered by any national or local landscape designations.

The site is not within the North Pennines Area of Outstanding Natural Beauty (AONB).

The site does not lie within an area identified in the County Durham Plan as an Area of Higher Landscape Value (AHLV).

Trees within the site are not covered by a Tree Preservation Order (TPO).

Landscape Strategy

The site lies within an area identified in the County Durham Landscape Strategy (2008) as a *Landscape Improvement Priority Area* with a strategy of *enhance.*

Relevant objectives of the Landscape Strategy include the following:

- *WD1 To improve the urban and urban fringe environment, particularly that of former mining settlements.*
- *WD2 To maintain and strengthen the rural character of the landscape between towns and villages.*
- *WD5 To conserve relic landscapes and landscape features - particularly those of the coal and steel industries, the older medieval landscape,*
- *WD15 To improve the landscape of former opencast sites and other reclaimed land by restoring characteristic landscape features.*
- *WD22 To maintain and increase access to the countryside around towns and villages, and particularly circular neighbourhood walks and long distance paths.*
- *WD23 To manage traffic on quiet country lanes and create new safe routes or 'greenways' for pedestrians, cyclists and horse riders between towns and villages.*
- *WD24 To ensure that new development is in keeping with the character of its surroundings and contributes positively to the strategy for the area.*
- *WD26 To encourage improvements to the environment of industrial sites and positive management of vacant industrial land.*
- *WD29 To encourage and promote greater involvement of local communities in decision making about neighbourhood landscapes.*

Landscape Value

The County Durham Landscape Value Assessment (2019) indicates that the land within the site is typical of the landscape to the south-west of the settlement of Consett, known as *7a ix Templetown* character area.

Contributors to landscape value within this sub-area are assessed by consideration and judgements on the following attributes: ***Landscape condition****: medium*, ***Scenic quality****: low to medium,* ***Rarity:*** *low to medium*, ***Representative-ness****: medium,* ***Conservation interests (natural)****: medium,* ***Conservation interests (historic)*** *low to medium****, Recreational value:*** *medium,* ***Perceptual aspects:*** *low to medium and* ***Cultural associations:*** *not assessed.* The results of the 2019 assessment confirm that the landscape within and surrounding the site is a valued landscape.

Visual Environment

The site is visible from adjacent business premises situated immediately to the north-east and south-west of the site. The site is visible through gaps and tree branches from the adjacent strategic cycleway, immediately to the north-west. There are direct views to the site from adjacent housing to the north-east and east of the site at a minimum distance of approximately 500 metres.

The ground within the site, including the existing mounding is visible from individual residences, roads and public rights of way situated to the south and south-east of the site. In this context the site occupies the horizon in the backdrop of existing semi-mature plantations and the site is visible from higher ground at approximately 1km for example, open views can be experienced from Knitsley Lane, to the east of Middles Farm.

The site is visible in combination with the Grade II* Listed Hownes Gill Viaduct from the south on Longedge Lane (west of High House Lane junction and at the junction).

The ground surface of the site is visible from Public Footpath 41 (Lanchester) next to Humber Hill Beacon at 4.9km from the site to the south-east and from roads, residences and footpaths between the Beacon and the site. The site is also visible from Front Street Cornsay at approximately 7.3km to the south-east of the site.

From the west, south-west, north-west and north, the ground surface of the site is screened and filtered by deciduous plantations and buildings within the urban area.

Landscape and visual effects

Effects on landscape features

The site currently comprises reclaimed grassland and this would be reduced in extent by the proposed development, which would create a permanent increase in urban and industrial character.

Effects on landscape character

The Boundary Treatment Elevations show the 2m high external boundary fence in the context of the development. The boundary fence is representative of maximum human scale being higher than the average human being. These elevations provide a good indication of the very large scale, mass and height of the proposed development. This should be considered in the context of other buildings within the locality which are by comparison evidently much smaller with no comparable vertical chimneys or emissions stacks. The proposed building also has a heavy industrial character as opposed to the light 'high tech' industrial character of the buildings which currently surround the site, including those at Delves Lane to the east of the site. Within the urban area to the north there is one single vertical tower which appears to be much smaller in scale than the proposed stack and water storage tower.

While the propose development may resemble the size and scale of surrounding buildings when viewed in plan, it is likely that due to the overall form, mass and height of the proposed 22m high main building, 25m high water storage tower and 50m high emissions stack, the proposal would be incongruent with substantial adverse and significant landscape effects at site level and within

600m of the site, and moderate adverse landscape effects on the surrounding valley and Area of High Landscape Value to the south and south-east, which would bring about unacceptable harm to the character of the surrounding landscape.

Effects on designated landscapes

The nearby Area of High Landscape Value (AHLV) lies approximately 500m to the south of the proposed development. The development would be intervisible with the designated area and would form a high backdrop to the AHLV in views from the south and south-east and would be therefore detrimental to the setting and character of the designated area.

Visual effects

The applicant's Proposed Elevation drawings are informative in terms of providing an understanding of the scale and size of the development. There is currently a grassed mound of earth which occupies the north-west site boundary. To the north-west of this is a line of semi-mature trees which flank the Consett to Sunderland Railway Path, which is also the route of the C2C strategic cycle route. This route also forms part of the Consett Heritage Trail with associated sculptures, way-markers and interpretation boards. This all forms part of a recently funded project to improve the local area and to celebrate its appeal and heritage. The route is frequently used by high numbers of local walkers and visitors from outside of the area. The proposed high processing building, emissions stack and cooling tower would be highly visible from this route and would be highly visible over the existing semi-mature trees and earth bund, such that visual effects on users of this recreational route would be substantial adverse and permanent and therefore significant.

The development would also be visible at close range to occupants of the industrial premises to the north-east and south-west. There are residences to the north-east at 'The Chequers' and to the East on Knitsley Lane. These receptors have primary views towards the site and would experience substantial, adverse and permanent visual effects due to the large size and industrial nature of the development. Visual effects would also be increased by vehicles carrying waste materials coming to and from the proposed site.

In views from the wider landscape, the proposed development would be visible amongst the urban area from the east on the A691 road. There would be unimpeded views of the development from roads, rights of way and residences beyond 1km to south and south-east of the development within the Area of High Landscape Value and the proposed structures would create a prominent local landmark on the horizon as an adverse backdrop to the AHLV. This would bring about moderate, adverse and permanent visual effects. The proposed development would also be visible in combination with the Grade II* listed Hownes Gill viaduct from this direction.

In views from the south-west, while the ground within the site would not be visible the upper area of the proposed 22m high main building, tower and emissions stack would be visible as a skyline landmark. The rising land to the west of the site is not higher in elevation than the proposed buildings and therefore, the development would be visible in part from the Area of Outstanding Natural Beauty (AONB) amongst mainly residential character surrounded by semi-mature plantations and woodlands. Adverse and permanent visual effects are therefore anticipated.

There are locations to the west of the study area on the higher ground, where it would be possible for receptors to experience the development as a skyline feature, above the existing line of trees with some views in combination with the listed viaduct at Hownes Gill. While these views are at a

distance from the site, the appearance of the development would bring about adverse and permanent visual effects.

Due to the scale and form of the proposed structures and elevated location, the development would be visible at a distance, from the settlement of Cornsay and from Humber Hill (South-west of Lanchester) and would not be in keeping with both the surrounding rural and urban visual environments.

In terms of visual mitigation, it would be difficult to filter and screen a building of such mass and scale using fully mature trees notwithstanding the time required to establish tree planting to form permanent and effective visual mitigation.

Design Considerations

Should the development be allowed then an alternative building design with a reduced visual and landscape impact should be considered, if feasible.

The applicant's Landscape Mitigation plan proposes a combination of earth mounding and a native woodland planting mix, confined to the south-west, south and south-west of the site. It should be noted that no visual screening is proposed to the north-east of the waste facility which would therefore remain a visually open, fenced boundary.

Research indicates that in this exposed location, native trees would take approximately 15 years to reach an approximate height of 9m and would require a longer period to reach 20m in height at maturity. With the use of the proposed mounding and native tree and shrub planting, the 22m high facades and higher vertical structures would be prominent and adverse for a long period of time, prior to the establishment and formation of an effective visual screen.

With buildings of such scale and size, it would therefore take a relatively long period of time to establish an effective vegetative screen.

Policy considerations

The extent to which the proposals would conflict with Policies dealing with landscape and visual matters and the weight that should be attached to them is a matter for your judgement. I would make the following observations.

The County Durham Plan 2020

Policy 29 Sustainable Design

'All development proposals will be required to achieve well designed buildings and places having regard to supplementary planning documents and other local guidance documents where relevant, and:

a. contribute positively to an area's character, identity, heritage significance, townscape and landscape features, helping to create and reinforce locally distinctive and sustainable communities;

e. provide high standards of amenity and privacy, and minimise the impact of development

upon the occupants of existing adjacent and nearby properties; and contribute towards healthy neighbourhoods and consider the health impacts of development and the needs of existing and future users, including those with dementia and other sensory or mobility impairments.

Landscape proposals should:

g. respond creatively to topography and to existing features of landscape or heritage interest and wildlife habitats;

h. respect and where appropriate take opportunities to create attractive views of and from the site;

i.reflect in the detailed design any features characteristic of the locality such as boundaries, paving materials and plant species;

j. create opportunities for wildlife including though the use of locally native species;

k. make appropriate provision for maintenance and long term management; and

l. in the case of edge of settlement development, provide for an appropriate level of structural landscaping to screen or assimilate the development into its surroundings and provide an attractive new settlement boundary.

The proposed development and anticipated significant and harmful landscape and visual effects would be contrary to the requirements of this policy.

Policy 39 Landscape

'Proposals for new development will be permitted where they would not cause unacceptable harm to the character, quality or distinctiveness of the landscape, or to important features or views.
Proposals will be expected to incorporate appropriate measures to mitigate adverse landscape and visual effects.
Development affecting Areas of Higher Landscape Value defined on Map H, will only be permitted where it conserves, and where appropriate enhances, the special qualities of the landscape, unless the benefits of development in that location clearly outweigh the harm.
Development proposals should have regard to the County Durham Landscape Character Assessment and County Durham Landscape Strategy and contribute, where possible, to the conservation or enhancement of the local landscape.'

The development proposals could potentially cause unacceptable harm to the landscape setting of the Area of High Landscape Value (AHLV). The proposals would bring about substantial adverse, permanent and therefore significant landscape and visual effects locally. Proposals for design and mitigation if feasible, should therefore be considered in the context of the requirements of Policy 39.

County Durham Waste Local Plan Policies

Saved Policy W6 Design

'New buildings for waste management uses should be carefully sited and designed to complement the location and existing topography. Landscape proposals should be incorporated as an integral part of the overall development of the site. Where appropriate, the opportunity should be taken to illustrate best practice by incorporating sustainable design principles in new building, using recycled materials wherever possible.'

The proposed design would not complement the locality and would be visually prominent in the chosen elevated location. While recycled materials would be used for the proposed mounding, the feasibility and long-term success of the proposed landscape mitigation is questionable given the size, scale and location of the proposed structures. The location and design of the proposed waste facility should therefore be considered in the context of the requirements of this policy.

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Project name:
DCC Planning Reviews - Noise

Project ref:
DM/20/03267/WAS

To:
John Hayes
Durham County Council

From:
Jason Evans

CC:
Tom Stenhouse, AECOM

Date:
23 December 2020

Memo

Subject: DM/20/03267/WAS Land Adjacent to Hownsgill Industrial Park, Templetown

With reference to the above request for planning application advice, I would confirm that I have considered the information provided to date and would comment in relation to the following environmental impact:

- Noise

Introduction

It is understood that the planning application for the site above concerns the construction and operation of an Energy from Waste facility (here on referred to as EfW).

AECOM has reviewed the following documents that were made available on the Durham Council Planning Portal on 10th and 13th November:

- Environmental Statement Chapter 2 – Scope of ES
- Environmental Statement Chapter 9 – Noise and Vibration
- Environmental Statement Appendix 9.1 – Glossary of Terminology
- Environmental Statement Appendix 9.2 – Baseline Noise Measurements
- Environmental Statement Appendix 9.3 – Noise Contour Plot
- Environmental Statement Appendix 9.4 – Operational Noise
- Environmental Statement Appendix 9.5 – Construction Noise and Vibration Assessment
- Environmental Statement Chapter 14 – Amenity (no additional relevant information is provided in this document above that provided in other documents in this list).
- Environmental Statement Appendix 1 – Scoping Opinion Request
- Proposed Site Plan
- Site Location Plan
- Aerial photography[1]

[1] https://www.google.com/maps/place/Consett/@54.8423383,-1.8384425,1805m/data=!3m1!1e3!4m5!3m4!1s0x487dc96755fffb07:0xd6fc354d831d7bbe!8m2!3d54.851797!4d-1.833026

Summary

Comments on the documents reviewed are provided in the following table:

Relevant section	Notes	Comments
Scoping Opinion request		
Baseline Conditions (Section 9.2)	It is stated that measurements would be made over representative daytime (0700 to 2300 hours) and night-time (2300 to 0700 hours) periods at the weekend and/or during the week subject to agreement with the LPA.	See ES Chapter 9 comments below
Environmental Statement Chapter 2 – Scope of ES		
Organisation of the Environmental Statement	Para 2.6.12 states that Chapter 9: Noise assesses noise climate and likely noise impacts of construction and operation of the facility including road traffic noise associated with the development.	See ES Chapter 9 comments below
Topics Scoped out of ES	Para 2.3.9 states that the "….Noise Assessment contained within the Environmental Statement has considered the combined impacts on ecology from development, operations and emissions."	See ES Chapter 9 comments below
Environmental Statement Chapter 9 – Noise and Vibration		
Introduction (Section 9.1), and Scope in general	Paragraph 9.1.1 Noise and Vibration assessment prepared by Enzygo Ltd. The assessment considers impacts associated with: - Construction noise and vibration from works on-site. - Construction noise from off-site traffic. - Operational noise from the site. - Operational noise from off-site traffic.	The assessment does not consider impacts associated with: - Construction vibration from off-site traffic. - Operational vibration from the site. - Operational vibration from off-site traffic. - Operational or construction noise effects on ecological receptors.
Aims and Objectives (Section 9.2)	Acknowledges the aim for the proposed development to operate without adversely affecting nearby noise sensitive receptors.	No reference is made to avoiding/mitigating adverse effects at nearby noise sensitive receptors during construction, although this is covered within Chapter 9 and Appendix 9.5.
Legislation and Policy (Section 9.3)	The section lists a number of relevant documents. No reference is made to the Overarching National Policy Statements for Energy (EN-1).	No overall material impact on the assessment outcome, as other drivers to avoid significant adverse and mitigate/minimise other adverse noise effects are contained in other planning and noise policy.
Assessment Methodology (Section 9.4) and Appendix 9.4.	The section lists a number of relevant documents.	
	Table 9.5 – error in daytime noise metric for sleeping in bedrooms	Value should be 35 dB $L_{Aeq,16hr}$, not 35 dB $L_{Aeq,8hr}$ as reported.
	Paragraph 9.4.28 reference World Health Organisation (WHO) document 'Guidelines for Community Noise' (assumed 1999).	The chapter should instead make reference to Environmental Noise Guidelines for the European Region (2018), which updates the guidance based upon accumulated new evidence on the health effects of environmental noise.
	General comment – the ES Chapter 9 does not set out LOAELs and SOAELs to be adopted for the assessment, or how the impacts and effects of the proposed development will be defined, and no cross reference is made to a supporting appendix containing such detail.	However, some additional supporting information regarding LOAELs and SOAELs is contained in Appendix 9.4, but not in Appendix 9.5.
	Para. 9.4.33 confirms that consultation was undertaken through formal scoping process only.	Further consultation with DCC would have been beneficial, including discussions regarding assessment methodologies (including establishing

		representative baseline sound levels at receptors during the Coronavirus pandemic), local knowledge regarding existing sources and receptor sensitivities.
	Study area and receptors.	Receptors include nearest residential properties and industrial/commercial premises in each main direction from the site, and cover a reasonable selection.
Baseline (Section 9.5), including Appendix 9.2 and Appendix 9.4	Para 9.5.3 of Chapter 9 states that measurements were taken at each location, in 15-minute sample periods, for at least 2-hours during the daytime and for at least 1-hour during the night.	This is considered insufficient to confidently define representative ambient and background sound levels for use in the BS 4142 assessment, and to cover the different time periods covered by the BS 5228 ABC method. Representative background sound levels for the BS 4142 assessment should cover repeated day, evening and night periods over multiple dates, including weekdays and weekends, ideally including continuous monitoring for a minimum 5 day period.
	Information regarding weather conditions during the survey are limited in the Chapter and Appendices.	Additional information regarding, for example, wind direction, would have provided additional context to the assessment.
	There are some errors in “overall” baseline sound level data presented in the Tables in Appendix 9.2, and all “overall” values are stated incorrectly as daytime. A spot check of L_{A90} data suggests that the “overall” values have been derived by arithmetic averaging, rather than as a percentile of the combined duration of the day or night-time measurement period. Statistical analysis of the multiple measurements does not appear to have been undertaken to assist definition of representative background sound levels and no explanation of the intended method is provided. Additionally, L_{A10} and L_{A90} data column headers appear to be swapped over and represent the opposing data.	Using the arithmetic average to derive “overall” sound levels may have resulted in between 2-6 dB higher $L_{A90,15min}$ background sound levels being used at night in the BS 4142 assessment. BS 4142 provides examples methods for defining the represented background sound level. Evidence of the methods considered when defining representative background sound levels should be provided, together with justification for the arithmetic averaging method used. The correct columns have been used to reference the L_{A90} data used in the BS 4142 assessment, albeit with the data limitations noted above.
	Section 3 of Appendix 9.4 provides details of the Baseline Noise Survey and Receptor Noise Climate. Measurements were undertaken in August 2020 during Coronavirus restrictions.	Undertaking baseline sound surveys during restrictions on travel and businesses, and during school holidays, may not have resulted in collection of typical or representative baseline ambient or background sound levels.
Identification and Evaluation of Key Impacts (Section 9.6), Appendix 9.4, and Appendix 5.	Paragraph 9.6.3 of Chapter 9 states that Appendix 9.3 contains construction noise contour plots. These are not included.	The contour plots should be provided by the applicant for review.
	Paragraphs 9.6.5-9.6.17 of Chapter 9 present the construction noise assessment, summarised from the assessment provided in Appendix 9.5 It is concluded that predicted noise levels at the nearest residential receptors would fall significantly below the BS 5228 ABC method derived threshold limits. At the nearest offices on Hownsgill Park, noise levels are predicted to remain below the fixed limit of 75dB $L_{Aeq,T}$ (T being reported as a 1-hour value).	The assessment is based upon assumed plant data in the absence of project specific information. The assessment should be revisited once a contractor is engaged and project specific construction phase information is available. The applicant should also confirm whether the predicted noise levels represent façade or free-field.
	Paragraphs 9.6.5-9.6.17 of Chapter 9 present the construction vibration assessment based upon assumed piling activities. It is concluded that predicted vibration levels at residential receptors might be just perceptible in the most sensitive situations, and at the office receptors the vibration might be just perceptible in residential situations.	Vibration predicted at residential receptors is below the level which might be just perceptible in the most sensitive situations. However, at the office receptors, whilst still at a reasonably low level, is at the upper end of the range at which vibration might be just perceptible in the most sensitive situations and therefore it is important to verify that the office/industrial facilities do not contain equipment highly sensitive to vibration.

	Operational noise modelling protocols are presented in Section 4.2 of Appendix 9.4. Table 4-4 is incorrectly labelled as Modelled Source Emission Heights, but modelled height information is not provided.	An updated Table 4-4 should be provided by the applicant for review. In addition, details of the noise model set-up parameters, ground cover types assumed, and any barriers (other than buildings) included between the Site and receptors should be provided by the applicant for review.
	Paragraphs 9.6.23 onwards of Chapter 9 and Section 4.6 of Appendix 9.4 set out how BS 4142 rating levels have been derived at sensitive residential receptors. No character corrections have been applied to daytime predicted specific sound levels during the day. A +2dB character correction for potential slight audibility of tonal content from the stack at night.	Given the distance to residential receptors (>450m) it is considered unlikely that significant impulsive or intermittent noise from external daytime HGV movements would be audible at these receptors. At night, when ambient sound levels in the area are lower, inclusion of a +2dB character correction for potential slight audibility of tonal sound from the stack is considered reasonable.
	Paragraphs 9.6.1-9.6.2 (Page 23 - note an error in paragraph numbering, which restarts at 9.6.1 on Page 23) of Chapter 9 and paragraphs 4.72 and 4.73 of Appendix 9.4 state that the BS 4142 assessment concludes a “low impact” at receptors during the daytime and a “significant adverse impact” at night respectively, depending upon content. This is without additional specific measures incorporated.	Durham County Council’s ‘Technical Advice Note – Noise’ (TAN Noise) document states first in Para. 3.6 that “If the commercial / industrial noise is 5dB higher than the background noise level then this is an indication of an adverse impact (however, this can still be considered acceptable in terms of residential amenity). TAN Noise also states in Para 3.9 thresholds levels above which planning applications should normally be refused, and in situations where BS4142 applies: • +5 dB or more difference from background noise levels during the day; and • 0dB above background noise level during the night. These BS 4142 levels are not achieved. Predicted BS 4142 rating levels would also be above the SOAEL at night. Additionally, a breakdown of noise contributions from different plant items and building facades included in the CadnaA noise model should be provided by the applicant for review.
	Paragraphs 9.6.4-9.6.5 of Chapter 9 and Section 4.8 of Appendix 9.4 also presents an assessment of predicted rating levels outside residential receptors at night. This assessment demonstrates that internal levels, with windows partially open for ventilation, would be below recommended internal BS 8233 noise levels at night in bedrooms.	It is reasonable and appropriate to consider other guidance to provide context to the BS 4142 assessment. Internal noise levels are identified as being acceptable at night, when residents would most likely to be sleeping indoors, rather than using outdoor living areas where the BS 4142 assessment outcomes would apply.
	Paragraphs 9.6.6-9.6.9 of Chapter 9 and Section 4.9 of Appendix 9.4 considers noise from the Proposed Development on non-domestic buildings within Hownsgill Park, comprising offices. It is concluded that internal noise levels, with windows partially open for ventilation, would be equal to or lower than the lower recommended noise levels for offices of 35 dB $L_{Aeq,T}$ at nearby office receptors.	No adverse comment.
	Paragraphs 9.6.10-9.6.15 of Chapter 9 and Section 4.9 of Appendix 9.4 considers noise from the Proposed Development on transient users of the Consett & Sunderland Railway Path. It is concluded that predicted $L_{Aeq,1hr}$ noise levels are 6dB below the guideline WHO (1999) guideline value of 50dB $L_{Aeq,16hr.}$	There is some uncertainty of the intentions of the acoustic calculation included (i.e. the assessment considers a $L_{Aeq,1hr}$ value for an individual passing by over a 5-minute period and comparing that value with the WHO (1999) guideline value of 50dB $L_{Aeq,16hr}$). Nevertheless, the impact upon transient users of the footpath for the short time over which they are close

		to the Proposed development is considered not to be materially significant.
Design response and Mitigation and Appendix 9.4	Chapter 9 refers to Best Practicable Means mitigation measures to minimise construction noise and vibration, but does not identify the need for site specific mitigation measures.	In line with industry standard practice. However, no reference is given to a Construction Environmental Management Plan (CEMP). It is recommended that commitment to the required level of noise and vibration control is secured by some means, such as planning conditions. Additionally, no reference is given to a Operational Environmental Management Plan (OEMP). It is recommended that commitment to the required level of noise and vibration control is secured by some means, such as planning conditions.
	Paragraphs 9.7.6-9.7.12 of Chapter 9 and Section 5 of Appendix 9.4 refer to mitigation of operational noise. A single column silencer is suggested to provide a 18dB noise reduction at the stack outlet, effectively reducing the sound power level at the stack outlet to 90dB (L_{WA}). Applying this reduced $L_{WA,}$ BS 4142 rating levels at residential receptors are predicted to be below the measured night-time background sound levels used in the assessment, leading to a low impact, depending upon context.	A breakdown of noise contributions from different plant items and building facades included in the CadnaA noise model, following application of this proposed noise reduction measure, should be provided by the applicant for review. Note the previous comment under 'Baseline' that using the arithmetic average to derive "overall" sound levels may have resulted in between 2-6 dB higher $L_{A90,15min}$ background sound levels being used at night in the BS 4142 assessment. However, assuming that the CadnaA predicted noise levels reported are correct, these additional increases should keep rating levels <5dB above the currently measured background sound levels. This assess outcome could change based upon additional/updated baseline sound level data covering an extended measurement period and considering alternative methods of defining 'representative' data.
Residual Impact	No residual impacts are expected following application of the identified mitigation measures.	This is considered a reasonable assertion based upon the results reported and the nature of the local environment, but subject to further assessment and verification as recommended above.
Conclusions	Section 9 of Chapter 9 provides a summary of the findings before and after proposed mitigation. With mitigation implemented, all construction and operational noise and vibration effects are minor or neutral, and therefore "noise and/or vibration should not pose a material constraint for the proposed development."	This is considered a reasonable assertion based upon the results reported and the nature of the local environment, but subject to further assessment and verification as recommended above. Should additional assessment and verification confirm the current conclusions to be robust, a condition relating to operational noise should set out the rating levels to be achieved at nearby receptors relative to representative background sound levels (for example, no greater than +5dB above the representative background sound level).