



**APPLICANT'S RESPONSES TO THE FIRST WRITTEN
QUESTIONS**

**FOR THE DEVELOPMENT CONSENT ORDER
APPLICATION FOR THE ALTERATION AND
CONSTRUCTION OF HAZARDOUS WASTE AND LOW
LEVEL RADIOACTIVE WASTE FACILITIES AT THE EAST
NORTHANTS RESOURCE MANAGEMENT FACILITY,
STAMFORD ROAD, NORTHAMPTONSHIRE**

PINS project reference: WS010005

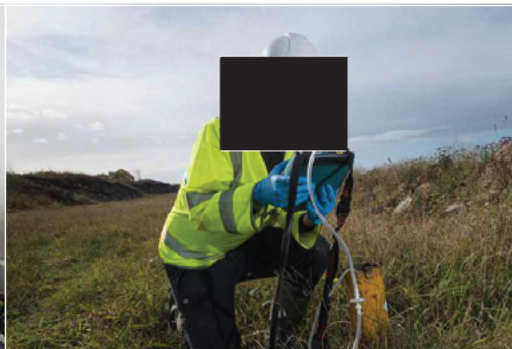
PINS document reference: 9.2

March 2022



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Application by Augean South Limited for East Northants Resource Management Facility Western Extension

The Examining Authority's Written Questions and Requests for Information (ExQ1)

Issued on 9 February 2022]

The following table sets out the Examining Authority's (ExA's) written questions and requests for information - ExQ1. If necessary, the examination timetable enables the ExA to issue a further round of written questions in due course. If this is done, the further round of questions will be referred to as ExQ2.

Questions are set out using an issues-based framework derived from the Initial Assessment of Principal Issues provided as Annexe B to the Rule 6 letter of 6 January 2022. Questions have been added to the framework of issues set out there as they have arisen from representations and to address the assessment of the application against relevant policies.

Column 2 of the table indicates which Interested Parties (IPs) and other persons each question is directed to. The ExA would be grateful if all persons named could answer all questions directed to them, providing a substantive response, or indicating that the question is not relevant to them for a reason. This does not prevent an answer being provided to a question by a person to whom it is not directed, should the question be relevant to their interests.

Each question has a unique reference number which starts with 1 (indicating that it is from ExQ1) and then has an issue number and a question number. For example, the first question on General and Cross-topic issues is identified as Q1.1.1. When you are answering a question, please start your answer by quoting the unique reference number.

If you are responding to a small number of questions, answers in a letter will suffice. If you are answering a larger number of questions, it will assist the ExA if you use a table based on this one to set out your responses. An editable version of this table in Microsoft Word is available on request from the case team: please contact enrmfextension@planninginspectorate.gov.uk and include 'East Northants Resource Management Facility Western Extension' in the subject line of your email.

Responses are due by Deadline 2: Friday 4 March 2022

Abbreviations used:

Art	Article	NE	Natural England
BNG	Biodiversity Net Gain	NNC	North Northamptonshire Council
BoR	Book of Reference	NNR	National Nature Reserve
dDCO	Draft DCO	NPS	National Policy Statement
DEC	DCO Environmental Commitments	NSER	No Significant Effects Report
Defra	Department for Environment, Food and Rural Affairs	NPSHW	National Policy Statement for Hazardous Waste
EA	Environment Agency	NSIP	Nationally Significant Infrastructure Project
EM	Explanatory Memorandum	PA2008	Planning Act 2008
EMMAP	Ecological Management, Monitoring and Aftercare Plan		
ENRMFWE	East Northants Resource Management Facility Western Extension	PM	Particulate Matter
EP	Environmental Permit	R	Requirement
ES	Environmental Statement	RR	Relevant Representation
ExA	Examining Authority	SAC	Special Area of Conservation
HRA	Habitats Regulations Assessment	SI	Statutory Instrument
LIR	Local Impact Report	SoS	Secretary of State
LPA	Local planning authority	SSSI	Site of Special Scientific Interest
LSE	Likely Significant Effects	SWMP	Surface Water Management Plan
MP	Model Provision (in the MP Order)	UKHSA	UK Health Security Agency
MP Order	The Infrastructure Planning (Model Provisions) Order 2009	WFD	Water Framework Directive



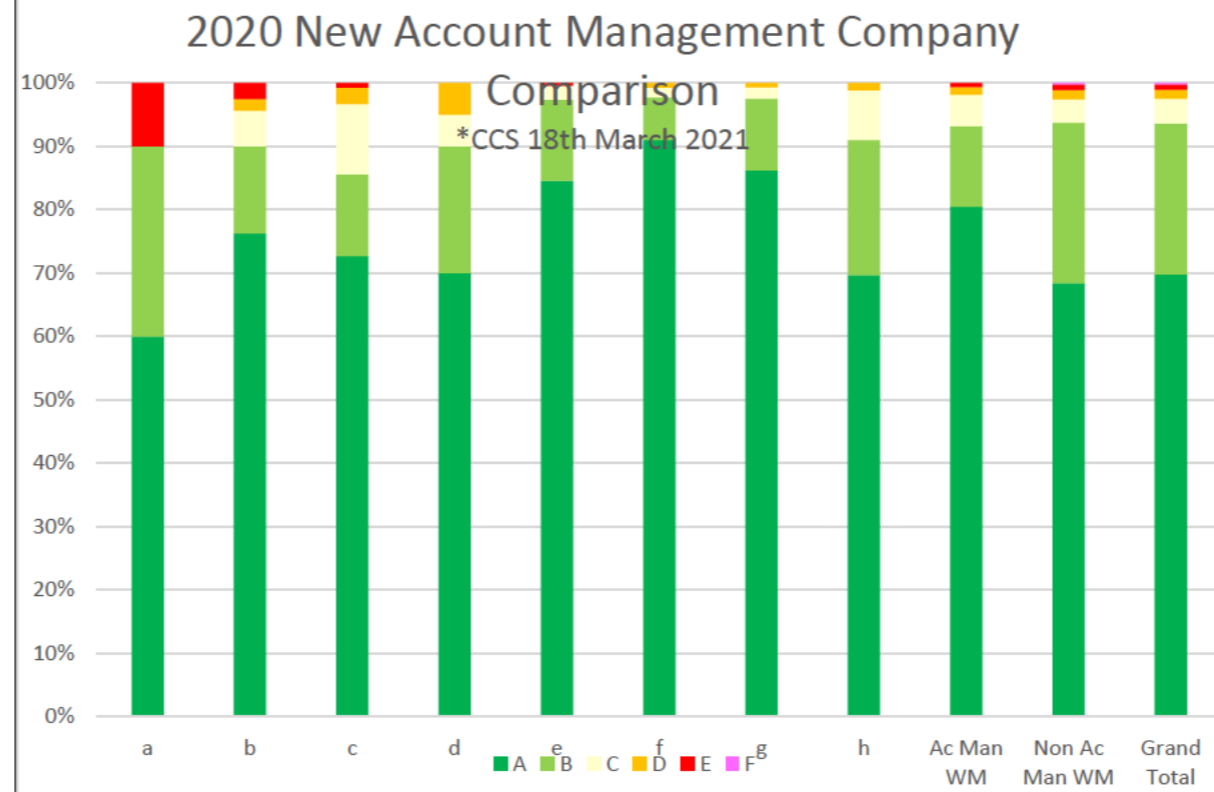
The Examination Library

References in these questions set out in square brackets (e.g [APP-010]) are to documents catalogued in the Examination Library (EL). The Examination Library can be obtained from the following link: [Examination Library](#) and will be updated as the Examination progresses.

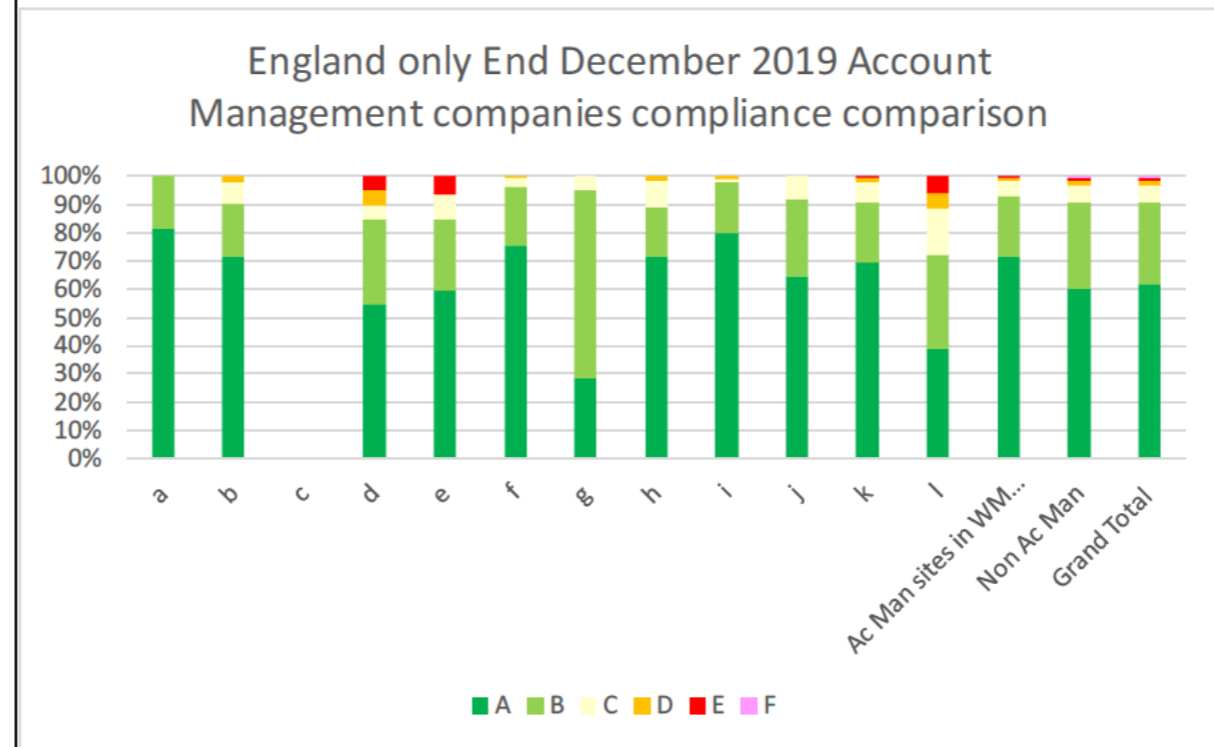
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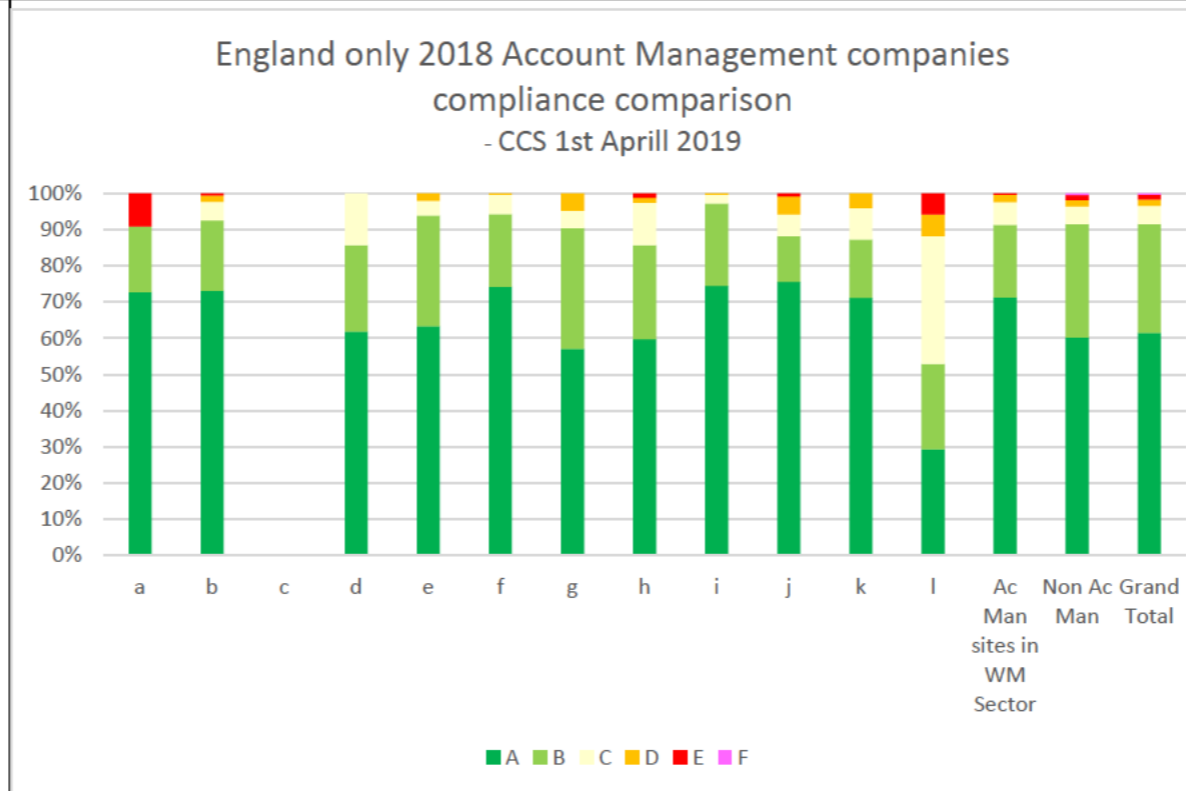
ExQ1	Question to:	Question:	
1.	General and Cross-topic Questions		
1.1	Environmental controls		
			<p>There are a number of questions which relate to the assessments and controls which are the subject of the pollution control framework and regulation by the Environment Agency through the Environmental Permitting (England and Wales) Regulations 2016. At section 4.7 (Pollution Control and other Environmental Regulatory Regimes) of the National Policy Statement for Hazardous Waste (NPSHW) in paragraph 4.7.3 it provides that:</p> <p><i>'The Examining Authority and the Secretary of State (in deciding an application) should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves. They should work on the assumption that the relevant pollution control regime will be properly applied and enforced. It should act to complement but not seek to duplicate it.'</i></p> <p>Information has been provided in response to the requests but the Applicant highlights that the examination should work on the basis that the matters to be covered in the Permits will be properly applied and enforced.</p>
Q1.1.1	The Applicant	<p>Please provide copies of the:</p> <ul style="list-style-type: none"> existing Environmental Permits (EPs) for the site; applications for new EPs for the Proposed Development. 	<p>The site is the subject of 3 current Environmental Permits.</p> <ol style="list-style-type: none"> Permit reference EPR/TP3430GW/V005 dated 5 October 2015 for the disposal of hazardous waste in the landfill site. [Document reference 9.2.1.1.1A]. Permit reference EPR/YP3138XB/V005 dated 30 June 2015 and variation reference EPR/YP3138XB/V006 dated 18 February 2021 for the waste treatment and recovery facility. [Document reference 9.2.1.1.1B1] Permit reference FD3598DD dated 26 February 2016 for the disposal of low level radioactive waste in the landfill site. [Document reference 9.2.1.1.1C] <p>The permit variation application documents are substantial and each application comprises several different components. The document list for the application to vary the Environmental Permit for the landfill disposal of hazardous waste is provided at Document reference 9.2.1.1.1D. The document list specifies the references for the components of the application. The document list and the documents for the application to vary the Environmental Permit for the treatment and recovery facility is provided at Document reference 9.2.1.1.1 EPTA.</p> <p>The application to vary the Environmental Permit for the landfill disposal of LLW has not yet been submitted and is unlikely to be submitted during the examination period.</p>
Q1.1.2	The Applicant and the EA	<p>Please provide an update on the applications for the new EPs including:</p> <ul style="list-style-type: none"> the scope of the applications; any outstanding issues and/or requirements for additional information; anticipated control mechanisms, management plans, limitations, conditions and monitoring requirements; 	<p>The applications to vary the Environmental Permits for the landfill site are in general terms to continue the currently consented landfill disposal activities for hazardous waste and LLW in the western extension area.</p> <p>The application to vary the Environmental Permit for the waste treatment and recovery facility is for an overall increase to 250,000 tonnes for the combined activity specific annual limit, the addition of a new process for the neutralisation of hazardous waste and non-hazardous waste for the recovery or disposal of the treatment output and an increase in the maximum quantity of waste to be stored at any one time in the dredging waste temporary storage area to 12,000m³.</p> <p>Non technical summaries for the hazardous waste landfill and the recovery and treatment facility applications are included in the application documents at Document reference 9.2.1.1.1 EPL AR and 9.2.1.1.1 EPTA.</p> <p>As is typical for Environmental Permit applications, the Environment Agency request further details, documents and clarifications as needed as they review and assess the submission. Further details have been requested and are being provided for the submitted applications.</p> <p>It is anticipated that the control mechanisms, management plans, limitations, conditions and monitoring requirements will be similar to those in place for the current activities. All procedures will continue to be included in the Augean externally certified management</p>

		<ul style="list-style-type: none"> the timetable for issuing decisions. 	<p>system.</p> <p>There is no fixed timetable for the issuing of the Environmental Permits. Both applications were submitted in May 2021. The waste treatment and recovery facility application was Duly Made on 18 January 2022 and the hazardous waste landfill application was Duly Made on 4 March 2022.</p>																																																																																				
<p>Q1.1.3</p>	<p>The Applicant and the EA</p>	<p>Please provide information on any instances of non-compliance and/or difficulties with compliance with the existing EPs.</p>	<p>The Environment Agency scores compliance performance of waste sites in accordance with the Policy Paper "Waste operations and installations: assessing and scoring environmental permit compliance." 15th January 2020. Compliance assessment is undertaken based on site inspections, monitoring results and other relevant reports. The results of assessments are presented on a Compliance Assessment Report (CAR) form. Where there are breaches of the conditions of the Environmental Permit, they are given a score based on the Compliance Classification Scheme (CCS) which is explained on the form. The scores carry points (explained on the forms and in the Policy) which are accumulated during the year and on which the sites are categorised into compliance bands A to F the best performing sites being in categories A and B. The compliance categories are used by the Agency to determine permit subsistence charges for the following year with poorer performing sites being charged up to 300% more.</p> <p>Company compliance</p> <p>Permit compliance is important to Augean. Compliance is championed by the Corporate Stewardship Director (CSD) who reports directly to the Chief Executive Officer. The CSD manages a team of highly trained and experienced Health Safety Environment and Quality (HSEQ) Managers who regularly inspect the operations and provide advice on compliance.</p> <p>Augean has a target of achieving A or B status for all of its Environmental Permits each year. In 2007 the Company sought an account management arrangement with the Agency as a forum for Augean Management Board members to engage with senior Environment Agency officers in proactive continuous improvement in compliance. As part of the account management system the Agency provides a peer comparison chart for other operators in the waste industry. The charts below represent the last 5 years of industry performance over 10 to 14 permits regulated by the Environment Agency. The Augean performance is column a on all the graphs, the other columns are for other industry operators. The graphs illustrate that the Company compliance compares favourably with its peers.</p> <div data-bbox="1071 1050 2190 1774" style="border: 1px solid black; padding: 10px;"> <p style="text-align: center;">End September 21 Account Management Company Comparison</p> <p style="text-align: center;">*CCS of 1st October 2021 ** Syracuse 22 permits as Non Ac Man</p> <table border="1" style="margin-top: 10px; width: 100%; text-align: center;"> <caption>Approximate Compliance Data from Chart</caption> <thead> <tr> <th>Category</th> <th>A (%)</th> <th>B (%)</th> <th>C (%)</th> <th>D (%)</th> <th>E (%)</th> <th>F (%)</th> </tr> </thead> <tbody> <tr> <td>a (Augean)</td> <td>70</td> <td>25</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>b</td> <td>75</td> <td>20</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>c</td> <td>75</td> <td>15</td> <td>10</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>d</td> <td>85</td> <td>10</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>e</td> <td>85</td> <td>10</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>f</td> <td>90</td> <td>5</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>g</td> <td>90</td> <td>5</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>h</td> <td>75</td> <td>20</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Ac Man WM</td> <td>85</td> <td>10</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Non Ac Man WM</td> <td>85</td> <td>10</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Grand Total</td> <td>85</td> <td>10</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> </div> <p>Note that no further scores were received between September and December 2021.</p>	Category	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)	a (Augean)	70	25	5	0	0	0	b	75	20	5	0	0	0	c	75	15	10	0	0	0	d	85	10	5	0	0	0	e	85	10	5	0	0	0	f	90	5	5	0	0	0	g	90	5	5	0	0	0	h	75	20	5	0	0	0	Ac Man WM	85	10	5	0	0	0	Non Ac Man WM	85	10	5	0	0	0	Grand Total	85	10	5	0	0	0
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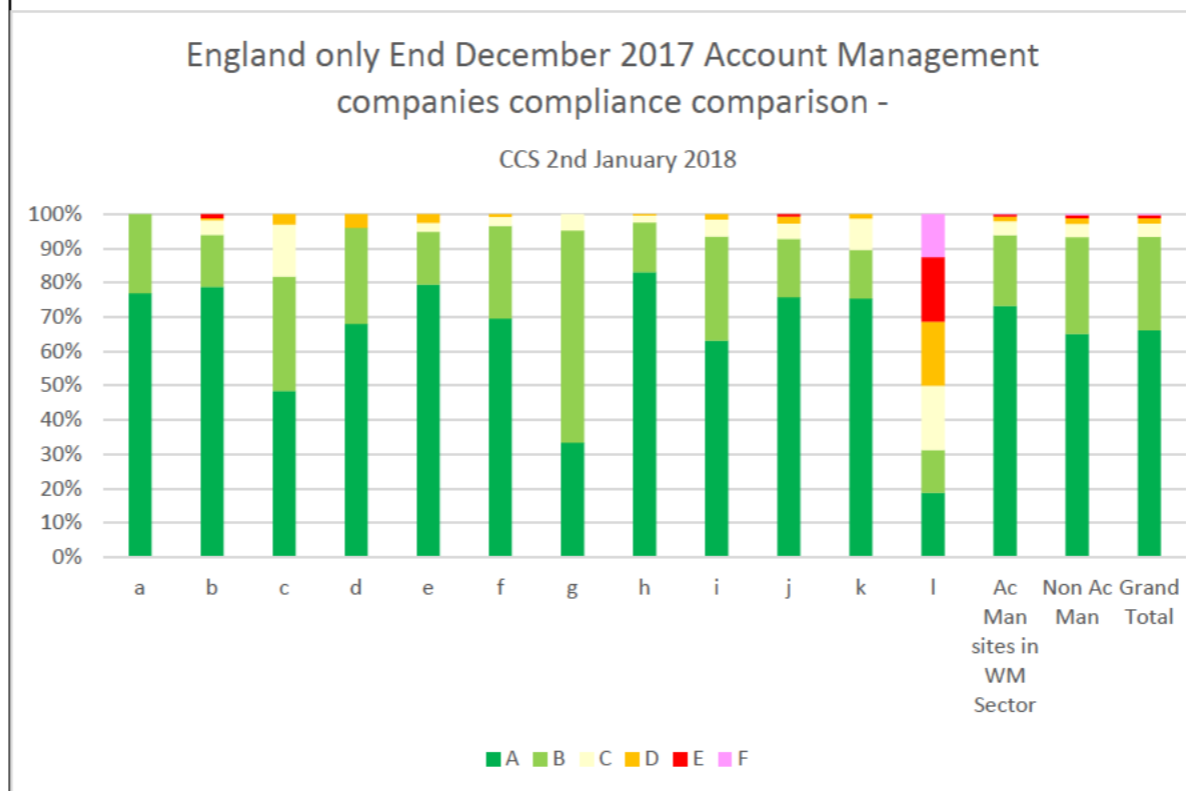


The category E band is for the incident at ENRMF in February 2020.





The category E was for a site at Great Yarmouth due to inconsistencies within the original permit application for the site which no longer reflected the working practices. This has been rectified through a permit variation to ensure the permit is aligned with the site operations. Subsequent inspections of the site by the Environment Agency have demonstrated strong full compliance.



ENRMF

The Environment Agency compliance bands for the ENRMF Permits for the last 5 years are as follows:

Compliance bands for ENRMF					
Permit	2017	2018	2019	2020	2021
Landfill	A	A	B	B	B
Treatment Plant	A	A	A	E	A
LLW	A	A	A	A	A

With the exception of the isolated incident in February 2020 the site consistently has a strong compliance record. A summary of the compliance issues over the past 5 years are presented below

Compliance issues (none in 2017 and 2018)			
Date	Permit	Issue	Resolution
30/09/2019	Landfill	Leachate well blockage (CCS3)	It was originally agreed with the Agency that the wells would be replaced but later agreed that this was unnecessary as sufficient leachate wells were already in place.
31/03/2020	Landfill	Highly elevated chloride and elevated manganese, ammoniacal nitrogen and zinc in groundwater (CCS2)	Suspended score as the cause related to the Treatment Plant not the landfill. CCS scores are suspended by the Environment Agency for example where a corrective action plan is in place or the cause of the issue identified is not the permitted facility.
15/05/2020	Treatment	Incident of February 2020: -Unconsented emission resulting in elevated chloride in groundwater (CCS2) -Failure of management system to control emission (CCS2) -Late submission (CCS3)	The incident and Augean's response to the incident is explained in response to question Q14.1.1
30/06/2020	Landfill	Elevated chloride in groundwater (CCS3)	Suspended score as cause related to the Treatment Plant not the landfill
30/09/2020	Landfill	Elevated chloride in groundwater (CCS3) Breach of dust limits (CCS3)	Suspended score as cause related to the Treatment Plant not the landfill Dust was observed from adjacent agricultural activity but there were also engineering works on site. The dust controls for the engineering works were increased.

			20/05/2021	Landfill	Western flank of Phase 10 encroached too close to the separation bund with potential for contamination to drain into valley feature (CCS3) The issue had not been addressed by the management system (CCS3)	Western flank was regraded and the valley feature infilled with clay.
			07/02/22	Treatment	Management issues relating to the condition of the site surface and need for repairs, dredgings lagoon and waste storage (CCS3) A crack in kerbing leading to a small spillage on internal ground (CCS3) Need for additional supervision at the Treatment Plant (CCS3)	At the time the wheeled loading shovel used to clean the pad had broken down. Repairs to the pad had been budgeted and Augean was seeking contractors prior to the inspection. Repairs commenced on 22 nd February 2022. The crack has been repaired and the inspection regime reviewed. The spillage was onto a sealed ground area underlain by clay and did not represent a risk to ground or surface water. The need for additional supervision had been recognised and interviews conducted in January. The new supervisor was appointed on 10 th February 2022.
			Breaches of the permit at the site are uncommon and Augean responds positively and actively to resolve them when identified. In several cases action was already in place when the Agency raised the issue.			
Q1.1.4	The Applicant	Where quantitative assessment information is indicated within the Environmental Statement (ES) text [APP-049] to be available in respect of the western extension/updated permits, it is generally not presented within the ES. Instead, the ES makes reference to other documents such as an updated Environmental Safety	(i) The additional information is provided in the documents submitted in response to Q1.1.1 including in particular for the hazardous waste landfill site the Stability Risk Assessment [Document reference 9.2.1.1.1 EPL SRA], the Hydrogeological Risk Assessment [Document reference 9.2.1.1.1 EPL HRA] and the Environmental Risk Assessment [Document reference 9.2.1.1.1 EPL AR] and for the waste treatment and recovery facility an Environmental Risk Assessment [Document reference 9.2.1.1.1 EPTA]. The application for the variation to the Environmental Permit for the landfill of LLW has not yet been submitted. The Environmental Safety Case which was prepared for the current landfill site is provided at Appendix ES11.1 to the Environmental Statement [PINS document reference 5.4.11.1, APP-085]. The assessments accompanying the proposed variation application will follow the same principles and will define the limits to the total radiological capacity that can be accepted at the current and extended landfill site in order			

		<p>Case, updated Detailed Quantitative Groundwater (Hydrogeological) Risk Assessment and Existing Permits, which themselves have not been submitted to the examination at present. The ES states that these assessments have been submitted to the Environment Agency (EA).</p> <p>(i) Please provide copies of all documentation relied upon to inform the assessment of effects in the ES.</p> <p>(ii) Please provide a commentary on the thresholds for compliance with the relevant standards used in these assessments compared with the 'significant effect' threshold used in the ES.</p>	<p>to maintain radiological emissions to below the dose criteria which are used to determine the environmental impact as explained in section 11 of the Environmental Statement and as set out in Table ES11.3 [PINS document reference 5.2. APP-049]. This is the same approach as was used for the extant DCO.</p> <p>(ii) In respect of the Hydrogeological Risk Assessment (HRA) (PINS document reference 9.2.1.1.1 EPL HRA) submitted as part of the Environmental Permit application the modelled predicted impacts from the proposed western extension to the landfill on the water environment are compared with Environmental Assessment Levels (EAL) agreed with the Environment Agency for the current site. Provided the modelled predicted impacts for the 95th percentile results (based on the probabilistic assessment this represents a worst case outcome where there is a calculated 5% chance that the predicted impacts could occur) are at or below the EALs then the impacts are considered insignificant. It should be noted that the modelled predicted impacts for the 50th percentile results (based on the probabilistic assessment this represents a most likely outcome where there is a calculated 50% chance that the predicted impacts could occur) the assessment value is set at no more than 30% of the EAL and generally are at undetectable levels.</p> <p>In respect of the Stability Risk Assessment (PINS document reference 9.2.1.1.1 EPL SRA) the significance of an impact is based on the selected target factors of safety for each element of the landfill structure as set out in Table SRA3 of the Stability Risk Assessment.</p> <p>In terms of emissions of contaminants to the air and to water with the potential to affect health, control and threshold limits for emissions are set in the Environmental Permits (Schedule 3) for those parameters where the risk assessments demonstrate that there is the potential for emissions; these limits are based on applicable health-based guidelines or standard values for the appropriate media as specified in the former Public Health England NSIP guidance [Advice on the content of Environmental Statements accompanying an application under the Nationally Significant Infrastructure Planning Regime. 2020.]. The pathways considered in the permit applications include those associated with direct contact with waste, emissions of vapours, gaseous contaminants, releases to the aqueous environment via groundwater and surface water, dust and odour. It is and will continue to be a requirement of the Environmental Permits that these limits are achieved.</p> <p>The potential for compliance with these limits is assessed as part of the pollution control regime and Environmental Permits will not be issued unless the Environment Agency are satisfied that compliance will be achieved. Where there is the potential for emissions, but the emission limits are restricted to a level which is protective of human health and the environment it is assessed that there will be no significant impact on human health or the environment and therefore no significant impact in terms of the EIA.</p>
Q1.1.5	NNC, EA, UKHSA	ES Section 8.3 sets out the proposals for site and environmental monitoring at the Proposed Development. Please comment on the scope and effectiveness of these proposals as they relate to your areas of responsibility.	
ExQ1	Question to:	Question:	
Q1.1.6	The Applicant, EA, NE, NNC	Apart from the Planning Obligation, EPs and protected species licences, are any other consents, licenses or agreements required to implement the Proposed Development. If so, please set out their scope, status and any implications for the Development Consent Order DCO [APP-017].	The Applicant intends to enter into an agreement with Western Power Distribution which deals with the relocation of its apparatus within the Site (Work No.5). As no compulsory powers of acquisition have been sought, this agreement will need to be in place before the works can be carried out.
1.2	ES Methodology		
Q1.2.1	The Applicant	The ES lacks clarity regarding the	(i) The same approach and the same methods of assessment of significance have been used and accepted by the Secretary of State in

		<p>application of methodological approaches and the significance criteria used in the assessment of likely significant effects (LSE). To provide additional clarity, please supply:</p> <p>(i) a summary table of the potential significant effects of the Proposed Development and their residual significance following mitigation for all aspect chapters.</p> <p>ii) The significance criteria used to determine effects on Water Quality (Chapter 17) and Climate Change (Chapter 24).</p> <p>iii) An assessment of the greenhouse gas emissions during construction, explaining the method of assessment and the significance of effects.</p> <p>iv) Carbon calculations to support the greenhouse gas emissions assessment from operational activities and a specific conclusion regarding the potential for LSE.</p>	<p>DCO applications for similar activities including for the current DCO at ENRMF [PINS project reference WS010001] and for the DCO at Whitemoss Landfill Site [PINS project reference WS010003].</p> <p>Due to the nature of the proposed development and the control measures that are inherent in the design of waste facilities in order to mitigate likely significant effects, such developments would not be contemplated or designed without these embedded mitigation measures in place. Accordingly no assessment is carried out of the likely significant effects without these embedded mitigation measures.</p> <p>The controls which are implemented through the Environmental Permits are measures which are identified through regulations and guidance as effective to achieve the management of emissions such that they meet threshold criteria (emission concentrations for non-radiological wastes and dose limits for radiological wastes) at point source emissions or at the boundary of the facility for potential fugitive emissions. The precise detail of these controls will be agreed with the Environment Agency as part of the permit application process and the control measures identified as necessary will be implemented and regulated through the pollution control framework and the Environmental Permits. The threshold criteria set in the Environmental Permits will be set at concentrations or doses which are protective of human health and the environment and are based on nationally accepted guidance.</p> <p>The potential significant effects and the residual effects are presented in Sections 12 to 24 of the Environmental Statement. This information is summarised as requested in (Document reference 9.2.1.2.1).</p> <p>(ii) Water Quality</p> <p>Control and threshold limits for emissions to water are set in the Environmental Permits; these limits are based on applicable environmental protection guidelines for water quality as specified in appropriate Environmental Quality Standards agreed with the Environment Agency. It is and will continue to be a requirement of the Environmental Permits that these limits are achieved. The potential for compliance with these limits is assessed as part of the pollution control regime and Environmental Permits will not be issued unless the Environment Agency are satisfied that the protection measures which are implemented will be appropriate to achieve compliance with the limits.</p> <p>As Environmental Permits will only be issued when the Environment Agency are satisfied that appropriate controls will be in place to achieve compliance with the water quality criteria there will be no residual significant effects on water quality. This protection of local water quality is protective also of the quality of the wider resource.</p> <p>Climate Change</p> <p>The proposed development represents a continuation over a longer period of the current consented activities which form the baseline for the Environmental Impact Assessment. The facility does not itself generate significant quantities of waste, it provides a necessary facility for the safe and environmentally secure management of waste generated by others therefore the methods of construction and operation, the materials which must be used to meet the containment specification and the associated controls that must be implemented are driven by regulations and guidance and there is limited opportunity to change aspects of the site construction and operation in order to reduce impacts on climate change.</p> <p>Wherever possible opportunities are implemented to minimise impacts on greenhouse gas emissions and climate change such as by using baled used tyres as a leachate drainage medium in place of gravel aggregate, by using alkaline wastes rather than lime or cement to stabilise other wastes in the treatment facility and the use of leachate from the landfill site rather than mains water to provide the liquid addition to the treatment processes where appropriate. In addition it is a standard condition in the Environmental Permits that the operator must review and record at least every 4 years whether there are further suitable opportunities to improve the energy efficiency of the activities and to consider whether suitable alternative materials can be used to reduce the impacts associated with the use of raw</p>
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materials.

The assessment of the potential impacts of the proposed development on climate change is presented in section 24 of the Environmental Statement. The assessment is qualitative based on professional judgement and identifies the measures which are in place to minimise the impacts on climate change resulting from the site operations.

The National Policy Statement for Hazardous Waste (NPSHW) summarises at section 2.1(d) the main objectives of Government policy on hazardous waste with respect to climate change which is to *'to minimise greenhouse gas emissions and maximise opportunities for climate change adaptation and resilience'* by encouraging development of a robust infrastructure network to manage hazardous waste. As explained in the Planning Statement (PINS document reference 6.1. APP-103) the proposed development forms an important part of that infrastructure network. There is no requirement in the NPSHW for a quantitative assessment of the effect of the proposed development on climate change.

The resilience of the proposals to climate change (as referred to in section 4.6 of the NPSHW) are taken into account through detailed consideration of the main potential consequence of climate change on the development which is the projected increase in the intensity and frequency of rainfall and storm events. These increased factors are included in the surface water management plan calculations and provisions for surface water runoff attenuation as explained in the Surface Water Management Plan (Appendix ES18.2, PINS document reference 5.4.18.2. APP-095).

It is therefore considered that the potential effects of the development on climate change have been assessed *'in an appropriate manner, in light of each individual case'* as specified in Regulation 5 of the Infrastructure Planning Environmental Impact Assessment Regulations 2017.

(iii) and (iv) Construction comprises the creation of the low permeability engineered seals to the base, sides and top of the landfill site and is carried out in a phased manner throughout the lifetime of the development. These activities and their emissions of greenhouse gases will be of the same magnitude as the currently consented engineering activities therefore there will be no material increase in the baseline rate of emissions of greenhouse gases associated with the site.

Similarly, the use of site plant during the operational period for the placement and management of waste will not change materially from the current use of site plant neither will the numbers of HGV traffic associated with the delivery and removal of waste and exported overburden and clay as explained in section 19 of the Environmental Statement.

As explained in section 24.2 of the Environmental Statement the hazardous waste and LLW that will continue to be disposed of at the site will contain a very limited amount of biodegradable materials and there is a limit of 6% of total organic carbon in the hazardous waste which can be accepted at the site. Consequently negligible quantities of landfill gas (comprising predominantly methane and carbon dioxide) will be generated and emitted to the atmosphere as greenhouse gases. The site operations therefore comply with obligation to minimise greenhouse gas emissions from the waste disposal activities by limiting the amount of organic material in the wastes accepted for disposal in accordance with the acceptance procedures implemented through the Environmental Permit. Advice to Ministers on the volume of greenhouse gases the UK can emit during the period 2033 to 2037 is set out in the Sixth Carbon Budget report which was published on 9 December 2020. The waste sector as a whole including energy-from-waste (EfW) plants, accounted for 6% of UK greenhouse gas emissions in 2018 and were 63% below 1990 levels. The options for reducing emissions are identified as including reduced landfill methane generation (through waste prevention, recycling and banning biodegradable waste from landfill), reduced residual waste sent to EfW (through waste prevention, recycling), increased landfill methane capture and oxidation, improvements at wastewater treatment and composting facilities, and installation of carbon capture systems on EfW plants. The existing and proposed landfill development is already minimising greenhouse gas emissions which comprise the main contribution from landfill sites to the carbon budget as explained in the Sixth Carbon Budget report.

As explained in the response to (ii) above, there is no requirement in the NPSHW or in the Infrastructure Planning Environmental Impact Assessment Regulations 2017 to carry out a quantitative assessment of the impact of an NSIP hazardous waste development on climate

			<p>change.</p> <p>Based on consideration and professional judgement taking into account the information reviewed and presented in section 24 of the Environmental Statement and further consideration of the sources of greenhouse gases from the waste sector which contribute to the UK carbon budget it is concluded based on a qualitative assessment that the proposed development will not result in likely significant adverse effects on greenhouse gas emissions or on the ability of the UK to achieve its carbon budget targets.</p>
Q1.2.2	NNC, EA and NE	Please comment on the methodological approaches used in the ES which are relevant to your areas of responsibility.	
Q1.2.3	NNC, EA and NE	ES Chapters 12 to 25 include assessments of cumulative impacts with other developments or facilities. Are there any other existing or planned developments or facilities which should be included in these assessments?	
1.3	Proposed Development		
Q1.3.1	The Applicant	Paragraph 5.2.1 of the ES sets out the principles of the design and phasing of the landfill, but states that <i>'minor amendments which are not material in land use terms may be made to take into account details of the phase-specific'</i> considerations. Who and how would it be determined whether any amendments are not material and how would this be controlled in the DCO?	<p>The boundaries between the phases are indicative and may change slightly to accommodate changes in waste input rates or the final geometry of each phase which is determined based on the depth to the top of the underlying limestone at each location as specified in the Hydrogeological Risk Assessment and the Environmental Permit. The final design details for the cells must be approved by the Environment Agency as part of the EP, so it wouldn't be appropriate to include a secondary control in the dDCO. The Environment Agency must have absolute discretion, this cannot be fettered in any way by a Requirement intended to control planning matters.</p> <p>Any design details not controlled by the EP are controlled by Requirement 3, which permits the relevant planning authority to approve minor amendments to those plans and schemes submitted with the Application.</p> <p>The approved landscape planting details may also need to be adjusted over the 20 year lifetime of the operational landfill in order to reflect experiences and successes or otherwise of species planting and habitat development in earlier restoration phases. The intention is to improve subsequent stages of restoration where possible and appropriate based on experience gained on techniques used in earlier phases.</p> <p>The updates must be submitted to and approved by the relevant planning authority pursuant to Requirement 4(3) of the draft DCO.</p>
Q1.3.2	The Applicant, National Grid, Western Power Distribution, Anglian Water, NE, EA, Cecil Estate Family Trust	Appendix ES5.1 [APP-083] sets out the design principles for stand-off distances to be adopted in the Proposed Development for various features. Please comment on these principles for the features in which you have an interest.	<p>These standoff features and their derivation are set out in Appendix ES5.1 of the Environmental Statement. The derivation of the standoffs from the utilities were based on discussions with technical representatives of the companies who own the utility assets. Discussions are continuing with the utility companies to agree these stand off distances in the Statements of Common Ground and the associated Protective Provisions.</p>
Q1.3.3	The Applicant	ES paragraphs 10.4.6 and 10.4.7 deal with the consideration of an alternative location for the Proposed Development to the south of the existing site. It would appear that this option was not pursued primarily because the land was not available for purchase. What consideration was given to the use of compulsory	<p>In original discussions with the landowner Augean asked about the potential to develop the southern land, however the landowner stated that the southern land was not available but they were prepared to consider selling the application land. Further, in consultation with the Augean's landscape advisor it was determined that the application land was a better option in landscape terms as due to the topography of the area the southern field is more exposed and therefore more visible in the landscape.</p> <p>Guidance related to procedures for the compulsory acquisition of land (DCLG, September 2013) confirms that an applicant should be able to demonstrate that all reasonable alternatives to compulsory acquisition have been explored and that interference with rights in land are necessary and proportionate.</p> <p>Upon consideration of this Guidance, the Applicant did not feel there was sufficient justification for seeking powers of compulsory acquisition powers particularly due to the fact the application site could be acquired by agreement and there were greater potential</p>

		acquisition of this land.	landscape impacts associated with the southern land.
Q1.3.4	The Applicant	<p>ES paragraph 10.5.7 describes a desk-based review of alternative locations and concludes that four sites <i>'were identified as potentially worth further investigation to obtain additional detailed information.'</i> What further investigations were carried out? Where are the results reported? Was this a separate exercise from the one described at ES paragraph 10.5.9?</p>	<p>The desk-based review of alternative sites described in Section 10.5.7 of the Environmental Statement was undertaken by Augean in conjunction with a project team of consultants and land agents who undertook a site search exercise to identify potential alternative locations.</p> <p>The scope of the exercise as detailed in paragraphs 10.5.1 – 10.5.6 of the ES involved a review of existing permitted facilities, mothballed sites and suitable mineral workings with the potential for development subject to planning permission and relevant permissions from the landowners.</p> <p>Following the initial GIS site sieve exercise a more detailed review of the identified sites was undertaken reviewing the interests in the sites and land, planning policy, access constraints, this is the desk-based review detailed in paragraph 10.5.7 that identified 4 sites potentially worth further investigation.</p> <p>After this exercise had identified sites with potential, follow up site visits were undertaken. These visits primarily looked at the access arrangements for the sites, the site environmental setting and proximity to local housing.</p> <p>Of the sites identified in the desktop review as having potential as alternatives there was limited void potential at Site 1 and it was identified that Site 2 is only accepting material for restoration of the site, so these sites were therefore discounted as potential alternatives. Site 3 has had previous applications and outline consent granted for a leisure development on the site. It has also been marketed as a site for a server farm with accompanying solar farm. Transport access arrangements to the site are good however previous opportunities for development at the site have been constrained due to legal agreements. The site visit highlighted residential housing development in close proximity to the site.</p> <p>The visit to Site 4 site highlighted a number of residential properties in the vicinity. The site is currently flooded indicating potential issues with ecology and hydrogeology impacting on any potential landfill development.</p> <p>The site visits did not alter the conclusions of the options assessment presented in the Preliminary Environmental Information Report (PINS document reference 4.2.17. APP-038) and in the Environmental Statement.</p> <p>At this point the land adjacent to ENRMF became available. No formal report was prepared and no formal approach was made to land owners or operators. Based on the information gathered in the site search exercise no particular environmental advantage was identified at these alternative sites. The continued operation at ENRMF western extension was determined to be the preferred option for continued provision of landfill and treatment given the strong landscape containment, good highway connections, established processing plant area, incumbent local well trained and competent workforce, favourable community relations and policy support for extensions to existing facilities rather than new facilities.</p>
Q1.3.5	The Applicant	<p>Section 4.5 of the National Planning Policy for Hazardous Waste (NPSHW) sets out the criteria for 'Good Design'. Please explain how these criteria have been applied to each of the Works identified in Schedule 1 of the dDCO.</p>	<p>Section 4.5 of the National Policy Statement for Hazardous Waste (NPSHW) states that high quality and inclusive design includes the functionality of an object (whether a building or other type of infrastructure) including its fitness for purpose and sustainability.</p> <p>The decision to extend an existing facility rather than construct a new facility was the first key consideration of good design in terms of siting.</p> <p>The main visible and long term 'infrastructure' associated with the proposed development comprises the landfill site and its restored landform as there are minimal changes to the existing waste treatment and recovery facility infrastructure or to the current office and</p>

			<p>reception facilities.</p> <p>The technical requirements that determine many of the necessary aspects of the design of the landfill site in order to ensure that it is fit for purpose and the way in which these requirements can be accommodated within the landscape of the site setting are explained in sections 5.5, 5.8 and 9.2 of the Environmental Statement (APP-049).</p> <p>The NPSHW states that the application of good design should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetics as far as possible. The main materials used in the construction of the landfill comprise low permeability clay, this material is available at this location therefore the use of engineering clay at its point of arising rather than sourced from elsewhere contributes to the sustainability of the proposed development.</p> <p>The major contribution of the proposed development to sustainability is to the provision of infrastructure as part of a national network for the sustainable management of the waste produced by society. The contribution of the proposed development to sustainable waste management and sustainable mineral extraction policies is set out in sections 8 and 9 of the Planning Statement [PINS document 6.1. APP-103].</p> <p>It is acknowledged in the NPSHW that the nature of much hazardous waste infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area. The main opportunity for enhancement which is offered by the construction of a landfill site is the restoration design and the maximum use of this opportunity has been taken to develop the Restoration Concept Scheme (APP-011) and the associated habitat, biodiversity and public access benefits which will continue to provide benefits in the long term.</p>
1.4 General			
Q1.4.1	NNC	<p>Sections 7 to 9 of the Planning Statement [APP-103] include reviews of relevant development plan and other local policies.</p> <p>(i) Please comment on the extent to which the Proposed Development complies with the reviewed policies.</p> <p>(ii) Are any other development plan or other local policies relevant to the Proposed Development. If so, please provide copies and comment on the extent to which the Proposed Development complies with them.</p>	
Q1.4.2	The Applicant	Please provide a copy of the Option Agreement for the proposed western extension land (Works 1B).	The Option Agreement for the proposed western extension land (Works 1B) is provided as Document reference 9.2.1.4.2.
Q1.4.3	The Applicant	The draft section 106 Agreement [APP-109] includes Howard Farms Limited as a party to the Agreement. However, there is no provision for that party to sign it. Please provide an explanation or, if appropriate, a revised draft Agreement.	An updated section 106 Agreement has been submitted at Deadline 2 (Document reference 6.4).

2. Air Quality and Emissions			
2.1 Methodology			
ExQ1	Question to:	Question:	
Q2.1.1	The Applicant	Please provide a justification for Collyweston Great Wood and Easton Hornstocks National Nature Reserve (NNR) and Site of Special Scientific Interest (SSSI) being a low sensitivity receptor in ES Table ES22.2. The Institute of Air Quality Management Guidance at Box 5 suggests that such designations should be categorised as medium sensitivity.	<p>The identification of Collyweston Great Wood and Easton Hornstocks NNR and SSSI as low sensitivity receptor is an error in the table. An updated version of Table ES22.2 is provided [Document reference 9.2.2.1.1]. The amendments to the text are shown in red and the erroneous text is shown as strikethrough text. The change to receptor sensitivity for Receptor 3 does not change the conclusion of the dust assessment. As stated in Paragraph 22.4.10 of the Environmental Statement (APP-049)</p> <p><i>'Based on the qualitative assessment of the proposed activities it is concluded that without appropriate management there is the potential for a negligible to moderate adverse effects associated with impacts from dust on receptors within 400m of the site boundary... It is concluded that dust emissions have been and will continue to be controlled effectively using well tried and tested methods to a standard such that it is unlikely that there will be significant dust emissions from the site. In government guidance it is stated that dust generation from these activities can continue to be controlled effectively and the effectiveness of the dust control measures are dependent on good site management.'</i></p> <p>With the control measures that are and will continue to be implemented on site (Table ES22.3) (APP-049) there will be no significant adverse impacts on Collyweston Great Wood and Easton Hornstocks NNR or SSSI.</p>
Q2.1.2	NE	Please comment on the matter raised in Q2.1.1.	
Q2.1.3	The Applicant	Please provide a justification for the pathway effectiveness categories adopted in ES Table ES22.2.	The pathway effectiveness categories are based on the methodology included in the IAQM Guidance 'Guidance on the Assessment of Mineral Dust Impacts for Planning v1.1'. The methodology for the dust assessment is presented at Appendix ES22.1 (APP-098). The pathway effectiveness categories are derived from the receptor distance category and the frequency of potentially dusty winds. Columns have been added to the updated Table ES22.2 (document reference 9.2.2.1.1) to present these factors for each receptor. The columns that have been added are shaded in green.
2.2 Assessment			
Q2.2.1	The Applicant	What thresholds for gas emissions and particulates are/would be set in the existing and proposed EPs (ES paragraph 21.4.7)? Please comment on how these thresholds compare with the 'significant effect' measure normally established in the ES.	Please see the response to Q1.1.4.
Q2.2.2	NE	Please comment on the finding at ES paragraph 21.4.6 that a PM ₁₀ level of 10mcg/m ³ would not have an adverse effect on plants and animals.	
2.3 Mitigation and Monitoring			
Q2.3.1	The Applicant	Please clarify whether the Proposed Development would be connected to the active gas collection system.	The waste types that have been deposited in the landfill site since 2004 and that will be deposited in the proposed western extension to the landfill site are unlikely to generate significant quantities of landfill gas due to the low organic content. To date gas monitoring at the site has confirmed this position. Accordingly, it is considered that no landfill gas management systems including gas collection or gas treatment systems are necessary in the western extension area. Notwithstanding this, in order to confirm that the hazardous waste deposited in phases 12 to 21 has a negligible potential to generate landfill gas, wells in each of the phases will be monitored for landfill gas. The wells will be designed such that they can be connected, if necessary, to the existing gas flare at the site which is already in place to manage gas generated in the earlier phases of the landfill that were filled prior to 2004. The necessity for the connection of the

			vertical wells to the active gas extraction system will be determined based on the results of the gas monitoring. Further detail is provided in paragraph 2.36 <i>et seq</i> in the Environmental Setting and Installation Design report presented at Appendix G to the landfill permit variation application [Document reference 9.2.1.1.1 EPL ESID].
Q2.3.2	The Applicant	ES paragraph 21.4.4 advises that complaints would be investigated and responded to in accordance with the Augean externally certified Environmental Management System. Have details of that system been submitted with the DCO application? How would the complaints process be controlled in the DCO?	Condition 1.1.1 of each Environmental Permit specifies that: <i>1.1.1 The operator shall manage and operate the activities:</i> <i>a. In accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and'</i> The implementation of an effective complaints procedure is therefore integral to the operation of the Environmental Permits. In addition, an effective complaints procedure is a requirement of the ISO14001 standard to which Augean are certified. The inclusion and proper application of the procedure is audited regularly by both internal and external auditors in order to maintain this certification. Because the details are secured by the EP, the Applicant has not sought to duplicate this control in the DCO. A copy of the current version of the Augean complaints procedure reference CPP 14. V7 dated 11/04/2021 is provided for information (document reference 9.2.2.3.2).
Q2.3.3	NNC	Has the existing site been the subject of complaints to the Council on air quality matters? If so, please summarise their relevance to the Proposed Development.	
Q2.3.4	NNC, EA and NE	Please comment on the Applicant's contention (ES paragraph 21.5.2) that no controls over dust and particulate matter are necessary in the DCO.	
Q2.3.5	NCC	Please comment on the scope and effectiveness of the Dust Management Scheme ([APP- 110] Appendix DEC H).	
Q2.3.6	The Applicant	Having regard to the characterisation at ES paragraph 21.4.2 of the hazardous waste which has been, and will be deposited at the site, please confirm why flaring is necessary to control the gas generation of the landfill and whether an assessment of other options, such as reuse, has been considered.	A limit on the organic content of hazardous waste deposited to landfill was imposed in the UK in 2004. There are two phases at the site where waste with higher concentrations of organic carbon were deposited prior to 2004 (areas of Phases 1 and 2). Only the gas generated in these phases is collected and combusted in the flare stack. As explained in the response to Q2.3.1 it is not anticipated that landfill gas will be collected from the future landfill phases. As shown on the graph presented at paragraph 24.2.3 of the Environmental Statement (APP-049), as would be expected, the annual flow rate of gas generated in Phase 1 and 2 and collected in the gas flare is low and declining. The quantity and flow of gas is not sufficient to sustain options for the reuse of the energy in the gas such as to generate electricity in a gas engine. This aspect of the management of landfill gas is controlled through the pollution control framework. It is a condition of the Environmental Permit for the hazardous waste landfill site (condition 2.9.2) (document reference 9.2.1.1.1A) that the operator must use collected landfill gas to produce energy unless this cannot be done, in which case the gas shall be treated in accordance with an approved gas management plan. The gas is collected and flared to convert methane to carbon dioxide thereby minimising the greenhouse gas impact.
3. Biodiversity (including Habitats Regulations Assessment (HRA))			
3.1	Methodology		

Q3.1.1	The Applicant	Please confirm whether the assessment of non-human biota using the ERICA toolkit assessment 2019 version has been undertaken for the Proposed Development, as indicated by paragraph 13.2.6 of the ES [APP-049]. If so, please submit the findings to the Examination. If not, please provide an update on progress towards submission.	As explained in response to Q1.1.1 the application for the variation to the Environmental Permit for the landfill disposal of LLW has not yet been submitted. The ERICA assessment for the proposed western extension will form part of this submission when it is made. The principles of the approach that will be applied are the same as those applied for the current approved landfill site as set out in Appendix E6 of the Environmental Safety Case at Appendix ES11.1 [PINS document 5.4.11.1. APP-085].
3.2	Assessment		
Q3.2.1	The Applicant, NE	ES paragraphs 9.3.7 and 9.3.8 advise that NE and others would like to see the restoration scheme planting linking the wooded areas around the site. The ES considers that planting grassland with pockets of trees would provide more biodiversity over time than new woodland planting. Please comment on how this approach to planting would link with the adjoining woodland, particularly having regard to the mowing regime for the grassland (see ES paragraph 9.3.6) and the objective of providing public access to the restored site.	Paragraph 3.3.1 of the EMMAP (PINS document reference 6.5. Appendix DEC E, APP-110) states that woody trees will be planted in small random patches throughout the restored areas of the site and that gradual encroachment of woodland plantation areas by self-set seeding will be encouraged to fill and connect the adjacent stands. Buffer zones around the patches of planted woodland will be managed as edge habitat, creating a transition from woodland, to a scrub interface and then a taller tussocky grassland left in situ over-winter. The mowing regime will progressively allow the diameter of this buffer through succession to increase and encroach year on year as each transition in 'layer' of habitat type develops. There will be no public access whilst the site is operational, allowing habitats in the existing ENRMF and the northern area of the western extension time to establish well, and a network of public access pathways to be designed and constructed.
Q3.2.2	The Applicant	ES Appendix 13.1 [APP-087] paragraph 7.1.3 (fifth bullet) implies that dust emissions monitoring takes place at the site boundary. However, it also states that, whereas large dust particles are deposited fairly rapidly, 'smaller particles including PM ₁₀ have the potential to travel greater distances from the point of arising'. Please provide any information on the assessment of dust deposition beyond the site boundary, particularly in relation to the adjoining SSSI.	The boundary monitoring requirements and emission thresholds for particulates at the current landfill site are set out in Schedule 3, Table S3.6 of the Environmental Permit for the landfill of hazardous waste. Monitoring is specified and carried out at the site boundary for deposited dust, suspended particulates (PM ₁₀) and asbestos fibres. The thresholds set in the permit are: Deposited dust – 200mg/m ³ Suspended particulates (PM ₁₀) – Not to exceed 50µg/m ³ more than 35 times per year (24 hour average) Asbestos fibres – 0.01 fibres/ml. The monitoring and the thresholds are therefore protective of the environment at the boundary of the site. It is anticipated that similar controls and monitoring will be included in the Environmental Permit for the proposed western extension.
Q3.2.3	The Applicant and NE	It is proposed to remove two 'important' hedgerows (Hedgerow Removal Plan [APP-013]) and replace them as part of the restoration scheme. Please comment on the effectiveness and timescale for the replacement hedgerows to provide a comparable	The two important hedgerows that currently cross the site do not provide for connectivity between Collyweston Great Wood and Fineshade Wood. The reason for their important designation is due to the verges adjacent to the hedgerows rather than the hedgerows themselves. Prior to the commencement of the landfill development activities under the DCO in the western extension (ES Paragraph 13.6.1) the following measures will be put in place: <ul style="list-style-type: none"> • A new species-rich hedgerow, running parallel to and 1-2m away from the existing grown-out tree-line and gappy hedgerow currently forming the western boundary of the proposed western extension. This will join The Assarts to Collyweston Great Wood around the north end of the proposed western extension. • Creation of a bank and a new hedgerow/treeline along the southeast boundary of the southern field immediately adjacent and to

		<p>level of connectivity for reptiles (ES paragraph 13.5.3) to the existing hedgerows.</p>	<p>the west of the existing farm track.</p> <ul style="list-style-type: none"> • Gapping-up the southern boundary of the existing ENRMF, initially where work in this area is complete and continuing as these phases are completed to provide further connectivity, extending to the roadside hedgerow. • Delineation of a 10m wide buffer-strip, measured from the top of the field-side ditch-top, around the whole of the northern field in the proposed western extension. This strip, part arable, part rough grassland, will all be converted to grassland, with wildflowers for pollinators and other invertebrates and tussocky grassland providing cover for amphibians and reptiles. <p>These pre-development measures are set out in the Ecological Management, Monitoring and Aftercare Plan (EMMAP) which is provided at Appendix DEC E of the DCO Environmental Commitments (DEC) (PINS document reference 6.5. APP-110). The DEC is a certified document (18) of the dDCO and the Applicant will amend the dDCO for submission by Deadline D3 to make it clear in Requirement 4 that the measures in the EMMAP must be complied with under the new Order.</p> <p>The distribution of adders is considered to comprise two separate populations on a local scale; Fineshade Wood and Collyweston Great Wood. Currently there is a fairly narrow grassland strip on the Fineshade side of the western extension area and a wider and more species-rich grassland strip on the Collyweston Great Wood side. The proposed 10m buffer strip around the majority of the western extension will be managed to benefit reptiles (and other key species) and will be in place prior to the commencement of the development in the western extension thus maintaining connectivity.</p> <p>New hedgerows described in paragraph 13.5.3 of the Environmental Statement (APP-049) will be planted prior to commencement of the operations in the western extension and both of the existing hedgerows are to be removed in stages, initially to allow the construction of the haul road as set out in the EMMAP. This will allow new hedgerows time to establish before the two existing hedgerows are completely removed.</p> <p>The planting and design requirements for the hedgerows are specified in Section 5.3.1 of the EMMAP (Appendix DEC E DCO Environmental Commitments Document (APP-110). It states that all new hedgerows should comprise a double row of shrubs and should meet the minimum species requirement for UK BAP species-rich hedgerows (see 5.2.1). They should be planted on banks at least 250mm high, 1-1.5m wide and with a 30-50 degree slope to provide safe movement corridors for amphibians, reptiles and small mammals and to extend the range of micro-climates for invertebrates. The hedgerows will be created within the standoff areas identified in the boundary design principles (Appendix DEC B. APP-110) and the locations will therefore benefit also from the grassland management proposals in the EMMAP as soon as the planting is carried out and the management measures are implemented. Connectivity therefore will be increased at the currently agricultural land in the proposed western extension from the first season of planting and grassland management along the routes of the new planting.</p> <p>There will be further and progressive enhancement of connectivity throughout the operation of the western extension due to new wildlife corridors that will be formed through the creation of a new open watercourse and through planting of hedgerows along both of the service route corridors as set out in the EMMAP and described at paragraph 13.6.3 of the Environmental Statement.</p> <p>The phasing of works in the northern field and the ongoing restoration and re-siting of any fencing to allow the restored areas to be colonised will contribute in the short/medium term to improved connectivity.</p> <p>The restored landscape will be far more permeable to reptiles when comprising a mosaic of hedgerows, scrub, woodland and grassland than the current western extension does which is limited to two hedgerows across arable fields adjacent to operational land which improves connectivity in the long term.</p>
<p>3.3</p>	<p>Mitigation and Monitoring</p>		

Q3.3.1	The Applicant	The ExA notes reference to the need for a protected species licence from NE for great crested newts (paragraphs 5.3.5 and 13.6.2 of the ES and Appendix ES13.1) and that an initial application has been made to NE Wildlife Licensing. NE's RR [RR-010] also advises that should an application for an EPS licence be required, it encourages the submission of a full draft licence application as soon as possible. Please provide an update with regards to the initial licence application to NE Wildlife Licensing.	The Applicant has commenced the preparation of the draft great crested newt EPS licence. This will be submitted to Natural England as soon as possible to obtain feedback on the proposals.
Q3.3.2	The Applicant	Paragraph 13.2.3 of the ES states that the existing operation has an Environmental Management and Aftercare Plan (EMAP) which will be replaced. Please clarify how the new Ecological Management, Monitoring and Aftercare Plan (EMMAP) [APP-110] Appendix DEC E would ensure that the current levels of management and care would be maintained and not reduced compared with the existing EMAP.	<p>The EMMAP presented at Appendix DEC E of PINS document reference 6.5 (APP-110) incorporates the operational and maintenance procedures detailed in the existing EMAP where appropriate, in line with evolving and more up to date local and national objectives for important ecological features identified as of relevance to the scheme.</p> <p>A conjoined approach in the EMMAP covering the proposed western extension and existing ENRMF provides for a strategic approach to management and monitoring which maximises biodiversity gain and delivers a cohesive restored landform. Annual and quinquennial monitoring reports will continue to assess the success of the ongoing management and monitoring strategy at the site and make appropriate recommendations accordingly.</p> <p>As stated above in response to Q3.2.3 the Applicant will amend the dDCO for submission by Deadline D3 to make it clear that the authorised development must be carried out in accordance with the EMMAP.</p> <p>The implementation of the works specified in the EMMAP will be reviewed by the local authority. The necessary standards will be monitored through the review process in Requirement 4 of the dDCO.</p>
Q3.3.3	The Applicant	Paragraph 13.5.4 of the ES states that Japanese knotweed treatment is ongoing. Based on the known presence of knotweed, please confirm whether a site-specific Invasive Species Management Plan is being prepared. If so, please submit it to the Examination.	As stated in Table DEC 1 of the Ecological Management, Monitoring and Aftercare Plan (PINS document reference 6.5 Appendix DEC E) (APP-110) the invasive species on site are managed in accordance with the legal obligations (Wildlife and Countryside Act 1981, Section 14ZB). Accordingly the management of these species does not need to be controlled through the DCO. As stated in paragraph 13.5.4 of the Environmental Statement treatment of the Japanese Knotweed currently is ongoing in accordance with the legislation and government guidance and a watching brief will be implemented to identify any reoccurrence.
Q3.3.4	The Applicant	Please confirm whether the Biodiversity Net Gain (BNG) figures set out in ES paragraph 13.5.12 refer to the final restored landform, or to the measures to be undertaken before and during the operation of the Proposed Development.	<p>The BNG figures presented in paragraph ES 13.5.12 (APP-049) refer to the final restored landform which is the product of both the enhancement and creation measures undertaken before and during the operation and the completion of the remaining restoration once operations at the site are completed.</p> <p>The BNG figure for the pre-development works and each phase are presented in the report at Appendix 3 to Appendix ES13.1 (APP-087).</p>

<p>Q3.3.5</p>	<p>The Applicant</p>	<p>Paragraph 13.6.3 of the ES states that as phases are completed and restored, fencing will be removed to allow wildlife to enter the areas. It is noted within [RR-004] (Butterfly Conservation) that connectivity between corridors should be maintained at all times. Please confirm whether or how this objective has been taken into account in the phasing plan or secured within the Ecological Management, Monitoring and Aftercare Plan (EMMAP) (Appendix DEC E) [APP-110] as set out in Q3.3.2 and Q3.3.8?</p>	<p>The ecological surveys undertaken confirm that the arable fields currently provide limited connectivity for wildlife between Collyweston Great Wood and Fineshade Wood. Accordingly, no connectivity will be lost as a result of the proposals and in the short to the long term connectivity between Fineshade Woods and Collyweston Great Wood will be enhanced.</p> <p>Prior to the commencement of the operations in the western extension pre-development measures will be implemented to enhance connectivity as explained in response to Q3.2.3 above. This includes hedgerow planting on the northern and western boundary of the western extension which will run between the Assarts and Collyweston Great Woods and provide connectivity between the two woods. A wide buffer-strip will be delineated around the whole of the northern field of the proposed western extension. This strip, which is currently part arable, part rough grassland, will all be converted to grassland, with wildflowers for pollinators and other invertebrates and tussocky grassland providing cover for amphibians and reptiles. The buffer strip will provide a range of habitats for a range of species and connect the two woodlands round the edge of the arable fields and working areas. The protection of the field margins and the enhancement of these habitats as described in the EMMAP through specified standoffs is also incorporated into the design on the western boundary of the southern part of the western extension and the eastern boundary of the southern extension (2.4 General Arrangement Plan 1A and 1B – APP-007)</p> <p>Section 2.4 of the EMMAP (Appendix DEC E, APP-110) sets out the measures for the enhancement and management of the margins which is secured under Requirement 4 of the draft DCO. The boundary design principles which incorporate the stand offs which are set out in Appendix DEC B of PINS document reference 6.5 (APP-110) are secured under Requirement 3(1) of the DCO.</p> <p>The erection of protective fencing around the operational areas of the proposed western extension will be carried out progressively as the development will be undertaken in phases. The fencing will be removed from each area once the restoration operations are completed. The principles of the fencing and the approach to the fencing is presented in Section 2.3.4 of the EMMAP (Appendix DEC E, AP-110).</p>
<p>Q3.3.6</p>	<p>The Applicant</p>	<p>It is noted that a tree group, including T03, near the swallow hole may be removed to facilitate access (as detailed in paragraph 3.3.4 of Appendix 2 (Arboricultural Impact Assessment) of Appendix ES13.1). Root Protection Areas (RPA) are identified in Figure 1- 01 of the Arboriculture Impact Assessment for this tree group suggesting that they might be retained. Please confirm whether this tree group is to be removed and if so, where the effects of this have been assessed within the ES chapter.</p>	<p>Section 3 of Appendix 2 of Appendix ES 13.1 (APP-087) is titled Arboricultural Impact Assessment. The arboricultural assessment has been based on the removal of part of TG03 including tree T03 as stated in paragraph 3.3.4 (Appendix 2 of Appendix ES13.1). The actual extent of the removal of the tree group is not yet known as it will be determined at the detailed design stage. It is proposed to retain tree T03 if possible but the assessment is based on the assumption that it will be removed. As stated in paragraph 3.3.4 the loss of part of TG03 will have a minor impact on the site’s amenity value. This loss will be more than mitigated by the proposed restoration scheme hence the effects have been assessed.</p>
<p>Q3.3.7</p>	<p>The Applicant</p>	<p>ES section 13.6 sets out the three phases of measures proposed to avoid impacts, protect species and enhance habitats. (i) How would the measures planned to take place before the consented DCO operations be controlled through the DCO [APP-017]? (ii) Please provide further commentary of the graph on ES</p>	<p>(i)The pre-development measures are specified in Section 2 of the EMMAP which is presented at Appendix DEC E (APP-110). The dDCO will be amended by the Applicant and submitted by D3 to clarify that the implementation of the EMMAP is secured through Requirement 4.</p> <p>(ii) The graph presented in section 13.5.12 of the Environmental Statement presents the Biodiversity Unit change between the losses from the habitat that will be removed and the gains from enhancement and creation measures modelled at the end of each phase of work. The data that are presented in the graph are shown in Table 5 of Appendix 3 of Appendix ES13.1 (APP-087). The graph demonstrates that there will be a continual increase in Biodiversity Units throughout the progression of the proposed development.</p>

		page 143, in particular how the variations in the bio-diversity would change over time.	
Q3.3.8	NNC	Please comment on the scope and effectiveness of the EMMAP ([APP-110] Appendix DEC E)	
3.4	Protected species		
Q3.4.1	The Applicant and NE	Noting Q3.3.1 with regard to GCN, are any other protected species licences required to implement the Proposed Development? If so, would NE please comment on any letters of no impediment.	Other than GCN, no other protected species licences are currently necessary to implement the proposed development.
Q3.4.2	The Applicant and NE	Please provide a copy of the standing advice for protected species as referenced in the hyperlink at paragraph 2.10.2 of [RR-010].	A copy of 'Protected species and development: advice for local planning authorities' is provided at document reference 9.2.3.4.2.
3.5	Habitats Regulations Assessment (HRA)		
Q3.5.1	The Applicant	Paragraph 5.6 of the HRA No Significant Effects Report (NSER) [APP-102] states that: " <i>The only potential pathways for likely significant effects on Barnack Hills and Holes SAC are as a result of dust and emissions of NOx to air (which may relate to deposition of nitrogen) and of emissions to water, which could affect water quality.</i> " However, the ExA notes that only air quality effects are discussed for LSE on this Special Area for Conservation (SAC) (including in the screening matrix for the SAC) and there is no further reference to effects from emissions to water for this SAC. Please confirm whether there is any potential effect pathway due to emissions to water from the Proposed Development to the SAC and if so, whether there would be a LSE arising from any such effect.	The groundwater from the site flows to the south and south east. Barnack Hills and Holes is approximately 7.5km to the north east of the site. There is no natural hydraulic connectivity between the proposed development and Rutland Water and therefore even without the control measures proposed in the Environmental Permit the potential for a hydrogeological or hydrological impact on Barnack Hills and Holes is negligible. As there is no pathway to effect water quality there are no likely significant effects. The assessment and conclusions are presented in the Habitats Regulations Screening Assessment (PINS document 5.5. APP-102).

Q3.5.2	NE	<p>The Applicant has concluded in its NSER (paragraphs 9.1 and 9.2 and Appendix 4) that there are no LSE on the qualifying features of any European Sites. NE was satisfied that the then scheme would not have LSE.</p> <p>(i) Are you still satisfied that the scheme as submitted would not have LSE and that an HRA / Appropriate Assessment is not required?</p> <p>(ii) Are you content that the controls necessary to achieve this outcome would be provided by dDCO and the existing and anticipated EPs for the existing site and Proposed Development?</p>	
4. Draft Development Consent Order and Explanatory Memorandum			
4.1	General		
Q4.1.1	The Applicant	Please review the dDCO [APP-017] to ensure that all cross- and shoulder references are present and correct. For example, Art 15 refers to Schedule 4, rather than Schedule 6 and the shoulder references for a number of the Schedules are missing.	The Applicant has carried out this exercise and will submit a revised dDCO at Deadline 3.
4.2	Articles		
Q4.2.1	The Applicant	Art 2 This Art does not define the 'relevant planning authority' by name. Please explain why the relevant authority is not named or amend the Art to specify the name (see guidance at PINs Advice Note 15 paragraph 19.1).	The article uses the standard definition used in various dDCOs including the South Humber Bank Energy Centre Order 2021, the Wheelabrator Kemsley K3 Generating Station Order 2021 and the Norfolk Boreas Offshore Wind Farm Order 2021. Sometimes local planning authority areas can change or the structure of the authorities can change eg a change from district and county council to a unitary authority, so the name has not been included to ensure the wording of the dDCO will remain correct in the event there is a change in local authority for the Order Limits. However, in light of Advice Note 15, the Applicant will amend the definition in the dDCO as follows: "relevant planning authority" means North Northamptonshire Council or the local planning authority for the area in which the land to which the relevant provision of this Order applies is situated from time to time;
Q4.2.2	The Applicant	Art 4 Clause 2 of this Art specifies the point at which the Proposed Development will be constructed, operated and maintained in accordance with the plans certified under Art 18. Please comment on the need for Art 4 to include a clause to specify the point at which the Rs under the new DCO would come into force.	It is Article 3 which applies the Requirements to the consent for authorised development and Article 4 then confirms that upon service of the notice, the authorised development must be constructed, operated and maintained under the Order. The Applicant is proposing to update the wording to state that the authorised development must be constructed, operated and maintained in accordance with the provisions of this Order and the plans certified under article 18. This clarifies that the Requirements in Schedule 2 forming part of the Order must be complied with from the date of the notice.

Q4.2.3	The Applicant	Art 5 The limits of deviation for Work No 1 is set out in this Art and in Relevant Parameters [APP-110] Appendix DEC C. The latter document also sets out height parameters for Works Nos 2 and 3. Why are these parameters not included in Art 5?	The parameters for Work Nos. 2 and 3 are secured by Requirement 3(2) and the design parameters in Schedule 4. These parameters are fixed and no vertical deviation from the limits set out in Schedule 4 is required, so these works are not listed in Article 5, which permits deviation.
Q4.2.4	The Applicant	Art 5 The limits of deviation for Work No 1 allows the works to deviate vertically downwards to any extent as may be found necessary to construct the authorised development, subject to approval by the EA. Please explain why no depth is specified for the downward limit. Please cross reference with your answer to Q5.1.1.	It is considered unnecessary to include a downward limit in the DCO as any limit is subject to the agreement of the Environment Agency on a phase by phase basis through their approval of the design of each phase of the landfill pursuant to the Environmental Permit. As explained in paragraph 5.5.1 of the Environmental Statement (APP-049) the principle of the basal site level agreed with the Environment Agency is that at least 2m of Rutland Formation and/or glacial till which overlies and further protects the underlying Lincolnshire Limestone Formation will be retained in situ beneath the base of the engineered low permeability liner. The level of the top of the limestone is not flat and therefore the level of the top of the overlying formation which must remain in place is not consistent which is why the excavation depth is agreed with the Environment Agency based on site investigation information and detailed site design for each cell and phase prior to excavation and construction. It would therefore be inappropriate to set a maximum AOD for the proposed development and it is for this reason that the proposed downward limit specified in the draft DCO is explanatory rather than numerical.
Q4.2.5	EA	Art 5 Does the EA have any comments or concerns with regard to the Applicant's limits of deviation in the dDCO or depths referenced in the ES [APP-049]?	
Q4.2.6	The Applicant	Arts 6, 10, 12 and 13 The draft Explanatory Memorandum (EM) [APP-019] in relation to these Arts lacks sufficient explanation as to how they differ from those on which they are based. Please provide an explanation for each of these Arts. It would be helpful if the EM were updated accordingly (see guidance at PINS Advice Note 15 paragraph 1.4).	The EM will be updated and a revised version will be submitted at Deadline D3.
Q4.2.7	The Applicant	Arts 7, 10, 11, 14, 16 and 19 The draft EM in relation to these Arts lacks sufficient explanation as to why they are appropriate for the Proposed Development. Please provide an explanation for each of these Arts. It would be helpful if the EM were updated accordingly (see guidance at PINS Advice Note 15 paragraph 1.5).	The EM will be updated and a revised version will be submitted at Deadline D3.
Q4.2.8	The Applicant	Art 10 This Art would allow the undertaker, with the consent of the street authority, to construct accesses at such locations as it	This Article has been included to ensure the undertaker has the appropriate powers to construct and improve access to the Proposed Development. Although the access has already been constructed, this was done using the powers in the Original Order. Once the notice pursuant to Article 4(2) is served, those powers will no longer apply, so it is important the dDCO replicates all the powers relied upon to construct the Existing ENRMF. The power may also need to be relied upon in the future if improvements are required to the site access.

		considered reasonably necessary for the purposes of the authorised development. Having regard to the reliance on the use of the existing access in, for example, the assessments of noise and air quality, and the requirements of the Traffic Management Plan ([APP-110] Appendix DEC K), it would be helpful to understand how and where it is intended to exercise this power.	This power is subject to the consent of the street authority and is therefore proportionate and reasonable.
Q4.2.9	NNC	Art 10 Please comment on the terms and potential implications of this Art.	
Q4.2.10	The Applicant	Art 12 The EM makes reference to 'the 1965 Act', but does not explain which Act is being referred to. Please clarify this reference and update the EM accordingly.	A definition will be included in the dDCO which will be submitted at Deadline D3. However, the Applicant could not find a reference to the 1965 Act in the EM.
Q4.2.11	The Applicant	Art 17 Please provide an explanation of the need for this Art, including justification of the list of nuisances listed (by reference to Section 79(1) of the Environmental Protection Act 1990) in clause (1). It would be helpful if the EM were updated accordingly (see guidance at PINS Advice Note 15 paragraph 1.6).	<p>The development comprises nationally significant infrastructure and as a result it is appropriate that the development is protected with regards to statutory nuisance.</p> <p>This is demonstrated by the fact that section 158 of the 2008 Act confers statutory authority for the purposes of a defence in civil or criminal proceedings for nuisance.</p> <p>The purpose of this article is to provide a defence to proceedings brought in a magistrates' court under s.82(1) of the Environmental Protection Act 1990 in relation to those nuisances set out in paragraph 79(1) of that Act, which may be of relevance to the authorised development, as set out in the Statutory Nuisances Statement [APP-108] accompanying the application.</p>
Q4.2.12	The Applicant	Art 17 This Art would provide the undertaker with defence of statutory authority against a range of potential nuisance impacts. The Statutory Nuisance Statement [APP-108] relies in significant part on the controls to be provided by the EP for mitigation of potential nuisances. Paragraph 4.11 of the NPSHW requires the ExA to consider how nuisances may be mitigated and to recommend appropriate requirements to be included in the dDCO. Given this policy guidance, and that the defence of statutory authority derives from the DCO, should the mitigation relied upon to justify this power be included in the DCO rather than the EPs.	<p>The DCO should not duplicate controls which are already secured by another statutory regime (Paragraph 4.7 of the NPSHW). Therefore, the Applicant would not propose to include any requirements in the DCO that overlap with mitigation secured in the EP. To deal with these mitigations in the DCO instead of the EP would require the disapplication of parts of the Environmental Permitting (England and Wales) Regulations 2016. To do so would require consent from the Environment Agency, which the Applicant does not believe would be forthcoming. The important point is to ensure that the mitigation is secured by appropriate means and it is considered that the EP is the appropriate place to do this.</p>

Q4.2.13	The Applicant	Art 18 Please provide reference numbers for the documents to be certified under this Art and update the dDCO accordingly.	The plans to be certified are: <ul style="list-style-type: none"> the access plan [APP-010] the works plan [APP-006] the restored landform profile plan [APP-012] the restoration concept scheme [APP-011]; and the DEC [APP-110] <p>The Applicant will keep the dDCO updated during the Examination.</p>
Q4.2.14	The Applicant, the EA, NE and NNC	Art 18 Please comment on the need for documents other than those listed in the submitted dDCO to be certified under Art 18.	Those documents expressly referred to in the dDCO are those documents which it is appropriate to certify as part of the Order. This is the approach the Applicant has taken.
4.3 Schedules			
Q4.3.1	The Applicant	Schedule 1 Please update this schedule to cross reference the listed Works to the Works Plan [APP-006] (see guidance at PINS Advice Note 13 paragraphs 2.9 and 2.10).	The Applicant has reviewed several of the most recently granted DCOs and has decided to adopt the approach taken in the Thurrock Flexible Generation Plant Development Consent Order 2022. A definition of "work" has been included in Article 2 which cross refers to Schedule 1. A cross reference to the works plans has then been included in this definition of "work".
Q4.3.2	The Applicant and the EA	Schedule 1 Please comment on the need or otherwise for the terms 'predominantly' (hazardous waste) and 'small quantities' (of low level waste) as used in the descriptions of Work No 1 and Work No 2 to be defined by reference to specific quantities.	The Applicant has adopted the wording used in the Original Order to ensure a degree of consistency and to ensure that the existing ENRMF that was constructed under the Original Order is also consented under this DCO. It is not possible to define Work Nos. 1 and 2 with reference to specific quantities as these may fluctuate from year to year, but the consent for authorised development is subject to the Requirements (Article 3) and the maximum quantities of low level waste are restricted in Requirement 8 to a total value for both Work No. 1A and Work No. 1B. Further, the wording is to make clear that the LLW disposal is subordinate to the hazardous waste disposal for the purposes of the guidance on associated development.
Q4.3.3	The Applicant	Schedule 1, General Arrangement Plan Work No 2 [APP-008] and General Arrangement Plan Work No 3 [APP-009] , Relevant Parameters [APP-110] DEC C Together, these items control the proposed works at the treatment facility and the reception area. However, they offer very little indication of the extent of the works proposed. Please clarify the layout, scale and massing of the structures proposed, perhaps by reference to illustrative material (see also Q4.2.3 and Q8.2.1).	The nature of the Proposed Development requires a certain level of flexibility for Work Nos. 2 and 3. The waste treatment and recovery facility is an active site and a lot of the plant and machinery is semi-permanent and is moved around the concrete pad depending on operational need. The site reception area already contains several temporary buildings as shown on the General Arrangement Plan Work No 3 [APP-009], but the Applicant may construct further items listed in Work No.3 from time to time if required in conjunction with the operation of the ENRMF. Schedule 1 limits the buildings, plant and machinery which may be constructed within the limits of deviation for Work Nos. 2 and 3. This list is clear and definitive. The General Arrangement Plans show what has already been constructed as part of the Existing ENRMF. The Works Plan [APP-006] sets the limits of deviation for Work Nos. 2 and 3 within which any buildings, plant and machinery listed in Schedule 1 must be constructed and the Relevant Parameters set out in Appendix DEC C [APP-110] set the vertical parameters for any works taking place within these areas. The Environmental Statement has used a Rochdale envelope approach and assumes that the entirety of the work limits are a built form at the maximum height parameters, therefore the worst case has been assessed. Please see also the responses to Q4.4.2 and Q8.1.3.
Q4.3.4	The Applicant and the EA	Schedule 2 Please comment on the need or otherwise for the EA to have a specified role in the discharge of	The Requirements set out in Schedule 2 are mutually exclusive to the controls set out in the EP and therefore the relevant planning authority is the appropriate party to discharge the Requirements. However, the dDCO has been updated to include the EA as a consultee for Requirement 4 at the EA's request.

		certain Requirements, particularly having regard to the interaction between the DCO and the EPs intended to control the operation of the site.	The updated dDCO will be provided at Deadline 3.
Q4.3.5	The Applicant	Schedule 3 Please explain why this schedule differs from the standard wording set out in Annex 1 of PINs Advice Note 15 and update the EM accordingly.	The Applicant has reviewed the last ten DCOs that have been granted and note that only one contains the wording set out in Advice Note 15. On the basis the original DCO did not set out an equivalent mechanism, the Applicant decided to adopt similar wording to that set out in the last consented DCO at the time the application was made (the Wheelabrator Kemsley K3 Generating Station Order 2021). As Schedule 3 deals with the procedure for discharging requirements, the Applicant would welcome views from North Northamptonshire Council on the current drafting in contrast to the wording set out in Advice Note 15.
Q4.3.6	NNC	Schedule 3 Please comment on the terms of Schedule 3 of the Applicant's submitted dDCO.	
4.4 Requirements			
Q4.4.1	NNC, EA NE	Requirements (R) 1 to 18 Please identify where it would be helpful, for example to bring certainty or to avoid misunderstandings, for further specific provisions to be included in any of the Requirements. Please explain why any such changes are necessary.	
Q4.4.2	The Applicant and NNC	R3 Please comment on the need or otherwise for the detailed design of Works Nos 2 and 3 to be subject to further approval.	The arrangement proposed and discussed in Q4.3.3 underpins the reason why there is no specific need for further approvals for the detailed design under Works Nos 2 and 3. The infrastructure present in Works No 2 (the waste treatment and recovery facility) and Works No 3 (the reception and administration areas) is not permanent and is not necessarily fixed in specific locations; the treatment infrastructure is modular and is moved and repurposed as needed to provide appropriate treatment processes to reflect changes in waste types and treatment needs as the market evolves and adapts. Similarly site facilities at Work No 3 may need to be adjusted to accommodate changed locations for the weighbridge and reception facilities as well as updating office, laboratory and mess facilities over the 20 year life of the development. These needs cannot be predicted now for a 20 year lifetime in a rapidly changing regulatory and policy area. Accordingly significant inbuilt flexibility is needed so that site operations are not unduly constrained subject always to the environmental protection controls imposed by the Environmental Permit. It is for these reasons that the land use impacts of these Works are assessed through the application of Rochdale envelope principles so that the flexibility required is assessed within those Rochdale envelope parameters and found to be acceptable in terms of likely potential environmental impact.
Q4.4.3	The Applicant	R4 Please explain why the phasing, landscaping and restoration scheme could not be submitted for approval in less than 24 months for the date of the DCO. How would phasing and landscaping be controlled pending approval of the submitted scheme?	The works the subject of the Phasing, Landscaping and Restoration Scheme to be approved under Requirement 4 of the draft DCO relate to the restoration activities following the completion of landfilling and capping in each phase. The first phase (Phase 12) of landfilling may have been constructed but will not be filled within 24 months of the date of the Order. The order of the phasing is set out at Appendix DEC D to the DCO Environmental Commitments Document [PINS document reference 6.5. APP-110] which is a certified document under Part 4 18 (1)(f) of the draft DCO. All the pre-construction ecological and landscaping mitigation works are set out in the Ecological Management, Monitoring and Aftercare Plan at Appendix DEC E to the DCO Environmental Commitments Document which is a certified document under Part 4 18 (1)(f) of the draft DCO. It is proposed that the dDCO will be amended (and submitted at D3) to clarify that the first stage of phasing set out at Appendix DEC D and the principles in the EMMAP (Appendix DEC E, APP-110) must be complied with until the phasing, landscape and restoration scheme has been prepared and approved under Requirement 4.

Q4.4.4	The Applicant, NNC and NE	R4 Clause 4 requires the restoration of the site to be carried out in accordance with the latest phasing, landscaping and restoration scheme. Please comment on the need or otherwise for this R to include a provision requiring interim phases to be constructed in accordance with the latest phasing, landscaping and restoration scheme approved at the time.	The Applicant will include some updated wording in the dDCO which will be submitted at Deadline D3 in Requirement 4(5) which clarifies the fact that any restoration works must be carried out in accordance with the extant scheme at the time the works are carried out.
Q4.4.5	NNC and EA	R15 Please comment on the height limits in this R for the gas flare structure.	
Q4.4.6	The Applicant	R15 In the absence of a constraint on the minimum height of the gas flare flue, please explain how the dDCO as worded ensures that emissions from flue gas dispersion represent a realistic worst case	<p>Any change to the existing plant used for the management of gas extracted at the site will be subject to agreement of the Environment Agency under the Environmental Permit. This will include the submission and approval of a risk assessment for the impacts on air quality and sensitive ecological receptors as a result of the quality and quantity of landfill gas which is being managed at the time and the performance and dispersion characteristics of the replacement plant proposed. The assessment of the dispersion of the combustion products includes as a key parameter the height of the gas flare flue. In general terms greater dispersion is achieved by a taller flare stack but dispersion is also directly affected by gas temperature, emission rate and aperture diameter.</p> <p>The appropriate management of landfill gas is controlled through the pollution control framework. It is a condition of the Environmental Permit for the hazardous waste landfill site (condition 2.9.2) (PINS document reference 9.2.1.1.1A) that the operator must use collected landfill gas to produce energy unless this cannot be done, in which case the gas shall be treated in accordance with an approved gas management plan.</p> <p>It would be inappropriate to include a minimum height in the dDCO because if the appropriate flare technology to deal with the gradually reducing gas flow rate (as shown in paragraph 24.2.3 of the Environmental Statement APP-049) as agreed with the EA based on risk assessment determined that a lower height than the height in the dDCO was appropriate, it would then require a change to the DCO.</p>
4.5	Protective Provisions		
Q4.5.1	The Applicant	Art 15 and Schedule 6 Please amend Art 15 of the dDCO and the EM to refer to Schedule 6 rather than Schedule 4.	The revised dDCO to be submitted at Deadline D3 will be updated.
Q4.5.2	The Applicant	Art 15 and Schedule 6 Please provide the source for the wording of Schedule 6, and explain whether it has been amended to be specific to this project.	<p>Schedule 6 was taken from the last granted DCO before the application was submitted (the A1 Birtley to Coalhouse Development Consent Order 2021), but was amended to be scheme specific.</p> <p>The reference to sewerage undertaker was removed as this is not relevant to this Site and the provisions relating to apparatus in stopped up streets, protective works to buildings and acquisition of land were also removed as there are no corresponding powers included in the dDCO.</p>
Q4.5.3	The Applicant, Western Power Distribution, Anglian Water and National Grid.	Please provide an update on any discussions on the Protective Provisions following the submission of the application and in the light of [RR-001] (National Grid and [RR-012] (Western Power Distribution).	National Grid Gas, Anglian Water and Western Power Distribution have all provided bespoke protective provisions and the Applicant is considering the drafting.

Q4.5.4	The Applicant	Please confirm whether or not the Proposed Development affects statutory undertakers who have not been included in Schedule 6 .	As far as the Applicant is aware, the Proposed Development only affects three statutory undertakers: National Grid Gas, Western Power Distribution and Anglian Water.
Q4.5.5	The Applicant and the EA	Please comment on the need or otherwise for Protective Provisions for the benefit of the EA.	The Applicant cannot contemplate a reason why protective provisions would be necessary. They do not have any apparatus requiring protection.
5. Ground conditions			
5.1 Assessment			
Q5.1.1	The Applicant	Paragraph 5.4.1 of the ES [APP-049] states that the excavations within the remaining existing site will be to a depth of around 13m below ground level / 74.5m Above Ordnance Datum (AOD), whereas paragraph 5.4.3 states the Proposed Development will utilise excavations to around 16m / 72m AOD depth. No specific reason is given for the additional depths within the Proposed Development. Please explain the variation in the anticipated excavation depths.	As explained in the response to Q4.2.4, the depth to the base of the excavation for each phase is subject to the agreement of the Environment Agency on a phase by phase basis through their approval of the design of each phase of the landfill under the permit. As explained in paragraph 5.5.1 of the Environmental Statement the principle of the basal site level agreed with the Environment Agency is that at least 2m of Rutland Formation and/or glacial till which overlies and further protects the underlying Lincolnshire Limestone Formation will be retained in situ beneath the base of the engineered low permeability liner. The level of the top of the limestone is not flat and therefore the level of the top of the overlying formation which must remain in place is not consistent which is why the excavation depth is not consistent and is agreed with the Environment Agency based on site investigation information and detailed site design for each cell and phase prior to excavation and construction. The depths relative to metres Above Ordnance Datum reflect the anticipated level 2m above the top of the limestone strata in the remaining unfilled area of the current landfill and in the proposed western extension.
6. Historic environment			
6.1 Mitigation			
Q6.1.1	NNC	Please comment on the scope and effectiveness of the Archaeological Mitigation Strategy ([APP-110] Appendix DEC A).	
7. Human health			
7.1 Assessment			
Q7.1.1	The Applicant and UKHSA	ES [APP-049] paragraph 12.3.3 advises that site visitors and workers are excluded from the assessment on the basis that they are protected by occupational health legislation. Please clarify the level of protection offered by that legislation and comment on the appropriateness of excluding these groups from the assessment, particularly having regard to the requirements of Schedule 4(5) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.	<p>The health of workers and visitors to an operational waste management site is considered and controlled through Health and Safety legislation. As in all industries, specific risk assessments are carried out for occupational activities and control measures are applied to make sure that exposures to contaminants or radioactivity are managed and maintained below the workplace exposure limits set by the Health and Safety Executive (EH40/2005 Workplace exposure limits, 2015 HSE). Some workers at the site will be in close proximity to wastes as they carry out their normal tasks and personal protective equipment such as gloves or safety glasses may be necessary to protect them from risks to health. Clearly the health of people not working at the operational facility must be shown to be protected without the need for and protective equipment. The exposures of site workers and their potential for harm to health are assessed and managed through workplace risk assessments but such exposures are not typical of people outside the operational site, including those who may be close to the site boundary. As a result of the statutory requirements placed on Augean as a result of the Health and Safety at Work etc Act, workers will be adequately protected and there will be no significant effects on their health. Accordingly the EIA assessment of impacts on health as a result of the proposed development is not separately focussed on site workers but is focussed on potential exposure pathways to those who may be present close to but outside the site for the operational period. For the post restoration period when the site is accessible to the public, potential exposure pathways for people visiting the site are considered.</p> <p>It is considered that this approach is appropriate and fully in accordance with the requirements of Schedule 4(5) of the Infrastructure</p>

			Planning (Environmental Impact Assessment) Regulations 2017.
Q7.1.2	The Applicant	ES section 12.4 and tables ES11.1 and ES11.2 assess potential exposure pathways for hazardous waste and Low Level Radioactive Waste (LLW) and refer to the measures in place to limit the likelihood of exposure occurring. What assessment has been made of events with a low likelihood of occurrence which nevertheless happen, for example accidents or incidents where the procedures were not followed or failed?	The potential exposure pathways which are assessed include those associated with accidents or incidents where procedures are not followed or failed. These exposure pathways are labelled in the table as 'unlikely to occur' and are presented in italic text. The events include dropping loads of waste during transfer, the spillage of contaminated leachate from the site, fire, failure of the containment system etc.
Q7.1.3	The Applicant	ES table 11.2 deals with a number of scenarios with the comment that ' <i>A risk assessment will be carried out to demonstrate that the risks from [the scenario] would not be unacceptable</i> '. This implies the risk assessment would be carried out after the event. Is that the intention? Should a risk assessment be carried out beforehand and its results used to implement appropriate procedures?	<p>We confirm that all risk assessments are undertaken in advance of any activity. The results of the risk assessments inform the measures necessary to implement to ensure that the activity can be undertaken safely and without harm to the environment.</p> <p>The future tense is used in Table ES11.2 for the risk assessments which will be carried out because the assessments for the proposed development in the western extension area have not yet been completed or submitted to the Environment Agency with the Environmental Permit variation application. These assessments are being carried out and will be submitted for approval to support the permit variation application. The varied permit will only be issued if the Environment Agency are satisfied that the risk assessments demonstrate that the risks are appropriately controlled and the disposal of LLW in the proposed western extension can only commence following issue of the variation to the Environmental Permit.</p> <p>The risk assessments have been carried out for these potential exposure pathways prior to the issue of the Environmental Permit by the Environment Agency for the permit for the current site. Monitoring data shows that there are no unacceptable exposures.</p>
Q7.1.4	The Applicant	ES table 11.2 page 3 deals with an aircraft crash scenario. The comments do not appear to relate to this scenario. Please clarify.	<p>The exposure which could arise as a result of an aircraft crash results from the generation of airborne particulates if an aeroplane ploughs into the ground releasing a cloud of dust. Based on the materials and the radioactivity of the wastes which could be disposed of at the site the risk assessment considers the potential radioactivity of the particles which could be released in a cloud of dust and then inhaled by people who may be nearby. The estimates of inhalation ignore the fact that a proportion of the dust which is released would comprise the non-contaminated cover and capping materials (there is a typographical error in the table, seeping should read <u>capping</u>) and assumes that all released particulates comprise LLW. It is assumed in the assessment that the weather is still therefore there is no rapid dispersion and dilution of the airborne particles.</p> <p>The assessment is explained further in paragraphs 12.6.15 – 12.6.17 and Section E3.6 at Appendix E of the ESC provided at Appendix ES11.1 (APP-085).</p>
Q7.1.5	The Applicant	ES paragraph 25.4.59 states that ' <i>There is no evidence based on the extensive ongoing engagement and communications with people and their representatives in the area around the site that the day to day activities at the site currently give rise to consistent significant concerns or anxiety regarding health or environmental impacts.</i> ' Please provide the evidence to support this statement.	<p>There is no evidence on the various media platforms (websites or social media) pertaining to local community groups, Parish Councils or feedback through the Kings Cliffe Liaison Group membership that there is a heightened level of interest or concern that could be an indicator of regular preoccupation or anxiety about the on-site activities at the ENRMF.</p> <p>The low level of complaints to the planning authority, the Environment Agency or directly to the Applicant regarding site activities also reflects a low level of significant concerns or anxiety.</p>

Q7.1.6	The Applicant	How have equality, diversity and inclusion considerations been taken into account in the assessment of the effects of the Proposed Development on human health (ES Chapter 12)?	<p>Due consideration of equality, diversity and inclusion issues have been taken into account with regard to the local population as described in the 2011 Census information.</p> <p>The site setting with respect to the surrounding land uses and communities is described in section 25.3 of the Environmental Statement (APP-049). The site is located in a generally rural area and has not been identified as being located in the vicinity of any specific settings where there is likely to be an atypically vulnerable population who may experience disproportionate negative health effects as a result of development such as that proposed.</p> <p>The vulnerabilities which have been considered include vulnerable or disadvantaged populations that fall within the list of protected characteristics identified in the former Public Health England 'Advice on the content of Environmental Statements accompanying an application under the Nationally Significant Infrastructure Planning Regime. March 2021' and those who are included in Protected Groups (defined by the Equality Act, 2010).</p> <p>The data reviewed show that the population health profile in East Northamptonshire is generally at or above the national average and that in 2011 nearly 75% of dwellings in the Rural North area in the 2011 Rural North, Oundle and Thrapston Plan area were owner occupied and 13% were socially rented. The data show that the villages in the area (Duddington, Collyweston and Kings Cliffe) are not identified as having a high general level of deprivation.</p> <p>It is concluded therefore that the demographic evidence does not indicate a significant risk of differential health effects that could compromise equality, diversity or inclusion with respect to the proposed development.</p>
7.2	Mitigation and Monitoring		
Q7.2.1	The Applicant	<p>ES paragraph 12.7.1 states that "it is assumed that the waste is covered by a 1.6m thick layer of non-LLW material and a further layer of cover material at 1m depth." Please clarify:</p> <p>i) How this control measure would be secured and monitored within the DCO;</p> <p>ii) The details of the assessment that explains why 2.6m coverage is sufficient to avoid risks to future users of the restored landfill, controlled waters or biodiversity receptors (eg due to root penetration) when the restore site becomes open space.</p>	<p>i) The risk assessments are based on the design criteria for the landfill site. The design criteria for the engineered containment including the capping layers are set out in section 5.5.2 to 5.5.4 of the Environmental Statement (APP-049).</p> <p>The assessment of potential exposure pathways and consequent risks to health described in section 12 of the Environmental Statement are based on the design construction details. Compliance with the design construction details is controlled through the pollution control regime by the Environment Agency through the Environmental Permits. All designs for the low permeability engineered barriers and capping together with the depth of the restoration materials which protect the underlying capping layers are specified in the design of the landfill site. The construction of each of these components is subject to Construction Quality Assurance to verify that they are implemented.</p> <p>Because these measures are controlled through the EP and must be approved by the EA through that process, they are not matters that are within the remit of the planning system. It would not be appropriate to duplicate a control in the DCO.</p> <p>(ii) With respect to the risks of root penetration into the low permeability capping layer, research by the Forestry Commission has shown that the risks of root intrusion into a compacted low permeability cap are not significant. The research has concluded that restoration soil of 1.5m thickness is suitable to ensure trees can be established on landfills without posing a significant threat of damage to the underlying cap which would adversely affect the management of water ingress to the waste. The planting of woodland on restored landfill sites is accepted by the Environment Agency who do not consider that the risks of root penetration are significant. Woodland planting on the restored landfill site is included in the approved restoration scheme for the current landfill area.</p>
8. Landscape and visual			
8.1 Methodology			
Q8.1.1	The Applicant	Please confirm the dates on which the photographs in Appendix A of the Landscape and Visual Impact Assessment (LVIA) [APP-088] were taken. In each case, the date given is '17/07/2020'. However LVIA	The details regarding the dates of the photographs are presented in Paragraph 4.62 of the LVIA [APP-088]. In summary a series of panoramic photographs for Viewpoints 1-10 and Viewpoint 11 were taken in February 2020. Viewpoint 9 photographs were taken in October 2020. Viewpoint 12 photographs were taken in January 2021. The weather on all occasions was clear and bright. Viewpoints 1 - 8, 10, 11 and 12 photographs were taken in winter to allow for the highest level of visual permeability through woody, leafless vegetation. Additional photographs were taken of Viewpoint 9 in October 2020 and used in the assessment. Viewpoint 13 photographs were taken in June 2021 as access to the location was not possible when the other viewpoint photographs were taken.

		<p>paragraph 4.61 indicates that they were taken in January/February 2020 and in a number of the photographs the trees appear not to be in leaf (for example, Viewpoints 2, 3, 5, 6 and 7).</p>	<p>The dates on the individual A3 sheets presented at Appendix A of the LVIA (APP-088] for each viewpoint photograph are incorrect. The correct dates for the viewpoints are as follows:</p> <table border="1" data-bbox="1074 258 1656 512"> <tr> <td>27/02/2020</td> <td>VP1, VP2, VP3, VP4, VP5, VP6, VP7, VP8, VP10, VP11</td> </tr> <tr> <td>27/10/2020</td> <td>VP9</td> </tr> <tr> <td>21/01/2021</td> <td>VP12</td> </tr> <tr> <td>22/06/2021</td> <td>VP13</td> </tr> </table> <p>In document reference EV1-001 the Examining Authority stated that 'I was not able to reconcile to the photographs of VP9 in ES Appendix 14.1 Figures 20 and 21 with the location of the VP shown on Figure 1)'</p> <p>The VP9 location shown on Figure 1 of the LVIA (APP-088) is the location of the VP9 photomontage. The VP9 LVIA panoramic viewpoint is approximately 178m to the south. For clarity a plan showing both the photomontage and the viewpoint location is provided (Document reference 9.2.8.1.1).</p>	27/02/2020	VP1, VP2, VP3, VP4, VP5, VP6, VP7, VP8, VP10, VP11	27/10/2020	VP9	21/01/2021	VP12	22/06/2021	VP13
27/02/2020	VP1, VP2, VP3, VP4, VP5, VP6, VP7, VP8, VP10, VP11										
27/10/2020	VP9										
21/01/2021	VP12										
22/06/2021	VP13										
<p>Q8.1.2</p>	<p>The Applicant</p>	<p>The methodology for the LVIA is said to be based on the Guidelines for Landscape and Visual Impact Assessment 3. Paragraph 6.28 of that document says that winter and summer seasons should be considered and discussed. However, the LVIA makes limited reference to the potentially differing landscape and visual effects during summer and winter months. Please clarify the LVIA's approach to this aspect of the assessment.</p>	<p>The viewpoint photographs are taken in autumn or winter (except for VPs 9 and 13) when visual permeability is highest due to lack of leaves. The LVIA therefore considers the visual effects of the proposed development as a 'worst case' scenario for all but two (the viewpoints mentioned above). In spring, summer and early autumn, the presence of leafy vegetation would increase the screening effect and reduce any visual effects.</p> <p>Due to the location of VP9 (c. 2.2km from the site) distance and intervening elements play a more important role in visibility than seasonal variations.</p>								
<p>Q8.1.3</p>	<p>The Applicant</p>	<p>The height parameters for Works Nos 2 and 3 defined in [APP-110] DEC C would potentially allow structures up to 15m high (Work No 2) and 8m (Work No 3) across the whole of the areas defined by the Works Plan [APP-006]. This amounts to the 'worst-case scenario' for the purposes of the Rochdale envelope assessment, notwithstanding that it is intended to provide flexibility for structures to be positioned anywhere within the area (LVIA assessment of landscape and visual effects tables). Please comment on this (possibly unintended) outcome and whether a more closely defined set of</p>	<p>Although the Rochdale envelope approach has been adopted and it has been assumed a building at the maximum parameters is built across each work area for assessment purposes, it would be highly unlikely for the ENRMF to be operated in this way.</p> <p>Photographs have been included in the General Arrangement Plans (APP-008 and APP-009) to illustrate the current nature and density of plant, machinery and buildings which reflect generally that which can be expected throughout the lifetime of the development.</p> <p>However as set out in the responses to Q4.3.3 and Q4.4.2 above, the infrastructure present in Work No. 2 (the waste treatment and recovery facility) and Work No. 3 (the reception and administration areas) is not permanent, it is modular and is moved and repurposed as needed to provide appropriate treatment processes to reflect changes in waste types and treatment needs as the market evolves and adapts. These needs cannot be predicted now for a 20-year lifetime in a rapidly changing regulatory and policy area, so this level of flexibility is required by the Applicant.</p> <p>There are very limited views of Work No 2 due to its well screened location in the north western corner of the existing landfill. Views of the waste treatment and recovery facility are limited to VP3 (Footpath MX15 – the closest footpath) and also VP13 (The Barn residential property and B&B business) where the very tops of the current silo structures are visible above the existing landfill landform. Consideration has been given to the impacts which would be associated with the placement of a building 15m high and footprint of 120m x 102m at the waste recovery and treatment facility. The potential construction of such a building is considered the 'worst case' dimensions within the Rochdale envelope that has been assessed in the LVIA. If a building 120m by 102m with a height of 15m is constructed on the waste recovery and treatment facility, whilst the massing would change from the current situation the conclusions of</p>								

		<p>parameters for these works would be appropriate.</p>	<p>the LVIA with respect to VP3 would not change (i.e. visual effects would be of minor adverse significance). The views from VP3 are transient, not oriented towards the site and are limited to a c. 52m stretch of Footpath MX15, beyond which to the north and south, the route enters well established woodland which effectively screens views of the waste recovery and treatment facility, even in winter.</p> <p>With respect to Work No 3 as stated above flexibility is necessary to add additional units or move the existing site infrastructure within the site reception (Work No 3) footprint such as relocation of the weighbridge. The maximum height assessed in the LVIA is shown for the storage shed which is currently in the site reception area (PINS document reference 2.6. APP-009). It is unlikely that it will be necessary to have additional buildings of this height and size but the storage shed will need to be retained for the duration of the operations.</p> <p>The storage shed has been a visual component of the reception area for several years although views of it for the public are largely restricted to glimpses from the approach along Stamford Road to the south. Due to the landfill in the background, the shed does not emerge above the skyline which reduces its visibility to some extent and it does effectively merge into the operation as a whole. In addition, due to the height of the roadside hedge the majority of views of the site from the road are restricted.</p> <p>Due to the tall, well established hedge/tree screen adjacent to the shed itself, closer views of it are well screened, even in winter and there are no views of it from the west due to the intervening landfill.</p> <p>The assessment shows that if another building of similar dimensions to the current storage shed were constructed elsewhere in Work No 3, it would be noticeable from some locations, especially if an additional building were to be built adjacent to the existing one, but it would not have <i>unacceptable</i> effects on drivers/cyclists etc. heading north along Stamford Road. It may be more visible when glimpsed through the site entrance, depending on its position, but this would be very fleeting for road users and again, would not be <i>unacceptable</i> compared to the baseline context. For residents at The Barn and Westhay Lodge, the existing scale of the landfill within the view and the current visibility of various infrastructure/buildings means that locating a building the size of the current storage shed would have minimal visual effects. If an additional storage shed of similar dimensions were constructed this would increase the visual effects to some extent but would not change the conclusions regarding their significance into the <i>unacceptable</i> category, when the baseline context is taken into account. The Applicant considers it highly unlikely that an additional storage shed with similar dimensions is likely to be necessary but wishes to retain the flexibility regarding the location of the building in the Work No 3 area. The Applicant proposes to amend the dDCO for submission by D3 to include this limitation.</p> <p>In the future it is possible that additional office accommodation will be necessary. This has been considered in the LVIA and it is concluded that there would not be significant and/or unacceptable visual effects as a result of the addition of new office or associated buildings or infrastructure of dimensions similar to the buildings present at site due to the long established visual context of the existing site reception area (Work No 3). As such it is not considered necessary to introduce any more closely defined parameters beyond the proposed change to the dDCO for Work No.3.</p>
<p>Q8.1.4</p>	<p>The Applicant and NNC</p>	<p>ES Section 9 and the Restoration Concept Scheme [APP-11] set out the landscape proposals for the restoration scheme. They include the planting of trees in relatively small groups informally located within predominantly grassland space. Please comment on this approach to the landscape design, particularly having regard to the findings of the landscape and visual impact and assessment (LVIA paragraphs 4.14 and 4.15) including</p>	<p>Under the restoration concept scheme eventually, the site will be allowed to convert to woodland. Allowing woodland succession replicates a natural creation of woodland habitat, maximising the short- and medium-term biodiversity value of the site, and is extremely valuable to the life cycles of many flora and fauna species that depend on this transition.</p> <p>Smaller groups and patches of woodland delivers a greater extent of habitat interfaces, age variation, edge habitats and ecological niches valuable to a wide range of protected and priority species identified as currently utilising the landscape.</p> <p>The character of the landscape to the south and southeast is dominated by open agricultural grassland/fields divided by hedgerows and occasional trees. However, the character of the landscape to the immediate west, southwest and north is typified by large woodland blocks, with land on three sides of the proposed extension area being heavily wooded. Therefore, the design of the restoration scheme is based on creating a long term link between the woodland blocks which would eventually provide much more visual and ecological continuity than is currently the case. It is also anticipated, and agreed with Natural England, that naturally regenerated tree and shrub species would slowly establish, which would complement the randomly located groups of tree and scrub species. This natural</p>

		a prevailing landscape characterised by large-scale agricultural fields and large woodland blocks and fields enclosed by linear hedge and tree planting.	regeneration is known to maximise biodiversity. It is acknowledged that the long term character of the western extension area would not be typical of the surrounding agricultural land but it would be characteristic of the existing landfill once that area is fully restored and also that substantial benefits would be gained by the proposed restoration scheme. The restored land would eventually be far closer in character to the adjacent woodland areas, whilst offering extensive benefits to biodiversity when compared to the baseline.
8.2	Assessment		
Q8.2.1	The Applicant and NNC	<p>The ES finds that the extension of the length of time that operations would take place would not lead to significant effects on the landscape (ES paragraphs 14.5.2 and 14.5.6) or visual receptors (ES paragraph 14.6.1). Please comment further on this finding, particularly having regard to:</p> <ul style="list-style-type: none"> the length of time that parts of the site would remain visually uncharacteristic features in the landscape; the length of time that activities would take place; the proximity of recreational routes; and the Area of Tranquillity designation (Policy 3 of the North Northamptonshire Core Strategy). 	<p>1. <u>The length of time that parts of the site would remain visually uncharacteristic features in the landscape.</u></p> <p>The Proposed Development, involving mineral extraction and landfilling works, would extend the life of the site by approximately 20 years. There are relatively few private or publicly accessible locations from which the existing landfill forms a <i>notable</i> part of the view, as demonstrated by the visual study (i.e. residents at Westhay Lodge (VP5) and The Barn (VP13) together with users of PRow MX15 for a c. 52m stretch of the route (VP3). The landfill is partially glimpsed from many other locations within the surrounding landscape but the majority of it is obscured from view by a combination of distance, intervening elements and landform, meaning that glimpses of it form only a limited part of the overall panorama. This is evident from the viewpoint photosheets included as Figures 4 to 29 of the LVIA (APP-088). In addition, the proposed western extension area is well screened by a combination of the existing landfill and woodland blocks. While the duration of the Proposed Development would result in an additional 20 years of visual disturbance to some extent, the scale and nature of this disturbance would not be Significant for receptors experiencing views towards the site from the vast majority of locations within the surrounding area.</p> <p>The LVIA acknowledges that for the most affected locations (VP3, VP5 & VP13), parts of the site would remain a dominant component of the view for an additional length of time, resulting in Significant visual effects (even allowing for the existing degraded visual context). However, due to the phased nature of the works, this higher level of disturbance would not last for the whole 20 years – only during times when operational works are most visible. At other times, works would occur in other locations not visible or the land would be restored and maturing into the landscape. In those instances, visual effects would be reduced and would not be Significant.</p> <p>2. <u>The length of time that activities would take place</u></p> <p>This is governed by the phased nature of the mineral extraction and landfilling operations. The operations would be carried out as quickly and efficiently as possible and each phase of the landfill will be progressively restored.</p> <p>3. <u>The proximity of recreational routes</u></p> <p>The closest PRow to the proposed extension is Footpath MX15 which, at its closet point, is located approximately 120m to the west of the application boundary. The existing site is visible to the east from a c. 52m length of this path but beyond this stretch, to the north and south, the route enters woodland with over 100m width of vegetation effectively screening views from the path towards land to the east, including in winter. Further detail on this viewpoint has been provided under Point 1 to this question.</p> <p>Footpath MX13 lies approximately 225m from the south western corner of the application boundary. Views towards the existing site from this route are very limited and are almost entirely screened by the width of intervening woodland vegetation and a small woodland block (Little Wood) to the south of the proposed extension area.</p> <p>All other PRow are over 300m from the application boundary, which demonstrates the lack of PRow in close proximity to both the existing landfill and the proposed western extension area.</p> <p>4. <u>Area of Tranquillity designation (Policy 3 of the North Northamptonshire Core Strategy).</u></p> <p>Policy 3: Landscape Character states the following in respect to tranquillity</p> <ul style="list-style-type: none"> “Preserve tranquillity within the Kings Cliffe Hills and Valleys Landscape Character Area (as shown on the policy map) and other

			<p><i>areas identified in Part 2 Local Plans by minimising light and noise pollution and minimising the visual and traffic impacts of development”.</i></p> <p>The Area of Tranquillity referred to above and partially shown on Figure 3 of the LVIA (APP-088) extends over an area of approximately 7,679 hectares, which is very extensive. A number of different land uses are located within this area, including the existing landfill operation, PC Howard Transport and warehousing business to the east of the existing landfill and Collyweston Quarry as well as major roads such as the A43. All of these operations generate noise sources which would appear to be incompatible with a designated Area of Tranquillity, so it is considered that land included within the area has been selected in a rather arbitrary manner, without taking into account the nuances and variation in noise levels that are clearly present over such a large area. Therefore while tranquillity has been considered in the LVIA, with the northern part of the proposed extension area likely to be subject to Significant effects on tranquillity during operation, the existing landfill and the southern part of the western extension area are not considered to be as highly sensitive due to the existing context of the existing operations, despite their presence within the Area of Tranquillity.</p>
Q8.2.2	NNC	Please comment on the Zone of Theoretical Visibility (ES Figure ES14.1 [APP-064]) and no view findings.	
8.3	Mitigation		
Q8.3.1	The Applicant	ES section 9.2 sets out the considerations leading to the proposed restoration landform. These include integration with the existing landfill and pipelines and best practice to maximise rainfall runoff and minimise rainfall infiltration. Please clarify how, or if, the landscape character of the surrounding area was taken into account in designing the proposed restoration landform.	<p>The landscape character of the surrounding landform has been taken into account when designing the proposed restoration landform. The character of the landscape to the south and southeast is gently undulating, which is indicated by the results of the ZTV study. The landform across the woodland areas to the west, southwest and north of the site is very gently undulating and even then, variation in landform is visually disguised by the mature woodland.</p> <p>The approved restoration landform for the current landfill site is notably different from the surrounding topography but does now form part of the baseline condition.</p> <p>It is considered that the proposed restoration landform for the proposed western extension would be characteristic of the approved landfill. The proposed slope gradients, while slightly steeper on the southern slopes than the approved restoration slopes in this area, would not result in notable visual disturbance, especially once clothed in woodland and scrubby vegetation which would soften the profile of the landform. Therefore it is considered that the final levels associated with the proposed landform when compared with the approved landform and surrounding landscape character would be acceptable in the long term.</p> <p>Refer to Figure ES9.2 (APP-063) for further information.</p>
Q8.3.2	NNC	Please comment on the proposed restoration landform having regard to the considerations identified in Q8.3.1.	
Q8.3.3	NNC	Please comment on the scope and effectiveness of the Tree Management Scheme ([APP- 110] Appendix DEC G).	
9. Land use, soils and socio-economic effects			
9.1	Land use		
Q9.1.1	The Applicant and NNC	How would public access to the site following restoration be secured? What consultation has taken place regarding the responsibilities for managing and maintaining the space following restoration? What	Permissive access is secured through the restoration scheme which is the subject of the requirements of the DCO for a period of 20 years following closure of the site. Requirement 4 of the dDCO will be amended and submitted by D3 to make it clear that public access to the restored site will be permitted for the 20 year aftercare period. Augean will further be responsible for the site until the permit is surrendered which is at least 60 years following completion of landfilling. Ultimately the maintenance of the footpaths will be the responsibility of the landowner.

		arrangements are in place to fund the on-going management and maintenance of the site following restoration. How would this be secured through the DCO or other mechanism?	
Q9.1.2	NNC	Please comment on the restoration concept scheme, including with regard to the suitability and useability of the open space, access routes and accessibility.	
Q9.1.3	EA	Are you satisfied that the submitted landfill engineering and containment design (ES Section 5.5 [APP-049]) and restoration proposals [APP-063] for the site would render it suitable for use as open space following restoration?	
Q9.1.4	National Grid	Are you satisfied that the proposed public access to the site following restoration [APP- 063] is compatible with the safety, security and maintenance of the retained gas pipeline?	
9.2 Soils			
Q9.2.1	The Applicant	<p>Paragraph 15.4.5 of the ES states that the grade 3A (Best and Most Versatile (BMV) soil will be protected (husbanded) and used only for restoration and creation of calcareous grassland. No evidence is provided that the high pH and calcium carbonate content (referenced as the reason for the use in calcareous grassland) can be preserved using this method (with the exception of outline information in Appendix ES15.1 [APP-089]), especially given the potential for a considerable length of time between excavation and reuse. Please clarify how it would be ensured that the retained soil would remain suitable for its future reuse.</p>	<p>Small amounts of calcium carbonate (CaCO₃) in the soil can be estimated in the field when a few drops of 10 per cent hydrochloric acid (HCl) are applied. The reaction is compared with the reactions described in Table 11 'Estimating calcium carbonate content' in Hodgson, J.M. (ed) (1997) 'Soil Survey Field Handbook'. Soil Survey Technical Monograph No.5, Silsoe. Using this method, the topsoil and subsoil in the north-west part of the proposed western extension underlain by limestone in the Blisworth Limestone Formation has been determined to range from slightly calcareous (1-5% CaCO₃) to very calcareous (more than 10% CaCO₃). The agricultural land in the north-west of the proposed western extension associated with calcareous soils overlying limestone is classified as being in ALC Subgrade 3a.</p> <p>The Subgrade 3a soils will be stripped and stored appropriately, as set out in ES section 15.5.1 (APP-049) and Section 5 of Appendix ES15.1 (APP-065), therefore the content of soil carbonate (CaCO₃) is unlikely to change during soil stripping, storage and re-use. This is because it should not leach (i.e., be dissolved and washed out by water), and it will not be modified by soil micro-organisms^[1]. In contrast, the content of major-nutrients and micro-nutrients, such as nitrogen, phosphorus, potassium and magnesium, and organic matter content, may change (decrease) during soil storage, and the soil will be tested for nutrient status to remedy any deficiencies once the soil is re-spread in its final/restored location in accordance with best practice guidance (Defra Construction Code of Practice for the Sustainable Use of Soil on Construction Sites, 2009)^[2] set out in Section 5.0 of Appendix ES15.1 (APP-065).</p> <p>^[1] A. W. ABDUL-KAREEM and S. G. McRAE (1984) The effects on topsoil of long-term storage in stockpiles. Plant and Soil. Vol. 76, No. 1/3, Proceedings of the Conference on BIOLOGICAL PROCESSES AND SOIL FERTILITY (1984), pp. 357-363 (7 pages). Published By: Springer.</p> <p>^[2] Department for Environment, Food and Rural Affairs (Defra) (2009) Construction Code of Practice for the Sustainable Use of Soil on Construction Sites.</p>

Q9.2.2	The Applicant	Please confirm whether the use of material for restoration described in the ES refers to the ongoing, and therefore likely shorter-term restoration of the existing facility, or to the Proposed Development which would be any time over the next 25 years.	The use of the excavated overburden and of soil in the restoration of the site by placement above the final low permeability capping layer will be carried out in a phased manner for both the existing facility and the proposed western extension. As explained in paragraph 5.4.5 of the Environmental Statement, theoretically, soils that are stripped in one phase and overburden that is excavated in one phase can be reused directly in an earlier phase which is undergoing restoration. In practice, there will be a temporary delay between the stripping or excavation and placement of materials. It is therefore necessary to make provision for temporary stockpiling of materials to allow for these interim storage measures. As stated in paragraph 5.4.8 of the Environmental Statement, all soil stockpiles will be constructed and managed in accordance with the Soils Handling and Management Scheme and Stockpile Management Scheme (Appendix DEC I and DEC J to PINS document reference 6.5. APP-110) and any stockpiles that will remain in place for more than 12 months will be vegetated and the vegetation will be managed in accordance with the scheme.
Q9.2.3	The Applicant	Paragraph 15.5.1 of the ES states that all stripped topsoil and subsoil would be used for restoration of the site. Please confirm whether this is for the current or proposed landfill, and whether there is capacity for all of the soils excavated to be reused and therefore not requiring additional material to be imported, or in the event of a surplus of material, the destination for this material.	All of the topsoil and subsoil will be re-used in the restoration of the whole site. There is an existing shortfall in topsoil and subsoil therefore selected excavated overburden material also will be used and managed in accordance with good restoration practice. Therefore, there is not a surplus of topsoil and subsoil and it is not anticipated that there is a need to import topsoil or subsoil. However, if in the event it is necessary to import some additional restoration materials, as stated in paragraph 9.4.1 of the Environmental Statement, imported soils from a reliable source with good characterisation to ensure the restoration objectives are not compromised will be used to supplement site generated restoration materials.
Q9.2.4	The Applicant	Paragraph 15.3.4 of the ES states that there is insufficient data to determine whether the duration and frequency of flooding is a limiting factor for the quality of the agricultural land. Please explain why you consider there is insufficient data, as other ES chapters, such as water resources and the flood risk assessment, refer to published data on the flood regime on the existing site that would appear to be suitable to underpin such an assessment.	The 'insufficient data' described in ES paragraph 15.3.4 (APP-049) relates to the criteria (i.e., frequency, duration and timing) of flood events assessed in Table 2 'Grade according to flood risk in summer' and Table 3 'Grade according to flood risks in winter' on page 15 of the ALC Guidelines (October 1988) ^[1] . For example, there is publicly available flood data in relation to 1 in 100 year flood events, etc, but the ALC grade according to flood risk is determined by events that are, for example, 'short – not more than 2 days (48 hours)'. In some cases, an emerging cereal crop can be killed by inundation by water in a matter of days. Page 14 of the ALC Guidelines (1988) describes how ' <i>Information on flooding at a local scale is often fragmentary and the assessment may have to be based on local knowledge...</i> '. There is no local knowledge of this site flooding, and it is located in Flood Zone 1, at low risk of flooding by rivers or the sea, as described in the Flood Risk Assessment presented at Section 18 of the Environmental Statement (APP-049) ^[1] Ministry of Agriculture Fisheries and Food (1988).
Q9.2.5	NNC	Please comment on the scope and effectiveness of the Soil Handling and Management Scheme [APP-110] Appendix DEC I and the Stockpile Management Scheme [APP-110] Appendix DEC J.	
9.3 Socio-economic			
Q9.3.1	NNC	ES paragraph 23.4.12 finds that the continued operation of site since the earlier DCO was granted ' <i>has had no significant adverse effect on these nearby developments</i> [in Kings	

		Cliffe] and the associated local economy.’ Paragraph 23.4.29 finds that there has been no evidence of negative impacts on village infrastructure. Please comment on these findings.	
Q9.3.2	The Applicant	ES paragraph 23.4.13 states that ‘There has been no evidence that indicates that there would be or has been any adverse effect on plant growth or the quality of crops or stigma associated with the nature of the site operations which could subsequently harm agricultural or forestry businesses’. Please provide the evidence to support this finding.	<p>As the statement confirms, no evidence has been presented to the Applicant to indicate the existing ENRMF has caused any adverse effects. This is the premise upon which this statement is based.</p> <p>However, this statement is supported by the following facts:</p> <ul style="list-style-type: none"> • The current landowner has not communicated any concerns about the existing ENRMF and the Applicant is of the view that the owner would not be willing to sell adjacent farmland to the Applicant to enable the extension of the ENRMF if it was likely that there would be an adverse effect or stigma that would harm their ongoing agricultural business. • The adjacent farming business has not expressed any concern regarding the quality of their crops or the ability to sell their crops. • The Forestry Commission has not expressed any concerns about any adverse effect or stigma associated with their forestry business.
Q9.3.3	The Applicant	How would the community funding, preference for use of local services and employment and community engagement proposals in ES paragraph 23.5.3 be secured?	<p>Community funding in respect of the LLW fund and the Highways contribution are currently secured and will be secured by way of a Section 106 Agreement.</p> <p>Community funding from the Landfill Tax is considered a benefit, so is not a material consideration and therefore cannot be secured through a legal agreement associated with a planning consent but the Landfill Tax Credit Scheme is designed to encourage Landfill Operators to use the tax credits. Augean has always utilised the tax credits for the local community.</p> <p>The preference to use local services and suppliers and give preference to employ local residents is an established practice carried out by Augean as part of its desire to be a good neighbour and in accordance with its Corporate and Social Responsibility commitments. These commitments to continue to take part in and support educational activities and promotion of understanding of waste management through the open door policy, regular open days, periodic community newsletters, the reception of visits from educational establishments and presentations to stakeholders will continue, but are not offered as mitigation therefore do not need to be secured through the DCO.</p>
Q9.3.4	The Applicant	How have equality, diversity and inclusion considerations been taken into account in the assessment of the socio-economic effects of the Proposed Development (see advice at NPSHW paragraph 4.2.8)?	<p>Due consideration of equality, diversity and inclusion issues have been taken into account with regard to the local population as described in the 2011 Census information.</p> <p>The site setting with respect to the surrounding communities is described in section 25.3 of the Environmental Statement. The data reviewed show that the population health profile in East Northamptonshire is generally at or above the national average and that in 2011 nearly 75% of dwellings in the Rural North area in the 2011 Rural North, Oundle and Thrapston Plan area were owner occupied and 13% were socially rented. The data show that the villages in the area (Duddington, Collyweston and Kings Cliffe) are not identified as having a high general level of deprivation.</p> <p>The site is located in a generally rural area and has not been identified as being located in the vicinity of any specific settings where there is likely to be an atypically deprived population who may experience disproportionate negative socioeconomic effects as a result of development such as that proposed. It is concluded therefore that the demographic evidence does not indicate a significant risk of differential health effects that could compromise equality, diversity or inclusion with respect to the socio economic effects of the proposed development.</p>
Q9.3.5	The Applicant	How have equality, diversity and inclusion considerations been taken into account in the design of the restoration concept scheme [APP-063]? How would these considerations be taken into account in the preparation of detailed	<p>ENRMF and the proposed western extension are not currently publicly accessible spaces. Following the restoration of the site there will be public access through biodiverse habitats. Requirement 4 of the dDCO will be amended and submitted by D3 to make it clear that public access to the restored site will be permitted for the 20 year aftercare period. The mental health benefits of green spaces and blue spaces such as ponds and streams are widely recognised and set out in further detail in Section 25 of the Environmental Statement (APP-049). These spaces will be available to all with due consideration to equality, diversity and inclusion policies and details will be secured in the Phasing, Landscaping and Restoration Scheme under Requirement 4.</p>

		proposals (DCO R4 [APP-017])?	A maintenance track will be located on the restored site that will have a surface suitable for light vehicles (Restoration Concept Scheme APP-062). This surfacing will assist in accessibility for wheelchairs, mobility scooters and pushchairs ensuring access for all abilities and needs. It is anticipated that the details of the precise routes and the surface treatment of the footpaths including any adjustments necessary to routes in order to achieve suitable overall gradients will be subject to agreement through the Phasing, Landscaping and Restoration Scheme the subject of Requirement 4 in the draft DCO including regular reviews with the local planning authority.
Q9.3.6	The Applicant, NNC	[RR-008] asserts that a Supreme Court decision (R (on the application of Wright) (Respondent) v Resilient Energy Severdale Ltd and Forest of Dean District Council) prevents a proposed contribution to a Community Fund in a Planning Obligation from being taken into account as a material consideration in decisions on planning applications and, by extension, in this DCO application. Please respond to this claim and its implications for the draft Planning Obligation in this case [APP-009].	<p>Augean currently makes a contribution of £5 per tonne of LLW landfilled at the site to a Community Fund set up and controlled by NNC. This is used to support local projects.</p> <p>However, it is agreed that as the assessments show that based on the controls that are and will continue to be in place there is no risk of harm associated with the landfill disposal of LLW at the site, there is no need for further mitigation. Accordingly this fund is not required as mitigation but it provides local benefits which may help to offset perceptions of harm, so Augean proposes to continue this payment and NNC are agreeable to this payment being secured within the S106 agreement (which is also made pursuant to s111 of the Local Government Act 1972, which covers anything in the agreement not capable of forming a planning obligation under the Town and Country Planning Act 1990).</p> <p>The Applicant agrees that these contributions are not a material consideration in the balance of issues when determining whether the DCO should be granted.</p>
10. Noise and vibration			
ExQ1	Question to:	Question:	
10.1 Assessment			
Q10.1.1	The Applicant	ES [APP-049] paragraph 20.4.10 suggests that potential noise at the most affected noise-sensitive premises 'is likely to be occasionally present', but at or below the Lowest Observed Adverse Effect Level (LOAEL). Please clarify how this finding was reached.	<p>Paragraph 20.4.10 of the Environmental Statement (APP-049) makes reference to the Noise Exposure Hierarchy in PPG-Noise which builds on the concepts of 'observed effect levels' outlined in the Noise Policy Statement for England (NPSE). The exposure hierarchy table summarises the No Observed Effect Level (NOEL), the Lowest Observed Adverse Effect Level (LOAEL) and the Significant Observed Adverse Effect Level (SOAEL) based on the likely average response of those affected and provides a means of assessing significance.</p> <p>PPG-Noise (para 004) states that <i>'it is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times'</i>.</p> <p>This builds on the NPSE which states that <i>'although the word 'level' is used here, this does not mean that the effects can only be defined in terms of a single value of noise exposure. In some circumstances adverse effects are defined in terms of a combination of more than one factor such as noise exposure, the number of occurrences of the noise in a given time period, the duration of the noise and the time of day the noise occurs.'</i></p> <p>Hence, given the lack of numerical values for LOAEL and SOAEL, the conclusions reached in ES [APP-049] paragraph 20.4.10 are based on professional judgment taking into consideration a range of factors including the nature of the proposed development, the predicted absolute noise levels from the site, the comparison of site noise with the prevailing background noise levels, the acoustic features/character of the noise, and the overall context in which the noise is likely to occur.</p>
Q10.1.2	The Applicant	ES paragraph 20.4.11 indicates that a 1dB change in road traffic noise equates to a 25% increase in traffic volume. Footnote 25 of ES Appendix ES20.1 [APP-097] indicates that this assumption is derived from DMRB	This assumption is not stated within LA111 however it still remains valid as it is based on acoustic principles which remain unchanged. It is a feature of the logarithmic scale which is used to quantify noise and the response of the human hearing system to changes in noise level. Charts 2 and 3 of Calculation of Road Traffic Noise (CRTN) 1988 (still current) provide formula for the prediction of road traffic noise expressed as L10 or L10,18hr. When calculations are performed based on varying Q (Q = traffic flow) by +25%, the corresponding change in noise levels is around +1 dB.

		HD213/11. That document has now been superseded by LA111. Is the assumption still valid? What does LA111 say on this point?	
Q10.1.3	The Applicant	ES paragraph 20.4.14 refers to noise threshold levels of 65 or 70 dB(A) for construction activities. What is the source for these thresholds? Paragraph 2.2.3.32 of the Noise and Vibration Assessment refers to 'BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites.' Do the references to 'construction' activities and sites imply a relatively short duration effect, which may in turn imply a lesser impact than the noise effects over the 20 year plus lifespan of the Proposed Development?	<p>The thresholds of 65 dB and 70 dB have been established with reference to Annex E.3.2 of BS 5228-1 (ABC Method) based on the measured ambient noise levels in the local area surrounding the site. This is shown in Table 26 of the Noise and Vibration Assessment Report (PINs document reference 5.4.20.1, APP-097).</p> <p>BS 5228-1:2009+A1:2014 provides guidance on 'construction sites' and 'open sites'. Open sites are defined in 3.11 of the Standard as 'sites where there is significant outdoor excavation, levelling or deposition of material. Examples include quarries, mineral extraction sites, an opencast coal site or other site where an operator is involved in the outdoor winning or working of minerals. Waste disposal sites and long term construction projects can, in most cases, be treated as open sites.</p> <p>Notwithstanding the above, it is accepted that the thresholds defined by the ABC Method would generally be most applicable to shorter duration construction projects (temporary effects) as pointed out. It is therefore appropriate that, in this instance, given that there is no distinct divide between the construction and operation phases of the proposed development, more weight should be given to the outcomes of the assessment which have been undertaken with reference to other guidance such as BS 4142.</p> <p>However, BS 5228-1:2009+A1:2014 does offer some guidance when it comes to longer term operations in section E.5 as follows:</p> <p><i>'Where construction activities involve large scale and long term earth moving activities, then this is more akin to surface mineral extraction than to conventional construction activity.'</i></p> <p><i>'...it is suggested that the limit of 55 dB LAeq,1h is adopted for daytime construction noise for these types of activities but only where the works are likely to occur for a period in excess of six months.'</i></p> <p>Noise emission levels associated with the proposed development are presented in Table 17 of the Noise and Vibration Impact Assessment (PINS document reference 5.4.20.1, APP-097) which demonstrates that predicted noise levels are also well below the 55 dB criterion.</p>
Q10.1.4	The Applicant	ES Appendix ES20.1 paragraph 4.6.2 advises that "sources of vibration [for the site] are fairly low in intensity and tend to be localised with vibration levels dissipating readily over short distances. As a result vibration from these sources is rarely perceptible beyond the site boundary." Please clarify the evidence for this finding.	<p>BS 5228-2:2009+A1:2014 suggests that the key sources of vibration associated with construction activities include vibratory compaction, percussive and vibratory piling, drilling and tunnel boring operations. None of these activities are proposed as part of the application. With reference to mineral sites, section F.4 of BS 5228-2 states that the primary cause of ground vibration is blasting but makes no reference to other activities including the operation of excavators, loading shovels and dumptrucks the use of which is required for the continuation of activities at the proposed development at ENRMF.</p> <p>Similarly, Annex C and D of BS 5228-2:2009+A1:2014 presents a database of measured vibration levels but this focuses on the above key vibration generating activities such as piling. No data is provided in relation to vibration levels from other activities such as the operation of mobile plant which would be more appropriate for ENRMF. Nevertheless, the data provided in Annex C and D shows how ground vibration can dissipate readily over short distances.</p> <p>Vibrocheck have been providing ground vibration measurement and consultancy services over the last 30 years and have collected vibration measurement data which indicates that vibration levels from mobile plant reduce to below perceptible levels (0.3 mm/s with reference to Table B.1 of BS 5228-2) at approximately 40m from dozer activity, 20m from a tracked excavator and 10m from Wheeled Loading Shovels. This Company database of site monitored vibration generating activity and the vibration decay characteristics of such activity has informed the comment in Appendix ES20.1 (PINS document reference 5.4.20.1, APP-097) paragraph 4.6.2.</p> <p>In this instance the closest residential receptors are located at greater distances from any proposed vibration generating activity at the site and as a result are expected to experience levels well below the threshold at which the perceptibility of ground borne vibration could occur.</p>
Q10.1.5	NNC	Please comment on the finding	

		identified in Q10.1.4.	
Q10.1.6	The Applicant	ES Appendix ES20.1 Section 4.7 is headed 'Construction Noise and Vibration'. However the following paragraphs do not refer to vibration. Please clarify the assessment of the vibration impacts of construction activity.	Following on from the response to Q10.1.4 above, detailed consideration of vibration is not considered necessary due to (1) the types of activities and equipment associated with the proposed application, and (2) the large distances involved between sensitive receptors and the site. It is concluded that the potential impacts of vibration are not significant.
Q10.1.7	NE	Please comment on the findings of the noise and vibration assessments (ES Chapter 20 and Appendix ES20.1) with regard to effects on the adjoining SSSI.	
10.2 Mitigation			
Q10.2.1	The Applicant	Paragraph 6.2 of the Noise and Vibration Management Plan (NVMP) ([APP-110] Appendix DEC L) advises that complaints will be dealt with in accordance with the Complaints Procedure in the Environmental Management System and that further information is provided in the DCO Environmental Commitments (DEC). Please clarify where in the DEC that information can be found.	The last sentence of Paragraph 6.2 of Appendix DEC L (APP-110) is a referencing error. As stated in our response to Q2.3.2 the complaints procedure is integral to the management system which is a requirement for the operation of the Environmental Permits under Condition 1.1.1 of the Environmental Permits. A copy of the current version of the complaints procedure from the management system (CPP 14. V7 dated 20/09/2022) is presented for information as document 9.2.2.3.2.
ExQ1	Question to:	Question:	
Q10.2.2	NCC	Please comment on the scope and effectiveness of the NVMP.	
Q10.2.3	NCC	Has the existing site been the subject of complaints to the Council with regard to noise. If so, please summarise their relevance for the Proposed Development.	
11. Safety and Security			
11.1 Safety			
Q11.1.1	The Applicant and the Health and Safety Executive	Please provide details of any hazardous substances consents necessary for the existing site and any additional / amended consents required for the Proposed Development.	No Hazardous Substance Consent is necessary for the site. The proposed change to the operations will not result in a need for the site to obtain a Hazardous Substances Consent under The Planning (Hazardous Substances) Regulations 2015 (as amended). The requirement for hazardous substances consent is disapplied for landfills by Schedule 2 Paragraph 6 of The Planning (Hazardous Substances) Regulations 2015 (as amended). However, paragraph 7(c) reverses that disapplication for any "chemical and thermal processing operations and storage related to those operations" that are undertaken at the site. Wastes containing hazardous substances can be stored immediately pending landfill without consent. However, at ENRMF some wastes require treatment prior to landfill, therefore para 7(c) is disapplied for such wastes. Most wastes accepted at the site do not contain sufficient concentrations of hazardous substances, nor possess hazardous properties

			<p>(e.g. highly flammable), nor are in physical form that represents a greater hazard (e.g. gasses or pressurised containers) to trigger the threshold concentrations. The most likely issue for the site would be the quantity of substances classified as 'Environmental hazards' in wastes that require treatment, the thresholds below are in tonnes:</p> <table border="1"> <tr> <td colspan="2">Section 'E' – ENVIRONMENTAL HAZARDS</td> </tr> <tr> <td>E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1</td> <td>100</td> </tr> <tr> <td>E2 Hazardous to the Aquatic Environment in Category Chronic 2</td> <td>200</td> </tr> </table> <p>The types of waste received at the site for treatment pending landfill are typically:</p> <ul style="list-style-type: none"> • Hazardous soils or mixed construction and demolition waste • Hazardous air pollution control residues • Hazardous waste dredged material. <p>Other wastes are also received but in significantly lower volumes than the above.</p> <p>The main hazardous substances of concern in these wastes are total petroleum hydrocarbons and heavy metals. Heavy metals will impact 'Section E' thresholds, however, based upon the typical concentrations of heavy metals in these wastes the mass thresholds for these categories of hazardous substances will not be achieved.</p>	Section 'E' – ENVIRONMENTAL HAZARDS		E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1	100	E2 Hazardous to the Aquatic Environment in Category Chronic 2	200
Section 'E' – ENVIRONMENTAL HAZARDS									
E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1	100								
E2 Hazardous to the Aquatic Environment in Category Chronic 2	200								
Q11.1.2	The Applicant and the Defence Infrastructure Organisation	Please provide an update on any discussions following the submission of relevant representation [RR-005]. Please comment on the appropriateness of the Bird Hazard Management Plan submitted as part of the DEC ([APP-110] Annex DEC I2).	Discussions have been held with the Defence Infrastructure Organisation and are continuing with a view to agreeing a Statement of Common Ground. These discussions include the need for any amendments to the Bird Hazard Management Plan.						
11.1.3	The Applicant	<p>ES paragraph 5.2.6 [APP-049] advises that a redundant Ministry of Defence (MoD) pipeline is potentially present within the boundary of the Proposed Development, and this length of pipeline will be removed with appropriate precautions in place when the northern area of the site is developed. No further information is provided in relation to this aspect of the works.</p> <p>(i) Please clarify the position on this in relation to DCO requirements and health and safety control measures. For example, what would happen if residual contents of the pipeline were inadvertently released.</p> <p>(ii) It is also stated in ES paragraph 5.2.6 that the Defence Infrastructure Organisation has confirmed that the MoD has declared the pipeline</p>	<p>A copy of the letter from the Defence Infrastructure Organisation dated 23 November 2018 [Document reference 9.2.11.1.3] is provided which states:</p> <p><i>'This pipeline has been declared redundant by the Ministry of Defence and the necessary legal charges have been removed in accordance with the Land Powers (Defence) Act 1958 and subsequent legislation. If the landowner wishes to remove the pipeline from the land they may do so at their own cost; however, as different methodologies were used to decommission pipelines we would highly recommend using specialist contractors.'</i></p> <p>The precautions necessary for the excavation and removal of the section of redundant pipe including the containment and management of any residual contents will be included in the method statements for the works to excavate and engineer Phase 12 in the north of the proposed western extension. The works will be included in the Construction Quality Assurance Plan for that phase of the works and will be subject to agreement with the Environment Agency under the Environmental Permit.</p>						

		redundant and “necessary legal charges” have been removed. Please provide evidence of this and that the necessary agreement from the MoD for the removal of this pipeline is in place.	
11.2 Security			
Q11.2.1	The Applicant	Please provide details of any consultation with Defra and/or the Centre for the Protection of National Infrastructure regarding any national security implications of the Proposed Development	<p>The nature of the chemicals and radioactive material accepted at the site do not represent a national security issue hence DEFRA and the CPNI have not been consulted in this respect. In 2010 the Police conducted a Counter Terrorism Survey of the site during the determination of the 2009 application for planning permission to accept LLW. Whilst a number of recommendations were made no significant concerns were raised.</p> <p>In respect of the current application, Augean has consulted with the Northants Police who have confirmed that the site security details and the details submitted in respect of the extension to the pre-existing measures are considered acceptable by the Crime Prevention Design Officers (e-mail from W Rousell (Infrastructure Planning Manager) Northamptonshire Police dated 11 February 2022).</p>
ExQ1 Question to: Question:			
12. Transportation and traffic			
12.1 Assessment			
Q12.1.1	The Applicant	The existing vehicle logs in the Transport Assessment (TA) [APP-096] record daily totals of vehicle movements. Is any evidence available to indicate the distribution of Heavy Goods Vehicles (HGV) over times of the day?	The vehicle logs provided for the application were summarised as daily movements in and out of the facility therefore detailed profiles by time of day have not been calculated. There are no restrictions on delivery times other than the operational hours. A large proportion of the vehicles associated with the waste deliveries make a number of visits to the site each day due to the nature of the waste arisings. Materials that are exported off site such as clay and overburden are spread across the day.
Q12.1.2	The Applicant	Please provide clarification of the table at TA Appendix J. For example why, in the first line of the table is the HGV generation figure for the Proposed Development lower than the 2012 assessment figure when the overall waste input would be higher? Please explain why the figures for phases 6 to 11 are given separately.	<p>The differences in the HGV movements for waste imports to the site are as a result of the changing density of the waste received at the facility. Waste received at the site in previous years comprised predominantly contaminated soils and, based on data from previous years the HGV figures for the 2012 assessment were based on a typical payload of 16.5t per HGV.</p> <p>For the more recent period in the life of the site the wastes imported to the site comprise predominantly air pollution control residues (APCR) which are delivered in tankers or in bulk bags in curtain sided vehicles. The typical payload for the APCR loads are between 23t (tankers) and 24t (bagged loads) per HGV. To account for the lower proportion of other wastes received at the site an average payload of 21t per HGV is assumed for the 2021 assessment.</p> <p>For the wastes exported from the site for use or disposal elsewhere (second row of the table at TA Appendix J), the typical payload assumed in the 2012 assessment based on the nature of the treated waste outputs was 20t per HGV. Based on the last years of operation of the waste treatment facility a typical payload for the wastes exported from the site for use or disposal elsewhere used in the 2021 assessment is 19t per HGV.</p> <p>The HGV traffic figures are not just associated with the delivery and removal of waste from the site, a significant proportion of the traffic is associated with the removal of clay and overburden during periods when landfill phases are being excavated. The rate of removal varies depending on the size and depth of each phase. The typical HGV load for clay and overburden assumed in the 2012 assessment was 20t per HGV whereas based on recent data and experience the typical HGV load assumed in the 2021 assessment is 19t per HGV. The figures presented for Phases 6 to 11 comprise the traffic data for the removal of clay and overburden during the excavation of the phases of the current site and show that the highest rate of removal was for Phase 6 when the HGV movements were 60/day, 330/week. For the proposed western extension the average rate of overburden and clay removal for the site is calculated (second last row) as 83/day, 455/week.</p>

Q12.1.3	The Applicant	The trip generation figures in the TA are based on total annual waste import or export rates which are then divided into daily rates. Are there any controls on daily import and export rates? Has any sensitivity analysis been carried out to assess the effects in the event that these daily rates vary widely?	<p>There are no restrictions on the daily import or export of material. The restrictions on the annual waste inputs are included in the DCO and the Environmental Permits. The vehicle numbers are based on the delivery and export of waste as well as recovered treatment residues and the exportation of clay and overburden.</p> <p>The fluctuations in the vehicle movements associated with the existing operation are shown in the existing vehicle logs which are summarised in Section 2 of the Transport Assessment (APP-096). Section 2.14 explains that the maximum weekday daily trips, recorded in 2019, was 214 trips, the average was 123 and the 85th percentile was 158 trips. Based on a 10.5 hour working day this would equate to a range of between 12 (average) and 20 trips per hour (maximum).</p> <p>As set out in the Transport Assessment (APP-096) the proposed development is estimated to generate 36 additional trips per day or 4 trips per hour.</p> <p>Based on the averages this would increase the average daily trips from 123 to 159 and the hourly trips from 12 to 16. Therefore on some days there may not be an increase in the maximum number of HGVs on the highway network.</p> <p>However the proposed assessment considered that there would be an increase of trips in the AM and PM peak above the maximum which is considered to be a worst case. Based on this impact the local highway authorities were satisfied that the development proposals will not impact the road network.</p>
Q12.1.4	NNC	Please comment on the terms of the draft Planning Obligation [APP-109], including the highway contribution.	
Q12.1.5	NNC	Please comment on the scope and effectiveness of the Traffic Management Plan ([APP- 110] Appendix DEC K). In doing so, please have regard to the considerations in Q4.2.8	
13. Waste Management			
13.1 Assessment			
Q13.1.1	The Applicant	Please set out the approach to ensuring that the Proposed Development accords with the Government's waste hierarchy, including any design and control mechanisms proposed to ensure compliance.	In England, the waste hierarchy is implemented in law through the Waste (England and Wales) Regulations 2011 and is an obligation on the producer of the waste. Before hazardous waste and LLW is directed for disposal to landfill it is a statutory requirement that the producer of the waste must first have considered alternative options for its minimisation, re-use or treatment. Only residues which remain after consideration and application of the alternatives are suitable for landfill disposal. The Duty of Care documentation that accompanies all waste delivered to the site must include a declaration by the producer of the waste that they have complied with their duty to apply the waste hierarchy under the 2011 Regulations. As part of their waste acceptance checks, Augean confirm that this declaration has been completed. See also the response to Q13.1.2 below.
Q13.1.2	The Applicant	Planning Statement section 8 [APP-103] reviews the policies for the sustainable management of waste. To assist in understanding the performance of the existing and proposed facilities in meeting the Government's waste hierarchy, please provide any information available on benchmarking against comparable facilities and historic trends and future targets for the re-use and recovery of waste.	<p>As noted above, the duty to apply the waste hierarchy under the 2011 Regulations is for the producer of the waste, not the operator of the receiving waste facility. Nevertheless, the waste treatment and recovery facility operated at the site provides the treatment processes such as bioremediation and soil washing which can result in the recovery of suitable waste types for reuse elsewhere in accordance with the waste hierarchy.</p> <p>The implementation of the waste hierarchy of waste management options by producers of waste means that the need for capacity for the treatment of hazardous waste will increase over time and the need for capacity for the direct landfill of waste is likely to decrease although the need for the landfill disposal of residues will remain. It is for this reason that this application includes an increase in the throughput of the waste treatment and recovery facility but no increase is sought for the rate of direct input to the landfill site.</p> <p>The waste hierarchy applies particularly to non-hazardous waste as hazardous waste is generally less readily amenable to treatment for recovery. One of the consequences of the increased treatment of non-hazardous waste is that the rate of generation of hazardous waste</p>

			<p>residues from the treatment of non hazardous waste will increase with a resultant increase in the need for hazardous waste landfill capacity. The 2010 Strategy for Hazardous Waste Management and the NPSHW recognise that for hazardous waste where there is no better recovery or treatment option landfill is the final end point.</p> <p>The Applicant and its advisors are not aware of any relevant benchmarking data that could be referenced. Augean are however one of the main national operators in the hazardous waste management field and the leading landfill operator for LLW landfill disposal therefore they are setting the trend for optimising waste recovery where possible.</p>														
Q13.1.3	The Applicant	<p>Planning Statement Table PS11.2 sets out the historic hazardous waste input into the existing landfill by region. Please clarify the meaning of the last two rows of this table.</p>	<p>The second last row of Table PS11.2 shows the quantity of treatment residues arising each year at the ENRMF waste treatment and recovery facility. The waste inputs to the waste treatment and recovery facility are shown in Table PS11.1.</p> <p>The last row in Table PS11.2 shows that the majority of the wastes deposited in the ENRMF landfill site comprise treatment residues from the waste treatment and recovery facility and this is expressed as a percentage of the total waste deposited in the landfill in that year. For example, for 2020, 181,359.30t of hazardous waste treatment residues were generated at the treatment facility for disposal which comprises 87% of the total quantity of wastes landfilled at the site in 2020 of 209,107.51t.</p>														
Q13.1.4	The Applicant	<p>ES paragraph 5.4.4 sets out the options for use of the excavated landfill construction material. However, the ES does not provide the total material volume / tonnage of the differing material types (referred to within the ES as topsoil, clay / overburden etc) anticipated to be used for the various identified purposes other than an overall total of 2.5 million cubic metres.</p> <p>(i) Please provide the anticipated excavation, reuse, and disposal volumes for each of the material types identified.</p> <p>(ii) Please clarify what sensitivity testing has been applied to assessments such as traffic and transport, noise and air quality where differences in material import / export assumptions have the potential to give rise to different assessment outcomes.</p> <p>(iii) No information is provided as to how the potential movement of material will be managed. Please explain the control measures that will be applied to material movements for the estimated 2.5 million cubic metres.</p>	<p>i) The figure of 2.5million m³ is the estimate of the additional void created at the site for the disposal of waste as a result of the proposed development. This is the void created inside the engineered landform which is to a domed restoration profile above the current ground level as illustrated in the cross sections on Figure ES9.2 (APP-063). The quantity of excavated clay and overburden is not therefore 2.5 million m³. A proportion of the excavated clay material which is excavated is reused to form the engineered clay seals to the landfill site and a proportion of the excavated overburden material is used as a daily cover material for the deposited waste and in the creation of the restoration layer above the low permeability capping layer. It is only the material which is excess to requirements which is removed from the site. The average quantity of excess clay and overburden material which is removed from the site per phase of landfill is 219,281tonnes which is removed over approximately 12 months as each phase is constructed. Where no new phase is being constructed there will be no exportation of clay and overburden material. There is a total of 10 phases in the proposed western extension therefore the total quantity of clay and overburden which it is calculated will be exported from the site over its lifetime is 2,192,810 tonnes which at an assumed density of 2 tonnes per cubic metre is approximately 1 million m³.</p> <p>A summary of the overall uses for the excavated material is as follows:</p> <table border="1"> <tr> <td>Total quantity of topsoil excavated (assuming a depth of 0.3m)</td> <td>73,000m³</td> <td rowspan="2">All material will be reused on site</td> </tr> <tr> <td>Total quantity of subsoil excavated (assuming a depth of 0.3m)</td> <td>73,000m³</td> </tr> <tr> <td>Total quantity of overburden excavated</td> <td>715,000m³</td> <td>114,000m³ will be reused in engineering (regulating layers) and to form additional subsoil. 601,000m³will be exported</td> </tr> <tr> <td>Total quantity of clay excavated</td> <td>861,000m³</td> <td>435,000m³ will be reused in engineering for lining and capping. 426,000m³ will be exported</td> </tr> <tr> <td>Total quantity of material excavated (m³)</td> <td>1,722,000m³</td> <td>A total of 1,027,000m³ will be</td> </tr> </table>	Total quantity of topsoil excavated (assuming a depth of 0.3m)	73,000m ³	All material will be reused on site	Total quantity of subsoil excavated (assuming a depth of 0.3m)	73,000m ³	Total quantity of overburden excavated	715,000m ³	114,000m ³ will be reused in engineering (regulating layers) and to form additional subsoil. 601,000m ³ will be exported	Total quantity of clay excavated	861,000m ³	435,000m ³ will be reused in engineering for lining and capping. 426,000m ³ will be exported	Total quantity of material excavated (m ³)	1,722,000m ³	A total of 1,027,000m³ will be
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					exported from the site.
			<p>ii) The exportation figure for clay and overburden of 219,281tonnes over a 12 month period is used in calculating the associated traffic numbers. This period is considered as a reasonable worst case assumption as it would be more likely for the excavated material to be stored in temporary stockpiles when excavated and exported at a slower rate over 12 to 24 months to even out traffic flows on site as well as costs. As can be seen from the export rate for the materials from Phases 6 to 11 shown in the Table at Appendix J to the Transport Assessment [Appendix ES19.1] [APP-096] the assumed rate of removal is higher than that typically identified for any of the previous phases. The noise and air quality assessments are based on the assumed rate of traffic movement which is higher than the typical rate.</p> <p>iii) The excavation of the material is an integral part of the construction of the landfill cells and is therefore controlled through the construction plans for each cell which form part of the CQA Plans which are subject to approval by the Environment Agency through the Environmental Permit prior to commencement of construction. Temporary stockpiling of the material prior to reuse or export is the subject of the Stockpile Management Scheme (Requirement 6 in the dDCO).</p>		
13.2 Mitigation					
Q13.2.1	NNC and EA	Please comment on the scope and effectiveness of the Soil Handling and Management Scheme [APP-110] Annex DEC I1 and Stockpile Management Scheme Appendix DEC J1.			
14. Water Environment					
14.1 Baseline and Assessment					
Q14.1.1	The Applicant, the EA and the Cecil Estate Family Trust	[RR-008] and [RR-015] refer to a pollution incident at the existing site in February 2020. Please describe the location and nature of the incident and any steps taken to prevent similar incidents occurring.	<p>The incident is identified in sections 17.49 and 18.3.9 of the Environmental Statement (PINS document reference 5.2. APP-049)</p> <p>The incident was notified to the Environment Agency by Augean and remains the subject of ongoing investigation with the Environment Agency. The incident occurred at the western end of the northern boundary of the existing site immediately north of the Recovery and Treatment Facility. This is a summary of the understanding of the event, the impacts and the preventative action taken. As a result of extreme and unprecedented persistent wet weather over the 2019/20 winter a significant amount of fine material developed on the surface of the egress haul road immediately to the north of the treatment facility between the area of the facility and the site boundary. It is likely that the fines were a combination of clay from the haul road construction and contaminants tracked from the treatment facility.</p> <p>In addition, extreme weather events of Storm Ciara and Storm Dennis over the weekends of the 9/10 February and 15/16 February 2020, exacerbated the ground conditions created by the previous extended period of high rainfall. It is believed that fines on the haul road became mobilised by the intense rainfall resulting in a flow of water with suspended fines from the haul road on to the ground immediately north of the road, particularly from the location adjacent to the north-east corner of the treatment facility.</p> <p>Coinciding with this event, water level data and observations at the site indicate that there was extensive, unrelated flooding of the Cecil Estate Family Trust (CEFT) land to the north which is considered to have spread on to the northern edges of the Augean site. This flooding is likely to have contributed to the dispersal of contamination onto the Trust land and notably to the area in which doline depressions are located. As there is limited thickness of clay overlying the doline it is considered probable that the contaminated water migrated into the limestone from the doline area.</p> <p>The incident resulted in:</p> <ol style="list-style-type: none"> a. Primarily elevated chloride levels in groundwater in a few boreholes at the northern boundary and to the south. Groundwater monitoring indicates that the impact on ground-water quality was minor, localised to the site, and did not result in a risk of harm to human health. The effect was temporary, reducing rapidly overall and groundwater quality has steadily recovered towards pre-incident levels. b. Soil analysis from the CEFT land immediately to the north of the site shows mainly contamination with chloride. The 		

			<p>contamination has considerably reduced with time, likely to be due to flushing following further rainfall. It has been concluded through an independent review that there was no potential for an adverse effect on human health as a result of the incident.</p> <p>c. The ecological impact was over a small, localised area of coarse grassland and scrub of limited nature conservation value (0.6ha). From the available data and observations, which are limited due to lack of permission to access the CEFT land for further surveys (see the Augean response to the Relevant Representation from CEFT RR08), the area has recovered significantly. There is substantial vegetation regrowth although some of the trees and scrub have not recovered. Augean has offered to undertake mitigation work subject to further survey findings to determine the appropriate mitigation. To date access to survey has not been granted (See the Augean response to the Relevant Representation from CEFT as above)</p> <p>The incident is specifically related to the Recovery and Treatment Facility and the unsurfaced egress haul road. The preventative actions which have been taken to minimise the risk of any future incidents are as follows:</p> <ul style="list-style-type: none"> • Installation of a concrete haul road included within the containment area, along the northern and eastern boundaries of the treatment facility. Completed 21/04/20. <ul style="list-style-type: none"> ° The concrete haul road runs along the northern and eastern boundary of the Recovery and Treatment Facility enabling material tracked on vehicle wheels to be deposited on the road before exiting the containment area. ° The road falls from south to north along the eastern boundary and from east to west along the northern boundary directing run off to a drainage sump. ° The concrete road has 300mm upstands to both sides to prevent drainage from the road to reach bare ground. • Construction of secondary containment provided by an interceptor drain and clay bund on the northern edge of the road. - Completed 10/04/20 • Review of the flood storage capacity of the Recovery and Treatment facility— Completed May 2020 • Review and update as necessary of the site inspection and maintenance regime for drainage at the facility – Completed April 2020. • Review and update as necessary of relevant procedures of the Management System.
<p>Q14.1.2</p>	<p>The Applicant, the EA and the Cecil Estate Family Trust</p>	<p>Please clarify what legal rights and regulatory permits exist to discharge surface water (SW) into the swallow hole. Does the Applicant need to acquire additional rights or permits for the proposed SW discharge (noting that DCO Art 11 [APP-017] allows the undertaker to use any watercourse for the discharge of drainage, subject to considerations)? If so, are there any impediments to achieving those rights and permits?</p>	<p>The Applicant does not consider that any express legal rights are required because the swallow hole is situated predominantly on land to be acquired by the Applicant pursuant to the Option referred to in the Book of Reference (PINS document reference 3.4. APP-020).</p> <p>Nevertheless, the current landowner has acquired prescriptive rights to drain into the swallow hole because the current drainage arrangements have been in place for over 40 years use. Therefore no additional legal rights are required. If an Environmental Permit is needed for the discharge of surface water from the site in due course it will be secured through the Environment Agency by a variation to the Environmental Permit.</p>

Q14.1.3	EA	A standalone Water Framework Directive (WFD) assessment has not been provided with the DCO application but the ES includes consideration of WFD waterbodies in ES Chapter 17 (Water Resources) [APP-049] and concludes that there will be no adverse effect on the groundwater or surface water quality status in the vicinity of the site as designated under WFD. Would the EA please confirm whether it has been consulted on and agrees with the findings of the Applicant's WFD assessment?	
Q14.1.4	The Applicant	Paragraph 17.2.2 of the ES (also referenced in paragraph 12.4.3) states that the engineered clay component of the liner does not degrade and "provides continued protection over geological time". It is not clear how this conclusion has been reached. For example what would be the impacts, if during construction work adjacent to an existing cell, vibration/excavation activity damages the liner, or if groundwater flowpaths are disrupted and change the ground water regime? While it is noted there are likely to be engineering/quality control measures, there does not appear to be any evidence of the safeguarding used in the construction method. Please clarify how the newly constructed landfill liner is to be protected during the ongoing construction, operation, and decommissioning phases.	<p>Engineered clay is selected natural clay which is placed within a specified range of densities and moisture contents to provide a durable and low permeability barrier. The placement criteria, as specified in the landfill guidance for earthworks in landfill engineering requires that the clay liner is placed within a moisture content range which is defined in soil mechanics as the plastic range. This is the range of moisture content at which a cohesive soil such as the engineered clay can undergo deformation without cracking or fracturing. Engineered clay is not a brittle construction material such as concrete. This allows the clay liner to maintain its design properties despite having layers of waste placed over it or being in close proximity to ongoing site development works.</p> <p>Full details of the necessary protections are controlled by the EP and are set out in the Environmental Setting and Installation Design (ESID) Report in the Environmental Permit application [Document reference 9.2.1.1.1 EPL ESID], following placement of the clay liner a high density polyethylene liner (a heavy duty chemical resistant synthetic material) is placed over the clay followed by a geotextile or a 300mm sand protection layer then a leachate drainage layer. Waste is placed progressively in horizontal layers across the full width of a landfill cell. Selected fine grained wastes containing clay, silt, sand and gravel up to a grain size of approximately 20mm in diameter is used as the first waste layer placed to ensure protection of the liner. In accordance with conditions of the Environmental Permit, the detailed design for the construction of each cell is the subject of a Construction Quality Assurance (CQA) Plan. The construction works carried out are verified by a CQA engineer and a CQA Verification Report is submitted to the Environment Agency for approval before waste can be accepted in a constructed landfill cell. This process is secured as part of the EP.</p> <p>As detailed below under the responses to Q14.1.10 and Q14.1.11, the groundwater regime will not change as a result of the proposed development and is well defined and understood at the site.</p>
Q14.1.5	The Applicant	Paragraph 17.2.3 of the ES states that "The groundwater pathways for the migration of radioactive contaminants will be assessed". Please submit this assessment to the examination.	As stated in the response to Q1.1.4, the application for the variation to the Environmental Permit for the landfill of LLW has not yet been submitted. The Environmental Safety Case which was prepared for the current landfill site is provided at Appendix ES11.1 to the Environmental Statement [PINS document reference 5.4.11.1, APP-085]. The assessments accompanying the proposed variation application, including the hydrogeological assessment, will follow the same principles and will define the limits to the total radiological capacity that can be accepted at the current and extended landfill site in order to maintain radiological emissions to below the dose criteria explained in section 11 of the Environmental Statement and as set out in Table ES11.3 [PINS document reference 5.2. APP-049].

Q14.1.6	EA	Has the EA been consulted on the assessment of groundwater pathways for the migration of radioactive contaminants? If so, please comment on it. If not please comment on the document submitted in response to question Q14.1.5 as soon as possible.	
Q14.1.7	The Applicant	Paragraph 17.3.1 of the ES refers to ES Figure ES17.2 [APP-068], which shows the proposed cut level of the Western Extension on a geological cross section. It appears to show some areas where no cut is proposed. Please provide commentary on the reasons for the chosen excavation levels and/or locations adopted.	The locations where no cut (ie excavation) is shown on Figure ES17.2 (APP-068) are the areas where the doline area between phases 14 and 21 is located, the area between phases 18 and 19 where the water pipelines are located and the diverted electricity cable will be located, and the area between phases 17 and 18 where the gas pipeline is located. The phases and the location of the services are shown on Figure ES5.1 (APP-054) and are described in section 5.2 of the Environmental Statement (APP-049).
Q14.1.8	EA	ES paragraphs 17.3.14 and 17.3.15 refer to the future River Basin Management Plan classifications, highlighting that the 2027 target for the relevant catchment is 'moderate' for ecological status and 'good' for chemical status. Would the EA confirm whether or not these are the agreed targets for ecological and chemical quality in relation to the requirements of the WFD?	
Q14.1.9	The Applicant	<p>Paragraph 17.3.21 of the ES refers to the fact that Limestone dissolution features were noted in the 2019-2020 Ground Investigation (GI) for the Proposed Development. No other reference is made to these in terms of ground stability or potential risk pathways.</p> <p>Please confirm whether the Proposed Development and associated excavation, construction and restoration works pose any risks to remaining dissolution features, for example increasing in scale, abundance, dissolution rate, and whether this would have any ongoing impact on ground water flow paths, the Detailed Quantitative Risk Assessment (DQRA), land stability or the design of the Proposed</p>	<p>(i) The proposed development and associated excavation, construction and restoration works do not pose any significant risk to the known dissolution features in respect of increasing the scale, abundance, dissolution rate, or impact on groundwater flow paths as there are no proposed material changes to surface water drainage routes or drainage quantities to the swallow hole. As there will be no significant impact on groundwater flow paths there will be no significant impact on the DQRA presented as the Hydrogeological Risk Assessment submitted in support of the Environmental Permit application.</p> <p>(ii) It is stated in the Stability Risk Assessment (SRA) submitted with the Environmental Permit application that :</p> <p><i>“3.1.5 From a review of the site investigation and resistivity imaging surveys undertaken of the western extension area it is concluded in the ESID and HRA that with the exception of the 150m standoff zone centred on the doline area (as detailed in 1.6 of the SRA) there was no evidence of voids or significant discontinuities in the surface or body of the Lincolnshire Limestone underlying the site. This is consistent with inspections of the surface of the exposed limestone together with resistivity surveys of the limestone prior to liner construction presented in the Construction Quality Assurance (CQA) verification reports for phases of the existing landfill site.</i></p> <p><i>3.1.6. As identified in the ESID the geology is generally consistent between the existing landfill and the proposed western extension area outside the 150m standoff across the doline area. As a result, outside the 150m standoff, the western extension area will be excavated and engineered consistent with the methods employed in the current site. As the in situ glacial clays and/or Rutland Formation is retained above the Lincolnshire Limestone it is not possible to inspect visually the surface of the limestone although, subject the CQA requirements for each landfill phase, resistivity imaging surveys and verification boreholes will be employed during the construction of the western extension area phases.</i></p> <p><i>3.1.7. The doline area is associated with west to east drainage pathways towards the swallow hole area and crosses the western extension area to the north west of the current landfill area, separating the northern area of the site from the rest of the site. As detailed</i></p>

		<p>Development. ES paragraph 17.2.2 notes that targeted ground investigation around the swallow hole and limestone dissolution features was not possible due to vegetation and topography but is proposed at a later date. Please would the Applicant explain the uncertainty that the absence of this information introduces for the findings of the ground investigation, the design and operation of the Proposed Development, and when the further targeted GI proposed will be available for examination.</p>	<p><i>in the ESID and HRA it is intended to leave a minimum 20m wide route through this area to maintain a surface water flow path from west to east. In addition it is proposed that no landfilling of waste will take place in a 150m wide standoff across this area until further investigation is undertaken to verify the ground conditions and the nature and extent of solution features which may be present and require treatment prior to landfill development.</i></p> <p><i>3.1.8. The details of the investigation and subsequent landfill engineering of the 150m wide standoff across the potential doline area will be subject to agreement with the Environment Agency. It is anticipated that this could consist of the following two stages, the first once this part of the site has been cleared of vegetation and the second following excavation:</i></p> <p><i>(1) Undertake an investigation and resistivity survey at current ground levels to investigate the presence of potential anomalies followed by treatment of voids by grouting, or amendment of the 20m drainage route to avoid landfilling waste in the area of potential voids.</i></p> <p><i>(2) Undertake further resistivity surveys and investigation of anomalies once the area has been excavated to formation levels with all anomalies grouted and treated consistent with the rest of site.</i></p> <p>As stated in sections 5.2.10, 5.2.11 and 17.3.22 of the Environmental Statement (ES), further targeted site investigations will be carried out in this central area of the site prior to finalising the design of the proposed development in this area. In the Environmental Permit application, as set out in section 2.6 of the Environmental Setting and Installation Design (ESID) Report, to illustrate the potential scope of the development in this area and to ensure that all relevant impacts can be assessed, two options for the landfill design will be assessed. As detailed above in the extract from the SRA, the options for this area of the site comprise:</p> <p>Retention of a 20m wide corridor to provide a route for surface water drainage from the land to the west of the proposed extension to the swallow hole.</p> <p>Retention of a 150m wide standoff from landfill area boundaries if deemed necessary based on the planned further detailed assessment of the potential for solution features in this part of the site. As with the previous option, the central section of this standoff would also provide a route for surface water drainage from the land to the west of the potential extension to the swallow hole.</p> <p>It is likely that the development of solution features in this area of the site is a result of topography hence surface water drainage infiltrating the ground (Figures ES 17.3 (APP-069) and ES18.1 (APP-073) together with Figure 2 of Appendix ES18.2 (APP-095)) together with the fact that the clay overlying the Lincolnshire Limestone Formation strata is thinnest in this area of the site (approximately 4m to 5m where proven/ absent at the location of the swallow holes).</p> <p>As stated in section 17.3.21 of the ES, an electromagnetic induction (EMI) survey was carried out in this central area of the site. It is concluded in the electromagnetic induction (EMI) survey report that there is evidence of two areas of high electrical conductivity above the limestone suggesting trapped water hence vertical structures within the clay which may be acting as sinks in the area of the survey aligned with the approximate location of the swallow hole. A larger area of very high conductivity in the south west of the survey area was interpreted as relating to drainage. The survey was carried out in the wet Autumn of 2019 when the ground was saturated. The further site investigation will include further intrusive investigations of the areas of high electrical conductivity identified during the EMI survey together with investigations in the vegetated area of lower topography that was inaccessible during previous investigations. Other than these areas identified, all other areas of the proposed western extension have been investigated including for evidence of potential dissolution features. As stated in section 17.3.21 of the ES, there are few discontinuities which are greater than 1cm and no discontinuities greater than 10cm were proven including in the accessible parts of the area of the swallow hole and dolines.</p>
Q14.1.10	The Applicant	<p>ES Paragraph 17.3.21 refers to an electromagnetic induction (EMI) geophysical survey which identified areas that are interpreted within the ES as: 1) trapped water within the shallow clay deposits overlying the limestone, which may be acting as sinks, or 2) an area of high conductivity relating to drainage. It is not clear whether the 2019-2020 GI proved either of these interpretations or whether these areas have any</p>	<p>Please see the response to Q14.1.9 above.</p> <p>The proposed further site investigation in this central area of the site will clarify the significance, or not, of the high electrical conductivity identified during the EMI survey. Should anomalies be proven this may have an impact on the design of the landfill component of the proposed development in this area in respect of the width of the area which will not be the subject of landfilling with waste and provides a route for surface water drainage from the land to the west of the proposed extension to the swallow hole. It is considered that the reported results of the EMI survey that high electrical conductivity above the limestone suggests trapped water could indicate failures in the field drains installed beneath ground surface in this area of the site hence waterlogged ground with the survey being carried out in the wet Autumn of 2019 when the ground was saturated. The results of the further site investigation will have no bearing on the requirements for de-watering or the suitability of soils for reuse in restoration or as the clay liner as these are not material considerations of the further site investigation. The level of groundwater (beneath the proposed excavations) and the nature / properties of the clay materials for use in restoration or as the clay liner is well defined. See further comments on groundwater levels at the site in the response</p>

		<p>bearing on the design of the Proposed Development, the requirements for de-watering or the suitability of soils for reuse in restoration or as the clay liner. Please clarify the position on these matters.</p>	<p>to Q14.1.11 below.</p> <p>If the results of the further site investigation lead to the conclusion that there should be a wider distance from the potential doline area in which there should be no landfilling of waste, the excavation boundary for the landfill will be relocated to reflect the findings. Overburden excavated from elsewhere in the site will be placed against the completed and restored landfill in the area between the revised landfill boundary and the edge of the 20m wide corridor so that the same restoration profile will be achieved. Accordingly the proposed restoration landform will not be affected by any change to the landfill boundary that may be agreed with the Environment Agency following the further investigations in the doline area.</p>
<p>Q14.1.11</p>	<p>The Applicant</p>	<p>ES Paragraph 17.4.2 states that there is currently no anticipated requirement for de-watering during construction as the facility and maximum excavation depths will be above the water table.</p> <p>(i) ES paragraph 17.3.21 and Appendix ES18.2 SWMP [APP-095] (Section 2.3) both state that de-watering is anticipated during cell construction. Please explain the apparent discrepancy.</p> <p>(ii) Please explain how changes in water related conditions, including those associated with climate change, would be managed during construction, for example heavy rainfall or SW flows during excavation, unexpected high groundwater or the increased presence of shallow perched water.</p> <p>(iii) Please explain whether the current site surface water/contaminated water drainage system could be utilised if de-watering is required or whether a separate discharge and relevant permissions would be required.</p>	<p>i. Dewatering is not referred to in ES paragraph 17.3.21 although there is reference to the conclusions of the EMI survey report in which it is stated that there is evidence of two areas of high electrical conductivity above the limestone suggesting trapped water hence vertical structures within the clay which may be acting as sinks in the area of the survey aligned with the approximate location of the swallow hole. These are in relation to the route of infiltrating rainwater through the soils, subsoil and underlying clay to the limestone. As stated above under Q14.1.9, the further site investigation in this area of the site will include further intrusive investigations of the areas of high electrical conductivity identified during the EMI survey together with investigations in the vegetated area of lower topography that was inaccessible during previous investigations.</p> <p>It is stated in Appendix ES18.2 SWMP [APP-095] (Section 2.3): <i>“Excavation and landfill cell construction areas - Incident rainfall and runoff to these areas either infiltrates into the ground, evaporates, or is contained within the excavation which is then dewatered to allow the cell construction works to progress.”</i> The dewatering referred to in this paragraph is in relation to the management of surface water accumulating in the operational area and not groundwater.</p> <p>All construction works need to control water from rainfall or surface water runoff. Surface water ingress to an excavation area can prevent construction works progressing and therefore the contractor undertaking the excavation and construction works has a requirement in their contract to control surface water. This is typically achieved by the construction of shallow bunds to prevent surface water entering an excavation, perimeter ditches to collect the water and pumps to remove water from excavation areas. Clean and dirty water separation is designed and maintained. Collected water that is tested and verified to be clean is discharged from the site via the surface water discharge system in the south east area of the current site. Dirty water is pumped to the waste treatment and recovery facility where it is used in the treatment of wastes in place of mains water.</p> <p>ES Paragraph 17.4.2 is correct in that it is stated that: <i>“..the proposed western extension will be above rest groundwater levels at the site hence there will be no need for groundwater management during or post development. Consistent with the current landfill the proposed western extension landfill will have no significant impacts on groundwater levels or flows at and in the vicinity of the site.”</i></p> <p>ii. As can be seen from Figures ES17.5 (APP-071) and ES17.6 (APP-072), groundwater levels at the site fluctuate seasonally by up to approximately 10m (eg at borehole K01 in 2020 shown on both Figures). As can be seen on Figure ES17.5 (APP-071) this maximum fluctuation recorded in 2020 is the greatest seasonal fluctuation in groundwater level recorded over the 18 year monitoring record at the site. It is known that winter of 2019/2020 was the UK’s fifth wettest winter on record and that February 2020 was the UK’s wettest February on record in a series from 1862. February 2020 was the UK’s fifth wettest calendar month on record in a series from 1862. It was also the wettest February in the long-running England and Wales precipitation series from 1766. It is likely that groundwater levels recorded at the site in 2020 are the highest groundwater levels at the site over the past 100+ years. It is considered that there is no significant risk of groundwater conditions outside of those recorded to date at the site during construction of the site. Surface water management during construction will follow the principles of the current operational surface water management at the site as summarised in sections 5.5 and 17.3.6 to 17.3.8 of the Environmental Statement and in section 2 of Appendix ES18.2 Surface Water Management Plan [APP-095].</p> <p>iii. As set out in section 6.21 of the hydrogeological risk assessment submitted as part of the Environmental Permit application, no discharge of surface water from the site will take place other than at a permitted discharge point without the relevant permissions from the Environment Agency. Should further permitted discharge locations be needed for the management of surface water in</p>

			the western extension these will be the subject of conditions in the Environmental Permit.
Q14.1.12	The Applicant	ES paragraph 17.3.20 explains the aquifer characteristics including groundwater levels. The levels are presented as a line graph in Figures ES17.5 [APP-071] and ES17.6 [APP- 072] with no geographic reference. Please provide either groundwater contour/flow direction figures overlain on the current and Proposed Development, or groundwater levels presented on the submitted geological cross sections.	As stated in paragraph 17.3.26 of the Environmental Statement, hydrographs showing the groundwater levels recorded in the vicinity of the current ENRMF site and proposed western extension are presented on Figures ES17.5 (APP-071) and ES17.6 (APP-072). The monitoring locations are shown on Figure ES8.1 (APP-061). The groundwater level recorded in the boreholes round the site in June 2020 are presented as blue triangle symbols at the borehole locations on the cross sections presented on Figure ES17.2 (APP-068). A dashed blue line represents the groundwater table interpolated between the monitored locations. Groundwater contours interpolated from groundwater levels recorded at the monitoring boreholes in June 2020 are presented on Figure HRA 5 of the hydrogeological risk assessment submitted as part of the Environmental Permit variation application for the hazardous waste landfill site. The groundwater contours at the site together with the interpreted groundwater flow direction at the site is consistent with the regional groundwater contours provided by the Environment Agency and presented at Appendix ESID F of the ESID report submitted as part of the Environmental Permit application for the hazardous waste landfill site.
14.2 Mitigation and Monitoring			
Q14.2.1	The Applicant	ES paragraph 17.3.6 states that <i>“The operational surface water management system for the existing ENRMF is designed to retain all potentially contaminated surface water on site where it is stored in ponds and used for dust suppression, in the wheel wash and in place of mains water in the treatment facility”</i> . ES Paragraph 5.5.7 indicates that recovered leachate is also used in the soil treatment plant; however, it is subject to testing prior to use to ensure suitability. There does not appear to be a reference to the current or proposed testing of the potentially contaminated surface water for reuse. Please would the Applicant confirm whether this is a typographic error and should read ‘uncontaminated’ or whether there is a testing regime in place for this water to ensure it does not inadvertently lead to the spread of contamination on and off site, particularly into the ‘clean’ SW ditches.	The Applicant confirms that surface water which is not discharged from the site is retained for use including in the waste recovery and treatment facility. As these waters are contaminated with wastes that are the subject of treatment there is no need to test the quality of the water.
Q14.2.2	The Applicant	ES paragraph 17.4.2 states that the excavations to form the new landfill	The three dimensional model defining the surface of the Lincolnshire Limestone Formation has been created based on extensive site investigation and geological data, and has been submitted to and agreed with the Environment Agency. Similarly, for each landfill phase

		<p>will leave at least 2m thickness of the impermeable material (Till or Rutland formation) above the Lincolnshire Limestone. Please explain how the contractor would ensure that this thickness of cover would be maintained and what measures would be adopted in the event that a 2m thickness could not be maintained, for example, if the geology becomes unexpectedly shallow or excavations inadvertently progress beyond the 2m thickness.</p>	<p>a three dimensional model is created for the excavation depth to maintain a minimum 2m standoff from the Lincolnshire Limestone Formation. This model is then used to control the excavation works which employ GPS controlled excavation plant and GPS controlled survey equipment to ensure the excavation depth is not exceeded. The controls used and the designs employed for each excavation area are submitted to and agreed with the Environment Agency as part of the site Environmental Permit requirements prior to the development of each landfill phase.</p>
<p>Q14.2.3</p>	<p>The Applicant</p>	<p>ES Paragraph 17.5.1 states that mitigation measures for the surface water comprise the design and implementation of surface water management systems, as described in Appendix ES18.2. Reference is also made to “Additional procedures prepared and implemented by Augean”. Please explain explain the ‘Additional procedures’ and how they have been factored into the ES assessment and proposed mitigation.</p>	<p>The quoted sentenced goes on to state “...through their certified management system”. In respect of the Environmental Statement, the assessment and proposed mitigation presented in the Environmental Statement is sufficient to address the potential impacts on the water environment. The additional procedures prepared and implemented by Augean through their certified management system reduces further the already insignificant risks of potential impacts on the water environment, but are not essential mitigation measures. The management of risks to the water environment are managed and regulated by the Environment Agency through the pollution control framework.</p>
<p>Q14.2.4</p>	<p>The Applicant</p>	<p>The SWMP lacks clarity as to whether the measures listed relate to the construction and operation of the existing site and the Proposed Development, or to the restoration phase only. Please confirm the status of this plan and, in the event that it does not relate to the construction and operational phases, how mitigation measures for them would be managed, monitored, and secured. For example:</p> <ul style="list-style-type: none"> Paragraph 1.4 states that schematic plans of the proposed surface water drainage ditches are presented in figure 4 and 5. These seem to refer to post restoration only. No indicative figures are provided of the existing site or the construction of the Proposed Development, operational clean and dirty ditch layout, and their interaction; 	<p>Different surface water management plans are necessary for the operational phases of the development and for the restored phases of the landfill site which form the long term landform in the environment.</p> <p>As stated in section 1.1 of Appendix ES18.2 SWMP [APP-095] the purpose of the 2021 SWMP, which is for the restored phases of the landfill site, is to demonstrate that surface water can be managed as part of the restored site such that there is no significant change in drainage or increase in flood risk downstream of the site.</p> <p>As stated in section 1.2 of Appendix ES18.2 Surface Water Management Plan [APP-095] the operational surface water management, which is for the construction and operational phases of the development, is regulated by the Environment Agency through Environmental Permit for the site. The principles of the operational surface water management are presented in the 2021 Surface Water Management Plan.</p> <p>The operational surface water management comprises a live management system which can be updated to reflect the constantly evolving operational situation at the site. Part of the current surface water management systems on the site comprises a series of drainage channels (cut off ditches) which are located round the site boundary generally and discharge to ponds located in the north west, south and south east of the site.</p> <p>The series of drainage channels feeding to the ponds change as necessary with the ultimate target following restoration of the series of drainage channels and ponds presented in the approved restored site Surface Water Management Plan (currently the 2007 Surface Water Management Plan at Appendix A to the 2021 Surface Water Management Plan). This same principle will be followed for the western extension area with the ultimate target following restoration of the series of drainage channels and ponds proposed in the 2021 Surface Water Management Plan the detailed design of which are the subject of Requirements of the draft DCO.</p>

		<ul style="list-style-type: none"> The catchments listed in paragraph 5.1 refer to the restored site only and not to the existing site or the Proposed Development. 	
Q14.2.5	The Applicant	Paragraph 2.3 of the SWMP refers to SW ingress into uncapped or uncovered cells. Please clarify the proposed control measures to reduce SW run off into operational cells, and whether the planned leachate capture system would be able to cope with anticipated run off into cells.	The site is designed such that surface water entering the cells during construction will comprise incident rainfall only. This is typical of these types of excavations and easily managed by the construction team on site. Similarly, once the cell is created and landfilling is ongoing surface water entering the landfill cells will comprise incident rainfall only and the leachate management systems are designed to manage this. Leachate management and the design of the leachate management system are the subject of and regulated under the Environmental Permit.
Q14.2.6	The Applicant	Paragraph 3.5 of the SWMP [APP-095] states that the catchment areas are presented within the 2007 SWMP. Please clarify whether it is appropriate to rely on these areas, given that the sub catchment mapping in Figure 3 of the SWMP and on-site observations of surface water flow referred to in ES Paragraph 17.3.10 are contrary to the EA mapping?	The catchment areas presented in the 2007 Surface Water Management Plan are those derived from the site topography and design and not those taken from the EA mapping hence are site specific and appropriate.
Q14.2.7	The Applicant	<p>The proposed SWMP refers to the current drainage layout on site and ongoing maintenance related issues.</p> <p>(i) Paragraph 3.8 refers to the southern culvert being partially blocked. Please confirm whether it is proposed to maintain / repair the culvert in order to facilitate surface water discharges from the Proposed Development and, if so, whether this work is part of the DCO application.</p> <p>(ii) Paragraph 3.8 states that the perimeter ditch outfall could not be located. It is not clear why this could not be located and whether this has had any influence on the findings of the ES and the SWMP. Please provide clarification.</p> <p>(iii) Paragraph 5.5 refers to the 'permitted discharge' of the site being an outfall from the south-east</p>	<p>i. The southern culvert is located in the area of land that will be the subject of the further site investigation in this central area of the site referred to in the responses to Q14.1.9 to Q14.1.11 above. The exact nature of the continued conveyance of surface water from west to east over this area of the site during the operational phase of the development will be determined as part of these investigations and prior to development of this area of the site. The need for interim improvements will be determined as part of the detailed drainage design secured by Requirement 3(4) in the dDCO. As shown in the phasing sequence table at Appendix DEC D (PINS document reference 6.5. APP-110), as part of the landfill development, the southern surface water culvert will be removed and surface water drainage will be redirected in accordance with the SWMP principles when the final phase of landfilling (Phase 21) is developed.</p> <p>ii. It is stated at paragraph 3.8 of the Surface Water Management Plan that: <i>"...Surface water from the perimeter ditch was observed entering a clay pipe close to the culvert entrance. The pipe was orientated along the boundary between the northern and southern part of the proposed western extension. The outfall of the pipe could not be located..."</i></p> <p>It is likely that the clay pipe comprises a land drain (buried pipe) and it is the outfall from the land drain that could not be located at the time of the site visit in June 2020 due to dense vegetation. It goes on to state in paragraph 3.8 that: <i>"It is known that drainage along this boundary is routed to flow towards the swallow hole entering the swallow hole from the south."</i></p> <p>It is known that the surface water drainage in this area of the site is routed to the swallow hole and this is taken into account in the Surface Water Management Plan.</p> <p>iii. We confirm that the swallow hole and/or perimeter ditch discharges currently take water from area of the western extension, not the current ENRMF site. These are natural surface water or agricultural surface water drainage routes which comprise a function</p>

		pond which leads to a road culvert. The SWMP also refers to other discharge points including the perimeter ditch and the swallow hole. Please clarify whether the swallow hole and/or perimeter ditch discharges currently take any water from the existing site, whether or not these are 'permitted discharges' and whether they have any implications for future discharge volumes or water quality, or are likely to be the subject of a permit application to allow them to be used as official discharge points?	of the natural topography of the western extension and surrounding area with prescriptive drainage rights. There are no requirements for 'permitted discharges' from the undeveloped western extension area. As stated in the application it is proposed that future discharge volumes to these discharge locations will be comparable to the pre-development volumes. There are no proposals to discharge to these locations from the developed site until the corresponding area is restored hence the discharge will comprise clean surface water runoff only. The permit requirements for the proposed future discharges will be agreed with the Environment Agency following detailed design of each area of the site and subsequent permit variation applications as applicable. Conditions on the permit will include water quality emissions limits and monitoring as necessary.
Q14.2.8	The Applicant	SWMP paragraph 4.5 refers to the creation of outlet points for the discharge of SW, but does not specify their number or location, at least for the operational stage. Please clarify the proposals for additional discharge points and routes, including any legal agreements that are required for their adoption.	Please see the answer to Q14.2.7 above. The discharge of water off site from the operational areas will be from the permitted discharge point only. Should it be deemed necessary to discharge from other locations during the operational phase of the site an application will be submitted to the Environment Agency for a variation to the permit. Conditions in the permit will include water quality emissions limit and monitoring requirements as necessary.
Q14.2.9	The Applicant	SWMP Paragraph 8.1 states that the SW management system will be maintained following restoration. Paragraph 8.3 explains that an aftercare scheme will be put in place. Please clarify the duration, frequency, responsibilities and funding arrangements for the aftercare scheme and how it would change before and after the surrender of the EP.	The drainage arrangements are secured through the restoration scheme which is the subject of the requirements of the DCO for a period of 20 years following closure of the site. The aftercare period is specified in the EMMAP (Appendix DEC E APP-110) but for clarity will be added to Requirement 4 of the dDCO in the amended version to be submitted by Deadline D3. Augean will further be responsible for the implementation and maintenance of the drainage under the Environmental Permit until the permit is surrendered which is at least 60 years. The maintenance regime will depend on the operational status of the part of the site but typically will involve regular inspection (weekly to monthly) and clearance of silt and vegetation as necessary. The drainage maintenance is part of the Financial Provision required under the Permit. After surrender of the landfill permit there will be no unusual maintenance requirements for the drainage of the site and ultimately the drainage will be the responsibility of the final landowner as with any other land. Provision for restoration and maintenance is routinely made within the Augean accounts in accordance with its financial obligations.
Q14.2.10	The Applicant	Would the surface water drainage system be designed to comply with the National Standards under Paragraph 5(1) of Schedule 3 to the Flood and Water Management Act 2010 (see NPSHW paragraph 5.7.9)	Yes, the 2021 Surface Water Management Plan (Appendix ES 18.2 APP-095) is based on sustainable drainage principles consistent with national guidance. As set out in section 4 of the 2021 Surface Water Management Plan sustainable drainage systems typically control runoff rates and volumes hence reduce the risk of downstream flooding, encourage infiltration rather than direct conveyance of surface water where possible, reduce concentrations of suspended solids in runoff and where possible provide habitat for wildlife and enhanced aesthetic and amenity value. As the Surface Water Management Plan has been developed to be consistent with the principles of sustainable drainage the components of the scheme form part of a system of integrated water management features which will contribute to the sustainable management of surface water at the restored ENRMF by controlling runoff as close to the source where feasible and managing water on a site wide basis taking into consideration the potential for impacts on surface water flows and quality locally and in the wider hydrological environment.

Q14.2.11	The Applicant	<p>Please confirm who would be responsible for the maintaining the surface water drainage system during the operation of the Proposed Development and following restoration.</p> <p>What consultation has taken place in connection with this matter?</p>	<p>The responsibility is explained in answer to Q14.2.9.</p> <p>In respect of drainage, consultation has taken place specifically with the EA and NNC as the Local Lead Flood Authority. Discussions have also taken place with the representatives of the Cecil Estate Family Trust.</p>
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