2.0 Environmental Impact Assessment Approach

2.1 EIA Process and Objectives

2.1.1 The overall aim of the EIS is to provide an objective and systematic account of the likely significant environmental effects of the development and to assess the ability of the development site and the surrounding area to accept those impacts. The overall EIA process is shown in Diagram 1 below (IEMA, 2004).

2.2 Scope of Work

Geographic Scope

2.2.1 The EIA directly covers the physical extent of the site as shown in the Application plan (Fig 1). It is defined by the area of land to be used, the nature of the current environmental conditions and the manner in which impacts are likely to be generated. Where the geographical influence extends outside the site boundary this has been detailed in specific topic chapters.

2.2.2 The geographical extent of the EIA also considers the potential implications of related and un-related development activities. The potential cumulative effects of the development in association with other developments both during construction and on completion are included where relevant as required by Schedule 4, Part 1, Paragraph 4 of the EIA Regulations (HMSO, 2011).

Temporal Scope

2.2.2 Phase 1 and 2 construction works have been completed. Under the current programme, it is expected that construction work on Phase 3 would commence in 2017 and last for up to one year.

2.2.3 The assessments presented herein are largely based on the comparison of expected impacts compared with current or recent baseline environmental conditions. This is with the exception of topics such as air quality which factor in future baseline changes into the assessments in future year impact scenarios. These approaches are explained in further detail in the relevant chapters concerned.
2.2.4 In order to ascertain the likely scope of the EIA, the scoping process involved the following steps:

- Identification of the application boundary;
- Identification of the key characteristics of the development site and the establishment of the environmental baseline through a series of desk and field studies;
- Identification of gaps in the baseline and the further survey work required to address these shortfalls;
- Initial consideration of the potential sources and nature of environmental impacts through assessment against the environmental baseline;
- Identification of the key changes to the proposed development from that outlined under the original application and a review of this information in the context of the previous Environmental Statement; and,
- Definition of impact assessment methodologies to be utilised.

2.2.5 In order to ascertain the required scope of the revised EIA, a scoping process has been carried out which involved discussions with representatives from WCC and the submission of a formal scoping request, which was submitted to WCC on 23rd December 2016.

2.2.6 As part of that formal scoping process WCC consulted with the relevant internal departments in the council and externally with statutory consultees as the council deemed necessary. Copies of the original scoping responses are provided in Volume 2, Appendix 2.1.

2.2.7 Given that the section 73 application essentially proposes to provide amendments to a consented development, it was considered that effectively a significant proportion of the previous ES is still relevant, particularly in relation to those topics in which the baseline is unlikely to have changed significantly such as land quality, hydrology, and cultural heritage. It was therefore agreed that the previous ES was appropriate to provide a basis for the section 73 application, subject to revisions and updates where necessary to take account of any significant changes in the baseline or to reflect any particularly sensitive environmental topics (i.e. air quality, landscape and visual etc).

2.2.8 Table 2.1 provides a list of the consultees who provided responses to the technical members of the project team during targeted consultation. The table provides a summary of the comments received and signposts to where these have been addressed in the ES.

2.2.9 The topics that were informally agreed through the scoping process, i.e. those which have the potential to give rise to significant environmental effects and are therefore addressed as part of this ES are listed below;

- Chapter 4: Noise
- Chapter 5: Air Quality;
- Chapter 6: Ecology;
- Chapter 7: Conclusions.

2.2.10 The specific focus of the above assessments is detailed within each chapter.
## Table 2.1 Scoping Comments and Response Table

<table>
<thead>
<tr>
<th>Consultee</th>
<th>Comment</th>
<th>Response / Where this is addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ecology</strong></td>
<td>The scoping opinion states &quot;I accept that the site is a recently part completed construction site and therefore is likely to have little ecological interest. However I am aware that newts and other fauna can colonise rough ground relatively quickly so I think that you will need to deal with this topic in the ES thought it is unlikely to be as complex a matter as it was previously&quot;.</td>
<td>The comments received have been address within the ES chapter 6.</td>
</tr>
<tr>
<td>WCC</td>
<td>WYG directly approached Natural England but were advised that as the consenting authority the Environment Agency will advise on air quality matters associated with nationally designated ecological sites during the planning and permitting process.</td>
<td>These comments are noted within ES chapter 6.</td>
</tr>
<tr>
<td><strong>Natural England</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Air Quality</strong></td>
<td>The Scoping Opinion states &quot;This is perhaps the most significant consideration particularly as air quality matters have risen up the political agenda. The revised EIA must consider all matters relating to air quality&quot;.</td>
<td>The comments received have been address within the ES chapter and the air quality assessment presented at Appendix 5.1.</td>
</tr>
<tr>
<td><strong>Landscape and Visual Impact Assessment</strong></td>
<td>The Scoping Opinion states &quot;With regards to visual impact I would expect the revised EIA to demonstrate your contention that the proposed development cannot be seen from vantage points to the south east or west of the shale tip. I know this site well and conclude that it is only visible to any significant degree from Folly Lane. The revised EIA will need to demonstrate where the new development can be seen from and what mitigation is necessary&quot;.</td>
<td>The comments have been addressed within the Visual Impact Assessment presented at Appendix 2.5.</td>
</tr>
<tr>
<td><strong>Hydrology and flood risk</strong></td>
<td>The Scoping Opinion states &quot;This proposal is major development and the site is over one hectare in area thus a Flood Risk Assessment must be carried out to accompany the planning application. I appreciate that the Site is not at risk of flooding and that the site has been engineered to ensure that flood risk elsewhere is not exacerbated but given the government’s advice I conclude that you must supply a new flood risk assessment. I would suggest that it is incorporated into the ES to prevent duplication or omission&quot;.</td>
<td>An updated FRA is provided at Appendix 2.3.</td>
</tr>
<tr>
<td><strong>Traffic and Transport</strong></td>
<td>The Scoping Opinion states &quot;a significant increase in plant throughput would suggest that there will be an increase in HGV movements. This matter should be dealt with and the transport assessment updated to deal with traffic flows and network capacity. The impacts of the new development should be understood&quot;. The Opinion goes on to state that significant development has occurred in the locality and these should be reflected in the revised transport assessment.</td>
<td>An updated Transport Assessment is provided at Appendix 2.4.</td>
</tr>
<tr>
<td><strong>Noise</strong></td>
<td>A formal Scoping Opinion does not contain any comments on the proposed methodology. The method used in this assessment takes into account previous agreements with the Local Authority undertaken as part of the planning application for the variation of the site layout for the AD plant with regard to noise (Application Refs: NWB/10CM003 and NWB/14CM016). The Scoping Opinion states &quot;noise impacts resulting from the operation of the facility and traffic movements to and from the facility so far as they affect the immediate environs of the site should be assessed&quot;.</td>
<td>The comments received have been address within ES chapter 4 and the noise technical report presented at Appendix 4.1.</td>
</tr>
</tbody>
</table>
### EIA Scoping Comments and Responses

<table>
<thead>
<tr>
<th>Consultee</th>
<th>Comment</th>
<th>Response / Where this is addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Quality and Cultural Heritage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WCC</td>
<td>The formal Scoping Opinion agrees that these issues can be &quot;omitted from the revised ES&quot;.</td>
<td>These factors are not considered further in the ES.</td>
</tr>
<tr>
<td><strong>Alternatives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WCC</td>
<td>The formal Scoping Opinion agrees with WYG's proposed methodology that the only viable alternative option is to implement the approved scheme.</td>
<td>This matter is noted and not considered further in the ES.</td>
</tr>
<tr>
<td><strong>Interactions and cumulative effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WCC</td>
<td>The formal Scoping Opinion agrees with WYG's proposed methodology on these effects.</td>
<td>These matters are addressed at ES Chapter 2 and ES Chapter 7.</td>
</tr>
</tbody>
</table>

#### Cumulative Scope

2.2.11 Typically the potential cumulative effects of the development in association with other developments both during construction and on completion would be included where relevant as required by Schedule 4, Part 1, Paragraph 4 of the EIA Regulations (HMSO, 2011). However, in this situation it has been determined that an assessment of cumulative effects would not be necessary as the development already has consent. Furthermore, any new or proposed development within the last seven years would have had to consider a fully operational development as part of their cumulative assessment.

**Topics not considered further in the ES**

2.2.12 It was determined through the scoping process that the previous Environmental Statement (dated September 2008) would be appropriate to form the basis of the new submission, subject to revisions and updates to the more sensitive environmental topics, or those where the baseline environment or legislation is likely to have changed significantly since the original submission.

2.2.13 Since the original Environmental Statement was prepared the Phase 1 (Development Platform) and Phase 2 (Anaerobic Digestion) works have been completed and are fully operational. The Site comprises open vacant land with a protective hardcore surface. There are no water bodies, ditches, soils or landscaping on the area proposed for the plant. In light of the current 'baseline' position of the Site the findings of the original Environmental Statement has been reviewed and those issues that have been superseded and addressed by the completion of the Phase 1 and 2 works have been scoped out.

2.2.14 As such it was determined that following environmental topics covered in the original ES did not require updating for the new application. Whilst this has been agreed through the scoping process, further justification for scoping out of these topics is provided below.

**Land Quality**

2.2.15 The original assessment of ground conditions was based upon a site investigation completed in 2008 by MJCA. Since the granting of planning permission in 2010, the Phase 1 construction works to create a development platform at 135m AOD has been undertaken and completed.

2.2.16 The Site is underlain by made ground comprising red ash shale overlying the Upper Carboniferous Westphalian Coal Measures. The made ground comprises red shale, with fragments of brick, stone, cobbles and coal. The Upper Carboniferous Westphalian Coal Measures of the Warwickshire Coalfield comprise a cyclic sequence of coal, mudstone, sandstone, silty mudstone or siltstone dipping to the horizontal towards the southwest. The Coal Measures strata are approximately 300m thick and are underlain by the Cambrian Merevale Shales. The Polesworth Fault strikes south east to north west approximately 1km north east of the Site displacing the Merevale Shales against the Triassic strata comprising the Mercia Mudstone. The Mercia Mudstone is underlain by the Sherwood Sandstone.

2.2.17 The Coal Measures are classified as a minor aquifer by the Environment Agency. The classification is due to the presence of sandstone units which can support locally important supplies of groundwater. The Site is not in a sensitive location in respect of groundwater resources or groundwater abstractions.

2.2.18 No instances of ground contamination were identified during the Phase 1 works.

2.2.19 Based upon this assessment it was concluded that the proposed development did not represent a potential significant risk to the identified receptors namely, the underlying aquifer, construction workers and future site users and as such no additional mitigation was required.

2.2.20 The extant consent contained no planning conditions relating to ground conditions or contamination and this position remains valid in respect of the Section 73 Application.

**Hydrology**

2.2.21 The original 2008 environmental assessment included a flood risk assessment and found the following.

- Environment Agency flood mapping information confirms that the site lies within Flood Zone 1 where the probability of fluvial flooding is less than 0.1% per year. In addition, the nature of the proposed development means that it has a low vulnerability to flooding.
- The risk of surface water contamination arising from the leaching of contaminants from the shale to the unnamed watercourse will be routed through settlement facilities and an oil water interceptor to mitigate the risk of discharge of contaminants to the unnamed watercourse.
Chapter 2 – Environmental Impact Assessment Approach

- Fuel will be stored in a bunded area to contain spillages and any mobile fuel bowser will have an integral bund or will be double skinned. Refuelling will be carried out in bunded areas or over drip trays.
- All operations associated with the energy recovery plant will be undertaken on a bunded concrete hardstanding area which will contain spillages and reduce the risk to groundwater and surface water. Surface water draining from the bunded area of the site will be collected, treated and used as cooling water in the biomass power plant or passed through an oil interceptor prior to discharge to the unnamed watercourse. Rainwater collected from the roofs of the buildings located in the bunded area will be collected separately for use either as cooling water or for discharge to the unnamed watercourse.
- Overall, it is concluded that, with respect to geology, groundwater and surface water, there would be no significant residual impacts of the development with incorporation of the proposed mitigation measures.

2.2.22 The surface water and foul water drainage strategy for the development was approved pursuant to Conditions 8, 9 and 10 of planning permission NW57/08CM042 in September 2011 and implemented as part of the Phase 1 Construction Works. The approved drainage strategy sought to provide a sustainable and integrated surface water management scheme for the site and aimed to ensure no increase in downstream flood risk by managing discharges from the development to the local water environment in a controlled manner.

2.2.23 The proposed revision to the site layout will not change the previously approved drainage strategy agreed under Conditions 8, 9 and 10 of the extant planning consent and, thus, no additional conditions are considered necessary.

2.2.24 The principles for the handling of and storage of waste on site are the same as originally assessed and thus no additional assessment is required to assess risk to groundwater or surface water quality. It is therefore concluded that, with respect to groundwater and surface water the revised layout would not generate any significant residual impacts. No further impact assessment is considered necessary at this stage and hydrology has been scoped out of this revised application.

2.2.25 However, for completeness, the Scoping Opinion has requested that the findings of the previous Flood Risk Assessment is reviewed and updated to take account of the latest Government Guidance on flooding set out in the NPPF. The updated Flood Risk Assessment is presented at Appendix 2.2.

2.2.26 The updated Flood Risk Assessment concludes that the proposed development will not increase the level of flood risk at the Site and thus no further mitigation is required.

Archaeology

2.2.27 The archaeology assessment in the 2008 application considered that the Site had a ‘low’ potential for architectural and archaeological remains to survive on the Site due to the nature of the previous use. In the intervening period the Phase 1 works to construct a development platform and associated landscaping bunds have been completed.

2.2.28 No further impact assessment is considered necessary at this stage and archaeology has been scoped out of this revised application.

Transport

2.2.29 The application site has a consented planning permission for a sustainable recovery park comprising renewable energy generation facilities consisting of a biomass plant and anaerobic digestion. The original application was supported by an ES and a transport assessment which concluded that the previous development proposals would have a negligible residual impact in terms of traffic and transport.

2.2.30 The original planning consent was accompanied by a Section 106 Agreement restricting the number of HGV movements associated with the Application Site (Anaerobic Digestion and Biomass) to an average of 70 (two way) movements per day “measured over a four week period”. The AD facility is fully operating and complying with an ‘allocated’ 30 (two way) HGV movements per day restriction under a landlord agreement with Park Top Ltd. The remaining 40 (two way) HGV movements per day is available for the Biomass facility.

2.2.31 The revised proposals seek to increase the quantum of waste to be managed at the site from the consented 45,000 tonnes per annum (dry weight) to approximately 70,000 tonnes per annum (dry weight). This will result in a 69% increase in the renewable energy generated by the proposed biomass facility from 2.59516 to an excess of 8.923166.

2.2.32 More importantly, this proposed increase of waste intake and/or electrical output falls within the ‘allocated’ (two way) HGV movements per day restriction for the biomass facility.

2.2.33 Information supplied by the potential operator of the biomass facility confirms that the average monthly fuel deliveries would require 402 HGVs whilst non-fuel deliveries require an average of 151 HGVs. This will result in a total of 553 HGVs per month which corresponds to 18 HGV deliveries per day or 36 two-way HGV movements per day which is within the previously consented 40 (two way) HGV movements per day.

2.2.34 Based on the above, the Transport Assessment confirms that HGV movements generated by the revised proposals would have a negligible impact on the operation of the local highway network. The Transport Assessment completed to support the application is contained as Appendix 2.3 of the Environmental Impact Assessment.

2.2.35 Guidelines issued by the Institute of Environmental Management and Assessment (IEMA) suggest that the following rules should be applied when considering the scope and extent of the environmental assessment:
- Highway links where traffic flows are predicted to increase by at least 30% should be included within the assessment (or where the number of HGVs is predicted to increase by 30%); and
- Areas that are considered to be specifically sensitive to increases in traffic volumes should be included where traffic flows are predicted to increase by at least 10%.

2.2.36 The proposed development falls within the ‘allocated’ (two way) HGV movements per day restriction for the biomass facility resulting in no additional HGV movements or traffic flows on the surrounding highway network and all cumulative development (i.e. the JLR car storage facility at Baxterley) was taken into account as part of the original ES. No new development or highways links have been forthcoming since the original ES was prepared and therefore the current proposal fails to meet the criteria for assessment. It has therefore been considered unnecessary to complete any further analysis for the Transport Chapter beyond what has been completed for the Transport Assessment.

Visual

2.2.37 The original application was accompanied by an ES, including a Landscape and Visual Impact Assessment (LVIA), which confirmed that “the proposals will have a negligible overall impact on the landscape, and the resource will be enhanced by the planting of almost 7 hectares of new woodland, scrubland, heathland and grassland”.

2.2.38 In addition the original LVIA concluded “In the short term, there will be a slight adverse impact on the visual amenity of the area with the loss of some vegetation on The Common and the construction of the haul road to Collery Farm, and on the views into the site from Holly Lane. This will diminish as the new planting matures, and should develop to slightly beneficial after 5-10 years”.

2.2.39 The earthworks, including the formation of perimeter bunds, and woodland planting set out in the Phase 1 works have been completed. The Site is, therefore, visually contained from local viewpoints. The current proposals will, therefore, have a neutral effect on local landscape character and this issue is not considered further in this ES.
2.2.40 An updated Visual Impact Assessment (VIA) has been prepared to determine if any additional significant visual impacts would be produced with the addition of the proposed structures the subject of the S.73 planning application. The VIA completed to support the application is contained as Appendix 2.4 of the Environmental Impact Assessment.

2.2.41 The visual assessment, informed by baseline studies and the EIA for the adjacent Biogen facility, identified a number of locations from which the proposed development would be visible. Three viewpoints were identified as representative of the range of views available. The visual impacts are assessed as negligible – minor adverse during construction; reducing to negligible – minor beneficial during operation.

2.2.42 Due to the confined nature of the viewpoint locations the impact on the visibility of the site will be minimal.

2.2.43 There are a number of designated landscapes in the wider study area, although none within the context area of the site. Those in the wider area include Merevale Hall registered park and garden, Merevale Cistercian Abbey scheduled monument and the proposed Grendon Wood Local nature reserve. Visitors to these valued landscapes would expect to experience a minor adverse impact on their visual amenity during the construction period due to the movement of cranes and the new roofline being visible. However these effects would only be visible from small parts of the periphery of the designated areas and would be short term. In the long term, during operation, vegetation would become established to screen both the proposed development and the adjacent Biogen facility, changing the impact to minor beneficial.

2.2.44 The development proposals are in accordance with the policies set out in the North Warwickshire Local Plan Core Strategy 2014. The development would not form any significant long term adverse effects on the visual amenity of receptors viewing from the nearby residential properties, valued landscapes, heritage or ecological assets. All adverse effects identified are not significant, are short term, and would be removed once construction is complete. The screening vegetation has already been established which will have a minor beneficial impact on these features in the long term.

2.2.45 It has therefore been considered unnecessary to complete any further analysis for the Landscape/Visual Chapter beyond what has been completed for the Visual Impact Assessment.

Additional planning reports outside this ES

2.2.46 A number of supporting technical reports have been prepared as part of the planning application to address specific issues which do not require detailed consideration within this ES:

- Planning Statement;

2.2.47 The following documents are included within the Appendix of the ES but can also be considered as standalone documents which form part of the planning application;

- Flood Risk Assessment;
- Transport Assessment; and
- Visual Impact Assessment.

2.3 Assessment Criteria

Overview

2.3.1 The assessments presented in this ES have considered the potential for significant environmental effects on the baseline conditions as a direct/indirect result of the proposed development. The baseline conditions are defined as the existing state of the environment, taken into consideration the previous works and how it may develop in the future in the absence of the proposals. This is a requirement of the EIA Regulations which in Schedule 4, Part 1, Paragraph 3 require a description of the aspects of the environment likely to be significantly affected by the development (HMSO, 2011).

2.3.2 Predictions are necessary when forecasting future impacts and, in order to ensure that predictions are as accurate as possible. The EIA Regulations which in Schedule 4, Part 1, Paragraph 4 require a description of the applicant or appellant of the forecasting methods used to assess the effects on the environment (HMSO, 2011). Assessments have been undertaken in accordance with best practice guidelines published by the relevant professional bodies. Each chapter’s methodology section provides details of the assessment criteria and terminology in the context of that technical discipline.

2.3.3 Where there is no topic specific guidance available, a common framework of assessment criteria and terminology has been developed drawing upon WYG’s experience of undertaking EIA, for the presentation of predicted impacts. This is based on a widely used ‘matrix approach’ to environmental assessment which is based on the characteristics of the impact (magnitude and nature) and the sensitivity of the receptor, as described further below. This is known as a ‘Type 3 assessment framework’ by Wood (2008). It is recognised that the level of transparency in the approach is comparatively high, with the sensitivity framework incorporating useful examples and the descriptors serving to provide a fuller account of decision factors (Wood, 2008). Therefore, the approach does go some way to enhance the transparency of the assessment in the sense that the reader is potentially in a better position to ‘calibrate’ the language terms used by experts (Wood, 2008).

Receptor Sensitivity

2.3.4 The sensitivity of a receptor refers to its importance, i.e. its environmental value/attributes. This may include a feature’s level of statutory designation, for example if a site has a European designation (e.g. Special Area of Conservation) it will generally be regarded as more important/sensitive than another site with a national or local designation (e.g. Local Nature Reserve). The terminology defining sensitivity can vary according to discipline or the methodology being used. However, within this ES sensitivity is generally determined as Very High, High, Medium or Low.

2.3.5 Each individual chapter within this ES considers the attributes of specific receptors in more detail.

Determining Impact Magnitude

2.3.6 Magnitude is determined by predicting the scale of any potential change in the baseline conditions. Where possible, magnitude has been quantified; however where this has not been possible a fully defined qualitative assessment has been undertaken. The assessment of magnitude is carried out considering any ‘design mitigation’, i.e. relevant design features, in the proposal forming part of the development description. This may result in the need for ‘additional mitigation’ i.e. that which results from the EIA process, to reduce impacts further. In each case a post mitigation “reduced magnitude” will be used to qualify residual effects.

2.3.7 Magnitude will be defined within each chapter along a sliding scale. Typical terms that can be used are shown in Diagram 3. Reducing impacts are lower down the pyramid.
A2.3.8 An impact of substantial magnitude is far worse than an impact of negligible magnitude or no impact.

**Determining the Significance and Nature of Effects**

A2.3.9 To determine the significance of effect the assessor combines the predicted magnitude of impact (change) with the assigned sensitivity (value) of the receptor. This is shown as an equation in Diagram 4:

\[
\text{Effect} = \text{Receptor sensitivity} \times \text{Impact magnitude}
\]

**Diagram 3** Pyramid depicting the relative scale of impact magnitude terminology

A2.3.10

A2.3.11

A2.3.12 Table 2.1 shows how the interaction of magnitude and sensitivity can be combined to determine the significance of an environmental effect on a scale (note this does not define whether an impact is significant or not, see below). Deviation from the terminology may occur in cases where an established methodology requires this, which will be explained in relevant chapters.

A2.3.13 The definition of at what level of significance a significant impact arises will be provided within the topic method section of each chapter of the ES. This is important in the context of the EIA Regulations which in Schedule 4, Part 1, Paragraph 4 require a description of the likely significant effects of the development (HMSO, 2011) which should cover the direct effects and any indirect, secondary, cumulative, short medium and long-term, permanent and temporary, positive and negative effects of the development. Therefore, environmental effects are described as:

- Adverse or beneficial;
- Direct or indirect;
- Temporary or permanent;
- Short, medium or long term;
- Reversible or irreversible; and,
- Cumulative.

A2.3.14 Adverse describes effects which are undesirable and beneficial describes effects which are desirable, and are used to describe effects resulting from impact magnitudes which are either negative or positive.

A2.3.15 Each effect will have a source originating from the development, a pathway and a receptor. Effects which operate this direct way are regarded as direct effects. Effects on other receptors via subsequent pathways are regarded as indirect effects.

A2.3.16 Each individual chapter within this ES considers the nature of effects and significance of effects and their definitions in more detail as required.

**Table 2.1** Example Significance of Effects Matrix

<table>
<thead>
<tr>
<th>Magnitude of Impact</th>
<th>Substantial magnitude</th>
<th>Moderate magnitude</th>
<th>Slight magnitude</th>
<th>Negligible magnitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity of Receptor</td>
<td>Very High</td>
<td>Major</td>
<td>Major/Intermediate</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Major</td>
<td>Major/Intermediate</td>
<td>Intermediate/Minor</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>Major</td>
<td>Intermediate</td>
<td>Minor</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Minor</td>
<td>Minor</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

**EIA Assumptions and Limitations**

A2.3.17 The following key assumptions have been made in preparing the ES:

- All legislative requirements will be met by the development.
- The pre-additional mitigation effects assessment reported within this ES assumes that development plots will be constructed in accordance with industry standard techniques, unless stated in chapter 3, in accordance with currently enforced mandatory minimum standards, and assumes suitably experienced
contractors will be appointed to design, construct and commission each development. The base assessment is reported on the design, construction, and operation of the development as provided within the description given in Chapter 3; and

2.3.18 The potential environmental effects of the construction of the Biomass Facility will be controlled through a Code of Construction Practice as referred to in Chapter 3 and with full compliance of any planning conditions.

2.3.19 Where further assumptions have been made for individual topic assessments these will be identified within the relevant topic chapters.

2.3.20 Any limitations or uncertainties associated with impact prediction or the sensitivity of receptors due to the absence of data or other factors will give rise to uncertainty in the assessment. Schedule 4, Part 1, Paragraph 7 of the EIA Regulations requires that an ES state whether any "difficulties (technical deficiencies or lack of know-how) encountered by the Applicant in compiling the required information." (HMSO, 2011). In this case any limitations in the assessments are referred to in the relevant chapter of this ES.

**Proposed Mitigation Measures**

2.3.21 A description of the mitigation measures is one of the requirements of the EIA Regulations. Schedule 4, Part 1, Paragraph 5 of the EIA Regulations sets out the information that must be included in an ES and this includes "a description of the measures envisaged to prevent, reduce and where possible, offset any significant adverse effects on the environment." (HMSO, 2011). In this case any limitations in the assessments are referred to in the relevant chapter of this ES.

2.3.22 In order to reduce the magnitude of the impact and therefore the significance of the environmental effect, where possible, mitigation measures have been identified. The following hierarchy, and terminology, has been used when determining mitigation measures as depicted in Diagram 5:

- **Prevent**: To prevent or avoid adverse effects as far as possible by designing out (design mitigation) or by using preventative measures during the construction process (additional mitigation) resulting in neutral effects.
- **Reduce**: To minimise adverse effects as far as possible by improvements to the design (design mitigation) or using reductive (but not fully preventative measures due to technical infeasibility without excessive cost) during the construction process (additional mitigation) resulting in neutral effects.
- **Offset**: To offset or compensate for adverse effects where it is not possible to avoid effects, or where the effect has been already reduced (minimised) as far as technically feasible (without excessive cost). With offsetting and compensation effects may not be fully neutralised.
- **Enhance**: To identify opportunities where enhancement can be incorporated into the scheme where effects have been neutralised.

**Diagram 5** The mitigation hierarchy applied in EIA

2.3.23 When describing mitigation measures, they generally fall under two headings, 'design mitigation' and 'additional mitigation'.

2.3.24 Design mitigation is where the design of the site has been altered to take into account a particular issue or accommodate an important feature. This will generally be part of the project description and incorporated into the scheme, but has also been identified in the relevant chapter. It should be noted that design mitigation was provided within the original application and no further amendments to site design have been provided within the revised submission.

2.3.25 Additional mitigation is all other mitigation that has been identified as a result of the impact assessment that has been undertaken on the fixed design scheme. Clear details of when and how the mitigation measures identified in the chapter will be implemented, have been given. An assessment of 'residual' magnitude is conducted following the determination of suitable additional mitigation measures. The subsequent assessment of residual significance identifies the residual environmental effects, these being the final outcome of the EIA process. Statements are made of whether residual effects are significant or not.

2.4 **References**