### 3. EIA METHODOLOGY

### 3.1 Introduction

This chapter explains the EIA methodology and describes the ES structure and content. In particular, it details the process of identifying and assessing the likely significant environmental effects of the Proposed Development.

# 3.2 EIA Scoping

The Project Team has undertaken an EIA Scoping exercise based on a review of the 2016 ES for the Consented Development, the information it contains on the Site and its surrounds and the conclusions it reached on likely significant effects. The Scoping Report was submitted to NCC on 17<sup>th</sup> January 2019 (see **Appendix 3.1**).

The scoping exercise took into account:

- changes in requirements arising from the EIA Regulations 2017 since the 2016 ES was produced in accordance with the previous (2011) regulations;
- the mitigation and planning conditions that were identified as part of the 2016 ES and decision notice that the Applicant continues to commit to where relevant;
- material differences between the Consented Development and Proposed Development in relation to the potential to generate significant environmental effects; and
- the potential for material changes in environmental baseline characteristics since 2016.

## 3.2.1 Scoping Exercise

For each technical topic, the scoping exercise distinguished three categories of effects as follows.

- Scoped out: where an effect was previously scoped out and that matter is not affected by any
  relevant changes relating to the Proposed Development, its baseline or the regulations, that effect is
  scoped out.
- Scoped in, updated assessment required: because of a material difference between the Proposed Development and the Consented Development, or a material change in the baseline since 2016 or a change in the law, professional guidance or EIA Regulations the conclusions of the 2016 ES may not necessarily still be valid and so further assessment is required (such as repeating the atmospheric dispersion modelling).
- Scoped in, non-material change to the 2016 assessment: where there are no material differences between the Proposed Development and the Consented Development, or material changes in the baseline since 2016 or changes in the law, professional guidance or EIA regulations the conclusions of the 2016 ES are taken as still valid and presented as such in the present ES.

In summary the following environmental topics were scoped into the EIA:

- transport and access;
- air quality and odour;
- noise and vibration;
- townscape and visual amenity;
- ecology and nature conservation;
- water quality and hydrology;
- soils, geology and contamination;

- waste management;
- archaeology and cultural heritage; and
- greenhouse gas assessment.

The following environmental topics were scoped out from the EIA:

- air quality effects associated with the use of auxiliary boilers and back up engines;
- an assessment of the need for the facility in context of borough/regional/national waste arisings and management policies, which is addressed as part of the Planning Statement for the application;
- historic landscape.

The following topics have been addressed to an appropriate extent in the ES:

- Vulnerability of the development to climate change. The one area of vulnerability is in regard to the changes (increases) in future rainfall volumes and rainfall intensity and thence flood risk. This is addressed in Chapter 12 (Water Resources and Flood Risk).
- Major accidents and/or disasters. The only natural disaster that the project is at risk of is flooding which is addressed above. In terms of accidents that could have environmental consequences, these are addressed through the design of the Proposed Development (Chapter 4, section 4.7).

## 3.2.2 Scoping Responses

Due to a delay in NCC adopting its Scoping Opinion, this was not available prior to submission of the application, however the consultation responses received were taken into account. The consultation responses are included in **Appendix 3.2**. **Table 3.1** summarises the responses received.

 Table 3.1
 Summary of Scoping Responses

Respondent	Item Raised	Reference where is it addressed in this ES	
Environment Agency	The Site is located within an area where controlled waters are particularly sensitive because the Site is located upon a secondary aquifer. The Environment Agency has no concerns with the proposed scope of the EIA in terms of flood risk as the Site is wholly within Flood Zone 1. The Environmental Permitting (England and Wales) Regulations 2016 require a permit to be obtained for any activities which will take place within 8m of a main river.	The nearest watercourse is more than 20m to the north of the Site boundary. The ES includes assessment of the impact of the Proposed Development on controlled waters in Chapter 12 (Water Quality and Hydrology).	
	The Site has been in industrial use for a significant period of time and there is potential for legacy land contamination. The developer should undertake desk studies and Site investigations to determine the extent of contamination and prepare a remediation strategy. Where these reports are missing or they don't demonstrate that redevelopment can go ahead without environmental damage we will likely raise an objection to the planning application.	The Site has been subject to ground investigations that identified the general presence of contamination. Chapter 13 summarises the findings of the investigation and assesses the likely significant effect of the Proposed Development in relation to soils, geology and contaminated land.	
Natural England	The scoping request is for a proposal that does not appear, from the information provided, to affect any nationally designated geological or ecological sites (Ramsar, SPA, SAC, SSSI, NNR) or landscapes (National Parks, AONBs, Heritage Coasts, National Trails), or have significant impacts on the protection of soils (particularly of sites over 20ha of best or most versatile land), nor is the development for a mineral or waste site of over 5ha. At present therefore it is not a priority for Natural England to advise on the detail of this EIA.		
	<ul> <li>Biodiversity and Geology:</li> <li>Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters.</li> <li>Natural England undertakes an initial assessment of all development consultations, by determining whether the location to which they relate falls within geographical 'buffer' areas within which development is likely to affect designated sites. The proposal is located outside these buffer areas and therefore appears unlikely to affect an internationally or nationally designated site. However, it should be recognised that the specific nature of a proposal may have the potential to lead to significant impacts arising at a greater distance than is encompassed by Natural England's buffers for designated sites.</li> <li>The ES should assess the impact of all phases of the proposal on protected species.</li> </ul>	The ES includes an assessment of ecology and nature conservation in Chapter 11 which follows the Institute of Ecology and Environmental Management's guidance and considers the NPPF.  Designated and local nature conservation sites have considered in Chapter 11. Additionally statutory and non-statutory sites have been screened in relation to the potential for adverse impact from air quality emissions out to 15km from the Site (see Chapter 9 Air Quality and Odour) and assessed in Chapter 11.	
	<ul> <li>Landscape:</li> <li>The consideration of landscape impacts should reflect the approach set out in the Guidelines for Landscape and Visual Impact Assessment (Landscape Institute and the Institute of Environmental Assessment and Management, 2013, 3rd edition), the Landscape Character Assessment Guidance for England and Scotland (Scottish Natural Heritage and The Countryside Agency, 2002) and good practice.</li> </ul>	The ES includes an assessment of impacts on townscape and visual amenity in Chapter 10.	

	Land Use and Soils:  Development of buildings and infrastructure prevents alternative uses for those soils that are permanently covered, and also often results in degradation of soils around the development as result of construction activities.	The Site was formerly a landfill that ceased operations in 2009 and was subsequently capped. The re-use of soils is of limited relevance to the Site.
	<ul> <li>Air Quality:         <ul> <li>Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition (England Biodiversity Strategy, Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity.</li> </ul> </li> </ul>	The ES includes an assessment of potential air emissions on sensitive nature conservation sites in Chapter 9 (Air Quality and Odour).
	Climate Change Adaptation:  The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained.	The retention of a green buffer along the edge of the proposed Local Wildlife Site (pLWS) will prevent fragmentation and isolation and, therefore, will maintain existing ecological networks as well as protect the pLWS from damaging activities in the future. The enhancement of the site i.e. change in grassland cutting regime, creation of species rich grassland and new habitat types associated with the drainage basin will increasing the resilience of nearby ecosystems and provide new opportunities to wildlife. Overall, the Site is currently of low ecological value and could support a very low number of protected species. Once complete, the site will have a much greater capacity to support Great Crested Newts, reptiles, Common Toad, foraging/commuting bats and nesting birds which will be beneficial to biodiversity in the long-term.
NCC (Lead Local Flood Authority)	The planning application should include a Flood Risk Assessment and the impact on surface water drainage should be considered. The ES should fully consider the impact of the development on surface water.	The ES includes an assessment of the impact of the Proposed Development on water resources and flood risk in Chapter 12.
Historic England	The Historic England response suggests a study area of "c. 3 km radius" and also recommends the key assessment tool in defining this study area appropriately to be the production of a Zone of Theoretical Visibility as part of the Landscape and Visual Impact Assessment.	Chapter 15 (Archaeology and Cultural Heritage) defined a study area based on the Zone of Theoretical Visibility, a review of the Townscape and Visual Assessment (Chapter 10 of the ES), relevant guidance, including DMRB (Highways Agency et al, 2007), the Setting of Heritage Assets (Historic England, 2017b), Managing Significance in Decision-Taking in the Historic Environment (Historic England, 2015) and professional judgement. On this basis a 2.5 km study area was defined and is considered sufficient for assessment. The potential for impacts on designated assets at

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		distances greater than 2.5 km were considered during assessment. No impacts resulting in any change to the value (significance) of heritage assets were identified.	
Public Health England	Public Health England provided a series of general comments, for example that the "ES should clearly identify the development's location and the distance from the development of off-site human receptors that may be affected".	Human receptors have been considered in relevant technical ES chapters.	
Environmental Protection Office – East Northamptonshire Council	No objection to the scope of the EIA raised.	N/A	
NCC Archaeological Advisor	Agreed that the information provided within the 2016 ES remains valid to below ground archaeology. The impact of the proposals on designated assets does however require consideration.	The impact of the Proposed Development on designated heritage assets is addressed in Chapter 15 (Archaeology and Cultural Heritage).	
Northamptonshire Highways	Provided specific advice on the committed developments that should be considered for inclusion in the traffic modelling.	The Proposed Development will generate no more vehicle trips in any given hour than was assessed in detail for the previously approved energy recovery schemes on this Site. It will generate slightly more traffic across the full working day than the 2016 scheme, but the difference is significantly below any thresholds that triggers traffic impact or air quality and noise effects. As a consequence, the same methodology was applied as was agreed for the 2016 ES. This approach was also agreed as part of the scoping for the Transport Assessment report.	

## 3.3 Consultation

The plans and a public exhibition (held on 7<sup>th</sup> February 2019) were widely publicised through an advert in the local paper (the Northamptonshire Telegraph, readership 66,621); a press release to local media; individual leaflets delivered to 3,500 residents and local businesses neighbouring the Site; a letter sent to 42 stakeholders; an email sent to 13 stakeholders; and via a website. 64 people attended the exhibition and provided a mix of responses to the proposal. A summary of the responses is provided in the Statement of Community Involvement that is included as part of the planning application.

## 3.4 Assessment Methodology

The EIA Regulations stipulate that an ES should identify, describe and assess the likely significant effects of a development on the environment. Therefore, this ES identifies and assesses the likely significant effects of the Proposed Development in relation to both the construction and phases. Environmental effects have been evaluated with reference to definitive standards and legislation where available. Where it has not been possible to quantify effects, qualitative assessments have been made based on available knowledge, professional judgement and the evidence base. Where uncertainty exists, this has been noted in the relevant assessment chapter.

## 3.4.1 Assessment Criteria

The EIA approach has generally followed ERM's standard method for impact assessment (**Figure 3.1**) but noting that the EIA builds upon previous work for the Consented Development. The approach also varies according to the requirements of topic-specific guidance, including any updates that have been identified since submission of the 2016 ES.

An ES chapter is provided for each of the topics scoped-in to the EIA, which will present the topic-specific assessment methodology, environmental baseline conditions and significance of environmental effects before and, where necessary, after mitigation. Cumulative effects have been presented in each topic chapter and the list of cumulative schemes proposed to be assessed is presented in the following section (see Table 3.2).

The ES identifies the effects of the Proposed Development in its own right, as required by the EIA Regulations 2017. It also highlights the main differences in effects between the Consented Development and the Proposed Development.

The two categories of assessment 'scoped in, updated assessment required' and 'scoped in, non-material change to the 2016 assessment' have been used as sub-headings in the technical ES chapters to help highlight the differences between the Consented Development and Proposed Development and to assist NCC in its decision-making.

## 3.5 Baseline Conditions

The ES includes a description of the prevailing environmental conditions, the 'baseline conditions', against which the likely significant environmental effects of the Proposed Development have been assessed. These are taken to be the conditions at the time or immediately prior to the submission of the planning applications and have been drawn from the 2016 ES and updated as required. Additionally, where the baseline could change over time to lead to material differences in environmental effects, future baseline conditions are also considered.

# Figure 3.1 Method for EIA

### Identify Impact

The scoping process identifies the potentially most important/significant impacts and effects (including secondary, indirect and cumulative) for the assessment to address. This is done through a combination of:

- looking at the nature of the project activities and the impacts they will give rise to:
- looking at the project's environmental and social setting and those aspects which are likely to be most sensitive/vulnerable to impacts from the project;
- applying professional understanding gained from the evidence base; and
- considering inputs from stakeholders through consultation.

Decisions will then be made on which impacts and effects to assess or to prioritise in the assessment (scoping in and scoping out) and how to assess them.

#### Predict Magnitude

The project's impacts will be quantified in terms of such matters as:

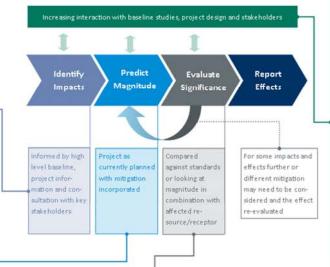
- landtake area or habitat loss;
- proportion of an ecological population exposed to impact,
   change in noise levels or pollution at a receptor, and
- numbers of jobs generated in the local economy.

In predicting magnitude, the effect of all the project mitigation in place (i.e. adopted by KSP Renewables Ltd) will be taken into account.

For some impacts, especially noise, air and water pollution, significance can be assessed directly against numerical criteria and standards. For exceedances, further mitigation must be incorporated by the project to reduce the magnitude of the impact (and the significance of its effect).

For other impacts nominal levels of magnitude (e.g. small, medium, large) may be adopted based on widely recognised factors such as: the nature of a change (what is affected and how); its size, scale or intensity, its geographical extent and distribution; its duration, frequency, reversibility and, for unplanned events, likelihood of occurrence.

Some activities will result in changes to the environment that may be immeasurable or undetectable or within the range of normal natural variation. Such changes will be assessed as having no impact or to be of negligible magnitude and will not lead to significant effects.



#### Evaluate Significance

In evaluating significance, the EIA process seeks to inform regulators and stakeholders about the effects of the Proposed Development in a way that helps them make decisions on whether to approve and allows them to develop suitable conditions to attach to an approval. The evaluation of significance should ideally demonstrate legal compliance at least (e.g. compliance with quantified standards, avoidance of effects on legally protected resources).

In the absence of quantified standards, significance can be evaluated through considering the magnitude of an impact in combination with the importance/quality/value of the receptor or resource that is affected, also considering the response (or sensitivity) of a resource or a receptor to a particular impact. Effects of more than minor significance may warrant re-examination to see if an impact magnitude can be reduced further. Different mitigation options may be examined and the reasons for selecting one and rejecting others explained. Some impacts/effects that cannot be adequately mitigated may need to be addressed through the consideration of offsets or compensation.

The evaluation process may go through one or more iterations of working with project design to develop suitable mitigation measures and re-evaluating impacts and effects.

#### Describe Baseline

Baseline data will be collected to better understand the potentially most important impacts and effects identified in scoping. Baseline data may quantify existing exposure levels (e.g. for noise, air and water pollution), identify vulnerable populations of animals or people, more clearly delineate valued cultural property and ecosystem services etc.

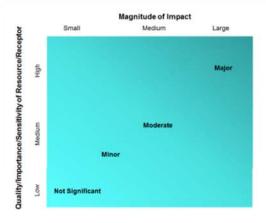
Where a baseline aspect cannot be quantified then nominal levels of importance, quality or value (low, medium, high) will be assigned based on widely accepted criteria in fields such as ecology, cultural heritage, landscape and socioeconomic assessment. Interrelationships between elements of the baseline will be identified.

#### Interact with Project Design

The EIA process will interact with the project design team to develop a basis for the assessment (for example quantities of emissions, noise levels of equipment, sizes of structures). The EIA process will also interact with design to assess optimal mitigation options, especially when after initial assessment some impacts may need to be further reduced.

#### Consult Stakeholders

Ongoing stakeholder consultation, is good practice in EIA and is undertaken to refine the assessment and present preliminary findings to stakeholders to elicit early responses and help make the ES as fit for purpose as possible.



While the above provides a general framework for identifying impacts and assessing the significance of their effects, in practice the approaches and criteria applied across different environmental and socio-economic topics vary.

## 3.6 Cumulative Effects

Cumulative impacts from proposed or committed developments in the vicinity of the Site have been considered within each of the technical chapters. Developments that might have a significant cumulative effect in combination with the Proposed Development have been identified from a review of Planning Authority registers (NCC, Corby Borough Council (CBC), NSIPS etc.), the list of developments included in the 2016 ES and consideration of their status e.g. if they have been built out since 2016 they will now form part of the baseline conditions.

The status of the schemes identified in the 2016 ES was reviewed to see if built out, expired or still to be constructed. The review of planning registers was limited to a distance of up to 3 km from the Site. The developments were screened based on the timeframe of the Proposed Development (i.e. if they would be constricted concurrently with the Proposed Development) and potential significant effects.

The developments proposed for inclusion in the cumulative assessment are presented in **Table 3.2** and shown on **Figure 3.2**.

Table 3.2 Cumulative Schemes

Reference	Description	Status
Priors Hall Mixed Use Development ENC Refs: 04/01326/OUT and 16/01237/AMD	Mixed use: Urban extension to Corby, including residential (up to 5,100 units), Employment (up to 14ha, 1 District Centre, 2 neighbourhood centres, Schools (1 Secondary, 3 Primary), Hotel, Formal and Informal Open Space, together with changes to the operating regime at Rockingham Motor Speedway, at Priors Hall Site, Kirkby Lane.	Applications permitted in 10/02/2012 and 12/09/2016. The development is partway through construction (estimated completion 2031).
Former Rockingham Speedway, ENC Refs:15/02020/OUT and 15/00976/OUT	Development of an employment park comprising up to 121,703sqm (gross) floorspace for light industrial, general industrial (automotive production) and storage/distribution.	Application permitted subject to legal agreement.
Stamford Road Renewable fuel production and recycling facility, NCC Ref: 4/00093/WASVOC	Establishment of a renewable fuel production and recycling facility including various non-material amendments and related applications at Weldon Landfill, Stamford Road.	Application approved 25/03/2015. Development implemented but not yet constructed.

## 3.7 References

No references

