

North London Waste Authority
**North London Heat and Power
Project**

Preliminary Environmental
Information Report
Volume 2 Appendix 4.1 Ecology
Assessment Methodology

Issue for Consultation

May 2015

Arup

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

ARUP

nlwa
north london waste authority



Contents

	Page
1 Assessment Methodology	1
1.1 Introduction	1
1.2 Engagement	1
1.3 Legislation and guidance	8
1.4 Baseline conditions	10
1.5 Construction	13
1.6 Operation	14
1.7 Decommissioning effects	14

1 Assessment Methodology

1.1 Introduction

1.1.1 This appendix sets out the methodology for assessing the likely significant effects of the Project on ecology.

1.1.2 This appendix is divided into the following parts:

- a. engagement – describing a summary of comments included in the Scoping Opinion and through further stakeholder engagement and how these comments have been addressed;
- b. legislation and guidance – detailing requirements of the relevant National Policy Statements (NPS), how these have been addressed and additional guidance relevant to the assessment;
- c. methodology for establishing baseline conditions; and
- d. methodology for the assessment of construction, operation decommissioning and cumulative effects.

1.2 Engagement

1.2.1 The Scoping Report recommended that ecology be scoped out from the assessment. The results of extensive ecological surveys at the Application Site indicate that there is limited potential for significant adverse effects arising from the Project. However, in response to comments received during the scoping opinion process, this topic has been scoped back in to the assessment. Ecology is included as a streamlined assessment as a precautionary approach.

1.2.2 There are European sites near to the Application Site and therefore screening for Habitats Regulations Assessment (HRA) is underway. The criteria used in the Ecological Impact Assessment (EclA) and HRA processes are different, whereby EclA considers the evaluation of all ecological features and the likely significance of effects upon these and HRA focuses on the effects of the proposals on the specific qualifying features and conservation objectives of the designated site. Where a project subject to EIA would also be likely to have significant effects on a European site, the appropriate assessment under the Habitats Regulations must be carried out as well as undertaking the EIA. The Interim Screening Statement for the HRA is included at Vol 2 Appendix 4.2.

1.2.3 Vol 2 Appendix 4.1 Table 1 provides a summary of the main differences between the approach of HRA and EIA assessments and why both are relevant.

Vol 2 Appendix 4.1 Table 1: Main differences between EIA and HRA processes

EIA Regulations	Habitats Regulations
Apply only to projects listed in Schedules to the EIA	Apply to all projects
Promoter must submit an environmental impact statement	Promoter must submit information for the appropriate assessment as may reasonably be required by the competent authority
The EIS must address all likely significant effects on the environment	The appropriate assessment is confined to likely significant effects on the features of the European site(s)
The Project is subject to wide publicity to ensure the public are able to comment	Public consultation is discretionary
The EIS is intended to inform the decision	The outcome of the assessment can direct the decision that should be made
<p>The competent authority must take account of all significant environmental effects and apply the precautionary principle as a matter of judgement and policy</p> <p>The competent authority must record in the decision notice and public registers that it has taken account of the environmental information</p>	<p>The competent authority must ascertain that the Project will not have an adverse effect on the integrity of a European site, applying an equivalent to the precautionary principle as a matter of law</p> <p>There is no statutory requirement to record or register the outcome of Habitats Regulations assessments, but it is highly advisable to do so</p>

1.2.4 Comments and responses relating to ecology are provided in full in Vol 2 Appendix 4.1 Table 222 below.

Vol 2 Appendix 4.1 Table 22: Ecology engagement responses

No.	Organisation and date	Comment	Response
1.	Natural England (June 2014)	<i>"The approach and methodology of the surveys is in line with advance that would be offered by Natural England. However it is advised that due to the length of time for schemes to be submitted and a decision reached that ongoing monitoring of the site for species is maintained to ensure the baseline evidence remains sound."</i>	An ecological walkover survey was undertaken on 8 September 2014 to update the results of previous surveys.
2.		<i>"consider appropriate and relevant legislation including the National planning Policy Framework and the Habitats Regulations 2010 and Wildlife and Countryside Act 1981 (as amended)."</i>	The assessment takes account of planning guidance and legislation relevant to biodiversity.
3.		<i>"The site is close to Natura 2000 sites and therefore will require screening for Likely Significant Effect (LSE) on the interest features of the Walthamstow"</i>	Screening for HRA is required for the Project and is reported separately. The Interim Screening Statement for HRA

No.	Organisation and date	Comment	Response
		<i>Reservoirs Ramsar and Epping Forest Special Area of Conservation, alone and in combination with other plans and projects.”</i>	is included at Vol 2 Appendix 4.2.
4.		<i>“Chingford Reservoirs are also in close proximity to the proposed site which includes numbers of overwintering Gadwall and Grebe. These species are susceptible to noise and air pollution disturbance, especially during the period December to February, when they are likely to be at their weakest.”</i>	Chingford Reservoirs Site of Special Scientific Interest (SSSI) has been considered in the PEIR and screening for HRA (see Vol 2 Appendix 4.2).
5.	Natural England (November 2014)	<i>“Natural England is satisfied that, on the basis of the objective information provided within the EIA the proposed plan or project will not have a significant effect on The Lee Valley Ramsar, either individually or in combination with other plans or projects... that the proposed operations are unlikely to damage any of the interest features of the Walthamstow and Chingford Reservoirs SSSI, which are also component part of the Lee Valley Ramsar.</i>	A scoping report has been undertaken. The EIA will follow in due course.
6.		<i>that the approach and methodology of the EIA scoping report is sufficient to provide North London Waste Authority with sufficient baseline information in order to assist in developing the Habitats Regulation Assessment.”</i>	
7.		<i>“The EIA scoping report recognises the need for a Habitat Regulation Assessment for the scheme that will consider relevant European sites such as the Lee Valley SPA and Ramsar site and Epping Forest SAC. The HRA will also consider the potential impacts associated with noise, light, air pollution (dust) and discharges.”</i>	HRA screening is being undertaken (see Vol 2 Appendix 4.2) and will consider potential impacts of noise, light, air pollution and discharges on all relevant European sites. The results of this process will be reported separately.
8.	Environment Agency (November 2014)	<i>“We advocate the use of green roofs in the development”, which can improve biodiversity. We also support improvements to Enfield Ditch.” “Any design will need to support the requirements of the Water Framework Directive, including no overall deterioration in water quality or</i>	Green and brown roofs would be included on the new ERF building. Landscape proposals include marginal native planting along Enfield Ditch and removal of scrub would take place to increase light levels and improve floristic diversity. These works

No.	Organisation and date	Comment	Response
		<i>the ecological status of any waterbody. As such, the scheme should aim to restore or rehabilitate the channel back to more natural conditions e.g. natural banks and bed shape and material.</i>	support the requirements of the Water Framework Directive.
9.	Secretary of State (SoS), London Borough Enfield, NHS Property Services Ltd and Environment Agency (November 2014)	<p><i>“The Secretary of State considers that the Scoping Report does not provide sufficient evidence to justify scoping out the other potential aspects identified. The reasons for this are as follows:[...]</i></p> <ul style="list-style-type: none"> <i>• the justification to scope out potential ecological impacts relies on a summary of the ecological survey work undertaken and proposed mitigation/enhancement measures to be included within the Code of Construction Practice, the design of the development and through the Habitats Regulations screening assessment. The reliability/validity of the survey summary information is not demonstrated in the Scoping Report and insufficient detail regarding the design of the development or the proposed mitigation measures is provided to prove that effects would not be significant. The proximity of national/European designated sites, the presence of some protected species (e.g. bats and breeding birds) and the adjacent/nearby watercourses as potential impact pathways to these and other sensitive receptors indicates the potential for significant effects (e.g. through loss or disturbance).”</i> (para 3.11 bullet i) <p><i>Ecology should be scoped in (Appendix 2).</i></p> 	<p>A summary of the survey results is provided in the Scoping Report, with full details contained in Appendix 7 of the Scoping Report. Survey results are also contained in Vol 2 Appendices 4.3, 4.4, 4.5 and 4.6 of the PEIR. It is considered that these surveys have informed a reliable assessment of the baseline conditions at the Application Site. The scope of further survey work was discussed with Natural England at a meeting on 16 June 2014 and a formal scoping response associated with the Discretionary Advice Service (DAS) was received on 28 November 2014. Natural England confirmed that they supported the approach with regards to updating the baseline conditions at the Application Site to inform the DCO application. The survey work was updated as agreed, with bat survey work also undertaken.</p> <p>Potential significant effects on European sites are assessed to inform HRA screening (see Vol 2 Appendix 4.2). Natural England states in their formal scoping response associated with the DAS that they are satisfied with the scope of the HRA and conclude that the Project would not have a significant effect on Lee Valley Ramsar, either individually or in combination with other plans or projects.</p> <p>The Application Site supports foraging bats and breeding birds, but there is no potential for significant effects. The implementation of the Landscape Strategy and</p>

No.	Organisation and date	Comment	Response
			<p>CoCP would ensure compliance with legislation, and ultimately ensure a net gain in biodiversity in accordance with planning policy. With respect to potential impacts on other designated sites, specifically Lee Valley Site of Metropolitan Importance for Nature Conservation (SMINC) and Chingford Reservoirs SSSI, specific ecological requirements are contained within the Interim CoCP and design of the Project.</p> <p>Ecology has been included as a streamlined assessment in response to this comment.</p>
10.		<p><i>“The Scoping Report acknowledges that the proposed development is located near to a number of local, national and international designated sites for nature conservation as well as other sensitive ecological habitats. The potential impact on these habitats and designations due to any predicted increase in airborne pollutant emissions during construction and operational phases should be considered in the EIA. Section 4 of this Opinion provides specific advice on considering and assessing impacts on designated sites and protected species.” (para 3.20)</i></p>	<p>European designated sites are considered in the Statement to inform the HRA, specifically Lee Valley Special Protection Area (SPA) and Ramsar and Epping Forest Special Area of Conservation (SAC). This includes Walthamstow Reservoirs SSSI, which forms part of Lee Valley SPA, as well as Chingford Reservoirs SSSI, with respect to indirect impacts on the European site. Where required, the design of the Project has been altered (through design input by the ecology team) to avoid impacts, including those associated with changes in polluted emissions during the operation of the Project, for example through treatment of acid gas.</p> <p>Additionally, Vol 2 Section 2 (Air Quality and Odour) includes an assessment of airborne pollutant emissions on ecological receptors.</p>
11.		<p><i>“Paragraph 7.1.4 explains that the term ‘impact’ is used in Section 7 in place of ‘effect’ as used in the EIA Regulations. It states that this is to accord with the CIEEM EIA Guidelines, however the terms are considered to have the same meaning with respect to the Regulations. The Secretary of State</i></p>	<p>‘Effect’ is used instead of ‘impact’ to maintain consistency.</p>

No.	Organisation and date	Comment	Response
		<i>does not advocate one approach over another. However, the Secretary of State does note that consistency of terms is helpful to improve understanding and interpretation of information within the ES.” (para 3.29)</i>	
12.		<i>“The Secretary of State notes the use in Appendix A2.2 of the Scoping Report of a 2km buffer to identify relevant environmental designations. The reasons for such a buffer are not explained. The Applicant should discuss and agree with relevant consultees (including Natural England) the receptors that could be affected by the proposals and whether/how the potential impacts of the proposed development on these receptors should be assessed.” (para 3.30)</i>	European designated sites located 10km of the Application Site boundary are included in the HRA screening (see Vol 2 Appendix 4.2). This has been agreed with Natural England during the meeting on 16 June 2014. A 2km buffer for other designated sites was considered appropriate on account of the scale and nature of the Project, as well as the urban location of the Application Site.
13.		<i>“The Scoping Report relies on the preparation of a Code of Construction Practice to prevent or reduce potential impacts on ecological receptors. The Applicant should liaise closely with Natural England and other relevant consultees regarding the preparation of this document and the likely effectiveness of its measures to mitigate potentially significant adverse effects. The ES should include a draft copy of this document and provide a full explanation of how potentially significant adverse effects will be addressed.” (para 3.31)</i>	The CoCP has been developed alongside the ongoing design of the Project. The Interim CoCP is included in Vol 1 Appendix 3.1 and Vol 2 Section 4 (Ecology) describes the measures incorporated into the Interim CoCP that would be implemented to avoid adverse ecological effects.
14.		<i>The potential impacts on international and nationally designated sites should be assessed. The Secretary of State notes the possible need for an Appropriate Assessment in view of the development site’s location in relation to the Lee Valley SPA and Ramsar site as well as the Epping Forest SAC (see Section 4 of this Opinion for more detail regarding the information requirements for this).” (para 3.32)</i>	HRA screening is underway considering the proximity of the Application Site to Epping Forest SAC and Lee Valley SPA and Ramsar site (Vol 2 Appendix 4.2). The scope of this assessment has been informed by discussions with Natural England.
15.		<i>“It is noted that the proposals involve the discharge of cooling water into Salmon’s Brook. There is also the potential for other surface or ground water contaminants to leach or flow into nearby watercourses. The</i>	As set out in para 2.2.4 of the Scoping Report, the existing EfW currently discharges to Salmon’s Brook as well as Enfield Ditch and foul sewer. The EfW would continue to

No.	Organisation and date	Comment	Response
		<i>potential impacts on aquatic flora and fauna resulting from changes to water quality therefore need to be considered as part of the EIA.” (para 3.33)</i>	discharge surface water to Enfield Ditch and there would be no change to the quality or volume of discharge, meaning that water quality would be no worse and likely to be better than that currently discharged as a consequence of the sustainable drainage scheme which would be implemented. As such, there would be no adverse impacts on aquatic ecology. The standards for water to be discharged to the Brook would be agreed with the Environment Agency via the permit to discharge.
16.		<i>“The assessment should take account of the inter-relationships between impacts from changes in noise, vibration and air quality (including dust) on ecological receptors, and appropriate cross reference should be made to these topic chapters when considering magnitude and significance of potential effects.” (para 3.34).</i>	Information on interrelationships between topics are provided within each topic assessment with appropriate cross-references provided. Interactive effects are also presented in Vol 2 Section 11, which includes consideration of multiple Project effects on receptors.
17.		<i>Environment Agency - “We recommend that through this development proposal, the Applicant seeks all opportunity to protect and enhance the local ecological environment.” (Appendix 2)</i>	Ecological enhancements have been incorporated into the Project. This includes bird boxes, tree and shrub planting, wildflower meadows and habitat enhancements (through additional planting and improvements to Enfield Ditch) along the section of the Lee Park Way, which runs parallel to the eastern Application Site boundary.
18.		<i>NHS Property Services Ltd “What is going to be done to ensure that the habitat, especially for the birds as detailed in the EIA, is going to be maintained, or improved to ensure that the environment is not lost?” (Appendix 2)</i>	Habitat lost to facilitate the Project would be replaced through the implementation of the Landscape Strategy, including green roofs, bird boxes for nesting birds and vegetated buffers along the watercourses.

1.3 Legislation and guidance

- 1.3.1 The principal legislation relating to ecology and nature conservation are as follows:
- a. Wildlife and Countryside Act 1981¹ (as amended) (WCA) - comprises the primary means of protecting wildlife in the UK, including all wild birds and their nests, certain animals and plants;
 - b. The Conservation of Habitats and Species Regulations 2010² (as amended) (Habitats and Species Regulations) – provides protection for European Protected Species (EPS) and their habitats;
 - c. Countryside and Rights of Way (CRoW) Act 2000 - strengthens the WCA in relation to threatened species and requires the publication of a list of living organisms and habitat types considered to be of principal importance in conserving biodiversity (the UK Biodiversity Action Plan) and that government departments have regard for the conservation of biodiversity; and
 - d. Natural Environment and Rural Communities (NERC) Act 2006³ - requires the publication of a list of organisms and habitat types considered to be of principal importance in conserving biodiversity in consultation with Natural England (the Section 41 list) and extended the requirement to have regard for conserving biodiversity to all public authorities.
- 1.3.2 The Wild Mammals (Protection) Act 1996⁴ is also relevant to the Project. This legislation makes it an offence to intentionally cause wild mammals' any unnecessary suffering by certain methods, including crushing and asphyxiation.
- 1.3.3 Relevant guidance documents are summarised below:
- a. Enfield's Local Development Framework Section 106 Supplementary Planning Document⁵ (adopted in November 2011) includes Policy 36 which 'seeks to protect, enhance, restore and add to biodiversity interests within the borough';
 - b. HRA screening is being undertaken for the Application Site (see Vol 2 Appendix 4.2) and this assessment complies with the Planning Inspectorate's Advice Note 10⁶, which sets out guidelines for the assessment of nationally important infrastructure projects;

¹ Her Majesty's Stationery Office (HMSO) (1981) Wildlife and Countryside Act 1981.

² HMSO (2010) The Conservation of Habitats and Species Regulations 2010.

³ HMSO (2006) Natural Environment and Rural Communities Act.

⁴ HMSO (1996) Wild Mammals (Protection) Act 1996.

⁵ Enfield Council (2011) Enfield's Local Development Framework. Section 106 Supplementary Planning Document. Available at: http://www.enfield.gov.uk/downloads/file/4850/s106_spd_adopted_november_2011

⁶ The Planning Inspectorate (2013) Habitats Regulations Assessment. Advice note ten: Habitat Regulations Assessment relevant to nationally significant infrastructure projects. Available at: <http://infrastructure.planningportal.gov.uk/wp-content/uploads/2013/09/Advice-note-10-HRA.pdf>

- c. Although the UK Post-2010 Biodiversity Framework and UK⁷ superseded the UK BAP⁸ in July 2012, the lists of priority species and habitats continue to provide valuable reference sources with respect to priorities for conservation while a National Biodiversity Strategy and/or Action Plan is being produced. The former UK BAP is relevant in the context of Section 40 of the NERC Act 2006, meaning that priority species and habitats are material considerations in planning;
- d. The Bat Conservation Trust Guidelines⁹ have been developed by the BCT and partner organisations (including CIEEM) to describe best practice methodology for undertaking all types of bat survey work. The guidelines include all necessary information to ensure surveys are conducted in a thorough and standardised way and that the results produced are robust.
- e. The population status of birds regularly found in the UK, Channel Islands and the Isle of Man is reviewed every five years to provide an up-to-date assessment of conservation priorities. The 2009 Birds of Conservation Concern (BoCC) review has assessed a total of 246 bird species against a set of objective criteria to place each on one of three lists indicating an increasing level of conservation concern – from green to red⁸. In the UK, there are 52 species on the red list, 126 on the amber list and 68 on the green list.

Vol 2 Appendix 4.1 Table 3: Ecology NPS EN-1 requirements

Requirements of NPS EN-1	How the requirement is addressed	Location of where to find further detail
Para 5.3.2 – “ <i>The wide range of legislative provision at the international and national level that can impact on planning decisions affecting biodiversity and geological conservation issues are set out in Government Circular: Biodiversity and Geological Conservations – Statutory Obligations and their Impact with the Planning System. A separate guide (Planning for Biodiversity and Geological Conservation: A Guide to Good Practice March 2006) sets out good practice in England in relation to planning for biodiversity and geological conservation.</i> ”	This document has been reviewed and the content has been taken into account during this assessment to ensure good practice guidance is adhered to as appropriate.	Vol 2 Section 4 (Ecology)
Para 5.3.3 – “ <i>Where the development is subject to EIA</i> ”	Effects on internationally and nationally and locally	Vol. 2 Section 4.3 and 4.6.

⁷ JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012) UK Post-2010 Biodiversity Framework.

⁸ UK Biodiversity Partnership (2011) UK Biodiversity Action Plan. Available at: <http://jncc.defra.gov.uk/page-5705>.

⁹ Bat Conservation Trust (BCT) (2012) Bat Surveys; Good Practice Guidelines. Second Edition

Requirements of NPS EN-1	How the requirement is addressed	Location of where to find further detail
<i>the Applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principle importance for the conservation of biodiversity. The Applicant should provide environmental information proportionate to the infrastructure where EIA is not required.</i>	designated sites and protected species or other species of principal importance for the conservation of biodiversity are assessed in the Vol 2 Section 4 Ecology. HRA screening is also being undertaken and this will comply with guidance set out in The Planning Inspectorate Advice Note 10.	Vol 2 Appendix 4.2 (Interim Screening Statement for HRA)

Vol 2 Appendix 4.1 Table 4: Ecology NPS EN-3 requirements

Requirements of NPS EN-3	How the requirement is addressed	Location of where to find further detail
<i>Para 2.5.33 – “In sites with nationally recognised designations (Sites of Special Scientific Interest, National Nature Reserves, National Parks, the Broads, Areas of Outstanding Natural Beauty and Registered Parks and Gardens), consent for renewable energy projects should only be granted where it can be demonstrated that the objectives of designation of the area will not be compromised by the development, and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits.”</i>	The Application Site is not part of a nationally recognised designated area. However, this assessment does include consideration of potential effects on nearby designated sites during the construction and operation phases of the Project.	Vol 2 Sections 4.6 and 4.7.

1.4 Baseline conditions

Current baseline

- 1.4.1 Baseline ecological information has been derived from a suite of ecological surveys conducted between 2012 and 2015, as well as the data search which was undertaken in 2013. A summary of surveys undertaken at the Application Site is included in Vol 2 Appendix 4.1 Table 55.

Vol 2 Appendix 4.1 Table 5: Ecology surveys summary table

Survey type	Dates
Reptile surveys	September 2012 (main site) and March to May 2015 (Laydown Area)
Extended Phase 1 habitat surveys (including invasive species)	April 2013, September 2014 and February and April 2015
Bat Emergence/activity and automated surveys	August 2012, June 2013 to September 2013, September 2014 and planned for May to June 2015
Bat scoping survey	September 2014
Otter, water vole and badger surveys	April 2012, followed by checks during 2013, 2014 and 2015
Breeding bird surveys	March to June 2013
Great crested newt Habitat Suitability Indices Survey	September 2014

Receptor identification and sensitivity

Ecological features are described and those that have a potential to be impacted by the Project are valued. The criteria for determining the value of ecological features is provided in Vol 2 Appendix 4.1 Table 66, using valuation categories provided by IEEM¹⁰ (now CIEEM).

Vol 2 Appendix 4.1 Table 6: Ecological features evaluation table

Importance	Ecological feature
International	<p>A habitat or species cited as a reason for the designation or proposed designation of a World Heritage Site, Biosphere Reserve, Biogenetic Reserve, Ramsar site, Special Protection Area (SPA) or Special Area of Conservation (SAC).</p> <p>A large extent of Priority Habitat listed in Annex 1 of the EC Habitats Directive that is in good condition with typical species diversity.</p> <p>A large and viable population of a regularly occurring species that is rare within an international context.</p>
National	<p>A habitat or species cited as a reason for the designation or proposed designation of a National Nature Reserve (NNR), National Park or Site of Special Scientific Interest (SSSI).</p> <p>Any area of priority habitat listed in Annex 1 of the EC Habitats Directive that has potential to support typical species diversity.</p> <p>A viable population of a regularly occurring species that occurs in 15 or fewer 10km squares of the Ordnance Survey national grid (e.g. a Nationally Rare species or one that is listed in a RDB).</p> <p>A bird species with a British breeding or wintering population of <200 individuals.</p>
Regional	<p>A viable population of a regularly occurring species that occurs in 16 to 100 10km squares of the Ordnance Survey national grid (e.g. a Nationally Scarce species or a Nationally Notable Na and Nb Insect Species).</p> <p>A priority habitat listed in the former UK BAP that is stable, viable and in favourable condition with typical species diversity.</p>

¹⁰ Institute of Ecology and Environmental Management (IEEM) (2006) Guidelines for Ecological Impact Assessment. IEEM.

Importance	Ecological feature
	A bird species with a British breeding or wintering population of 200 to 999 individuals.
County	<p>A site designated or proposed for designation as a Local Wildlife Site (LWS), Biological Notification Site (BNS), a Local Nature Reserve (LNR) or Ancient Woodland Inventory site in a favourable condition.</p> <p>A stable and viable extent of habitat listed in the local (L) BAP that is in favourable condition that supports typical species diversity.</p> <p>A viable population of a regularly occurring species found in less than 10% of the 1km squares of the Ordnance Survey national grid within the county (e.g. a County Rare species or a species listed in a County Red Data Book).</p> <p>Invertebrate species which, whilst fairly common and not qualifying as Nationally Notable, have been recorded from over one hundred, but less than three hundred, ten-kilometre squares of the UK National Grid (e.g. a Nationally Local species).</p> <p>A stable and large population of a species of conservation concern as indicated by legal provisions designed to prevent population decline, listing in the NERC Act 2006 as a species of principal importance, or an active management plan within the former UK BAP.</p> <p>A bird species with a British breeding or wintering population of 1,000 to 24,999 individuals.</p>
District	<p>A LWS, BNS, LNR or Ancient Woodland Inventory site in an unfavourable condition, or a small area of favourable habitat that meets the criteria for designation as one of these sites.</p> <p>A habitat listed in the LBAP that is either small in extent or is in unfavourable condition that supports or has potential to support typical species diversity.</p> <p>A bird species with a British breeding or wintering population of 25,000 to 49,999 individuals.</p> <p>A small population of a species of conservation concern as indicated by legal provisions designed to prevent population decline, listing in NERC Act 2006 as a species of principal importance, or an active management plan within the former UK BAP.</p> <p>A stable and large population of a species of conservation concern as indicated by an active management plan within the LBAP.</p>
Parish	<p>A small population of a species of conservation concern as indicated by an active management plan within the LBAP.</p> <p>A bird species with a British breeding or wintering population of 50,000 to 4 million individuals.</p> <p>Any extent or condition of semi-natural habitat listed in the former UK BAP or LBAP.</p>
Site	<p>A regularly occurring native species or habitat which may or may not be listed in the former UK BAP or LBAP but is widespread and common throughout the UK.</p> <p>A bird species with a British breeding or wintering population of >4 million individuals.</p>
Negligible	An invasive species (including all species listed as non-native invasive species within Schedule 9 of the WCA), affecting an ecological merit e.g. the removal Japanese knotweed to enable a localised area of native plants to flourish.

- 1.4.2 As features of less than parish importance would not be a material consideration for the Project, only features of parish or higher importance have been considered in the assessment.

Future baseline

- 1.4.3 The future baseline schemes have been reviewed to identify whether these have a potential to affect the baseline conditions recorded through completion of the desk study and surveys.

1.5 Construction

Assessment of Project phases

- 1.5.1 The same assessment methodology applies to all stages of the Project. The effects of construction and demolition are assessed separately to the operation of the Project and the decommissioning of the ERF, Resource Recovery Facility (RRF) and EcoPark House. However, effects during each of these phases are assessed separately.

Assessment area

- 1.5.2 The assessment area comprises the Application Site and extends 10km from the Application Site with respect to statutory designated sites and 2km with respect to non-statutory sites.

Assessment method

- 1.5.3 The standard approach applied in the UK to EclA is that developed by the Institute of Ecology and Environmental Management (IEEM)¹⁰. This method has been used to evaluate existing features and to assess the significance of the ecological impacts on these features that may arise as a result of the construction and operation of the Project.

Significance criteria

- 1.5.4 Potentially significant ecological effects, both beneficial and adverse, are characterised with reference to the following factors:
- a. magnitude and extent;
 - b. duration;
 - c. reversibility; and
 - d. timing and frequency.
- 1.5.5 An effect is considered to be significant if it is: 'An impact (either adverse or beneficial) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area.'
- 1.5.6 Site integrity is defined as: 'The coherence of a site's ecological structure and function, across its whole area, which enables it to sustain the habitat,

complex of habitats and/or levels of populations of the species for which it was classified.’

- 1.5.7 Conservation status is defined as: ‘The habitats’ long-term distribution, structure and functions.’ ‘The long-term distribution and abundance of the species’ populations.’
- 1.5.8 Wherever possible, maintaining favourable conservation status has been determined by reference to literature, including the former UK BAP and LBAP objectives and targets, and by professional judgement in the absence of clear guidance. An effect is considered ‘beneficial’ if it helps to deliver conservation policy, or ‘adverse’ if it is contrary to conservation policy.
- 1.5.9 The scale at which the significant effect matters is determined according to the value of the feature. Thus a significant effect at a national scale would be a material consideration for a nationally important scheme, and a significant effect at a local scale should be a material consideration for a DCO application considered within a parish or district setting. As features of less than Parish importance would not be a material consideration for the Project, only features of Parish or higher importance have been considered in this assessment.

Residual and cumulative effects

- 1.5.10 The assessment is repeated taking into account the implementation of the proposed mitigation measures to determine the residual effects. This assessment considers the likely success of the mitigation, given knowledge of the tolerance or adaptability of the resource or feature to environmental change.
- 1.5.11 A cumulative assessment has also been undertaken, which considers whether any of the cumulative schemes have a potential to alter the significance of residual effects as a result of the Project. A qualitative assessment has been undertaken to identify any cumulative effects on ecological features associated with the Project. Where sufficient information regarding the cumulative schemes is provided, the significance of residual effects are defined.

1.6 Operation

- 1.6.1 The assessment of operational effects of the Project has been undertaken using the same methodology as for construction effects as described in Section 1.5.

1.7 Decommissioning effects

- 1.7.1 These have been assessed using the same methodology as described in Section 1.5 with respect to the construction and operation of the Project.
- 1.7.2 It has been assumed that this would comprise the decommissioning of the ERF, RRF and EcoPark House and therefore that landscaping associated with the Project would remain.

