Medworth Energy from Waste
Combined Heat and Power Facility

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Environmental Statement Chapter 11 Biodiversity Appendix 11A Consultation and Stakeholder Engagement

Regulation reference: The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

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Appendix 11A
Consultation and Stakeholder Engagement

A summary of the relevant responses received in the EIA Scoping Opinion in relation to biodiversity and confirmation of how these have been considered within the assessment to date is presented in **Table 11A.1 Summary of EIA Scoping Opinion responses for biodiversity**.

An overview of the key stakeholders consulted following scoping and a summary of the issues discussed in relation to biodiversity is presented in **Table 11A.2 Summary of additional engagement regarding biodiversity.**

A summary of the relevant responses received to the PEIR, together with any subsequent discussions held in relation to biodiversity and confirmation of how these have been considered within the assessment to date is presented in **Table 11A.3 Summary of PEIR responses for biodiversity together with any subsequent engagement.**

Table 11A.1 Summary of EIA Scoping Opinion responses for biodiversity

Consultee	Issue(s) raised	Response
PINS	The Applicant should make every effort to agree the spatial extent of the study areas with relevant consultation bodies, which should be refined and informed by the results of further detailed Phase 1 habitat survey work.	Spatial extent of study area is outlined **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.4**, and has been agreed with relevant consultation bodies as outlined in **Section 11.2.**
PINS	No botanical surveys have not been proposed within the Scoping Report. These should be undertaken for priority habitats and habitats suspected of being of county level importance. Botanical surveys should also be undertaken where suitable conditions are present for potentially rare/notable plants or assemblages or priority species of plants.	The desk study and field surveys identified no evidence of SPI plant species or habitats likely to support SPI plants that would potentially be affected by the Proposed Development. This is reflected in the updated scope of surveys, baseline results, and scoping of biodiversity features presented in **ES Chapter 11 Biodiversity (Volume 6.2), Sections 11.4, 11.5 and 11.6** respectively.
PINS	The baseline should include identification of locally important sites, for example County Wildlife Sites.	County Wildlife Sites within the area of search for the assessment are recorded in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.5.**
PINS	Section 10.4 makes no reference to the potential ecological value and effects associated with the CHP Connection. Paragraph 2.3.14 of the Scoping Report refers to the disused railway line as being "heavily overgrown with vegetation", but no further details are provided as to the approach to the assessment in this regard. This detail should be provided within the ES.	The scope of baseline surveys, baseline results, and assessment of effects with respect to the CHP Connection are presented in **ES Chapter 11 Biodiversity (Volume 6.2), Sections 11.4, 11.5 and 11.9** respectively.

Consultee	Issue(s) raised	Response
PINS	Tables 10.2 and 10.3 make reference to further survey works for the main development site and Grid Connection respectively, but it is unclear if the "main development site" includes the CHP corridor in this context. The Inspectorate notes that paragraph 10.5.10 makes general reference to "Potential effects on other ecological features (such as mature trees) due to loss or damage arising from construction activities". The ES should include an assessment of any likely significant effects associated with the development of the CHP Connection corridor in this regard.	The scope of baseline surveys, baseline results, and assessment of effects with respect to the CHP Connection are presented in **ES Chapter 11 Biodiversity (Volume 6.2), Sections 11.4, 11.5 and 11.9** respectively.
PINS	The Applicant is advised that CIEEM's guidelines for Ecological Impact Assessment (EcIA) was updated in 2019. The Applicant should have regard to the most recent version of the guidelines when undertaking the assessment of ecological impacts.	Assessment methodology follows the updated 2019 CIEEM guidelines – see **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.8.**
PINS	The Inspectorate considers that there will be a degree of overlap between the biodiversity and hydrological assessments and expects that this will be reflected in the aspect chapters.	Inter-relationship between biodiversity and hydrological assessments is reflected in **ES Chapter 11 Biodiversity (Volume 6.2)** and **ES Chapter 12 Hydrology (Volume 6.2).**
PINS	The Scoping Report makes no reference to impacts on aquatic habitats and species from anticipated changes in water quality. The Inspectorate considers this is likely to be of particular relevance given the description of baseline conditions at 10.4.4. The ES should assess impacts to water quality and the consequences for relevant habitats and species. Impacts to ecology from trenching works required for the Grid Connection should also be assessed.	Potential environmental changes assessed are outlined within **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.6**, and the assessment of effects on sensitive ecological features is presented in **Section 11.9.**
PINS	An assessment of the impacts from collision mortality with the Grid Connection should be provided, where significant effects are likely to occur. This should be informed by surveys of breeding, wintering and migratory birds (the latter of which is not currently proposed in the Scoping Report).	The potential for effects as a result of collision with OHLs has now been scoped out as the Grid Connection would entirely be underground cable (see **Chapter 3 Description of the Proposed Development (Volume 6.2)**).
PINS	The assessment of effects on designated biodiversity sites should consider any likely significant effects on functional land located beyond designation boundaries.	FLL located beyond designation boundaries is considered with respect to ornithological qualifying features of designated sites in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.6.**

Consultee	Issue(s) raised	Response
PINS	The Inspectorate recognises that the scope of the assessment as presented in Chapter 10 of the Scoping Report is based on a high level desk study of the site and that "It is expected that the survey scope will be refined following the results of the Phase 1 habitat survey and will be agreed with the relevant consultees". The Applicant should ensure that all significant effects to ecological receptors associated with the Proposed Development are robustly assessed within the ES. The Applicant should make effort to agree the need for and approach to species specific surveys to inform the assessment with relevant consultation bodies.	Scope of species-specific surveys to inform the baseline for assessment is outlined in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.4.** The scope of surveys has been discussed through consultation with the LPA Ecologists as outlined in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.2.**
PINS	The ES should be clear in describing the need for any EPSMLs and how any measures necessary to enable their successful implementation are to be secured through the DCO or other appropriate legal mechanisms.	The requirement to describe within the ES any requirement for EPSMLs and the mechanism for securing implementation is noted. No requirement for EPSMLs has been identified at this stage. See **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.9** and **11.11**.
PINS	The ES, should distinguish between mitigation measures proposed to address significant effects from the Proposed Development and any compensation/enhancement proposals which are included for other purposes but which are not relied upon in the assessment of significance of effects in the ES.	The requirement for the ES to distinguish between mitigation measures proposed to address significant effects, and other separate compensation and enhancements proposals is noted. See **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.10** and **11.11**.
Cambridgeshire County Council	Noting in paragraph 10.5.5 of the scoping report that no ecological surveys have yet been carried out, it is important that the proposed Phase 1 surveys, are followed by targeted ecological surveys, to be carried out at the earliest opportunity to inform the EIA/ES. It is also noted that the extent of any such surveys will be discussed with relevant consultees, which is welcomed on the basis that Cambridgeshire County Council as one of the host authorities would be a statutory consultee.	Scope of species-specific surveys to inform the baseline for assessment is outlined in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.4.** The scope of surveys has been discussed through consultation with the LPA ecologists as outlined in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.2.**
Cambridgeshire County Council	Survey work should be undertaken in accordance with best practice standards. Any deviations should be robustly justified within the EIA/ES.	Scope and methodology of species-specific surveys to inform the baseline for assessment is outlined in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.4.** Survey methodologies have been discussed through consultation with the LPA

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		ecologists as outlined in ES **Chapter 11 Biodiversity (Volume 6.2), Section 11.2.**
Cambridgeshire County Council	In addition to the scope of habitats and species listed in Box 10.1, consideration should also be given to Species of Local Importance, including Cambridgeshire & Peterborough Additional Species of Interest and species on the vice-county 29 Rare Plant & Species of Conservation Concern registers.	Local priority species and Cambridgeshire and Peterborough additional species of interest have been included under the scope of SPI and other conservation notable species outlined within **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.4**.
Cambridgeshire County Council	It is important that the proposed survey work includes not only the main development site and grid connection but also any additional impacts relating to the scheme such as the proposed construction compound sites and any proposed above-ground cabling.	The field survey areas for baseline surveys are outlined in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.4.**
Cambridgeshire County Council	Ecological impacts relating to both the construction and operational phases should be fully assessed.	The spatial and temporal scope of assessment is outlined in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.6.**
Cambridgeshire County Council	The EIA/ES should demonstrate that the project has been developed using the Mitigation Hierarchy principles; any adverse impacts should be avoided in the first instance. If this is not possible, then adequately mitigation should be undertaken to lessen such impacts. Any residual impacts must be adequately compensated.	Embedded environmental measures in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.7**, outlines avoidance measures that would be embedded into the Proposed Development. Final mitigation proposals, developed in accordance with the mitigation hierarchy are outlined in **Section 11.10**.
Cambridgeshire County Council	Decommissioning of the site should be well thought-out and pragmatic to minimise any additional adverse impact on biodiversity and avoid any destruction of ecological mitigation works created through the lifetime of the operation (e.g., removal of any underground pipes/ cabling).	Decommissioning has been considered within the assessment of effects on biodiversity in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.9.**
Cambridgeshire County Council	A well designed project should be able to meet the revised NPPF and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan requirements to secure a biodiversity net gain within the red-line boundary. This should focus on creating priority habitats and species/habitats of county importance and which are indicative of the local landscape.	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a

Consultee	Issue(s) raised	Response
		biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021.
Cambridgeshire County Council	The scheme provides an excellent opportunity to create landscape-scale ecological enhancements and to deliver against the Habitat Opportunities Maps for Cambridgeshire. It also provides opportunities for wider environmental benefits to meet the objectives of the Cambridgeshire Green Infrastructure Strategy (2011) and Cambridgeshire and Peterborough Local Nature Partnership's "doubling nature" vision to increase land coverage for nature and access for people. Cambridgeshire is a partner of the National Heritage Lottery Fund/Ministry of Housing Communities and Local Government (MHCLG)/National Trust funded Future Parks project which is looking at the future provision and sustainable management of parks and green spaces in the County. Cambridgeshire County Council would be keen to work with the applicant and the District Council on any green space allocation as part of the development.	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Habitat Opportunity Maps are noted, have been considered in the preparation of biodiversity enhancement proposals where appropriate.
Cambridgeshire County Council	Records of priority habitats/species and notable/rare or protected species and county wildlife sites should be consulted (available from the Cambridgeshire and Peterborough Environmental Records Centre (CPERC)). The data search area should go beyond 2km if it is demonstrated this has the potential to be impacted by the proposal (e.g., sensitive receptor for air pollution).	The scope of desk-based baseline data collection is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4.**
Cambridgeshire County Council	Priority habitats in Cambridgeshire are not well mapped on Natural England/MAGIC's national dataset and therefore, local habitat data should be obtained from CPERC, including traditional orchard (a traditional habitat around Wisbech) and Phase 1 habitat for the red-line boundary and surrounding land.	The Phase 1 habitat survey includes recording of HPI types such as traditional orchard. The scope of desk-based baseline data collection is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4.**
Cambridgeshire County Council	Habitats Opportunities Maps, available from CPERC, should also be utilised as a basic guide to prioritise for habitat creation in the area. However, this dataset will need professional interpretation to ensure the habitats at the site-level/part of this development.	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.10**. The Habitat Opportunity Maps are noted, have been considered in the

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		preparation of biodiversity enhancement proposals where appropriate.
Cambridgeshire County Council	All surveys should be undertaken in accordance with best practice standards, with all aspects of the development receiving sufficient survey effort (the EIA/ES scoping report omits construction sites and CHP connection corridor from the proposed surveys). Any deviations should be robustly justified within the Environmental Statement.	The scope and methodologies of baseline data collection is outlined in **ES Chapter 11 Biodiversity (Volume 6.2), Section 11.4.**
Cambridgeshire County Council	The EIA/ES scoping report fails to include botanical surveys. Botanical surveys should be undertaken for Priority habitats and habitats suspected of being of county important (in accordance with County Wildlife Site criteria, e.g., drainage ditches). Botanical surveys should also be undertaken where suitable conditions are present for potentially rare/notable plants or assemblages or priority species of plants (e.g., vice-county 29 rare plant & species of conservation concern registers).	The desk study and field surveys identified no evidence of SPI and other conservation notable plant species or habitats likely to support SPI plants that would potentially be affected by the Proposed Development. This is reflected in the updated scope of surveys, baseline results, and scoping of biodiversity features presented in **ES Chapter 11 Biodiversity (Volume 6.2) Sections 11.4, 11.5 and 11.6** respectively.
Cambridgeshire County Council	It is important that the bird surveys will cover breeding, wintering and migratory birds – particularly given the proposal for above ground cabling, and the potential impact on Goose and Swan Functional Impact Risk Zone.	The scope and methodologies of baseline data collection is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**, and baseline information **Section 11.5.**
Cambridgeshire County Council	Survey consideration should be given to species of local importance and Cambridgeshire and Peterborough additional species of interest. For example, locally notable/rare species.	Cambridgeshire and Peterborough additional species of interest have been included under the scope of SPI and other conservation notable species within **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**. The desk study and field surveys identified no evidence of SPI and other conservation notable species or habitats likely to support then that would potentially be affected by the Proposed Development. This is reflected in the baseline results and scoping of biodiversity features presented in **Sections 11.5 and 11.6** respectively.

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Cambridgeshire County Council	Potential effects on statutory designated biodiversity sites should also consider the impact of the proposal on functional land located beyond the designation boundary, such as Goose and Swan Functional Land Impact Risk Zone. It should also include consideration of migratory routes for designatory bird population, particularly those on route to nearby Special Areas of Conservation/Special Protection Areas.	FLL located beyond designation boundaries is considered with respect to ornithological qualifying features of designated sites in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.6.**
Cambridgeshire County Council	Potential effects should also consider impact on locally important sites (County Wildlife Sites), habitat and species. This should include Cambridgeshire & Peterborough Additional Species of Importance and county rarities/notable species, as well as Local Biodiversity Action Plan habitats. Local reference documents (e.g., county atlases & CWS criteria) should be consulted to determine the level of impact on all taxa and habitats.	Locally important ecological features, including County Wildlife Sites and Local Biodiversity Action Plan species and habitats, are considered in the scope of surveys, baseline results, and scoping of biodiversity features where relevant, presented in **ES Chapter 11 Biodiversity (Volume 6.2) Sections 11.4, 11.5 and 11.6** respectively.
Cambridgeshire County Council	An assessment of the impact resulting from the decommissioning phase will need to be included. The decommissioning programme should be closely scrutinised to avoid unnecessary impacts, particularly within areas that have established for biodiversity through the operational phase. For example, is it necessary to remove underground services? Any ecological mitigation areas should be retained in perpetuity and not returned to their original state.	The environmental effects associated with the decommissioning phase are expected to be of a similar level to those reported for the construction phase works, albeit with a lesser duration of one year (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.9**). The likely significance of effects relating to the construction phase assessment are therefore applicable to the decommissioning phase. The requirement to include sensitive decommissioning to minimise additional adverse impacts on biodiversity is noted.
Cambridgeshire County Council	It is recommended that the impact of the development is assessed without mitigation measures, and then again when mitigation/compensation measures have been implemented to show a clear demonstration of how the scheme will adequately address any impacts	The approach to assessment is outlined within **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.8.**
Cambridgeshire County Council	Whilst Habitats Regulation Assessment (HRA) falls outside the EIA/ES scoping process, it is worthwhile highlighting that the applicant will need to discuss with Natural England whether an HRA is required and the scope of the HRA.	Draft HRA Screening Report has been prepared and subject to consultation with Natural England and LPA Ecologists (see **ES Chapter 11**

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		Biodiversity (Volume 6.2) Section 11.2). A Habitat Regulations Assessment (NRA) No Significant Effects Report (NSER) is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Cambridgeshire County Council	Potential effects on statutory designated biodiversity sites should also consider the impact of the proposal on functional land located beyond the designation boundary, such as the Goose and Swan Functional Land Impact Risk Zone associated with the Nene and Ouse Washes International Sites.	FLL located beyond designation boundaries is considered with respect to ornithological qualifying features of designated sites in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.6.**
Cambridgeshire County Council	It is noted that paragraph 10.5.4 of the scoping report states that Local Wildlife Site data will be requested from the CPERC; of particular note is the presence of the River Nene County Wildlife Site which is located in close proximity to the application site. Therefore, any potential impacts to this site should be fully scoped and assessed.	The River Nene County Wildlife Site is included in the baseline and considered in the scope of assessment (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.5, 11.6 and 11.9** respectively).
Cambridgeshire County Council	The scheme represents a good opportunity to create landscape-scale ecological enhancements and deliver against the Habitat Opportunities Map for Cambridgeshire, and objectives of the Cambridgeshire Green Infrastructure Strategy, and should seek to deliver biodiversity net gain.	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Habitat Opportunity Maps are noted, have been considered in the preparation of biodiversity enhancement proposals where appropriate. The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021.

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Cambridgeshire County Council	Habitat Opportunity Mapping data is available from CPERC and should therefore be sought to assist with prioritising opportunities for habitat creation in the local area.	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Habitat Opportunity Maps are noted, have been considered in the preparation of biodiversity enhancement proposals where appropriate.
Cambridgeshire County Council	Any forthcoming scheme must adequately demonstrate that the proposals will result in a net gain in biodiversity value, in accordance with local and national planning policy. This assessment should be based on Defra's Biodiversity Off-setting Metric/Cambridgeshire County Council's Biodiversity Checklist & Guidance (part of Cambridgeshire County Council's local validation checklist).	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Habitat Opportunity Maps are noted, have been considered in the preparation of biodiversity enhancement proposals where appropriate. The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021.
Cambridgeshire County Council	The details of the proposed methodology of survey work have not been provided. All survey work and assessments should accord with best practice guidelines and should also consider local priority species and Cambridgeshire and Peterborough Additional Species of Interest (list available from [redacted]	Local priority species and Cambridgeshire and Peterborough additional species of interest have been included under the scope of SPI and other conservation notable species. Survey methodologies are outlined within **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**, and the assessment methodology is outlined in **Section 11.8**
Fenland District Council	Noting in section 10.5.5 that no ecological surveys have yet been carried out, it is important that the proposed Phase 1 surveys, to be followed by targeted ecological surveys, are carried out at the earliest opportunity to inform the EIA.	Scope and methodology of species-specific surveys to inform the baseline for assessment is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4.**

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	It is also noted that the extent of any such surveys will be discussed with relevant consultees, which is welcomed on the basis that Fenland District Council would be involved with such discussions.	Survey methodologies have been discussed through consultation with the LPA Ecologists as outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.2.**
Fenland District Council	Survey work should be undertaken in accordance with best practice standards. Any deviations should be robustly justified within the EIA.	Scope and methodology of species-specific surveys to inform the baseline for assessment is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4.** Survey methodologies have been discussed through consultation with the LPA Ecologists as outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.2.**
Fenland District Council	In addition to the scope of habitats and species listed in Box 10.1, consideration should also be given to Species of Local Importance, including Cambridgeshire & Peterborough Additional Species of Interest and species on the vice-county 29 Rare Plant & Species of Conservation Concern registers.	Local priority species and Cambridgeshire and Peterborough additional species of interest have been included under the scope of SPI and other conservation notable species outlined within **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**.
Fenland District Council	It is important that the proposed survey work includes not only the main development site and grid connection but also any additional impacts relating to the scheme such as the proposed construction compound sites and any proposed above-ground cabling.	Spatial extent of study area accounts for the component parts of the Proposed Development and is outlined **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**, and has been agreed with relevant consultation bodies as outlined in **Section 11.2.**
Fenland District Council	Ecological impacts relating to both the construction and operational phases should be fully assessed.	The temporal scope of the assessment includes both construction and operational phases (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.5**).
Fenland District Council	The EIA should demonstrate that the project has been developed using the Mitigation Hierarchy principles; any adverse impacts should be avoided in the first instance. If this is not possible, then adequately mitigation should be undertaken to lessen such impacts. Any residual impacts must be adequately compensated.	Embedded environmental measures in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.7**, outlines avoidance measures that will be embedded into the Proposed Development. Proposals for further mitigation, developed in accordance with

Consultee	Issue(s) raised	Response
		the mitigation hierarchy, have been included where necessary as outlined in **Section 11.10**.
Fenland District Council	Potential effects on statutory designated biodiversity sites should also consider the impact of the proposal on functional land located beyond the designation boundary, such as the Goose and Swan Functional Land Impact Risk Zone associated with the Nene and Ouse Washes International Sites.	FLL located beyond designation boundaries is considered with respect to ornithological qualifying features of designated sites in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.6.**
Fenland District Council	It is noted that section 10.5.4 states that Local Wildlife Site data will be requested from the Cambridgeshire & Peterborough Environmental Records Centre (CPERC); of particular note is the presence of the River Nene County Wildlife Site which is located in close proximity to the application site. Therefore any potential impacts to this site should be fully scoped and assessed.	The River Nene County Wildlife Site is included in the baseline and considered in the scope of assessment (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.5, 11.6 and 11.9** respectively).
Fenland District Council	The scheme represents a good opportunity to create landscape-scale ecological enhancements and deliver against the Habitat Opportunities Map for Cambridgeshire, and objectives of the Cambridgeshire Green Infrastructure Strategy, and should seek to deliver biodiversity net gain.	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Habitat Opportunity Maps are noted, have been considered in the preparation of biodiversity enhancement proposals where appropriate. The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021.
Fenland District Council	Habitat Opportunity Mapping data is available from CPERC and should therefore be sought to assist with prioritising opportunities for habitat creation in the local area.	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Habitat Opportunity Maps have been considered in the preparation of biodiversity enhancement proposals where appropriate.

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Middle Level Commissioners	The Boards have nature conservation duties under the Land Drainage Act 1991, the Wildlife and Countryside Act 1981, the Protection of Badgers Act 1992, the Countryside and Rights of Way Act 2000, the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003, the Eels (England and Wales) Regulations 2009, the Conservation of Habitats and Species Regulations 2010, the Flood and Water Management Act 2010, the Natural Environment and Rural Communities Act 2006, and as a competent authority under the Conservation (Natural Habitats etc) Regulations 1994. Any works affecting a protected species and/or habitats should be undertaken at an appropriate time of year and under the supervision of suitably trained person(s) in accordance with appropriate guidance such as the Boards' BAPs and the Middle Level IDB Biodiversity Manual, the Association of Drainage Authorities (ADA)/Natural England Drainage Channel Biodiversity Manual and A Guide to Management Strategies and Mitigation Measures for Achieving Good Ecological Potential (GEP) in Fenland Waterbodies. These documents can be viewed or downloaded at the respective web pages on the IDB website.	The scope and methodologies of surveys for baseline data collection are outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4.**
Middle Level Commissioners	According to the Boards' BAPs, which can be viewed on our website, there are no watercourses of biodiversity interest within the immediate area of the "energy generation site", primarily due to its urban location but protected species such as water voles and otters and their associated habitats are known to be located in the Board's system downstream of the site. It also advises that the section into which water is pumped into the River Nene, and downstream towards Wisbech, is a County Wildlife Site (CWS). Any works affecting the Boards' systems, requiring their consent, or any works that affect any on-site open watercourses will, in general, require an Habitats and Species Risk Assessment & Action Plan (Environmental Assessment) and a Risk Impact Assessment identifying any adverse impacts on the existing habitats and species together with any proposed mitigation and opportunities to enhance habitats. Our "Explanatory notes to be read in conjunction with application for consent for works in and around watercourses and consent validation form" (Explanatory Notes) document advises that any application for consent that does not properly consider this obligation will be refused.	The scope and methodologies of surveys for baseline data collection are outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4.** Ecological features such as water vole, otter and the River Nene County Wildlife Site are included in the baseline and considered in the scope of assessment (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.5 and 11.6** respectively). No potential negative significant effects have been identified. Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**.

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Middle Level Commissioners	It is considered that the applicant should make significant efforts to go beyond the requirement to consult with Natural England. There are many sites within the Fens which are not SSSI, Ramsar, SPA or SACs but, nonetheless, are of local importance. Development has been delayed because of the relevant parties' failure to consult with all the relevant bodies.	The scope for baseline data collection is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**, and includes, for example, designated sites of local importance.
Natural England	Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.	Stakeholder consultation has been on-going and is outlined in the **Consultation Report (Volume 5.1)** and **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.2.**
Natural England	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. Guidelines for Ecological Impact Assessment (EcIA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website. EcIA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal. The National Planning Policy Framework sets out guidance in S.174-177 on how to take account of biodiversity interests in planning decisions and the framework that local authorities should provide to assist developers.	The legislative and planning policy context is set out in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.3**, and the assessment methodology is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.8**, and assessment methodology follows CIEEM guidance. Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**.
Natural England	The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (e.g., designated Special Areas of Conservation and Special Protection Areas) fall within the scope of the Conservation of Habitats and Species Regulations 2017 (as amended). In addition, paragraph 176 of the National Planning Policy Framework requires that potential Special Protection Areas, possible Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites. Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) an	The scope of assessment with respect to designated sites is outlined within **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.6,** and assessment of effects on nature conservation sites is presented in **Section 11.9.** An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.

Consultee	Issue(s) raised	Response
	appropriate assessment needs to be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site. Should a Likely Significant Effect on a European/Internationally designated site be identified or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an Appropriate Assessment, in addition to consideration of impacts through the EIA process.	
Natural England	Sites of Special Scientific Interest (SSSIs) and sites of European or international importance (Special Areas of Conservation, Special Protection Areas and Ramsar sites) The development site triggers the impact risk zone for combustion for the following designated nature conservation site: · - Nene Washes SAC, SPA, RAMSAR & SSSI - Further information on the SSSI and its special interest features can be found at www.magic.gov.uk. The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within this and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects. - European site conservation objectives are available on our internet site.	Consideration of the potential for effects on these biodiversity sites is included within the scope of assessment outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.6**. An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, which considers air quality changes, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Natural England	Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 (as amended). The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, groups and individuals; and consideration should be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.	The scope of baseline data collection and assessment for protected species is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and 11.6** respectively, which includes data collection from Local Record Centres, and field surveys in accordance with ecological best practice and Natural England standing advice.
Natural England	The conservation of species protected by law is explained in Part IV and Annex A of Government	The scope of baseline data collection and assessment for

Consultee	Issue(s) raised	Response
	Circular 06/2005 Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System. The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. In order to provide this information, there may be a requirement for a survey at a particular time of year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted standing advice for protected species which includes links to guidance on survey and mitigation.	protected species is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and 11.6** respectively, which includes field surveys in accordance with ecological best practice and Natural England standing advice.
Natural England	The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available here https://www.gov.uk/guidance/biodiversity-duty-public-authority-duty-to-have-regardto-conserving-biodiversity.	Consideration of Habitats and Species of Principal Importance have been included within the scope of baseline data collection and assessment outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and 11.6** respectively.
Natural England	Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration…in the making of planning decisions'. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.	Consideration of Habitats and Species of Principal Importance and Local BAP species and habitats is included within the baseline data collection and the scope of assessment outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and Section 11.6** respectively. Biodiversity mitigation and enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**.
Natural England	Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:	The scope of baseline data collection and the scope of the assessment is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4. and Section 11.6** respectively, which includes data collection from Local Record Centres, and field

Consultee	Issue(s) raised	Response
	- Any historical data for the site affected by the proposal (e.g., from previous surveys); - Additional surveys carried out as part of this proposal; - The habitats and species present; - The status of these habitats and species (e.g., whether priority species or habitat); - The direct and indirect effects of the development upon those habitats and species; - Full details of any mitigation or compensation that might be required.	surveys in accordance with ecological best practice and Natural England standing advice. The desk study records obtained from the Local Record Centres identified no recent records of SPI and other conservation-notable terrestrial and aquatic invertebrates and plant species within an area of search, and no evidence of such species was recorded during the extended Phase 1 habitat survey, nor was any favourable habitat recorded that would be likely to support assemblages of these species. It is therefore considered that these species groups do not occur within the Order limits, and detailed invertebrate or botanical (Phase 2) surveys were not required. Biodiversity mitigation and enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**.
Natural England	The development should seek, if possible, to avoid adverse impact on sensitive areas for wildlife within the site, and, if possible, provide opportunities for overall wildlife gain. The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of priority habitat for the area under consideration.	Embedded environmental measures in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.7**, outlines avoidance measures that will be embedded into the Proposed Development. Sources of baseline data collection are outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4** which includes data collection from Local Record Centres.
Natural England	Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document).	The scope and methodologies for baseline data collection is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**, which includes data collection from Local Record Centres.
Norfolk County Council	Chapter 10 of the Scoping Report sets out the scope of the assessment for biodiversity. All surveys should be undertaken by an appropriately qualified and experienced Ecologist, that meets the relevant	The scope and methodologies for baseline data collection is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4** and accord with

Consultee	Issue(s) raised	Response
	British Standard (BS42020:2013 Biodiversity – Code of practice for planning and development) and complies with industry best practice (e.g., CIEEM technical standards).	includes data collection from ecological best practice and Natural England standing advice.
Norfolk County Council	We would like to point out that Footnote 110: CIEEM's guidelines for Ecological Impact Assessment (EcIA) was updated in 2019 and the most recent version of the guidelines should be used. We would also like to draw to the attention of the applicant that the Borough Council has a Monitoring and Mitigation Strategy in place for Natura 2000 sites.	Assessment methodology follows the updated 2019 CIEEM guidelines – see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.8.**
Borough Council of King's Lynn & West Norfolk	Note Policy DM19 of the SADMPP 2016 relating to Green Infrastructure/Habitats Monitoring and Mitigation.	Included in planning policy context outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.3.**

Table 11A.2 Summary of additional engagement regarding biodiversity

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	Wood presented overview of scope of ecology baseline surveys for 2021. There was broad agreement that the survey scope was appropriate.	N/a
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	Agreement reached that dormouse surveys and assessment would be scoped out on basis of there being no dormouse records in the local area, which is reflected in the People's Trust for Endangered Species' National Dormouse Database and distribution map.	N/a
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	Agreement reached that the surveys and assessment for SPI and other conservation notable plant and invertebrate species would be scoped out on the basis that suitable habitat is unlikely to be affected, but that this would be subject to further review once all of the	N/a

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
		land parcels have been accessed during the extended Phase 1 habitat survey.	
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	CCC acknowledged that Biodiversity Net Gain is not a requirement for NSIPs but requested that some calculation to demonstrate no net loss be undertaken.	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021.
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	CCC noted air quality effects as a potential consideration for designated sites.	Air quality effects are included as an environmental change within the scope of assessment (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.6**).
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	NCC noted expectation that badger setts would be monitored to determine if active were located within 30m of works.	The results of the baseline for badger are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.5**. No badger setts were identified within 30m of the Proposed Development footprint.

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	FDC noted need to maintain up to date survey information to inform assessment/mitigation/licensing.	The scope and methodologies of baseline surveys are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4.**
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	**Great crested newt:** CCC mentioned Natural England district licensing was available in Cambridgeshire but questioned whether useable for Fenland.	No potential effects on great crested newts are predicted following the completion of baseline surveys (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.6**).
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	**Bats:** CCC suggested consideration of tree-climbing inspections for surveys of trees. FDC noted need to consider potential for hibernation roosts.	The scope and methodologies of baseline surveys are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4.**
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	**Reptiles:** CCC noted potential to affect suitable reptile habitat along the Grid Connection and noted that position regarding avoidance measures should be justified in the assessment.	Embedded environmental measures in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.7**, outlines avoidance measures that will be embedded into the Proposed Development. Assessment of effects on reptiles is presented in **Section 11.9**.
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	LPA Ecologist Meeting held on 25 March 2021	**Birds:** CCC noted potential opportunity for use of BTO data to identify important areas for birds and potentially reduce survey effort.	The scope and methodologies of baseline surveys are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4.**
Cambridgeshire County Council; Norfolk County Council; Fenland District Council	The Applicant issued Draft LPA Ecologist Meeting Minutes for comment via email dated 31 March 2021	Cambridgeshire County Council: Accepted minutes. Norfolk County Council: No comments received. Fenland District Council: No comments received.	N/a

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
Norfolk County Council	Response to Preliminary Ecological Appraisal Report 2021: Letter (via email) dated 30 March 2021	Broadly agree with the proposed scope of the surveys outlined in the Preliminary Ecological Appraisal. In order to fully assess the potential impacts on ecological receptors the full footprint of the proposed works needs to be determined including but not limited to any access routes, constructions compounds, safety distance beneath OHL conductor spans. **Badgers:** Where groundworks are required within 30m of a badger sett, monitoring must be carried out in accordance with NE's standard advice, the potential sett should be monitored for 4 weeks minimum, to determine if the sett is active; in order to fully assess the potential impacts on badgers. Options to avoid potential impacts on the badger sett could be explored, such as re-routing the cable route or installation of the wooden poles over 30m from the sett. We recommend the applicant undertakes a badger survey of the proposed cable route and at least 30m either side. It is noted some survey visits were undertaken in winter. Badger surveys can be undertaken at any time of year, however the best time is in early spring or late autumn when badgers are active but there's less vegetation to hide the signs.	Scope, field survey area and methodology of surveys is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**. The results of the baseline for badger are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.5**. No badger setts were identified within 30m of the Proposed Development footprint. Bat roost surveys have been undertaken for trees with suitability for roosting bats that would potentially be affected by the Proposed Development. The scope and methodologies of bat surveys are and the baseline are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and 11.5** respectively.

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
		Bats: The need for bat surveys should be considered where tree works (e.g., limb removal/ ivy removal/ raising the canopy) are required as well as tree removal.	
Cambridgeshire County Council	Response to Breeding & Passage Bird Survey Report 2020: Email dated 21 December 2020	Section 4 (opening paragraph 4.1.1) states that "level of flight activity within the Grid Connection Corridor of mute swan, little egret, grey heron, lapwing, oystercatcher and shelduck was very low with the proposed OHLs therefore presenting a negligible risk of collision" however there is no detailed reasoning behind this conclusion. Seek that further details on why the assessment concludes this, particularly for those species that were recorded during the vantage point surveys (e.g., oystercatcher and lapwing).	The potential for effects as a result of collision with OHLs has now been scoped out as the Grid Connection would entirely be underground cable (see **Chapter 3 Description of the Proposed Development (Volume 6.2)**).
Cambridgeshire County Council	Response to Draft HRA Screening Report 2020: Email dated 21 December 2020	The incorporation of previous consultation responses is noted. Seek that the draft HRA assessment be reviewed when the detailed air quality impact assessment has been completed, which is critical to the assessment of potential operational impacts to the European sites.	The results of air quality dispersion modelling are presented in ES **Chapter 8 Air Quality (Volume 6.2)**, and the assessment of air quality effects on nature conservation sites is presented in ES **Chapter 11 Biodiversity (Volume 6.2) Section 11.9**. An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
Norfolk County Council	Response to Draft HRA Screening report 2020: Email dated 2 December 2020	The draft HRA Report is fit for purpose and note the additions that relate to previous comments. The report will need updating once you have completed dispersion modelling which will be required to quantify the potential direct and indirect air quality impacts on the Ouse Washes SAC/SPA/Ramsar and the Nene Washes SAC/SPA/Ramsar.	The results of air quality dispersion modelling are presented in **ES Chapter 8 Air Quality**, and the assessment of air quality effects on nature conservation sites is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.9**. An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Natural England	Response to Draft HRA Screening report 2020: Email dated 17 November 2020	Natural England agrees with the conclusion that there is not likely to be a significant effect on the Ouse Washes SPA, Ramsar, the Wash SPA, Ramsar and the Nene Washes SPA, Ramsar sites in relation to effects to their qualifying bird interest. Natural England agrees that it does not appear likely that the birds from these designated sites are using the application site or nearby areas for foraging, or in terms of migration.	Noted.
Cambridgeshire County Council	Response to Winter Bird Survey Report 2020: Email dated 11 September 2020	Satisfied with approach, given that Natural England have confirmed their approval of the methodology and that only the single year of data is required. Agree with NCC's assessment of the wintering bird survey data [see NCC response from 1st September 2020]. It would be good to discuss whether	The Grid Connection now utilises an underground cable along the verge of the A47 road (see **ES Chapter 3 Project Description**) instead of an OHL, and would not affect suitable habitat for wintering birds. The results of the bird baseline is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.5.**

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
		the 2019/20 survey is considered representative of the likely usage of the area by wintering birds, particularly focusing on the weather conditions and the cropping patterns (for areas in agricultural production).	
Norfolk County Council	Response to Winter Bird Survey Report 2020: Email dated 1 September 2020	The wintering bird report is clear and describes the situation well. Some information on the weather conditions during the surveys might have been helpful, as well as a discussion of the habitats and cropping patterns in the areas concerned. The survey is a 'snap-shot' in time; the use of the area by birds could be different in a colder winter, when frozen ground sometimes make the more usual feeding grounds less accessible. In your HRA it might be helpful to describe the weather data for the winter and how it compares to long-term and recent weather trends. The use by geese and swans of farmland habitat functionally-linked to the Wash and N Norfolk Coast SPAs, often relates to the particular cropping regime in a given year. It might be necessary to discuss this point in the HRA. Natural England's comment about a single season of surveys being sufficient is unequivocal.	The Grid Connection now utilises an underground cable along the verge of the A47 road (see **ES Chapter 3 Project Description**) instead of an OHL, and would not affect suitable habitat for wintering birds. The results of the bird baseline is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.5.** An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Natural England	Response to Winter Bird Survey Report 2020: Letter (via email) dated 28 July 2020	Note the findings that the birds recorded are mainly not qualifying species of The Wash, Nene Washes and Ouse Washes	Noted.

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
		internationally designated sites, and that the application area, (including the surrounding area), doesn't appear to be used regularly by them. Whilst only one season's survey work has been completed, we are satisfied that the vantage point and transect surveys are comprehensive, and therefore sufficient, in this case.	
King's Lynn IDB	Consultation Meeting held on 15 July 2020	IDB holds few species records but that anecdotal evidence confirms water voles. Mink are also in the area so would appreciate that these are also recorded if any evidence found during surveys.	The information provided on water vole is noted – this species is included within the baseline data collection and the scope of assessment where relevant (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and Section 11.6** respectively). Water vole baseline surveys included searches for evidence of mink, but no evidence was found.
King's Lynn IDB	Consultation Meeting held on 15 July 2020	IDB Environment Manager has not seen any great crested newts in the Fens. Note that the adopted watercourses are maintained annually to ensure flow conveyance to the pumps/outfalls. Therefore, may not be ideal habitat for newts (depending on timing and extent of management). Riparian ditches are however the responsibility of landowners. Some of the adopted watercourses and riparian ditches are ephemeral.	The information provided on great crested newts is noted – this species is included within the baseline data collection and the scope of assessment (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and Section 11.6** respectively).
King's Lynn IDB	Consultation Meeting held on 15 July 2020	KLIDB have a Biodiversity Action Plan	The KLIDB BAP is noted – conservation-notable

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
		[redacted] KLIDB_BAP_April_2018.pdf)	species and habitats have been included within the baseline data collection and the scope of assessment where relevant (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and Section 11.6** respectively).
King's Lynn IDB	Consultation Meeting held on 15 July 2020	Referred to other species of note as potentially present (though no specific records are available): badger, otter, Schedule 1 species such as kingfisher, over-wintering birds, water vole, bats, barn owls as well as non-native species such as Japanese knotweed near Walpole (but outside the scoping boundary). No invasive aquatics known.	Information on species is noted – these protected and legally controlled species are included within the baseline data collection and the scope of assessment where relevant (see **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and Section 11.6** respectively).
Natural England	Non-statutory planning consultation response: Letter (via email) dated 22nd April 2020	No additional comments to those in scoping response. Advise that any planning application will need to be accompanied by sufficient information to demonstrate that the proposed scheme will not have any adverse impact on the natural environment, including the Nene Washes SSSI, SPA, SAC, Ramsar site, particularly through emissions to air.	The results of air quality dispersion modelling are presented in **ES Chapter 8 Air Quality**, and the assessment of air quality effects on nature conservation sites is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.9**. An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Cambridgeshire County Council; Norfolk County Council; Fenland District Council; King's Lynn and	The Applicant issued LPA Ecologist Meeting Minutes for comment via email dated 23 April 2020	Cambridgeshire County Council: No comments received. Norfolk County Council: No comments received. Fenland District Council: No	N/a

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
West Norfolk Council		comments – FDC confirmed CCC to lead on biodiversity. King's Lynn and West Norfolk Council: No comments received.	
Cambridgeshire County Council; Norfolk County Council	LPA Ecologist Meeting held 12 March 2020	**Water voles:** Surveys can be scoped out where effects can be avoided by implementing a ~10m buffer between supporting habitats and proposed works. Works taking place within this buffer are required to be informed by surveys. Two surveys are required at each location in the windows of mid-April to mid-June and July to September.	Scope and methodology of water vole surveys is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**. Scope of species-specific surveys has been subsequently discussed with LPA Ecologists (see above).
Cambridgeshire County Council; Norfolk County Council	LPA Ecologist meeting held 12 March 2020	Advised that Internal Drainage Board should be consulted for existing ecology data.	Consultation has taken place with the Internal Drainage Board. Stakeholder consultation has been on-going and is outlined in the **Consultation Report (Volume 5.1)** and **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.2.**
Cambridgeshire County Council; Norfolk County Council	LPA Ecologist meeting held 12 March 2020	**Great crested newts:** Initial scoping of ponds and ditches is required to determine the need for further detailed surveys.	Scope and methodology of great crested newt surveys is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**. Scope of species-specific surveys has been subsequently discussed with LPA Ecologists (see above).
Cambridgeshire County Council; Norfolk County Council	LPA Ecologist meeting held 12 March 2020	**Bats:** It was agreed that buildings on the EfW Facility site posed a very low risk for roosting bats. This should be confirmed by way of a	Scope and methodology of bats surveys is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**.

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
		Preliminary Appraisal. It was agreed that tree roosting potential on the EfW Facility site, CHP connection corridor and grid connection corridor were unlikely, but would be confirmed as part of the Phase 1 Habitat Survey. It was agreed that specific surveys would only be required if the retention of potential roost features is not possible. It was agreed that there is no requirement for bat activity surveys within the grid connection corridor if the absence of pathways for effects on commuting/foraging features is established as part of the Phase 1 Habitat Survey. It was agreed that bat activity surveys are likely to be required along the railway line (CHP connection) due to the potential for impacts on this likely commuting/foraging corridor.	Scope of species-specific surveys has been subsequently discussed with LPA Ecologists (see above).
Cambridgeshire County Council; Norfolk County Council	LPA Ecologist meeting held 12 March 2020	**Reptiles:** It was agreed that largely arable habitats in the grid connection corridor are unlikely to support valuable reptile populations. Subject to the result of the Phase 1 Habitat Survey, it was suggested that detailed reptile surveys could be scoped out of grid connection corridor area and embedded mitigation measures included in the Project on a precautionary basis. It was agreed that further reptile surveys may be required on the main EfW Facility site and the CHP	Scope and methodology of reptile surveys is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4**. Scope of species-specific surveys has been subsequently discussed with LPA Ecologists (see above).

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
		connection, but again this would be confirmed following the Phase 1 Habitat Survey.	
Cambridgeshire County Council; Norfolk County Council	LPA Ecologist meeting held 12 March 2020	**Wintering birds:** It was agreed that there were very low levels of potential Ouse Washes SPA linkage with just a single flight of Whooper swans and small flocks of lapwing and golden plover which could be part of the assemblage on the Ouse Washes (c0.1-0.2% peak). NCC advised that yearly wintering bird presence can be variable and that the results obtained to date may have been affected by the particularly mild winter. NCC advised further consultation with the RSPB.	Consultation request submitted to RSBP on 17th April 2020. RSPB commented they are unlikely to have an active interest in the proposal unless assessment suggests an indirect impact on the Nene Washes.
Cambridgeshire County Council; Norfolk County Council	LPA Ecologist meeting held 12 March 2020	**HRA:** The effect of emissions/particulates from the EfW Facility should be assessed within the HRA	The results of air quality dispersion modelling are presented in ES **Chapter 8 Air Quality (Volume 6.2)**, and the assessment of air quality effects on nature conservation sites is presented in ES **Chapter 11 Biodiversity (Volume 6.2) Section 11.9**. An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Cambridgeshire County Council; Norfolk County Council	LPA Ecologist meeting held 12 March 2020	**Opportunities for net gain**: There is an opportunity to keep a reduced vegetated connective corridor along the railway line (CHP connection) through planting and increased	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Habitat Opportunity

Stakeholder	Date and Form of engagement	Issue(s) raised/comments/agreement reached	Response
		species diversity. There is a need to agree what the loss of scrub would be replaced with. CCC and NCC were not aware of any local schemes for offsetting/net gain which the Developer could contribute to. CCC referred the Developer/Wood to habitat maps which could provide opportunities for offsetting. NCC referred to the 'Making Earth Observation Work (MEOW) which also included some habitat opportunities.	Maps are noted, have been considered in the preparation of biodiversity enhancement proposals where appropriate. The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021.
Cambridgeshire County Council; Norfolk County Council	LPA Ecologist meeting held 12 March 2020	It is agreed that there were unlikely to be any ecological factors which would prevent the Project proceeding providing best practice is followed in the assessment process.	Noted.

Table 11A.3 Summary of PEIR responses for biodiversity together with any subsequent engagement

Consultee	Issue raised	Response
Natural England	If following completion of species surveys and licences are required, please consult with Natural England through PSS and DAS.	There has been no confirmed need for protected species licencing identified during the baseline surveys in **ES Chapter 11: Biodiversity (Volume 6.2) Section 11.4 and 11.5** or the assessment in **Section 11.9**. The requirement for licencing would be reviewed following any subsequent pre-construction surveys.

Consultee	Issue raised	Response
Natural England	Survey effort, assessment and mitigation relating to protected species should generally accord with Natural England's standing advice. A clear rationale for any departures from this advice, and any likely consequences, should be provided in the ES.	The scope and methodology of species surveys is outlined in **PEIR Chapter 11: Biodiversity, Section 11.4** and includes field surveys in accordance with ecological best practice and Natural England standing advice. Assessment is presented in **Section 11.9**, which discusses any deviations from standard guidance.
Natural England	Welcome the provision and implementation of an Ecological Mitigation Strategy (EMS), Habitat Management Plan (HMP), Landscape and Ecological Management Plan (LEMP) and Construction Environmental Management Plan (CEMP).	Noted. The implementation of such measures is outlined in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.11**. Outline documents will be submitted with the DCO application and if the application is approved these will be developed into detailed documents for implementation via the discharge of DCO requirements.
Natural England	Natural England would like to take this opportunity to highlight an amendment to the Environment Bill for 'Biodiversity Net Gain' for Nationally Significant Infrastructure Projects, following 'The Economics of Biodiversity: The Dasgupta Review' and government response dated July 2021. Biodiversity net gain should be additional to any habitat creation required to mitigate or compensate for impacts. Natural England would welcome a scheme which enhances the local environment with habitat creation, above and beyond the existing baseline, which should be achievable for a development of this scale and with the opportunities for extensive blue/green infrastructure.	Biodiversity enhancement is discussed in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.10**. The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021.
Natural England	The Nature Recovery Network (NRN) is a major commitment in the government's 25 Year Environment Plan and part of the forthcoming Nature Strategy. Our advice is that the ES should seek to demonstrate the contribution the proposed scheme will make towards this vision for nature recovery and delivery of Natural Cambridgeshire's	Proposed biodiversity enhancements are summarised in **Chapter 11 Biodiversity (Volume 6.2) Section 11.10,** which outlines how the proposals accord with initiatives such as the NRN and Natural Cambridgeshire's targets.

Consultee	Issue raised	Response
	'doubling nature' targets. The NRN National Habitats Network mapping is available to view at www.magic.defra.gov.uk.	
Natural England	Subject to the findings of the updated HRA screening to reflect developments in project design and air quality dispersion modelling results, Natural England currently concurs with the findings of the draft HRA screening.	An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Natural England	With respect to air quality changes: Natural England considers, with the distances involved and predicted levels being less than 1% of the critical load, there is unlikely to be a significant effect to the Nene Washes and Ouse Washes SPA, SAC and Ramsar. However, the habitats regulation assessment has not yet been updated with the air quality assessment, therefore we will provide further comments once this has been resubmitted.	The results of air quality dispersion modelling are presented in **ES Chapter 8 Air Quality**, and the assessment of air quality effects on nature conservation sites is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.9**. An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Norfolk County Council	Agree with the proposed scope of the surveys outlined in the Biodiversity Chapter.	Noted
Cambridgeshire County Council	Draft HRA Screening Report: CCC supports screening in of construction and operational impacts on Nene Washes SPA/Ramsar and Ouse Washes SPA/Ramsar (high level screening changes and effects of the proposed development) but does not support the assessment of potential 'no' likely significant effects given that the scheme will result in increase in daily NOx on international designated receptors at this stage. The document must be updated to include the results of the Air Quality report.	The results of air quality dispersion modelling are presented in ES **Chapter 8 Air Quality (Volume 6.2)**, and the assessment of air quality effects on nature conservation sites is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.9**. An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Cambridgeshire County Council	It is important that the biodiversity assessment for the Environmental Statement provides a comprehensive, up to date assessment of the impact of the final version of the scheme.	The scope and results of updated biodiversity baseline surveys that informed the assessment are summarised in **ES Chapter 11 Biodiversity (Volume 6.2) Section**

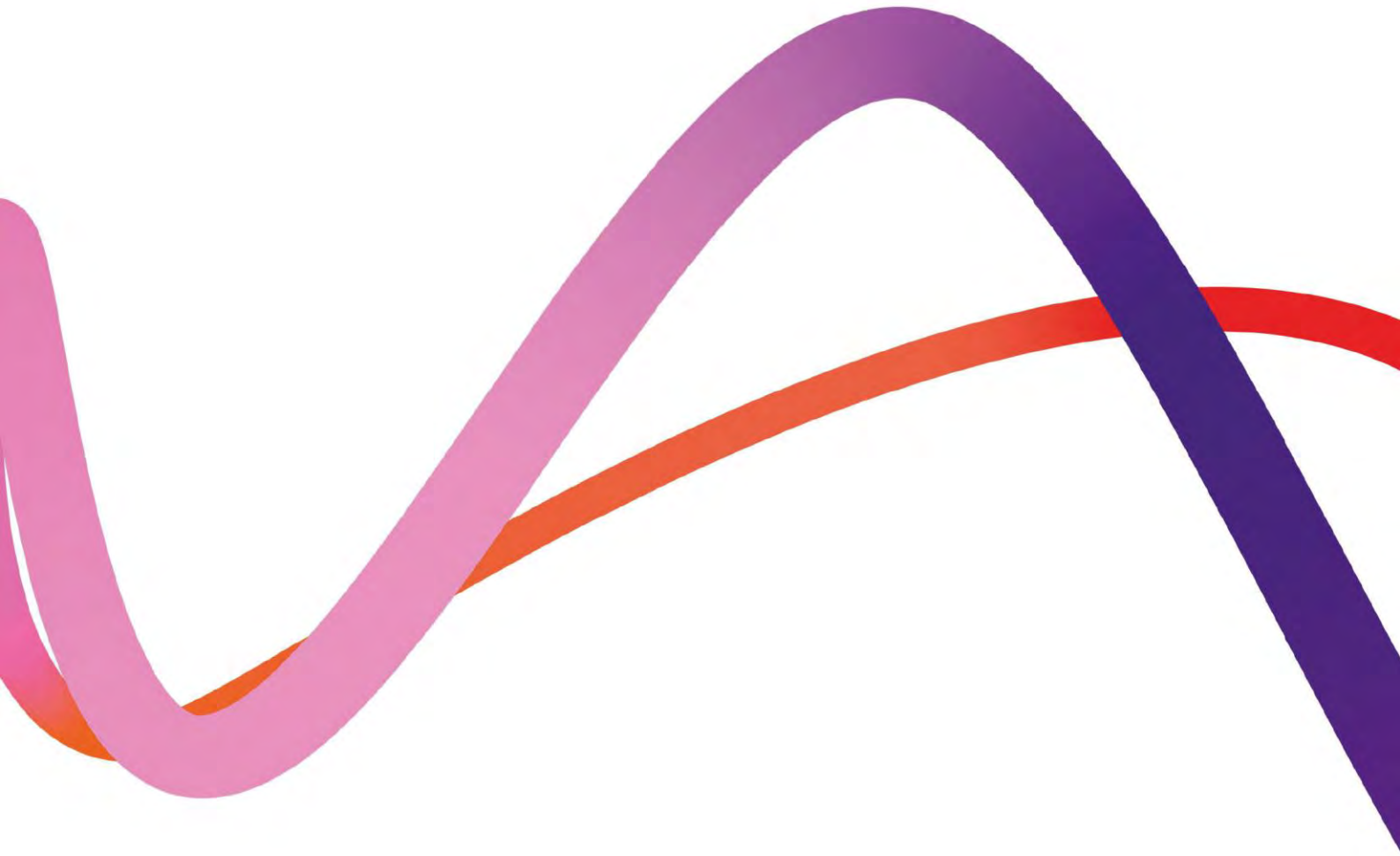
Consultee	Issue raised	Response
	This must include the completion of outstanding surveys set out in Table 11.6 (pages 22-31) as part of the DCO submission.	**11.4 and 11.5 respectively**, with updated assessment presented in **Section 11.9**.
Cambridgeshire County Council	The County Council supports the ecological features scoped in for further assessment, however more detailed assessment must be undertaken to determine the impact of some of these features, including detailed air quality assessments and completion of the baseline ecological survey work.	The scope of assessment has been refined following the completion of baseline surveys. The potential environmental effects of the Proposed Development were initially assessed in the PEIR, and the scope and results of updated biodiversity baseline surveys are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.6**, with updated assessment presented in **Section 11.9**.
Cambridgeshire County Council	It is noted that a number of habitats have been 'scoped out' of further assessment for permanent or temporary land take/land cover change due to minimal land take etc. (Table 11.11). The County Council seeks that evidence is supplied to qualify whether the land take is 'minimal' utilising a Biodiversity Net Gain (BNG) assessment, to demonstrate whether the scheme will provide an overall net loss, or net gain, in biodiversity value of habitats and therefore whether or not it will have a significant impact on habitats of local importance.	The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021.
Cambridgeshire County Council	Concerned that the scheme has identified potential for negative effects to ecological features, particularly international and local biodiversity sites, habitats (scrub) and species (bats). At this stage, insufficient evidence has been provided to demonstrate that any adverse impact will be "not significant". Require further information, including completed biodiversity survey work, lighting and landscape strategies, and finalised outline CEMP to demonstrate how the scheme has been designed to avoid significant impacts.	The potential environmental effects of the Proposed Development were initially assessed in the PEIR, and the scope and results of updated biodiversity baseline surveys are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and 11.5 respectively**, with updated assessment presented in **Section 11.9**. An updated lighting design for the scheme is provided with the ES, see **Chapter 3 Description of the Proposed Development, Appendix 3A Volume 6.4.**

Consultee	Issue raised	Response
		An Outline LEMP and updated Outline CEMP for the scheme is provided with the ES, see **Volume 7.7 and 7.12** respectively.
Cambridgeshire County Council	Assessment of effects on international biodiversity sites to be updated to include air quality results.	The results of air quality dispersion modelling are presented in ES **Chapter 8 Air Quality (Volume 6.2)**, and the assessment of air quality effects on nature conservation sites is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.9**. An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Cambridgeshire County Council	Boundaries of the River Nene CWS is demarcated as a linear feature along the river, however, the designation itself also includes any complimentary semi-natural habitat (e.g., flood plain grazing marsh) that is located adjacent to the river corridor. The assessment must be updated to include the impact on the River Nene CWS from air pollution. CCC are particularly concerned about the cumulative impact of increased elevations of a number of different pollutants and acid deposition on the river itself, its important flora (designatory feature) and fauna, as well as the complimentary semi-natural habitats adjacent to the river (fall within the extent of the CWS). Therefore, CCC seek a more in-depth study into the impact of the scheme on the CWS, including the assessment of current condition of the river itself (is the designatory species present within this section?) and associated semi-natural habitats to identify any potentially sensitive habitats or species that will be adversely impacted by the air quality changes. CCC will also look to the Environment Agency for advice on the impact of air quality of the scheme to the river.	The potential environmental effects of the Proposed Development were initially assessed in the PEIR and the assessment has now been updated, and completed in the ES. The assessment in the ES **Chapter 11: Biodiversity (Volume 6.2)** includes the River Nene County Wildlife Site, and the assessment was informed by additional baseline information and completed air quality modelling. No potentially negative significant effects have been identified. The River Nene County Wildlife Site has now been included within the scope of cumulative assessment within ES **Chapter 18: Cumulative Effects Assessment (Volume 6.2)**, and the air quality assessment within ES **Chapter 8: Air Quality (Volume 6.2)**. However, in line with Environment Agency's Air Emissions Risk Assessment guidance, any effects have been screened out as insignificant as long and short-term process contributions are less than 100% of the air quality assessment level.
Cambridgeshire County Council	CCC consider that a BNG assessment would help determine	Biodiversity enhancement is discussed in **ES Chapter 11**

Consultee	Issue raised	Response
	the overall impact on locally important habitats. Furthermore, it would help demonstrate how the scheme meets requirements of National Policy Statement for Energy EN-1 to "take advantage of opportunities to conserve and enhance biodiversity", NPPF 2021 paragraph 180d and policy 22 of the Cambridgeshire and Peterborough Minerals and Waste Local Plan Proposed Submission (2021) for the delivery of a level of biodiversity net gain that is proportionate to the development.	**Biodiversity (Volume 6.2) Section 11.10**. The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021. **ES Chapter 11: Biodiversity (Volume 6.2)** sets out how the Applicant has had regard to the overarching National Policy Statement for Energy (EN-1), National Planning Policy Framework, and the Cambridgeshire County Council and Peterborough City Council Minerals and Waste Local Plan 2036 (adopted 28 July 2021).
Cambridgeshire County Council	CCC seek that a Biodiversity Impact Assessment is undertaken, setting out how the development meets the 10 principles of Biodiversity Net Gain, including the usage of Defra 3.0 BNG metric calculator to quantify the BNG. Cambridgeshire is a very deprived county in term of biodiversity and therefore development should aspire to deliver 20% BNG (with a minimum of 10% -industry standard).	The Applicant has had regard to the Environment Act 2021 which in the future will require a Biodiversity Net Gain for NSIPs of 10%. Accordingly, the Applicant will undertake a biodiversity net gain calculation, following the approach provided in ES **Appendix 11M: Biodiversity Net Gain Assessment (Volume 6.4)**. This will inform the preparation of a Biodiversity Net Gain Strategy which will identify specific measures to meet the requirements of the Environment Act 2021.
Norfolk County Council	We agree with paragraph 11.9.1 that "without further field survey information and/or final design of the Proposed Development, it is not possible to conclusively determine the importance of some ecological features at the project level at this stage, or the extent and magnitude of environmental change on certain features." All survey work and assessments should accord with best practice guidelines.	The potential environmental effects of the Proposed Development were initially assessed in the PEIR and the assessment has been completed within ES **Chapter 11: Biodiversity (Volume 6.2)**. The scope and methodologies, which accord with ecological best practice and Natural England standing advice, are presented in **Section 11.3**, the results of updated biodiversity baseline surveys are presented in **Section 11.5**, and updated assessment is

Consultee	Issue raised	Response
		presented in **Section 11.9**.
Norfolk County Council	The Biodiversity chapter highlights that there are two route options for the grid connection Corridor. Without further field survey information, it is not possible to determine which route would be preferable from an ecological perspective.	The scope and results of updated biodiversity baseline surveys aligned with the selected Grid Connection option are summarised in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and 11.5 respectively**, with updated assessment of the selected option presented in **Section 11.9**.
Norfolk County Council	A draft Habitats Regulations Assessment (HRA) has been provided. It is noted that a final HRA will be provided with the DCO application. The report will need to be updated following the completion of air quality dispersion modelling which will be required to quantify the potential direct and indirect impacts on the Ouse Washes SAC/SPA/Ramsar and the Nene Washes SAC/SPA/Ramsar. The HRA screening report will also need to be updated to reflect developments in project design, including the introduction of Grid Connection Option 2.	The results of air quality dispersion modelling are presented in **ES Chapter 8 Air Quality**, and the assessment of air quality effects on nature conservation sites is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.9**. An HRA NSER is provided with the ES following completion of the assessment of effects on international designated sites, see **Section 11.8** and **Habitat regulations Assessment NSER (Volume 5.3)**.
Fenland District Council	It should be noted that as of 23 July 2021 the ecological surveys for the proposed development had not been completed and therefore it is not possible to fully comment on whether the proposed avoidance, mitigation and compensation contained within the PEIR aligns with National and Local Policies.	The potential environmental effects of the Proposed Development were initially assessed in the PEIR, and the scope and results of updated biodiversity baseline surveys are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and 11.5 respectively**, with updated assessment presented in **Section 11.9**.
Fenland District Council	A meeting was held between the LPA stakeholders and Medworth CHP Ltd ecological representation to inform Chapter 11: Biodiversity for the PEIR and the content of these discussions have been included within table 11A.1 and 11A.2 and responded to appropriately.	Noted.

Consultee	Issue raised	Response
Fenland District Council	Overall, the PEIR is well constructed and extensive in its scope covering every aspect of the proposal in details and broken into relevant partitions. At this moment in time with the survey work still ongoing and all comments made appropriately responded to, it is not possible to comment further or to determine the impacts of the proposal.	The potential environmental effects of the Proposed Development were initially assessed in the PEIR, and the scope and results of updated biodiversity baseline surveys are presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.4 and 11.5 respectively**, with updated assessment presented in **Section 11.9**.
Hundred of Wisbech IDB	The detrimental effect on and deterioration of the adjacent to the River Nene County Wildlife Site (CWS) and International Sites, such as the Nene Washes, together with the smaller habitats and species in the rural and urban environment in and adjacent to the Boards area are of significant concern.	The scope of assessment was refined following the completion of baseline surveys, and is presented in **ES Chapter 11 Biodiversity (Volume 6.2) Section 11.6**, with updated assessment presented in **Section 11.9** which includes nature conservation sites, species and habitats that could potentially be affected by the Proposed Development.



Medworth Energy from Waste
Combined Heat and Power Facility

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Environmental Statement Chapter 11 Biodiversity Appendix 11B Evaluation of Ecological Features

Regulation reference: The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

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Appendix 11B
Evaluation of Ecological Features

Table 11B.1 Evaluation of Ecological Features lists the ecological features that are relevant to the assessment because they are either legally protected or of sufficient biodiversity importance that an effect on them could be significant, and which could be affected by the Proposed Development. A justification is provided for any ecological features that are scoped out of further assessment because they are assessed as being of insufficient importance for likely effects to be significant.

Table 11B.1 Evaluation of ecological features

Ecological feature	Legally protected and controlled species	Designated biodiversity sites, and HPI or SPIs	Importance at project level	Part of Proposed Development feature is relevant to	Justification if features are of insufficient importance for effects to be significant	Ecological feature scoped in/out for further consideration
Nene Washes Ramsar Site: *Ramsar Criterion 2* An important assemblage of nationally rare breeding birds and a wide range of raptors through the year. The site also supports several nationally scarce plants, and two vulnerable and two rare British Red Data Book invertebrate species have been recorded. *Ramsar Criterion 6* Populations of international importance in winter of Bewick's swan (694 individuals). Populations of international importance, with peak numbers during the spring and autumn passage periods of black-tailed godwit (482 individuals).	Yes	Yes	International	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	The Ramsar is located 7.2km from the Order limits. There is no evidence to indicate that the farmland within 500m of the EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection is utilised by the Ramsar Site's qualifying features and does not form FLL. Therefore, there would be no impacts from permanent or temporary land take/land cover change, fragmentation of habitats, increased noise and vibration, or increased light levels during construction and operation of the Proposed Development and consequently there would be no pathway for likely significant effects on any Nene Washes Ramsar Site's qualifying features. Air quality modelling has been carried out to inform assessment of air pollution effects.	Scoped In
Nene Washes SPA: The site qualifies under Article 4.1 of the EC Birds Directive by regularly supporting, in winter, an internationally important wintering population of Bewick's swan (1,300 individuals: over 7% of the north-west European population wintering population: average of peak counts for the five year period 1987/88 to 1991/92). Nene Washes qualifies also under Article 4.2 by supporting, in summer, in recent years, nationally important breeding populations of regularly occurring migratory species: 25 pairs of gadwall (5% of British): five pairs of garganey (10% of British), 36 pairs of shoveler (3% of British), and 16 pairs of black-tailed godwits (30% of British), as well as several other rare birds. The site further qualifies under Article 4.2 by supporting, in winter, nationally important wintering populations of five migratory species (average peak counts for the most recent five year period for which data is available (1984/5 - 1985/86 and 1988/89 - 1990/91): 3,640 wigeon	Yes	Yes	International	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	The SPA is located 7.2km from the Order limits. There is no evidence to indicate that the farmland within 500m of the EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection is utilised by the SPA qualifying features and does not form FLL. Therefore, there would be no impacts from permanent or temporary land take/land cover change, fragmentation of habitats, increased noise and vibration, or increased light levels during construction and operation of the Proposed Development and consequently there would be no pathway for likely significant effects on any Nene Washes SPA qualifying features. Air quality modelling has been carried out to inform assessment of air pollution effects.	Scoped In

Ecological feature	Legally protected and controlled species	Designated biodiversity sites, and HPI or SPIs	Importance at project level	Part of Proposed Development feature is relevant to	Justification if features are of insufficient importance for effects to be significant	Ecological feature scoped in/out for further consideration
(over 1 % of the British wintering population): 980 teal (1% of British), 95 gadwall (over 1% of British): 440 Pintail (over 1% of British) and 110 shoveler (over 1% of British).						
Nene Washes SAC: Spined loach is the Annex II species that is the primary reason for this designation.	Yes	Yes	International	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	The SAC supports a population of the Annex II species spined loach. Considering the distance between the SAC and the Order limits (7.2km), the type of cited features and the lack of connectivity of aquatic habitat, mean that potential significant effects can be discounted, with the exception of those associated with air quality. Air quality modelling has been carried out to inform assessment of air pollution effects.	Scoped In
Ouse Washes Ramsar Site: *Ramsar Criterion 1* The site is one of the most extensive areas of seasonally-flooding washland of its type in Britain. *Ramsar Criterion 2* The site supports several nationally scarce plants, including small water pepper, whorled water-milfoil, greater water parsnip, river water dropwort, fringed water-lily, long-stalked pondweed, hair-like pondweed, grass-wrack pondweed, tasteless water-pepper and marsh dock. Invertebrate records indicate that the site holds relict fenland fauna, including the British Red Data Book species: the scarce chaser dragonfly and the rifle beetle. A diverse assemblage of nationally rare breeding waterfowl associated with seasonally-flooding wet grassland. *Ramsar Criterion 5* Internationally important assemblage of waterfowl in winter comprising a total of 59,133 birds. *Ramsar Criterion 6* Populations of international importance in winter for the following species: Bewick's swan (1,140 individuals), whooper swan (653), wigeon (22,630), gadwall (438), teal (3,384), pintail (2,108) and shoveler (627).	Yes	Yes	International	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	The Ramsar Site is located 12.5km from the Order limits. There is no evidence to indicate that the farmland within 500m of the EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection is utilised by the Ramsar qualifying features and does not form FFL. Therefore, there would be no impacts from permanent or temporary land take/land cover change, fragmentation of habitats, increased noise and vibration, or increased light levels during construction and operation of the Proposed Development and consequently there would be no pathway for likely significant effects on any the Ouse Washes Ramsar Site's qualifying features. Air quality modelling has been carried out to inform assessment of air pollution effects.	Scoped In

Ecological feature	Legally protected and controlled species	Designated biodiversity sites, and HPI or SPIs	Importance at project level	Part of Proposed Development feature is relevant to	Justification if features are of insufficient importance for effects to be significant	Ecological feature scoped in/out for further consideration
Ouse Washes SPA: The Ouse Washes qualifies under Article 4.1 of the EC Birds Directive by supporting, in summer, a nationally important breeding population of ruff. The site also qualifies under Article 4.1 by regularly supporting internationally or nationally important wintering populations of Bewick's swan, whooper swan and hen harrier. The Ouse Washes qualifies under Article 4.2 by supporting, in summer, nationally important breeding populations of gadwall, mallard, garganey, shoveler and black-tailed godwit. The site further qualifies under Article 4.2 as a wetland of international importance by virtue of regularly supporting over 20,000 waterfowl, with an average peak count of 60,950 birds recorded in the five-winter period 1986/7 to 1990/91; the waterbird assemblage. The site also qualifies under Article. 4.2 by virtue of regularly supporting, in summer, a diverse assemblage of the breeding migratory waders of lowland wet grassland; the breeding bird assemblage.	Yes	Yes	International	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	The SPA is located 12.5km from the Order limits. There is no evidence to indicate that the farmland within 500m of the EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection is utilised by the SPA qualifying features and does not form FFL. Therefore, there would be no impacts from permanent or temporary land take/land cover change, fragmentation of habitats, increased noise and vibration, or increased light levels during construction and operation of the Proposed Development and consequently there would be no pathway for likely significant effects on any of the Ouse Washes SPA qualifying features. Air quality modelling has been carried out to inform assessment of air pollution effects.	Scoped In
Ouse Washes SAC: Spined loach is the Annex II species that is the primary reason for this designation.	Yes	Yes	International	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	The SAC supports a population of the Annex II species spined loach. Considering the distance between the SAC and the Order limits (12.5km), the type of cited features and the lack of connectivity of aquatic habitat, mean that potential significant effects can be discounted, with the with the exception of those associated with air quality. Air quality modelling has been carried out to inform assessment of air pollution effects .	Scoped In
The Wash Ramsar Site: *Ramsar Criterion 1* The Wash is a large shallow bay comprising very extensive saltmarshes, major intertidal banks of sand and mud, shallow water and deep channels.	Yes	Yes	International	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	The Ramsar Site is located 17.3km from the Order limits. There is no evidence to indicate that the farmland within 500m of the EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection is utilised by the Ramsar Site's qualifying features and does not form FLL. Therefore, there would be no	Scoped In

Ecological feature	Legally protected and controlled species	Designated biodiversity sites, and HPI or SPIs	Importance at project level	Part of Proposed Development feature is relevant to	Justification if features are of insufficient importance for effects to be significant	Ecological feature scoped in/out for further consideration
Ramsar Criterion 3 Qualifies because of the inter-relationship between its various components including saltmarshes, intertidal sand and mud flats and the estuarine waters. The saltmarshes and the plankton in the estuarine water provide a primary source of organic material which, together with other organic matter, forms the basis for the high productivity of the estuary. *Ramsar Criterion 5* Internationally important assemblage of waterfowl in winter comprising a total of 292,541 birds. *Ramsar Criterion 6* Populations of international importance, with peak numbers in winter for the following species: pink-footed goose (29,099 individuals), brent goose, dark-bellied race (20,861), shelduck (9,746), pintail (431), dunlin (36,600) and bar-tailed godwit (16,549). Populations of international importance, with peak numbers during the spring and autumn passage periods for the following species: oystercatcher (15,616 individuals), grey plover (13,129), knot (68,987), sanderling (3,505), curlew (9,438), redshank (6,373) and turnstone (888).					impacts from permanent or temporary land take/land cover change, fragmentation of habitats, increased noise and vibration, or increased light levels during construction and operation of the Proposed Development and consequently there would be no pathway for likely significant effects on any The Wash Ramsar Site's qualifying features.	
The Wash SPA: The Wash qualifies under Article 4(1) because it supports 30 breeding pairs of little terns (2% of the British Population) and 220 pairs of common tern (2%); and because it supports 130 Bewick's swans (3%) in winter. The Wash qualifies under Article 4(2) as an internationally important wetland by supporting in winter an average of 163,000 waders and also 51,000 wildfowl; and because it supports on average the following internationally important numbers of individual species: 17,000 dark-bellied brent geese (12% of the European wintering population), 7,300 pink-footed geese (7%), 16,000 shelduck (12%), 1,700 pintail (2%),	Yes	Yes	International	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	The SPA is located 17.3km from the Order limits There is no evidence to indicate that the farmland within 500m of the EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection is utilised by the SPA qualifying features and does not form FLL. Therefore, there would be no impacts from permanent or temporary land take/land cover change, fragmentation of habitats, increased noise and vibration, or increased light levels during construction and operation of the Proposed Development and consequently there would be no pathway for likely significant effects on any of The Wash SPA qualifying features.	Scoped In

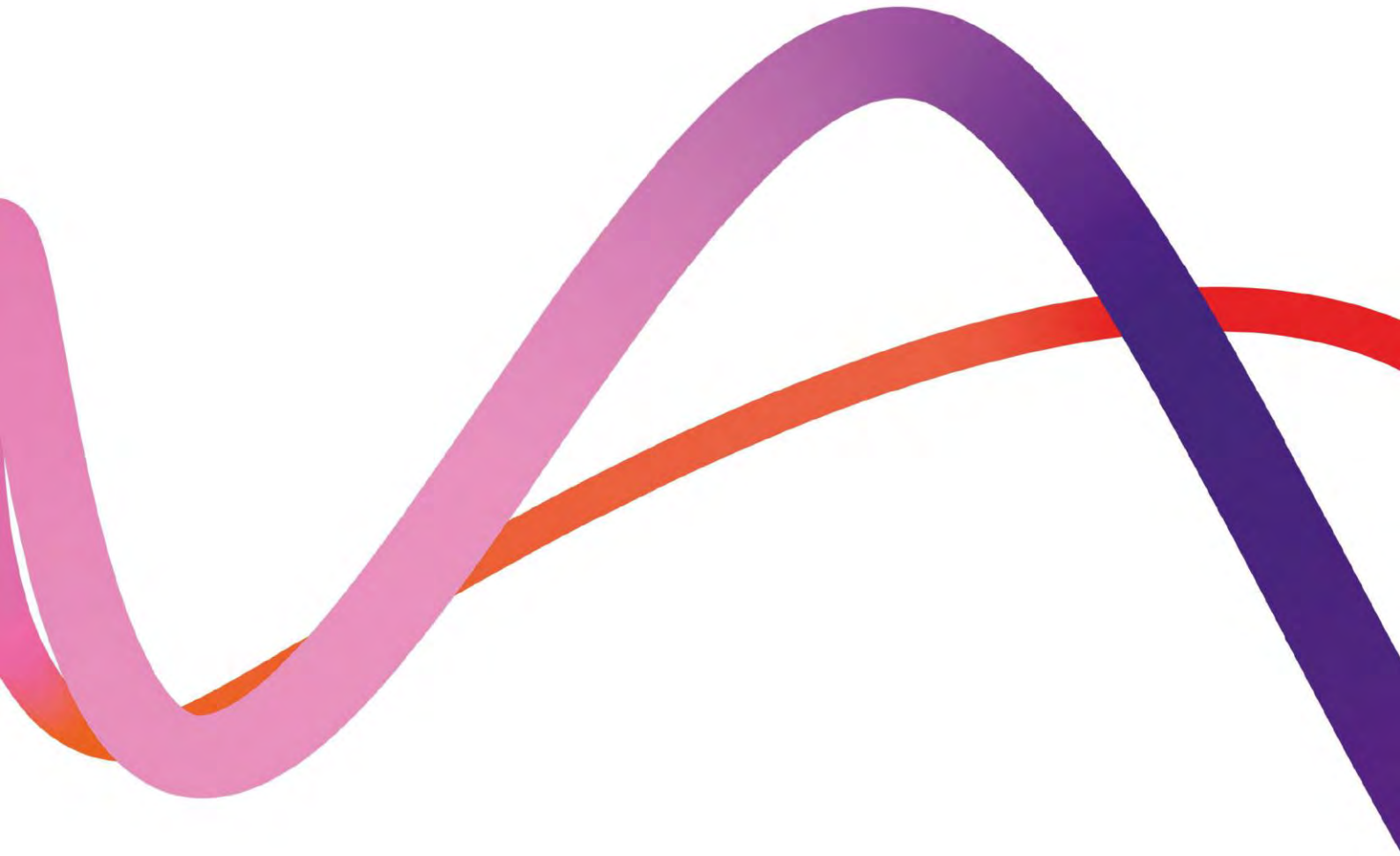
Ecological feature	Legally protected and controlled species	Designated biodiversity sites, and HPI or SPIs	Importance at project level	Part of Proposed Development feature is relevant to	Justification if features are of insufficient importance for effects to be significant	Ecological feature scoped in/out for further consideration
24,000 oystercatcher (3%), 5,500 grey plover (7%), 500 sanderling (3%), 7,500 knot (21%) 29,000 dunlin (1%) 8,200 bar-tailed godwit (1%), 3,700 curlew (1%), 4,331 redshank (5%) and 980 turnstone (2%).						
River Nene CWS: A major river which is not grossly modified by canalisation or poor water quality. The river supports at least 3 species of pondweed which are Nationally Scarce vascular plant species. The designation also includes any complementary semi-natural habitat adjacent to the river corridor.	No	Yes	County	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
Plantation woodland – broadleaved	No	No	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	Note that the majority of broadleaved plantation woodlands present are commercial orchards and are considered separately under 'Plantation woodland - orchard'.	Scoped In
Plantation woodland – coniferous	No	No	Negligible	Grid Connection.	A small area of coniferous plantation woodland is intensively managed as a commercial tree crop. Assessed as being of negligible biodiversity importance.	Scoped Out
Plantation woodland – orchard	No	No	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	The majority of broadleaved plantation woodlands present are commercial orchards. These orchards are intensively managed to maximise fruit production and comprise densely planted apple trees with an understory predominantly comprising heavily managed improved or short-mown amenity grassland. As such, these features are of insufficient quality and do not fulfil HPI criteria for 'Traditional Orchards' (which are defined as fruit and nut trees at low densities in permanent grassland and managed in a low intensity way). Assessed as being of insufficient biodiversity importance. Embedded measures will seek to minimise vegetation removal where possible, and habitats will be reinstated like-for-like in areas of temporary works.	Scoped Out
Traditional Orchard	No	Yes	County	Grid Connection.		Scoped In

Ecological feature	Legally protected and controlled species	Designated biodiversity sites, and HPI or SPIs	Importance at project level	Part of Proposed Development feature is relevant to	Justification if features are of insufficient importance for effects to be significant	Ecological feature scoped in/out for further consideration
Individual trees – broadleaved	No	No	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	Scattered trees present typically comprise locally common species. Where they are part of a hedgerow they are considered within that feature. Otherwise, they are a common and widespread habitat throughout Cambridgeshire, Norfolk and the UK, and do not occur in levels elevated above those surrounding the Proposed Development and its ZoI. Assessed as being of insufficient biodiversity importance. Embedded measures will seek to avoid tree removal where possible and replace trees which are lost in areas of temporary works.	Scoped Out
Individual trees – coniferous	No	No	Negligible	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections.	A small line of coniferous trees is present at the edge of the CHP Connection. Assessed as being of negligible biodiversity importance.	Scoped Out
Scrub	No	No	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
Ponds/standing open water	No	Yes	County	Grid Connection.		Scoped In
Ditches (running water, standing water; dry)	No	Yes[1]	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
Arable field margins	No	Yes	Local	Grid Connection.	The very narrow field margins are populated by common arable weed species. Feature considered to be of poor quality and does not fulfil HPI criteria for arable field margins (which are defined as herbaceous strips or blocks around arable fields that are managed specifically to provide benefits for wildlife). Assessed as being of insufficient biodiversity importance.	Scoped Out
Native species-poor hedgerows; native species-poor hedgerows with trees	No	Yes	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In

[1] Fenland drainage ditches are listed on the Cambridge and Peterborough BAP as Additional Habitats of Interest

Ecological feature	Legally protected and controlled species	Designated biodiversity sites, and HPI or SPIs	Importance at project level	Part of Proposed Development feature is relevant to	Justification if features are of insufficient importance for effects to be significant	Ecological feature scoped in/out for further consideration
Other common and widespread habitats: Arable; poor semi-improved grassland; improved grassland; amenity grassland; tall ruderal vegetation; earth bank; ephemeral/short-perennial; buildings; hardstanding/bare ground	No	No	Local to Negligible	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.	Species-poor habitats which are common and widespread habitats throughout Cambridgeshire, Norfolk and the UK, and do not occur in levels elevated above those surrounding the Proposed Development. Assessed as being of insufficient biodiversity importance. Embedded measures will seek to minimise vegetation removal where possible, and habitats will be reinstated like-for-like in areas of temporary works.	Scoped Out
Bats	Yes	Yes	County	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
Great crested newt	Yes	Yes	County	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
Otter	Yes	Yes	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
Water vole	Yes	Yes	County	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
WCA Schedule 1 species: breeding	Yes	Yes	County	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
Avian SPI/BoCC Red list species Breeding bird assemblage	No	Yes	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
Avian SPI/BoCC Red list species Non-breeding bird assemblage	No	Yes	Local	Grid Connection.	No significant or important aggregations of avian SPI were recorded during winter transect of vantage point surveys. Assemblage of species assessed as being of insufficient biodiversity importance.	Scoped Out

Ecological feature	Legally protected and controlled species	Designated biodiversity sites, and HPI or SPIs	Importance at project level	Part of Proposed Development feature is relevant to	Justification if features are of insufficient importance for effects to be significant	Ecological feature scoped in/out for further consideration
Reptiles	Yes	Yes	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
Badger	Yes	No	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In
SPI - terrestrial vertebrate species: brown hare; common toad; harvest mice; hedgehog; polecat	No	Yes	Local	EfW CHP Facility Site, Access Improvements, CHP Connection, Temporary Construction Compound and Water Connections and Grid Connection.		Scoped In



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Environmental Statement Chapter 11 Biodiversity Appendix 11C Species Scientific Names

Regulation reference: The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

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Appendix 11C
Species Scientific Names

Table 11C.1 Names of species occurring within Chapter 11 Biodiversity

Common name	Scientific name
BIRDS	
Bar-tailed godwit	Limosa lapponica
Bewick's swan	Cygnus columbianus bewickii
Black-tailed godwit	Limosa limosa
Bullfinch	Pyrrhula pyrrhula
Common tern	Sterna hirundo
Corn bunting	Emberiza calandra
Cuckoo	Cuculus canorus
Curlew	Numenius arquata
Dark-bellied brent goose	Branta bernicla bernicla
Dunlin	Calidris alpina
Dunnock	Prunella modularis
Gadwall	Mareca strepera
Garganey	Spatula querquedula
Greenfinch	Chloris chloris
Grey plover	Pluvialis squatarola
Hen harrier	Circus cyaneus
Herring gull	Larus argentatus
House sparrow	Passer domesticus

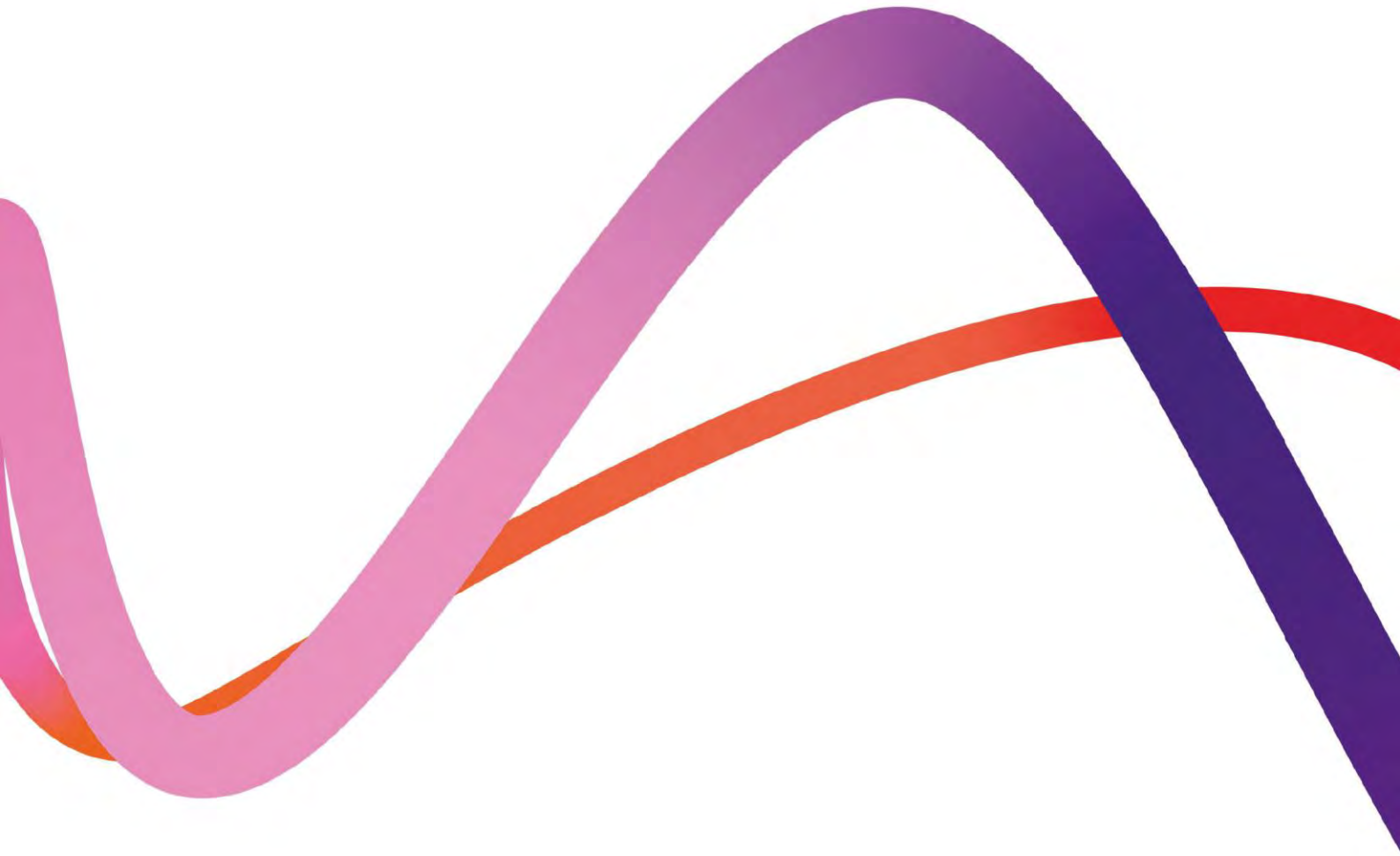
Common name	Scientific name
Knot	Calidris canutus
Lapwing	Vanellus vanellus
Linnet	Linaria cannabina
Little tern	Sternula albifrons
Mallard	Anas platyrhynchos
Mistle thrush	Turdus viscivorus
Northern pintail	Anas acuta
Oystercatcher	Haematopus ostralegus
Pink-footed goose	Anser brachyrhynchus
Pintail	Anas acuta
Redshank	Tringa totanus
Reed bunting	Emberiza schoeniclus
Sanderling	Calidris alba
Shelduck	Tadorna tadorna
Shoveler	Spatula clypeata
Skylark	Alauda arvensis
Song thrush	Turdus philomelos
Spotted flycatcher	Muscicapa striata
Swift	Apus apus
Teal	Anas crecca
Turnstone	Arenaria interpres
Turtle dove	Streptopelia turtur
Whooper swan	Cygnus cygnus

Common name	Scientific name
Wigeon	Anas penelope
Yellow wagtail	Motacilla flava
Yellowhammer	Emberiza citrinella
MAMMALS	
Badger	Meles meles
Brown hare	Lepus europaeus
Brown long-eared bat	Plecotus auritus
Common pipistrelle	Pipistrellus pipistrellus
Dormouse	Muscardinus avellanarius
European hedgehog	Erinaceus europaeus
Harvest mouse	Micromys minutus
Noctule bat	Nyctalus noctula
Otter	Lutra lutra
Polecat	Mustela putorius
Serotine bat	Eptesicus serotinus
Soprano pipistrelle	Pipistrellus pygmaeus
AMPHIBIANS and REPTILES	
Common lizard	Zootoca vivipara
Common toad	Bufo bufo
Great crested newt	Triturus cristatus
Slow worm	Anguis fragilis
FISH	
Spined loach	Cobitis taenia

Common name	Scientific name
INSECTS	
Rifle beetle	Oulimnius major
Scarce chaser dragonfly	Libellula fulva
PLANTS	
Apple	Malus sp.
Ash	Fraxinus excelsior
Bird's-foot trefoil	Lotus corniculatus
Black medic	Medicago lupulina
Blackthorn	Prunus spinosa
Bramble	Rubus fruticosus
Bristly oxtongue	Helminthotheca echioides
Broom	Cytisus scoparius
Buddleia	Buddleja davidii
Cherry	Prunus padus
Clover	Trifolium sp.
Cock's-foot	Dactylis glomerata
Common nettle	Urtica dioica
Common reed	Phragmites australis
Cotoneaster	Cotoneaster sp.
Creeping cinquefoil	Potentilla reptans
Creeping thistle	Cirsium arvense
Curled dock	Rumex crispus
Cypress	Cupressus x leylandii

Common name	Scientific name
Dandelion	Taraxacum sp.
Dog rose	Rosa canina
Dogwood	Cornus sanguinea
Elder	Sambucus nigra
Field maple	Acer campestre
Fringed water-lily	Nymphoides peltate
Grass-wrack pondweed	Potamogeton compressus
Greater water parsnip	Sium latifolium
Hair-like pondweed	Potamogeton trichoides
Hawthorn	Crataegus monogyna
Hazel	Corylus avellana
Herb Robert	Geranium robertianum
Himalayan balsam	Impatiens glandulifera
Holly	Ilex aquifolium
Horse chestnut	Aesculus hippocastanum
Japanese knotweed	Fallopia japonica
Lime	Tilia cordata
Long-stalked pondweed	Potamogeton praelongus
Marsh dock	Rumex palustris
New Zealand pigmyweed	Crassula helmsii
Pedunculate oak	Quercus robur
Perennial rye-grass	Lolium perenne
Poplar	Populus sp.

Common name	Scientific name
Red clover	Trifolium pratense
Ribwort plantain	Plantago lanceolata
River water dropwort	Oenanthe fluviatilis
Rose	Rosa sp.
Silver birch	Betula pendula
Sycamore	Acer pseudoplatanus
Tasteless water-pepper	Polygonum mite
Tufted hair-grass	Deschampsia cespitosa
Water pepper	Polygonum minus
White dead nettle	Lamium album
Whorled water-milfoil	Myriophyllum verticillatum
Wild carrot	Daucus carota
Willow	Salix sp.
Yorkshire fog	Holcus lanatus



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Environmental Statement Chapter 11: Biodiversity Appendix 11D Desk Study and Extended Phase 1 Habitat Survey

Regulation reference: The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

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Executive Summary

Wood Group UK Limited (Wood) has been commissioned by Medworth CHP Limited, (the 'Applicant'), to provide consenting and environmental consultancy support services for the development of an Energy from Waste Combined Heat and Power Facility at Wisbech, Cambridgeshire.

This report details the methodology and results of an ecological desk study and extended Phase 1 habitat survey undertaken with respect to the Proposed Development.

A range of habitat types were recorded within the survey area within the Order limits and 100m surrounding buffer. The desk study identified the notable habitats of deciduous woodland, traditional orchard and coastal floodplain grazing marsh within 2km of the Order limit, while hedgerows, traditional orchard, and ponds potentially qualifying as Habitats of Principal Importance (HPI) were recorded within the survey are during the extended Phase 1 habitat survey. No Species of Principal Importance (SPI) plant species, or species which are otherwise conservation-notable were recorded during the desk study or field survey. Presence of the legally controlled invasive non-native species Japanese knotweed and cotoneaster were recorded within the CHP Connection Corridor. Habitat types recorded during the extended Phase 1 habitat survey are generally common and widespread in the locality.

The desk study identified records of bats, water vole, otter, GCN, brown hare and Schedule 1, SPI and BoCC Red List bird species. The habitats present within the survey area within the Order limits and 100m surrounding buffer have potential to support a range of protected and notable species, however the habitats within the Order limits are generally common and widespread in the locality, and well connected to similar habitats outside of the Order limits; reducing the likelihood of the land within the Order limits supporting a unique assemblage of species in the local context.

Contents

1. Introduction

1.1 Background

1.1.1 Medworth CHP Limited (the Applicant) is applying to the Secretary of State for a Development Consent Order (DCO) to construct operate and maintain an Energy from Waste (EfW) Combined Heat and Power (CHP) Facility on the industrial estate, Algores Way, Wisbech, Cambridgeshire. Together with associated Grid Connection, CHP Connection, Water Connections, and Temporary Construction Compound (TCC), these works are the Proposed Development.

1.1.2 The Proposed Development would recover useful energy in the form of electricity and steam from over half a million tonnes of non-recyclable (residual), non-hazardous municipal, commercial and industrial waste each year. The Proposed Development has a generating capacity of over 50 megawatts and the electricity would be exported to the grid. The Proposed Development would also have the capability to export steam and electricity to users on the surrounding industrial estate.

1.1.3 The Proposed Development is a Nationally Significant Infrastructure Project (NSIP) under Part 3 Section 14 of the Planning Act 2008 (2008 Act) by virtue of the fact that the generating station is located in England and has a generating capacity of over 50 megawatts (section 15(2) of the 2008 Act). It, therefore, requires an application for a DCO to be submitted to the Planning Inspectorate (PINS) under the 2008 Act. PINS will examine the application for the Proposed Development and make a recommendation to the Secretary of State (SoS) for Business, Energy and Industrial Strategy (BEIS) to grant or refuse consent. On receipt of the report and recommendation from PINS, the SoS will then make the final decision on whether to grant the Medworth EfW CHP Facility DCO.

1.2 The Applicant and the project team

1.2.1 The Applicant is a wholly owned subsidiary of MVV Environment Limited (MVV). MVV is part of the MVV Energie AG group of companies. MVV Energie AG is one of Germany's leading energy companies, employing approx. 6,500 people with assets of around €5 billion and annual sales of around €4.1 billion. The Proposed Development represents an investment of approximately £450m.

1.2.2 The company has over 50 years' experience in constructing, operating, and maintaining EfW CHP facilities in Germany and the UK. MVV Energie's portfolio includes a 700,000 tonnes per annum residual EfW CHP facility in Mannheim, Germany.

1.2.3 MVV Energie has a growth strategy to be carbon neutral by 2040 and thereafter carbon negative, i.e., climate positive. Specifically, MVV Energie intends to:

- reduce its direct carbon dioxide (CO_2) emissions by over 80% by 2030 compared to 2018;
- reduce its indirect CO_2 emissions by 82% compared to 2018;

- be climate neutral by 2040; and
- be climate positive from 2040.

1.2.4 MVV's UK business retains the overall group ethos of 'belonging' to the communities it serves whilst benefitting from over 50 years' experience gained by its German sister companies.

1.2.5 MVV's largest project in the UK is the Devonport EfW CHP Facility in Plymouth. Since 2015, this modern and efficient facility has been using around 265,000 tonnes of municipal, commercial and industrial residual waste per year to generate electricity and heat, notably for Her Majesty's Naval Base Devonport in Plymouth, and exporting electricity to the grid.

1.2.6 In Dundee, MVV has taken over the existing Baldovie EfW Facility and has developed a new, modern facility alongside the existing facility. Operating from 2021, it uses up to 220,000 tonnes of municipal, commercial and industrial waste each year as fuel for the generation of usable energy.

1.2.7 Biomass is another key focus of MVV's activities in the UK market. The biomass power plant at Ridham Dock, Kent, uses up to 195,000 tonnes of waste and non-recyclable wood per year to generate green electricity and is capable of exporting heat.

1.2.8 To prepare the ES for the Proposed Development, the Applicant has engaged Wood Group UK Limited (Wood). Wood is registered with the Institute of Environmental Management and Assessment (IEMA)'s Environmental Impact Assessment (EIA) Quality Mark scheme. The scheme allows organisations that lead the co-ordination of EIAs in the UK to make a commitment to excellence in their EIA activities and have this commitment independently reviewed.

1.3 The Proposed Development

1.3.1 The Proposed Development comprises the following key elements:

- The EfW CHP Facility;
- CHP Connection;
- Temporary Construction Compound (TCC);
- Access Improvements;
- Water Connections; and
- Grid Connection.

1.3.2 A summary description of each Proposed Development element is provided below. A more detailed description is provided in **ES Chapter 3: Description of the Proposed Development (Volume 6.2)** of the ES. A list of terms and abbreviations can be found in **Chapter 1 Introduction, Appendix 1F Terms and Abbreviations (Volume 6.4)**.

- EfW CHP Facility Site: A site of approximately 5.3ha located south-west of Wisbech, located within the administrative areas of Fenland District Council and

Cambridgeshire County Council. The main buildings of the EfW CHP Facility would be located in the area to the north of the Hundred of Wisbech Internal Drainage Board (HWIDB) drain bisecting the site and would house many development elements including the tipping hall, waste bunkers, boiler house, turbine hall, air cooled condenser, air pollution control building, chimneys and administration building. The gatehouse, weighbridges, 132kV switching compound and laydown maintenance area would be located in the southern section of the EfW CHP Facility Site.

- CHP Connection: The EfW CHP Facility would be designed to allow the export of steam and electricity from the facility to surrounding business users via dedicated pipelines and private wire cables located along the disused March to Wisbech railway. The pipeline and cables would be located on a raised, steel structure.
- TCC: Located adjacent to the EfW CHP Facility Site, the compound would be used to support the construction of the Proposed Development. The compound would be in place for the duration of construction.
- Access Improvements: includes access improvements on New Bridge Lane (road widening and site access) and Algores Way (relocation of site access 20m to the south).
- Water Connections: A new water main connecting the EfW CHP Facility into the local network will run underground from the EfW CHP Facility Site along New Bridge Lane before crossing underneath the A47 (open cut trenching or horizontal directional drilling (HDD)) to join an existing Anglian Water main. An additional foul sewer connection is required to an existing pumping station operated by Anglian Water located to the northeast of the Algores Way site entrance and into the EfW CHP Facility Site.
- Grid Connection: This comprises a 132kV electrical connection using underground cables. The Grid Connection route begins at the 132kV switching compound in the EfW CHP Facility Site and runs underneath New Bridge Lane, before heading north within the verge of the A47 to the Walsoken Substation on Broadend Road. From this point the cable would be connected underground to the Walsoken DNO Substation.

1.4 Purpose of this report

1.4.1 An ecological desk study and extended Phase 1 habitat survey has been undertaken for land within and adjoining the Order limits to identify potential nature conservation constraints, assist with the scope of future investigations, and inform embedded environmental measures at an early stage of the design of the Proposed Development. This report provides a summary of the desk study data gathered to date (**Section 2**); the methods and results of the extended Phase 1 habitat survey (**Section 3**); and summarises the findings (**Section 4**). The study approach broadly follows the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017).

1.4.2 This report is based on information about the Proposed Development provided by the Applicant, which has been used to identify an appropriate geographical scope for the desk-study and extended Phase 1 habitat survey, based on an initial

assessment of the likely environmental changes associated with construction and operation of the Proposed Development.

1.4.3 For the purposes of this report the components of the Proposed Development within the Order limits have been evaluated in two distinct survey areas: the EfW CHP Facility Site CHP Connection Corridor, Access Improvements, Water Connections and TCC; and the Grid Connection. The Order limits are shown on **Figure 2.1**.

1.4.4 Species are referred to by their common names, with the scientific names provided in **Annex B**.

2. Desk Study

2.1 Introduction

2.1.1 The desk study involved the collection and interpretation of existing data from various sources. The data provides information on land within the Order limits and the surrounding area which helped identify ecological features or potential features that may require particular attention during subsequent field surveys (see **Section 3**).

2.2 Approach and search areas

2.2.1 A detailed data-gathering exercise was undertaken in March 2020 to obtain information relating to designated biodiversity sites; species or habitats of principal importance for the conservation of biodiversity in England; legally protected and controlled species; and other conservation-notable habitats or species (see **Boxes 1 and 2**). The sources of desk study information are summarised in **Table 11D.1 Sources of desk-study information**.

2.2.2 The scope of the data collection was based on an initial assessment of the likely environmental changes associated with construction and operation of the Proposed Development, and included collecting data on the following features and search areas:

- statutory designated biodiversity sites of international importance up to 15km of the Order limits, extended to 20km for sites of ornithological interest;
- statutory designated biodiversity sites of national/local importance up to 5km of the Order limits;
- other statutory and non-statutory designated biodiversity sites of nature conservation interest within 2km of the Order limits;
- protected species, species of principal importance for the conservation of biodiversity, or other conservation-notable species recorded within 2km, and records of confirmed bat roosts within 5km of the Order limits;
- habitats of principal importance for the conservation of biodiversity, or other conservation-notable habitats recorded within 1km of the Order limits;
- existing European Protected Species Mitigation Licences granted within 2km of the Order limits, extending to 5km for those relating to bat roosts; and
- any other sites or features that could potentially be affected by the Proposed Development (e.g., downstream sites).

2.2.3 The geographical context of the Proposed Development was also examined using the relevant Ordnance Survey maps and freely-available aerial imagery. These were used to identify features that may be important locally for protected or conservation-notable species, such as potential migration or dispersal routes, or any potential Receptors of site-derived pollutants in the wider landscape.

Waterbodies

2.2.4 The location and connectivity of ponds within an initial search radius of 500m of the Order limits was determined using Ordnance Survey 1:10k maps[1], aerial imagery from Google Maps and MAGIC. This was carried out to allow an initial assessment of possible impacts on any local great crested newt (GCN) populations. This search radius reflects the potential for GCN to utilise terrestrial habitat up to ~500m from their breeding ponds based on guidelines from Natural England (formerly English Nature, 2001)[2] with respect to the potential for disturbance. Within the supporting notes of the template for Method Statement in support of a GCN mitigation licence, Natural England recommend that ponds within 500m of a development site be assessed for their potential to support GCN, if the site habitats are suitable and there are no factors that might reduce the likelihood of GCN accessing the site.

2.2.5 However, it can be reasonable to reduce search areas for low impact schemes, usually to ~250m as this is recognised as being towards the upper limit of the distance that most adult GCN typically disperse around breeding ponds (Langton et al., 2001)[3]. Therefore, following the initial search of ponds within 500m of the Order limits, ponds between 250-500m of the Order limits were scoped out of further assessment during the desk study where there is unfavourable habitat linkage between the Order limits and a pond, and good surrounding habitats in the immediate areas around a pond (reducing the likelihood of the GCN dispersing to habitats within the Order limits).

2.2.6 In addition to ponds, there is an extensive network of ditches throughout land adjoining the Grid Connection (mainly in the form of field drains along arable field boundaries). Due to the aquatic habitat requirements of GCN, medium-sized ponds are typically used for breeding[2]. Although drains may be used, they are typically unsuitable due to a lack of water/variable water level/flowing water, an absence of vegetation for egg-laying, or poor water quality. Therefore, as a large number of ditches are present, which are predominantly agricultural drains, and in view of the low impact nature of the proposed maintenance works, an initial search area of 250m was applied to ditches.

2.2.7 The initial search of ditches yielded a large number of ditches within 250m of the Order limits, with the ditch network often forming a significant component of connective habitat in arable areas. The search radius for ditches was consequently refined to a 100m buffer to focus on those ditches in closest proximity to the Order limits.

1 Ordnance Survey Maps (2021) [online] Available at: [redacted] [Accessed 11 February 2021]
2 English Nature (2001). *Great Crested Newt Mitigation Guidelines.* English Nature (now Natural England), Peterborough.
3 Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

Box 1 – Designated biodiversity sites, and priority habitats and species

Statutory designated biodiversity sites

- **European sites**: Important biodiversity sites designated under international law or treaties. European sites are any **Special Area of Conservation** (SAC) from the point at which the European Commission and the UK Government agree the site as a 'Site of Community Importance' (SCI); any classified **Special Protection Area** (SPA); any **candidate SAC** (cSAC); and (exceptionally) any other site or area that the Commission believes should be considered as an SAC but which has not been identified by the Government. The term 'European site' is term is also commonly used when referring to **potential SPAs** (pSPAs), to which the provisions of Article 4(4) of *Directive 2009/147/EC* (the 'wild birds directive') apply; and to **possible SACs** (pSACs) and listed **Ramsar** sites, to which the provisions of the *Conservation of Habitats and Species Regulations 2017* (as amended) (the 'Habitats Regulations') are applied a matter of Government policy (National Planning Policy Framework) when considering development proposals that may affect them.
- **Sites of Special Scientific Interest** (SSSIs): Nationally important sites notified under the *Wildlife and Countryside Act 1981* (as amended) that provide the best examples of the UK's flora, fauna, or geological or physiographical features (note, this assessment focuses on those sites notified for their biodiversity interest).
- **National Nature Reserves** (NNRs): Nationally important sites notified under the *National Parks and Access to the Countryside Act 1949* and the *Wildlife and Countryside Act 1981* (as amended); in practice most NNRs are SSSIs also.
- **Local Nature Reserves** (LNRs): Locally important sites that are designated under the *National Parks and Access to the Countryside Act 1949* with the objective of encouraging their use for the study, research or enjoyment of nature.

Non-statutory designated biodiversity sites

Non-statutory designated biodiversity sites in Cambridgeshire and Norfolk are known as County Wildlife Sites (CWS) and are safeguarded by the policy provisions in Local Plans and Local Development Frameworks.

Other important habitats or species

Species or habitats of "principal importance for the conservation of biodiversity" (SPI and HPI) are those listed by Natural England pursuant to Section 41 of the Natural Environment and Rural Communities Act 2006 (as amended). They are commonly referred to (respectively) as 'Section 41' habitats or species.

Other conservation-notable habitats and species would include:

- Species listed as being of conservation concern in the relevant UK Red Data Book (RDB) or the Birds of Conservation Concern (BoCC) Red List (Stanbury *et al*. 2021)[4].
- Ancient woodland (i.e., areas that have been under continuous woodland cover since at least 1600 listed on the Ancient Woodland Inventory (AWI));
- Nationally Rare and Nationally Scarce species in the UK, which are species recorded from, respectively, 1-15 and 16-100 hectads (10x10km squares of the UK national grid).
- Populations of birds comprising at least 1% of the relevant British breeding/wintering population (where data are available).
- Habitats and species listed in habitat and species plans by the Cambridgeshire and Peterborough Biodiversity Group and in the Norfolk Biodiversity Action Plans (BAP); and
- Other species or assemblages such as large populations of animals considered uncommon or threatened in a wider context.

[4] Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds 114*: 723-747.

Box 2 – Legally protected and controlled species

Legal protection

Many species of animal and plant receive some degree of legal protection. For the purposes of this report, legal protection refers to:

- Species included on Schedules 5 and 8 of the *Wildlife and Countryside Act 1981* (as amended), excluding species that are only protected in relation to their sale (see Sections 9[5] and 13[2] of the Act);
- Species included on Schedules 2 and 5 of the *Conservation of Habitats and Species Regulations 2017* (as amended); and
- Badgers, which are protected under the *Protection of Badgers Act 1992*.

Legal control

Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) lists species of animal that it is an offence to release or allow to escape into the wild (for example grey squirrel) and species of plant that it is an offence to plant or otherwise cause to grow in the wild (for example, Japanese knotweed).

Table 11D.1 Sources of desk-study information

Aspect	Data	Sources
Statutory designated biodiversity sites	• Boundary data • Citations • Other site information (e.g., Conservation Objectives; Site Improvement Plans; Condition Assessments; Views about Management; etc.)	MAGIC website[5]: Joint Nature Conservation Committee (JNCC) UK Protected Areas Natural England (NE) Access to Evidence NE designated sites viewer
Non-statutory designated biodiversity sites	• Boundary data • Citations	Local Biodiversity Records Centres (Norfolk Biodiversity Information Service (NBIS) and the Cambridgeshire & Peterborough Environmental Records Centre (CPERC).
Other sites and habitats	• Boundary data	MAGIC website
Species records	• Location data • Existing European Protected Species licence records	Local Biodiversity Records Centres (Norfolk Biodiversity Information Service (NBIS) and the Cambridgeshire & Peterborough Environmental Records Centre (CPERC). MAGIC website

[5] Source of geographic information about the natural environment from across government.

2.3 Results

Designated biodiversity sites

2.3.1 There are several designated biodiversity sites within the search area. The interest features of these sites are summarised in **Table 11D.2 Designated biodiversity sites within the relevant search areas, and potential effect-pathways**, with brief notes on any potential pathways by which the sites or their interest features could be affected by the Proposed Development.

Table 11D.2 Designated biodiversity sites within the relevant search areas, and potential effect-pathways

Site	Location	Summary of qualifying features/interest features	Potential effect-pathways
Statutory designated biodiversity sites of international importance up to 15km of the Order limits, extended to 20km for sites of ornithological interest			
Nene Washes Ramsar	7.2km to SW	*Ramsar Criterion 2* An important assemblage of nationally rare breeding birds and a wide range of raptors through the year. The site also supports several nationally scarce plants, and two vulnerable and two rare British Red Data Book invertebrate species have been recorded. *Ramsar Criterion 6* Populations of international importance in winter of Bewick's swan (694 individuals). Populations of international importance, with peak numbers during the spring and autumn passage periods of black-tailed godwit (482 individuals). Species with peak counts in winter, northern pintail (1848 individuals).	Potential effect-pathways for this designated biodiversity site are considered separately in the No Significant Effects Report (**Appendix 11.N No Significant Effects Report (Volume 6.4)**).
Nene Washes SPA	7.2km to SW	The site qualifies under Article 4.1 of the EC Birds Directive by regularly supporting, in winter, an internationally important wintering population of Bewick's swan (1,300 individuals: over 7% of the north-west European population wintering population: average of peak counts for the five-year period 1987/88 to 1991/92). Nene Washes qualifies also under Article 4.2 by supporting, in summer, in recent years, nationally important breeding populations of regularly occurring migratory species: 25 pairs of gadwall	Potential effect-pathways for this designated biodiversity site are considered separately in the No Significant Effects Report (**Appendix 11.N No Significant Effects Report (Volume 6.4)**).

Site	Location	Summary of qualifying features/interest features	Potential effect-pathways
		(5% of British): five pairs of garganey (10% of British), 36 pairs of shoveler (3% of British), and 16 pairs of black-tailed godwits (30% of British), as well as several other rare birds. The site further qualifies under Article 4.2 by supporting, in winter, nationally important wintering populations of five migratory species (average peak counts for the most recent five year period for which data is available (1984/5 - 1985/86 and 1988/89 - 1990/91): 3,640 wigeon (over 1 % of the British wintering population): 980 teal (1% of British), 95 gadwall (over 1% of British): 440 Pintail (over 1% of British) and 110 shoveler (over 1% of British).	
Nene Washes SAC	7.2km to SW	Spined loach is the Annex II species that is the primary reason for this designation.	Potential effect-pathways for this designated biodiversity site are considered separately in the No Significant Effects Report (**Appendix 11.N No Significant Effects Report (Volume 6.4)**).
Ouse Washes Ramsar	12.5km to SE	Ramsar Criterion 1 The site is one of the most extensive areas of seasonally-flooding washland of its type in Britain. Ramsar Criterion 2 The site supports several nationally scarce plants, including small water pepper, whorled water-milfoil, greater water parsnip, river water dropwort, fringed water-lily, long-stalked pondweed, hair-like pondweed, grass-wrack pondweed, tasteless water-pepper and marsh dock. Invertebrate records indicate that the site holds relict fenland fauna, including the British Red Data Book species: the scarce chaser dragonfly and the rifle beetle. A diverse assemblage of nationally rare breeding waterfowl associated with seasonally-flooding wet grassland.	Potential effect-pathways for this designated biodiversity site are considered separately in the No Significant Effects Report (**Appendix 11.N No Significant Effects Report (Volume 6.4)**).

Site	Location	Summary of qualifying features/interest features	Potential effect-pathways
		Ramsar Criterion 5 Internationally important assemblage of waterfowl in winter comprising a total of 59,133 birds. Ramsar Criterion 6 Populations of international importance in winter for the following species: Bewick's swan (1,140 individuals), whooper swan (653), wigeon (22,630), gadwall (438), teal (3,384), pintail (2,108) and shoveler (627).	
Ouse Washes SPA	12.5km to SE	The Ouse Washes qualifies under Article 4.1 of the EC Birds Directive by supporting, in summer, a nationally important breeding population of ruff. The site also qualifies under Article 4.1 by regularly supporting internationally or nationally important wintering populations of Bewick's swan, whooper swan and hen harrier. The Ouse Washes qualifies under Article 4.2 by supporting, in summer, nationally important breeding populations of gadwall, mallard, garganey, shoveler and black-tailed godwit. The site further qualifies under Article 4.2 as a wetland of international importance by virtue of regularly supporting over 20,000 waterfowl, with an average peak count of 60,950 birds recorded in the five-winter period 1986/7 to 1990/91, the waterbird assemblage The site also qualifies under Article. 4.2 by virtue of regularly supporting, in summer, a diverse assemblage of the breeding migratory waders of lowland wet grassland, the breeding bird assemblage.	Potential effect-pathways for this designated biodiversity site are considered separately in the No Significant Effects Report (**Appendix 11.N No Significant Effects Report (Volume 6.4)**).
Ouse Washes SAC	12.5km to SE	Spined loach is the Annex II species that is the primary reason for this designation.	Potential effect-pathways for this designated biodiversity site are considered separately in the No Significant Effects Report (**Appendix 11.N No Significant Effects Report (Volume 6.4)**).

Site	Location	Summary of qualifying features/interest features	Potential effect-pathways
The Wash Ramsar	17.3km to N	*Ramsar Criterion 1* The Wash is a large shallow bay comprising very extensive saltmarshes, major intertidal banks of sand and mud, shallow water and deep channels. *Ramsar Criterion 3* Qualifies because of the inter-relationship between its various components including saltmarshes, intertidal sand and mud flats and the estuarine waters. The saltmarshes and the plankton in the estuarine water provide a primary source of organic material which, together with other organic matter, forms the basis for the high productivity of the estuary. *Ramsar Criterion 5* Internationally important assemblage of waterfowl in winter comprising a total of 292,541 birds. *Ramsar Criterion 6* Populations of international importance, with peak numbers in winter for the following species: pink-footed goose (29,099 individuals), dark-bellied brent goose (20,861), shelduck (9,746), pintail (431), dunlin (36,600) and bar-tailed godwit (16,549). Populations of international importance, with peak numbers during the spring and autumn passage periods for the following species: oystercatcher (15,616 individuals), grey plover (13,129), knot (68,987), sanderling (3,505), curlew (9,438), redshank (6,373) and turnstone (888).	Potential effect-pathways for this designated biodiversity site are considered separately in the No Significant Effects Report (**Appendix 11.N No Significant Effects Report (Volume 6.4)**).
The Wash SPA	17.3km to N	The Wash qualifies under Article 4(1) because it supports 30 breeding pairs of little terns (2% of the British Population) and 220 pairs of common tern (2%); and because it supports 130 Bewick's swans (3%) in winter. The Wash qualifies under Article 4(2) as an internationally important wetland by supporting in winter an average of 163,000 waders and also 51,000 wildfowl; and because it supports on average the following internationally important numbers	Potential effect-pathways for this designated biodiversity site are considered separately in the No Significant Effects Report (**Appendix 11.N No Significant Effects Report (Volume 6.4)**).

Site	Location	Summary of qualifying features/interest features	Potential effect-pathways
		of individual species: 17,000 dark-bellied brent geese (12% of the European wintering population), 7,300 pink-footed geese (7%), 16,000 shelduck (12%), 1,700 pintail (2%), 24,000 oystercatcher (3%), 5,500 grey plover (7%), 500 sanderling (3%), 7,500 knot (21%) 29,000 dunlin (1%) 8,200 bar-tailed godwit (1%), 3,700 curlew (1%), 4,331 redshank (5%) and 980 turnstone (2%).	
Statutory designated biodiversity sites of national/local importance up to 5km of the Order limits			
No sites within 5km			
Non-statutory designated biodiversity sites of local importance within 2km of the Order limits			
River Nene CWS	0.2km W	A major river which is not grossly modified by canalisation or poor water quality. The river supports at least 3 species of pondweed which are Nationally Scarce vascular plant species.	Air pollution during operation of the Proposed Development is a potential effect-pathway that is assessed in the Environmental Statement **Chapter 11 Biodiversity (Volume 6.2)**.

Species records

2.3.2 **Table 11D.3 Key species records from past 10 years** provides a summary of the key species records provided by NBIS and CPERC from within the last 10 years[6].

Table 11D.3 Key species records from past 10 years

Species	No. records	Legal protection	Other conservation criteria	Description of records held by NBIS	Description of records held by CPERC
Badger	0	Protection of Badgers Act 1992		No badger records.	No badger records.
Bat (includes roost records	7	Wildlife and Countryside Act 1981 (as amended) (WCA)/Conser	Section 41	One record of a pipistrelle bat species approximately 2km from the Grid	Five records of bats were returned from CPERC, with species including common pipistrelle, soprano

[6] This focuses on those recent records most likely to be relevant to the Proposed Development and the current land-use baseline.

Species	No. records	Legal protection	Other conservation criteria	Description of records held by NBIS	Description of records held by CPERC
where applicable)		vation of Habitats and Species Regulations 2017 (as amended) (the 'Habitat Regulations' – HR)		Connection, and one record of a bat roost of an unidentified species approximately 1.1km form the Grid Connection were provided by NBIS.	pipistrelle and an unidentified species, with the closest record being approximately 0.3km from the EfW CHP Facility Site. Two records of bat roosts were returned from CPERC with species including brown long-eared and an unidentified species, with the closest record being approximately 1.3km from the Grid Connection.
Water vole	1	WCA	Section 41	No water vole records.	One water vole record was identified located ~1.2km to the west of the CHP Connection.
Otter	1	WCA/HR	Section 41	No otter records.	One otter record was identified and relates to a mortality incident on the B198 located ~160m east of the CHP Connection.
Great crested newt	4	WCA/HR	Section 41	No GCN records were provided by NBIS	Four records are located within ~2km of the CHP Connection totalling eight individual GCN. These records are within two ponds located ~380m and 495m west of the CHP Connection, however, are separated from the Order limits by the River Nene.
Reptiles	0	WCA	Section 41	No reptile records.	No reptile records.
Dormouse	0	WCA/HR	Section 41	No dormouse records.	No dormouse records.
Notable fish	0	-	Section 41	No notable fish records.	No notable fish records.
Notable invertebrates	0	-	Section 41	No notable invertebrate records.	No notable invertebrate records.

Species	No. records	Legal protection	Other conservation criteria	Description of records held by NBIS	Description of records held by CPERC
Notable plants	0	-	Section 41	No notable plant records.	No notable plant records.
Notable mammals	1	-	Section 41	One records of brown hare is located ~1.6km southeast of the Order limits.	No notable mammal records.
Notable amphibians	0	-	Section 41	No notable amphibian records.	No notable amphibian records.
Schedule 1 bird species	52	WCA	Section 41	No Schedule 1 bird records.	52 records of 12 species including Cetti's warbler, common crossbill, fieldfare, green sandpiper, hobby, Mediterranean gull, osprey, peregrine, red kite, redwing, whimbrel and whooper swan.
SPI/BoCC Red List	214	WCA	Section 41	No SPI/BoCC Red List bird records.	214 records of 18 species including bullfinch, corn bunting, cuckoo, dunnock, grasshopper warbler, house sparrow, lapwing, lesser redpoll, linnet, reed bunting, skylark, song thrush, spotted flycatcher, starling, swift, turtle dove, yellow wagtail, yellowhammer.

Class licence returns and existing European protected species mitigation licences

2.3.3 A review of the MAGIC website identified no class licence returns within 500m of the Order limits.

2.3.4 Two European Protected Species Mitigation Licences (EPSL) for bats have been granted within 5km of the Order limits, both ~3.4km south-east, within the last 10 years. These licences are for common pipistrelle, serotine and brown long-eared bats.

Notable habitats

2.3.5 A review of the MAGIC[7] website identified the following notable habitat types within approximately 1km of the Order limits:

- Deciduous woodland, the closest parcel being immediately adjacent to the Grid Connection;
- Traditional orchard, the closest parcel being immediately adjacent to the Grid Connection; and
- Coastal floodplain grazing marsh, the closest parcel being approximately 450m south of the Grid Connection.

Waterbodies

2.3.6 Ponds within the 500m search area and ditches within the initial 250m search area are shown on **Figure 2.1**.

2.3.7 The initial search identified 15 ponds within 500m of the Order limits which are potentially suitable for GCN. Of these ponds:

- Eight ponds are **scoped out** of further assessment at the desk study stage:
  - Ponds 1 and 2 were scoped out as they are separated from the Order limits by the River Nene which is likely to be a barrier to GCN dispersal;
  - Ponds 3 and 6 were scoped out due to being located between 250-500m from the Order limits, with unfavourable habitat linkage between the Order limits and these ponds, and good surrounding habitats in the immediate areas around the ponds;
  - Pond 7 was scoped out due to being a lined irrigation/attenuation lagoon for the glasshouses and polytunnels of a large plant nursery, and is unlikely to be suitable for GCN; and
  - Land access permission was refused to Ponds P10, P11 and P12 at the time of survey, but the landowner confirmed that these were stocked fisheries ponds. Consequently, they were assessed as unlikely to be suitable for GCN and were scoped out.
- Seven ponds were **scoped in** to be assessed further during the extended Phase 1 habitat survey (see **Section 3**).

2.3.8 The initial search identified 130 ditches within 250m of the Order limits which are potentially suitable for GCN. The subsequent refined search identified 97 ditches within 100m of the Order limits, and these were **scoped in** to be assessed further during the extended Phase 1 habitat survey (see **Section 3**).

[7] MAGIC (2021) [online] Available at: https://magic.defra.gov.uk/MagicMap.aspx [Accessed 11 February 2021].

545000 546000 547000 548000 549000

310000 309000 308000 307000

Key

- Order limits
- 250m ditch area of search
- 500m pond area of search
- Ditches
- Ponds

0 200 400 600 800 m

Scale at A3: 1:15,000

Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 11D - Desk Study and Extended Phase 1 Habitat Survey

Figure 2.1
Desk study waterbody search

June 2022

wood.

41310-Shr313_v3

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3. Extended Phase 1 Habitat Survey

3.1 Introduction

3.1.1 'Phase 1' habitat survey is an established field-scale vegetation survey method that classifies land parcels into various habitat categories. The survey is typically 'extended' to identify other relevant biodiversity features, such as the potential for legally protected species to use a site. This section of the report details the methods used and provides the results of the surveys.

3.2 Methods

Survey Area

3.2.1 The extended Phase 1 habitat survey encompassed the Order limits and a 100m surrounding buffer (where accessible), hereafter referred to as the 'survey area' (see **Figure 3.1**).

3.2.2 The 100m buffer accounts for the potential for ecological features occurring outside of the Order limits to be impacted by the Proposed Development (for example rest sites of species such as bats and otter which could potentially be indirectly disturbed by distant activities). Further to this, the extended Phase 1 habitat survey was undertaken prior to design freeze of the Proposed Development, therefore the 100m buffer was intended to allow for a degree of potential adjustment to the layout of the Proposed Development during the design process while remaining within the survey area.

3.2.3 The survey area for assessing waterbodies for GCN was extended to a 500m buffer surrounding the Order limits. As noted in **Section 2.2**, this distance reflects the potential for GCN to utilise terrestrial habitat up to ~500m from their breeding ponds.

Methodology

3.2.4 The extended Phase 1 habitat survey of the survey area was completed by a Wood ecologist during 2020 – 2021 as part of the following survey visits:

- 29 September – 2 October 2020;
- 10 December 2020;
- 18 – 20 January 2021;
- 12 – 16 April 2021;
- 26 – 29 April 2021;
- 18 – 21 May 2021;
- 14 – 16 June 2021;
- 19 – 21 July 2021;

- 9 – 12 August 2021;
- 6 – 10 September 2021; and
- 6 – 7 October 2021.

3.2.5 The Survey took place over multiple site visits as and when access rights were secured with the relevant landowners, and repeat surveys were made of some parts of the survey area to account for seasonal variation (e.g., follow-up visits to areas where initial visits were undertaken during the sub-optimal winter period).

3.2.6 Distinct habitats were identified and recorded on a map, and any conservation-notable habitats or interest features that were too small to map were subject to a more detailed description in a Target Note (TN; see **Annex C**). As the standard Phase 1 Habitat survey methodology is largely concerned with vegetation communities only, the survey was 'extended' in accordance with the *Guidelines for Baseline Ecological Assessment* (IEA 1995) to include:

- Preliminary searches for evidence of protected or conservation-notable species/species-groups (including, but not limited to, bats; GCN; badger; water voles; reptiles; and otters), and for suitable habitats or features which could potentially support them if direct evidence is absent;
- Preliminary hedgerow assessments[8], aimed at identifying hedges that might be classified as 'important' based on the relevant ecological and structural criteria set out in The Hedgerows Regulations 1997; and
- The identification of other potential constraints (e.g., non-native invasive plant species) or opportunities (e.g., opportunities for micro-siting to minimise potential impacts, or provide ecological enhancements) that may be present relevant to the Proposed Development.

3.2.7 The search and assessment methods used for key species and species groups are summarised in **Table 11D.4 Summary of incidental species survey methods used during the extended Phase 1 habitat survey**; it must be noted that the use of these search methods alongside a Phase 1 survey will not generally confirm that a species is absent, unless otherwise stated, and will not necessarily remove the need for additional species-specific surveys to determine the baseline for assessment or mitigation requirements. The location of key interest features (e.g., potential bat roosts, badger sett entrances, water vole burrows, or mature trees) were recorded using a GPS unit.

Table 11D.4 Summary of incidental species survey methods used during the extended Phase 1 habitat survey

Species	Methods
Bats (All Species)	Individual or small clusters of trees (excluding blocks of woodland) and structures were assessed for their potential to support roosting or hibernating bats. Roosting features might typically include:

[8] Based broadly on the methods set out in the *Hedgerow Survey Handbook*, DEFRA 2002.

Species	Methods
	• Trees with cavities, splits, cracks, holes or loose bark, or trees with a dense covering of ivy; • Buildings with gaps that would allow bats access or features such as bargeboards, fascia, soffits, hanging tiles, cavity walls, wood frames, etc. The trees and buildings were inspected as far as possible for evidence of bat activity, such as scratch marks, staining, foraging remains or droppings (taking account of health and safety considerations regards working at height or within structures). Potential bat foraging habitat was also noted.
Badger	The survey area was searched for evidence of badger activity including setts, badger paths, foraging marks, dung pits and hair, where access was permitted and possible.
Birds	The habitats in the survey area were assessed for their suitability to support assemblages of breeding and wintering birds, as well as individually nesting birds, particularly conservation-notable species listed on Schedule 1 of the *Wildlife and Countryside Act* 1981 (as amended). Schedule 1 birds are generally uncommon or behaviourally vulnerable species that receive additional protection over that afforded to all nesting birds.
Great Crested Newt	Ponds within the survey area (which were scoped in during the desk study see **Section 2.2**) were visited during the extended Phase 1 habitat survey and initially assessed for potential suitability to support GCN in line with the parameters of the Habitat Suitability Index (HSI) developed by Oldham *et al*. (2000)[9]. In addition, the likelihood of GCN (if they occur in ponds within 500m of the Order limits) accessing or utilising the on-site terrestrial habitat was assessed; the significance of ponds to the development proposals might be reduced where: • habitats within the Order limits are low or negligible value; • there are no suitable habitats, or habitat corridors (such as hedgerows or ditches), linking the potential breeding pond to the Order limits, such that the Proposed Development is effectively isolated by sub-optimal GCN habitat; • there are major boundaries to dispersal between the breeding habitat/waterbodies and the Order limits; • habitat linkages between the pond(s) and the Order limits are poor (e.g., long gaps in hedgerows) and the pond occurs more than 250m from the Order limits*; and • there are areas of suitable terrestrial habitat near the pond that are likely to be used preferentially over habitats on or near the Proposed Development.
Water voles	The suitability of habitats for water voles was assessed. Where possible (taking account of health and safety considerations regards working near watercourses) the assessment was supported by brief searches for water vole field signs, including burrows, feeding remains, latrines or footprints. Note that water voles can occur some distance away from watercourses, particularly in upland areas (although water features often remain a focal point for their activity).
Otters	The likelihood of otters using habitat within or around the Proposed Development was assessed. Where possible (taking account of health and safety considerations regards

[9] Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus).*

Species	Methods
	working within watercourses) the assessment was supported by brief searches for otter field signs including holts, laying up areas, spraints (particularly around prominent features such as tree stumps, boulders, culvert exits/entrances, or grass tussocks near waterbodies) or feeding remains.
Reptiles	The suitability of habitats for reptiles was assessed. Casual searches for basking reptiles were made with particular emphasis embankments, slopes, potential natural and artificial refugia, interface or edge habitats, and shade free areas near dense vegetation; possible refugia such as boards or logs were also examined.
Other Species	The suitability of habitats for other species of nature conservation importance, particularly those identified by the desk study, was also assessed.

Constraints

3.2.8 The survey had the following principal constraints:

- The survey results represent an ecological snapshot of the land within and adjoining the Order limits at the time of survey. The fauna and flora present may subsequently fluctuate in both species composition and numbers, on both a diurnal and seasonal basis. Species that appear earlier or later in the year may not therefore have been observed, and thus may remain unrecorded. However, consideration has been given to the potential for the land within and adjoining the Order limits to support protected and priority species which may be present in relation to the Proposed Development's location and the type and suitability of habitats present.
- Part of the Phase 1 habitat survey was undertaken during the winter period due to access limitations during earlier survey periods in late summer/early autumn. The winter period is suboptimal for Phase 1 habitat survey due to being outside of the main plant growing period. However, the habitat types which were identified during the surveys in the winter period are generally common and widespread, and the survey results are supported by contextual information about habitats in nearby parts of the survey area which were surveyed during earlier surveys undertaken in-season. Follow-up survey visits of key areas of habitat (e.g., those likely to be directly impacted within the footprint of the Proposed Development) were made during the optimal spring/summer survey period. Therefore, the habitat information obtained during the winter period is considered to be robust.
- Areas of impenetrably dense scrub vegetation, namely central sections of the CHP Connection Corridor, and isolated stands at the EfW CHP Facility Site and within the wider survey area adjacent to the Grid Connection. In these instances, surveys focussed on adjoining areas of similar habitat where no evidence was found to suggest the presence of any additional ecological features within the inaccessible land. Further to this, inaccessible areas were viewed from adjacent

land using binoculars, and assessed using up-to-date aerial imagery[10], which is considered sufficiently robust to have identified broad habitat types present, and to confirm their consistency with adjacent accessible habitats.

- A significant revision of the Proposed Development design along the Grid Connection occurred towards the end of the survey period (due to a change from an underground cable and 132kV overhead line through predominantly agricultural land, to a lower impact design using an underground cable located predominantly within the verge immediately adjoining the A47 road). This resulted in additional land parcels falling within the 100m buffer of the Order limits, notably along the west of the Grid Connection Corridor/A47. The change to the Order limits also resulted in an additional 33 ditches within the 100m ditch search area for water vole and great crested newt (these additional ditches are included within updated desk study information in **Section 2**). It was not possible to assess all of the additional land and ditches within the 100m buffer due to land access restrictions, as well as Health and Safety risks associated with surveying ditches within 10m the A47 due to heavy traffic flows. However, given that the construction footprint along the Grid Connection would be restricted to the immediate roadside verge along the Grid Connection, there would not be any substantive direct impacts to ditches or other habitat within the 100m buffer, and the verge is predominantly unsuitable terrestrial habitat for the sensitive ecological features identified within this report. The vast majority of land within the footprint of the Proposed Development and adjoining critical survey areas was accessible for surveys. Further to this, inaccessible areas were viewed from adjacent land using binoculars, and assessed using up-to-date aerial imagery[10], which is considered sufficiently robust to have identified broad habitat types present, and to confirm their consistency with adjacent accessible habitats. Therefore, the inaccessible areas were considered to be insignificant and unlikely to affect the outcome of baseline surveys, and thus access was not pursued through Section 53 Rights of entry.
- Access to the interior of structures such as residential and commercial buildings and outbuildings was not obtained. However, the Proposed Development is unlikely to impact on any buildings and therefore it is considered that this constraint would not affect the validity or robustness of the survey or its conclusions.

3.3 Results

Interpretation and terminology

3.3.1 This report is intended to inform the design and delivery of the Proposed Development through the early identification of potential ecological constraints and additional survey or mitigation requirements.

3.3.2 Species are referred to by their common names only in the main body of the report, with the scientific names provided in **Annex B**. For habitats, where relevant, the relative abundance of key plant species is described using the standard DAFOR

[10] Google Earth Pro, recent imagery dated June 2021.

adjectival terms i.e., a species may be dominant; abundant; common; frequent; occasional; or rare[11] within a given habitat. Additional qualification may be given, for example 'locally dominant'.

3.3.3 This report does not provide a detailed 'evaluation' of the ecological features with respect to the Proposed Development, although the standard EcIA geographical evaluation terminology (i.e., 'international', 'national', 'regional', and so on) is applied where appropriate and meaningful as it is useful when discussing the relative intrinsic value of the various features and the need for additional surveys. Species or habitats with a high 'policy importance'[12] are also identified, since this will also have a bearing on the additional investigations or assessment that may be required to support the Proposed Development.

3.3.4 With regard to protected and conservation-notable animal species, habitats are initially defined as being either 'suitable' or 'unsuitable' to support a particular species, where direct evidence of a species is absent (unless there is clear rational presented in standard good practice guidance, such as describing the level of suitability of a feature for roosting bats as either 'low', 'moderate' or 'high'). The need for further survey work is then based on additional contextual information (e.g., desk-study records; accessibility of the survey area; relative value of the habitats in a local context; etc.) moderated by professional experience of similar developments and habitats.

Habitats

3.3.5 The habitats recorded during the survey are illustrated on **Figure 3.1** with descriptions of the target notes (TN) provided in **Annex C**. An overview of habitat present is broadly as follows:

- The EfW CHP Facility Site is currently in use as an industrial aggregates site with the operational area of the site dominated by hardstanding and bare ground with several operational structures and buildings. The EfW CHP Facility Site is enclosed by earth bunds along most of its perimeters. The bunds have variable vegetation cover and are periodically cleared of vegetation. During the intervening period the bunds support vegetation cover such as ephemeral/short-perennial vegetation, tall ruderal, and bramble scrub. A range of ditches (dry, standing and running water) are present. There are small areas of poor semi-improved grassland at the north and east of the EfW CHP Facility Site, and an area of mature treeline which encloses an area of dense scrub at the south adjacent to New Bridge Lane.
- The disused March to Wisbech Railway Line forms the western boundary of the EfW CHP Facility Site. The CHP Connection Corridor is located along the disused March to Wisbech Railway Line, and adjoins the northwest of the EfW CHP Facility Site. The CHP Connection Corridor and wider disused March to Wisbech Railway Line are predominantly vegetated with dense scrub, interspersed with smaller areas of bare ground, ephemeral/short-perennial vegetation, and patchy grassland, with a larger area of grassland bounded my

[11] Note that 'rare' refers to the occurrence of a species within the habitat rather than their status nationally, unless stated otherwise.
[12] i.e. covered by international or national legislation or policy, such as protected species.

broadleaved plantation woodland and tree lines present at the northern end of the CHP Connection Corridor. Collectively, the CHP Connection Corridor and wider disused March to Wisbech Railway Line form a linear habitat corridor through an area which consists of predominantly urban and industrial development, while to the south the disused March to Wisbech Railway Line corridor leads to commercial orchards and arable fields.

- The TCC adjoins the east of the EfW CHP Facility Site, and consists mainly of poor semi-improved grassland with patches of bramble scrub.
- The Access Improvements and Water Connections consist predominantly of existing tarmac/hardstanding roads and immediately adjoining verge and heavily managed drainage ditches. A small area of commercial orchard and arable land are present at the eastern end of the Water Connections adjacent to the A47 road corridor.
- Habitat along the Grid Connection consists predominantly of the carriageway and immediately adjoining roadside verge along the A47 and other smaller roads which are unsuitable for bats. A small amount of suitable bat foraging habitat (grassland and trees) is present at the location of the Grid Connection substation compound, but ample more favourable and less disturbed habitat is present within the locality that would not be affected by the Proposed Development. Land adjacent to the Grid Connection outside of the Order limits is predominantly arable and urban/residential, with arable fields and commercial orchards interspersed with field drains, occasional hedgerows, treelines and blocks of scrub.

3.3.6 A summary of the habitat types recorded is provided in **Table 11D.5 Summary of habitats**. Habitat types which are notable in their own right, or which are often associated with protected or notable species, and could be potentially affected by the Proposed Development are summarised below.

EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections

- Variable vegetation covering the earth bunds which border the EfW CHP Facility Site;
- Ditches containing water which bisect the EfW CHP Facility Site and are present at boundaries of the EfW CHP Facility Site and TCC;
- The line of trees enclosing an areas of dense scrub at the south of the EfW CHP Facility Site.
- Dense scrub which is dominant along the CHP Connection Corridor; and
- Other smaller areas of habitat along the CHP Connection Corridor including ephemeral/short-perennial vegetation, semi-improved grassland, broadleaved plantation woodland and treelines.

Grid Connection

- Ditches in close proximity to the Grid Connection.

Table 11D.5 Summary of habitats

Habitats	Summary	Section 41 Habitat*
EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections		
Broadleaved plantation woodland	The western and northern border of the CHP Connection Corridor consists of immature broadleaved plantation woodland still in planting tubes consisting of hazel, field maple, immature silver birch, ash, dogwood and scattered buddleia. There were no mature trees present. The potential of this habitat type to be used by bats or nesting birds is considered in the following sections. A small area of commercial orchard is present at the eastern end of the Water Connections on New Bridge Lane, which has intensively managed fruit trees with improved grassland beneath.	No[13]
Parkland and scattered trees - coniferous	A line of cypress trees is present on the western boundary of the CHP Connection Corridor immediately south of Weasenham Lane.	No
Parkland and scattered trees - broadleaved	A line of scattered mature poplar trees encloses dense scrub immediately south of the EfW CHP Facility Site. A line of semi-mature silver birch trees is present on the western boundary of the CHP Connection Corridor immediately north of Weasenham Lane.	No
Dense scrub	Dense bramble scrub is present in places on earth bunds around the perimeter of the EfW CHP Facility Site, with other species present amongst the scrub including occasional elder saplings, white dead nettle, curled dock, teasel, thistle, common nettle, creeping cinquefoil, herb Robert and locally abundant coverings of hedge bindweed. There is an area of dense bramble scrub south of the EfW CHP Facility Site. This scrub is enclosed by a line of mature poplar trees. Other scattered stands of bramble scrub are present within the TCC. The potential of the dense scrub to be used by nesting birds is considered in the following sections.	No

[13] Certain types of broadleaved woodland are Section 41 habitat, but the broadleaved plantation woodland present does not qualify.

Habitats	Summary	Section 41 Habitat*
Dense scrub and ephemeral/short-perennial mosaic	A large proportion of the CHP Connection Corridor is inaccessible due to impenetrably dense bramble and hawthorn scrub with frequent dog rose and buddleia. There were small areas within the dense scrub which were accessible. Scrub is also present around the grassland in the north consisting of bramble, rose, broom, hawthorn and buddleia. In this area there is a section of dense scrub with Japanese knotweed that appears to have been previously treated but is re-growing (TN21). Cotoneaster is also present along the disused railway. Interspersed throughout the dense scrub are areas where ephemeral/short perennial vegetation occur, occupying patches of exposed ballast along the disused railway. Species in these areas include ribwort plantain, wild carrot, trifolium spp., St John's wort, doves foot cranesbill, stonecrop, yarrow and knapweed. There are rare instances of species including bee orchid and broomrape. There is an area within this part of the CHP Connection Corridor where fly-tipping has taken place over the fence of an adjacent residential property and some minor vegetation clearance has occurred behind the fences of residential gardens, see TN2. The potential of this area to be used by bats, birds and reptiles is considered in the following sections.	No
Poor semi-improved grassland	Poor semi-improved grassland covers a large area of the TCC. The grassland adjacent to the industrial area on the northern boundary is occasionally waterlogged, evidenced by localised areas of horsetail and amphibious bistort are present (TN11). The remainder of the grassland is drier with frequent ragwort, bristly oxtongue and ribwort plantain. Grasses include perennial rye grass, false oat-grass, cock's-foot and common couch. Frequent scrub species include rose and hawthorn which are scattered within the grassland sward. An area of poor semi-improved grassland is present at the north of the CHP Connection Corridor. The sward is tall, ~50cm, and largely tussocky with tufted hair-grass and cock's-foot interspersed with mats of germander speedwell. This habitat is comprised of frequent cock's-foot, Yorkshire fog and tufted hair-grass. Other species in the sward include ribwort plantain, creeping cinquefoil, curled dock, red clover, bird's-foot trefoil, black medic, wild carrot, bristly oxtongue and herb Robert.	No

Habitats	Summary	Section 41 Habitat*
	Minor areas of poor semi-improved grassland is present along road verges along the Access Improvements and Water Connections.	
Ditch - standing water or running water	Ditches D8, D11, D24 and D26 hold standing water. These waterbodies show signs of poor water quality and are heavily disturbed by regular ditch maintenance by the Internal Drainage Board including vegetation cutting and dredging. In between strimming, the banks of these ditches become heavily vegetated with common reed, greater willowherb, common nettle and bramble. The ditches are interconnected and lead around the northern and eastern perimeter and across the EfW CHP Facility Site, and extend around the west and south of the TCC. Water within the ditches becomes flowing at times, e.g., during periods of rainfall.	No
Ditch - dry	D25 is a dry ditch that is associated with a line of poplar trees within the south of the EfW CHP Facility Site. The ditch is shallow and has dense leaf litter with no aquatic species within its channel, suggesting this ditch rarely holds water.	No
Species-poor intact hedgerow	A species-poor intact hawthorn hedgerow is present along the eastern boundary of the EfW CHP Facility Site.	Yes
Earth bank	Man-made earth banks are present throughout the EfW CHP Facility Site, mainly around the perimeters. The bunds have variable vegetation cover and are periodically cleared of vegetation. During the intervening period the bunds support vegetation cover such as ephemeral/short-perennial vegetation, tall ruderal, and bramble scrub.	No
Buildings	There are two operational buildings within the EfW CHP Facility Site; one single storey weighbridge and a large, corrugated metal warehouse. Their suitability for roosting bats or nesting birds is considered in the following sections. There are two buildings within the CHP Connection Corridor; their suitability for roosting bats or nesting birds is considered in the following sections.	No
Bare ground	The majority of the EfW CHP Facility Site comprises hardstanding or bare ground which is devoid of any significant vegetation.	No

Habitats	Summary	Section 41 Habitat*
Hardstanding	The northern limits of the CHP Connection Corridor is dominated by hard standing car parks. At the time of survey there were two large temporary piles of coconut waste in the car park, see TN19. The majority of the Access Improvements and Water Connections are focused along existing hardstanding roads.	No
Fence	Chain link fences are occasionally present on the boundaries and crossing parts of the CHP Connection Corridor.	No
Grid Connection		
Broadleaved plantation woodland	This habitat is dominated by commercial orchards which are widespread in the survey area and the wider landscape. They consist of high-density plantations of fruit tree varieties with improved grassland beneath them. Broadleaved plantation screen planting is also present in places adjacent to the A47 and typically consists of willow, lime, field maple, pedunculate oak and horse chestnut. Ground flora diversity is generally low with bramble and common nettle being the dominant species.	No[14]
Broadleaved plantation woodland (traditional orchard)	A section of traditional orchard which potentially qualifies as HPI is located immediately south of the A47 has been left unmanaged and is overgrown preventing physical access due to the impenetrably dense scrub and brambles. Fruit trees, mainly apple, are present among bramble and hawthorn scrub and tall grasses. A second area of traditional orchard which potentially qualifies as HPI is located adjacent to the north-west of the Grid Connection, but this was not accessible at the time of survey.	Yes
Coniferous plantation woodland	One land parcel contains coniferous plantation woodland, this land is currently used as a Christmas tree farm and will undergo regular felling.	No
Dense scrub	Dense scrub is present in many locations throughout the survey area and is often a habitat associated with land boundaries. Dense scrub is dominated by bramble however species including ivy, rose, common nettle, willowherb, hedge bindweed and bristly oxtongue are also commonly present.	No

[14] Note that 'traditional orchards' are a Section 41 habitat type, but the commercial orchards present within the Site do not qualify as this habitat type.

Habitats	Summary	Section 41 Habitat*
	The potential of dense scrub to be used by species such as nesting birds is considered in the following sections.	
Scattered scrub	Scattered scrub is occasionally present throughout the survey area and primarily consists of bramble, with other species including common nettle, ivy, rose, willowherb and hedge bindweed.	No
Parkland and scattered trees - broadleaved	Scattered broadleaved trees are present but infrequent, forming lines of trees associated with field and highways boundaries. Species of scattered trees is primarily mature poplars used on field boundaries.	No
Parkland and scattered trees - coniferous	Scattered cypress trees are present but infrequent, forming lines of trees associated with field and highways boundaries.	No
Poor semi-improved grassland	Occasional fields of poor semi-improved grassland are present, which appear to be rarely managed with a tall sward up to 50cm consisting of false oat-grass, perennial ryegrass, cock's-foot, Yorkshire fog, spear thistle, creeping thistle, ragwort, common hogweed, cow parsley, common nettle, goat's-beard and white clover.	No
Improved grassland	Improved grassland is present along the Grid Connection most commonly associated with field margins bordering arable land. In some instances, these strips of grassland are used as access tracks however, the majority of the field margins are narrow. Typical species composition in the sward for this habitat includes perennial rye-grass, Yorkshire fog, and tufted hair-grass with ribwort plantain, clover, white dead nettles, thistle and bristly oxtongue. This habitat type is also common under orchards where species also frequently include common nettle and dandelions. There are a few instances of whole fields of improved grassland.	No
Amenity Grassland	Amenity grassland is present primarily in areas of residential housing with private gardens which are regularly mown short swards with low diversity of grass and herb species.	No
Tall ruderal	A small bank of tall ruderal is present off Broadend Road. The area is dominated by common nettle and cow parsley with frequent cleavers and hemlock.	No

Habitats	Summary	Section 41 Habitat*
	A section of tall ruderal runs parallel to New Drove Road, bisecting the hardstanding road and intensive orchard.	
Standing water - pond	Seven ponds were accessible at the time of survey. The potential of the seven ponds to be used by GCN and water vole is considered in the following sections.	Yes
Ditch - standing water or running water	Five of the accessible ditches, D15, D16 D44, D46 and D48, contained shallow running water. These ditches were commonly choked with vegetation such as common reed with steep banks that are managed and reprofiled. The potential for this habitat to be used by water vole is considered in the following sections. Twenty ditches containing standing water were recorded within the survey area. Generally, these ditches held low water levels and were commonly choked with vegetation such a common reed in the main channel. Evidence that the ditches are managed and reprofiled is present. The potential for this habitat to be used by GCN and water vole is considered in the following sections.	No
Ditch - dry	Thirty-eight ditches were dry at the time of survey. The majority of dry ditches present have earth banks and are border features for arable fields. The dry ditches were often choked with terrestrial species such as bramble, common nettle, cock's-foot and other grasses and common reed. All ditches in the survey area have evidence of occasional maintenance including bank profiling and dredging. As a result, the bank profile is steep and high. The potential for this habitat to be used by water vole, GCN and badger is considered in the following sections.	No
Arable	The arable land along the Grid Connection is in varying states and utilised for a variety of crops including maize and root vegetables. Many arable fields throughout the survey area were recently ploughed. Arable fields along the route are large and extensive creating open landscapes that are interspersed with ditches creating boundary features. Field margins are generally narrow due to ploughing close up to ditches. This type of habitat is widespread within the local area.	No
Species-poor intact hedgerow	All hedgerows within the survey area were species-poor and generally intact in good condition with varying levels of management. The large expanses of arable land are typically partitioned using ditches and as such hedgerows are less common in this area than is typical of other rural areas. Woody species in the hedgerows are usually dominated by hawthorn or blackthorn, with other species including elder, willow, rose and holly.	Yes

Habitats	Summary	Section 41 Habitat*
	Other species within hedgerows include bramble, white dead nettle, hedge bindweed, common nettle, herb Robert, willowherb and ivy. The Grid Connection passes through a relatively open arable landscape, and hedgerow habitats provide localised habitat connectivity. The potential for hedgerows to be used by bats, nesting birds, badgers and small mammals is considered in the following sections.	
Species-poor intact hedgerow with trees	Where trees are present in species poor hedgerows the most common species includes willow and alder. Other tree species present in this habitat type include sycamore, elder, cypress, apple, ash, cherry and poplar. This habitat type is most common as a boundary habitat surrounding orchards.	Yes
Fences	Fences are present throughout the survey area varying from stock fences to wooden residential fences.	No
Buildings	There are multiple buildings within the survey area including residential properties, industrial warehouses and farm buildings. Their potential to be used by bats or nesting birds is considered in the following sections.	No
Hard standing	Hard standing is the dominant habitat along the Grid Connection. The Grid Connection follows the A47 highway for most of its route.	No

* Habitats meeting the UKBAP 'Priority Habitat' criteria (Maddock, 2011); the UKBAP criteria are applied to the Section 41 'Priority Habitats' identified by Natural England.

Protected species

Bats - roosting

3.3.7 The extended Phase 1 habitat survey did not include detailed roost inspections, although the buildings, individual trees and blocks of woodland within the survey area were initially assessed for their suitability for roosting bats (with particular emphasis on those likely to be directly affected), and any roosting opportunities (e.g., splits, rot holes, etc.) were identified. The suitable roosting opportunities identified within the survey area are summarised in **Table 11D.6 Suitability of features for roosting bats – EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections** and **Table 11D.7 Suitability of features for roosting bats – Grid Connection**. Overall, occasional suitable roost features are present within the survey area (see **Figure 3.2**), however in a local context these are not considered to provide extensive or unique roosting

resources, as the principal types of roosting opportunities present are common and widespread in the locality.

EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections

3.3.8 No features were identified which were considered suitable for roosting bats. **Table 11D.6 Suitability of features for roosting bats – EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections** summarises the suitability of buildings present to support roosting bats.

Table 11D.6 Suitability of features for roosting bats – EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections

Reference	Summary	Constraint?
B1	Large industrial building with no potential roosting features. Brick built with a corrugated metal roof. Security lighting is present.	No – feature has negligible suitability for roosting bats.
B2	Small brick built, single story building. Building is derelict and was previously used in association with the disused railway. External render is in good condition, large open windows on the eastern aspect of the building which are very exposed. No obvious roosting features although access was not possible to the western aspect.	No – feature has negligible suitability for roosting bats.
B3	Large industrial warehouse used to store and sort waste. Some gaps present where the metal roof has corroded due to material inside, these gaps appear to be regularly repaired with insulation foam. Security lighting is present.	No – feature has negligible suitability for roosting bats.
B4	Small single storey weigh station with a flat roof. Brick building in good condition with no obvious features to support a bat roost. Security lighting is present.	No – feature has negligible suitability for roosting bats.
T1, 2, 6-10	Multiple mature trees present in treelines at the south of the EfW CHP Facility Site, with features consisting predominantly of woodpecker holes providing potentially suitable roost features.	Yes – Situated within or adjacent to EfW CHP Facility Site and TCC along the Access Improvements, Water Connections and initial section of the Grid Connection. Further surveys/assessment may be required to determine presence/likely absence of roosting bats.

Grid Connection

3.3.9 Several trees were identified during the survey that have suitable roosting features for bats. There are also areas of broadleaved woodland where individual trees were not assessed but the woodland habitat is likely to provide suitable roosting resource. A number of buildings are present along the Grid Connection, it is not anticipated that any buildings will be impacted by the development of the Grid Connection. **Table 11D.7 Suitability of features for roosting bats – Grid Connection** summarises the suitability of buildings and trees present to support roosting bats.

Table 11D.7 Suitability of features for roosting bats – Grid Connection

Reference	Summary	Constraint?
B5	A two-storey brick built residential building. A section of the second storey on the eastern aspect is externally clad with wooden panels that appear to be in good condition. The building has both a pitched tiled roof and a flat felt covered roof, both in good condition. The western aspect of the building has hanging tiles, some of which are slightly lifted. No obvious cavities or potential roosting features were recorded at the time of survey.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B6	A barn with a corrugated metal roof. No obvious potential roosting features were visible.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B7	An outbuilding with a corrugated metal roof. No obvious potential roosting features were visible.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B8	A single storey brick-built building with a pitched tiled roof. Windows, doors and guttering appear to be in good condition on the northern aspect. There are no damaged roof tiles visible and no potential roosting features recorded on the northern aspect.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B9	A large metal warehouse situated in an industrial estate. No potential roosting features were recorded.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.

Reference	Summary	Constraint?
B10	An open structure barn with a corrugated metal roof. The structure is exposed to the weather and no potential roosting features were recorded.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B11	A single storey brick-built barn building with sliding metal doors on the northern and southern gable ends. The building has a pitched corrugated roof which is in good condition. Dense ivy is present on the north-eastern and north-western corners of the building. Broken windows on the western aspect allow access into the building and there are gaps between the external wall and the eaves of the roof on the western aspect.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B12	A single storey brick-built structure with a flat roofed car port attached. No potential roosting features were recorded.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B13	A single storey brick-built structure with a flat roofed car port attached. No potential roosting features were recorded.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B14	A single storey brick-built residential property. It has a hip roof with ridge tiles and a chimney, all in good condition. No potential roosting features recorded.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B15	Two storey brick-built residential property. It has a tiled pitched roof with ridge tiles and no soffits and a chimney, all in good condition. No potential roosting features recorded.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
B16	A two-storey brick built residential property. It has a tiled pitched roof with ridge tiles and no soffits and a chimney, all in good condition. No potential roosting features recorded.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.

Reference	Summary	Constraint?
B17	A two-storey, semi-detached, brick built residential property. It has a tiled pitched roof with ridge tiles and no soffits and a chimney, all in good condition. No potential roosting features recorded.	No – buildings are unlikely to be impacted by the Proposed Development and therefore bats are unlikely to be directly affected.
T11-21	Multiple trees between A47 corridor and edge of field. Trees are semi-mature, and have suffered damage due to flailing on the field side which as cause splits and cracks that are potentially suitable for roosting bats.	No – trees will not be impacted by Proposed Development. Trees in field adjacent to heavily trafficked road so subject to disturbance. Work close to the tree would be completed in a single night, and would be restricted to the road carriageway and immediately adjoining grass road verge, and embedded environmental measures would avoid indirect impacts (such as light spill).

Bats - commuting/foraging

EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections

3.3.10 The grassland and treelines and scrub immediately south of the EfW CHP Facility Site, and grassland within the TCC provide suitable habitat for foraging and commuting bats although these are not unique habitats locally. The dense scrub along the disused March to Wisbech Railway Line immediately west of the EfW CHP Facility Site is a suitable commuting corridor for bats.

3.3.11 The CHP Connection Corridor consists of a linear corridor along the wider disused March to Wisbech Railway Line with trees and dense scrub, providing a dark corridor. This habitat feature provides a suitable commuting corridor which runs the length of the CHP Connection, passing through an area of urban and industrial development where habitats are otherwise predominantly unsuitable or unfavourable for bats. An area of open grassland to the north of the CHP Connection Corridor also provides a suitable habitat for foraging and commuting bats.

3.3.12 Habitats within the EfW CHP Facility Site, TCC and CHP Connection Corridor were assessed overall as being moderate quality for commuting and foraging bats.

3.3.13 Habitats within the Access Improvements and Water Connections are dominated by hardstanding roads and are negligible-low quality for commuting and foraging bats.

Grid Connection

3.3.14 Habitat along the Grid Connection consists predominantly of the carriageway and immediately adjoining roadside verge along the A47 and other smaller roads which are unsuitable for bats. A small amount of suitable bat foraging habitat (grassland and trees) is present at the location of the Grid Connection substation compound, but ample more favourable and less disturbed habitat is present within the locality outside of the Order limits. Land adjacent to the Grid Connection Corridor outside of the Order limits is predominantly arable and urban/residential, with arable fields and commercial orchards interspersed with field drains, occasional hedgerows, treelines and blocks of scrub.

3.3.15 The small area of habitat at the Grid Connection substation compound, and the habitats adjacent to the Grid Connection Corridor but outside of the Order limits are low-moderate suitability for commuting and foraging by bats.

Great crested newts

Aquatic habitat

3.3.16 Following the desk study (see **Section 2.2**) seven ponds within 500m of the Order limits and 97 ditches within 100m of the Order limits were scope in for further assessment during the extended Phase 1 habitat survey. A number of ponds and ditches were found to be potentially suitable for breeding by GCN, where suitable habitat linkages occur between the pond/ditch and terrestrial habitats within the Order limits. Detailed assessment of the suitability of ponds and ditches for GCN, including HSI assessment results, is presented **Appendix 11.G Great Crested Newt Survey (Volume 6.4)**.

Terrestrial habitat

3.3.17 GCNs spend most of their time in terrestrial habitats, either foraging or hibernating. They return to ponds/other waterbodies to breed in the spring (broadly from around mid-March to mid-June, although this is strongly dependent on weather conditions). They will cross most habitats when migrating (including amenity grassland, hardstanding and roads) but tend to spend most of their time foraging in structurally ‘complex’ habitats – such as rough grassland, scrub, woodland, hedgerows, and so on. They will hibernate or seek refuge in a range of places, including mammal burrows or rubble and vegetation piles, but will generally make use of any small voids or crevices that provide protection – this can include under concrete slabs, within fissures in hardstanding, or alongside structures such as fence-posts. As a result, rubble piles and other construction materials are often attractive to this species. Habitats within the Order limits which are either unsuitable or unfavourable to GCN include hardstanding, arable and pasture fields, while areas of favourable terrestrial habitats including scrub, hedgerows and treelines, tussocky grasslands, and overgrown dry ditches which are suitable for foraging, dispersal, refuging and hibernating.

Breeding birds (all species)

3.3.18 Separate detailed bird surveys have been undertaken for the Proposed Development and the results of these surveys are presented in separate reports in **Appendix 11.J Breeding Bird Appraisal Surveys 2021 (Volume 6.4)**, **Appendix 11.K Breeding and Passage Bird Survey 2020 (Volume 6.4)** and **Appendix 11.L Winter bird Survey 2019/2020 (Volume 6.4)**. The following sections describe relevant information on birds recorded during the extended Phase 1 habitat survey.

EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections

3.3.19 Woodpecker holes were identified on trees within the treelines at the south of the EfW CHP Facility Site and TCC. No other birds were recorded on the EfW CHP Facility Site at the time of survey.

3.3.20 Extensive areas of scrub and scattered broadleaved trees along the CHP Connection Corridor provide suitable habitat for breeding birds. In addition, the derelict building within the CHP Connection Corridor has open access to the interior which may offer features suitable features for nesting. A flock of starlings was recorded foraging at the time of survey and house sparrows were recorded entering bramble scrub within the CHP Connection Corridor (TN12).

3.3.21 Other areas of suitable habitat present for breeding birds include stands of scrub, a hedgerow at the east of the EfW CHP Facility Site, and vegetation on the banks of the ditches including common reed providing suitable habitat for nesting waterfowl such as moorhen and mallard.

3.3.22 Habitat within the Access Improvements and Water Connections are largely unsuitable for breeding birds, consisting mainly of hardstanding and roadside verge, though occasional areas suitable habitat exist in the form of adjoining ditches, scrub and trees.

Grid Connection

3.3.23 Bird species recorded at the time of survey were mallard, moorhen, buzzard, kestrel, green woodpecker (TN14), jay, goldfinch, grey heron and little egret.

3.3.24 Habitats along the Grid Connection Corridor are largely unsuitable for breeding birds, consisting mainly of hardstanding and roadside verge, though occasional areas suitable habitat exist within or adjoining the Grid Connection Corridor in the form of ditches, scrub, trees and woodland, and hedgerows.

Badgers

EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections

3.3.25 No signs or evidence of badger were recorded within the survey area at the time of survey. Habitats such as treelines, scrub and grassland within the EfW CHP Facility Site, TCC, the CHP Connection Corridor and the wider adjoining disused March to

Wisbech Railway Line corridor provide suitable habitats for sett creation, foraging and commuting.

3.3.26 Part of the CHP Connection Corridor was inaccessible to survey due to impenetrably dense scrub habitat, but no evidence of badger activity was recorded around this habitat feature or leading into it (i.e., mammal runs). The CHP Connection is a narrow corridor of suitable habitats through industrial and residential areas, which are otherwise predominantly unsuitable for badger, thus reducing the likelihood of badger presence.

3.3.27 The Access Improvements and Water Connections consist of habitat that is predominantly hardstanding and road verge which are subject to disturbance and are unsuitable for badger. Small areas of grassland and commercial orchard within the eastern portion of the Water Connections provide limited opportunities for foraging and commuting.

Grid Connection

3.3.28 A deceased badger was also recorded within the Grid Connection Corridor at the side of the A47 during the survey, [redacted]. No other evidence of badger was recorded.

3.3.29 Habitats along the Grid Connection are predominantly limited to the hardstanding carriageway of the A47, and the immediately adjoining roadside verge that consists of poor semi-improved grassland which his heavily disturbed by road traffic. The Grid Connection crosses a narrow section of dry ditch and semi-mature treeline before entering an area of poor semi-improved grassland where the Walsoken Substation compound would be located. Habitat within this part of the Grid Connection is limited in extent, and located between Broadend Road, the existing UKPN substation and its access road, and has some limited suitability for commuting and foraging badger. It is unlikely that badger setts would occur in this area, but favourable habitat for sett creation exists in the adjoining grassland, treelines and field edges.

3.3.30 The range of habitats within the survey area adjoining the Grid Connection (but outside of the Order limits) provide suitable habitat for badger commuting, foraging and in places sett creation. These habitats consist largely of arable fields and commercial orchards, interspersed with ditches and occasional hedgerows, with other habitats including traditional orchard, occasional areas of grassland, scrub, and narrow bands of broadleaved trees and plantation woodland which parallel the A47 corridor.

Reptiles

EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections

3.3.31 No reptiles or evidence of their presence was recorded in the survey area at the time of survey. Occasional areas of habitat present are suitable for common reptile species such as common lizard and slow worm.

3.3.32 Habitat within the majority of the EfW CHP Facility Site is subject to high levels of disturbance and consists predominantly of hard standing surfaces which are unsuitable for reptiles. However, the wet ditches, and the treelines and scrub at the south of the EfW CHP Facility Site, grassland and wet ditches within the TCC, and scrub habitat adjoining the western boundary of the EfW CHP Facility Site provide opportunities for foraging, basking and refuging.

3.3.33 Habitat along the CHP Connection Corridor and the wider disused March to Wisbech Railway Line which bounds the west of the EfW CHP Facility Site includes dense scrub, exposed ballast and railway sleepers, and fly-tipped material which provide opportunities for basking, foraging, refuging and hibernating. In addition to this, the poor semi-improved grassland in the north of the CHP Connection Corridor offers suitable foraging habitat for reptiles.

Grid Connection

3.3.34 No reptiles or evidence of their presence was recorded in the survey area at the time of survey. Habitats along the Grid Connection are predominantly unsuitable for reptiles, being limited to the hardstanding carriageway of the A47, and the immediately adjoining roadside verge that consists of poor semi-improved grassland which his heavily disturbed by road traffic. Areas of habitat within the survey area adjoining the Grid Connection (but outside of the Order limits) are suitable for reptiles, such as arable field margins, hedgerows, dense scrub and a network of ditches, which provide opportunities for basking, foraging, refuging and hibernating though features such as these are at times sparse and isolated within the arable landscape.

Otter

EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections

3.3.35 No otters, potential rest sites, or other evidence of their presence was recorded at the time of survey. The habitat present is predominantly unsuitable for otter, but the wet ditches D24 and D26, which bisects the EfW CHP Facility Site and bound the TCC respectively, connect to a wider network of ditches and have limited suitability for commuting purposes. However, the ditches have poor water quality which reduces the likelihood of use by otter. In the wider area, the River Nene, located approximately 200m from Order limits at the closest point (west of the Access Improvements) provides suitable otter habitat for foraging, commuting and rest sites, and there is potential for otter to utilise the network of ditches where there is connectivity to the River Nene corridor. However, habitat connectivity between the River Nene and the Order limits is poor due to the land in between consisting predominantly of urban and industrial development with high levels of disturbance.

Grid Connection

3.3.36 No otters, potential rest sites, or other evidence of their presence was recorded at the time of survey. Scattered ditches adjoining the Grid Connection have limited suitability for commuting otter, though habitats along the Grid Connection Corridor

are relatively disturbed from traffic on the A47. The River Nene, approximately 600m west of the Grid Connection at the closest point, provides suitable habitat for otter, and there is potential for otter to utilise the network of ditches where there is connectivity to the River Nene corridor. However, habitat connectivity between the River Nene and the Grid Connection is poor, consisting predominantly of urban and industrial development. Several stocked fishing ponds which are in close proximity to the ditch network adjoining the Grid Connection Corridor offer localised areas of suitable foraging habitat.

Water vole

3.3.37 There are 97 ditches were identified within 100m of the Order limits during the desk study, which are shown on **Figure 2.1**, of which 64 ditches were accessible during the extended Phase 1 habitat survey. The most notable ditches within the Order limits include D24 and D26 which bisects the EfW CHP Facility Site and bound the TCC respectively. Elsewhere, sections of ditch are culverted beneath and run parallel to the Access Improvements, Water Connections and CHP Connection Corridor, and multiple roadside ditches are present close to the Grid Connection Corridor. Potential water vole droppings and a feeding station were recorded at a pond (see TN33 and 34) within the survey area along the Grid Connection Corridor, but outside of the Orde limits.

3.3.38 The majority of ditches present are fenland drains, which flow through urban and industrial areas (i.e., at the EfW CHP Facility Site, CHP Connection Corridor, TCC, Access Improvements and Water Connections) or alongside main roads (i.e., at the Grid Connection Corridor), therefore predominantly have poor water quality due to waste water discharges, litter and surface runoff. The majority of ditches are managed by the Internal Drainage Board, so are regularly cleared of bankside and in-channel vegetation and desilted, often with both banks cleared simultaneously, reducing the suitability of habitat for water vole. In between management, the ditch channel and banksides often become choked with tall vegetation such as common reed. Dry ditches were often found to be come choked with dense bramble scrub and tall ruderal vegetation.

3.3.39 Consequently, of the 64 ditches assessed during the survey, 26 were assess as sub-optimal habitat, and 37 as unsuitable habitat for water voles, while one ditch was found to no longer exist. Detailed habitat assessment of the ditches within the survey area is presented within **Appendix 11.I Water Vole Survey (Volume 6.4)**.

Other conservation-notable species

3.3.40 The suitability of the habitats within the survey area for those conservation-notable species recorded by the desk study (see **Table 11D.2 Designated biodiversity sites within the relevant search areas, and potential effect-pathways**), or which are most commonly encountered on sites such as this, was assessed. This took into account the relative importance of the habitats within the Order limits in comparison to the local and regional habitats. In summary, habitats present within the survey area such as arable, grassland, woodland, scrub, hedgerows, ponds and ditches are suitable for a range of conservation notable species which are known to occur or potentially occur in the local area, including but not limited to brown hare,

hedgehog and common toad. However, these habitats are generally common and widespread in the wider landscape surrounding the Order limits, and therefore are not considered to support a unique or otherwise notable assemblage of species such as these in the local context. Considering the habitat types present, significant assemblages of notable invertebrate or plant species are considered unlikely to occur within the Order limits.

Invasive non-native species

3.3.41 No records of invasive non-native plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were identified during the desk study within the search area (either within the Order limits or within 2km of it). Two Schedule 9 invasive non-native plant species, Japanese knotweed and *Cotoneaster* sp., were recorded during field surveys within the Order limits within the CHP Connection, and a further one species (New Zealand pigmyweed) was recorded in a pond outside of the Order limits ~450m from the Grid Connection.

3.3.42 A total of three stands of Japanese knotweed were recorded in the CHP Connection corridor. One stand located towards the north of the CHP Connection, at the edge of a stand of dense bramble scrub (TN21), showed clear evidence of previous treatment which was confirmed by the landowner, but has since started to re-grow. A second untreated stand exists within the dense bramble scrub approximately 10m to the east (TN39). *Cotoneaster* sp. is also present within the CHP Connection at this location.

3.3.43 A further stand of approximately 40 m^2 of Japanese knotweed is present at the eastern edge of the CHP Connection adjacent to the north of Weasenham Lane (TN40).

3.3.44 Surveys of some of the ditch network were in part undertaken outside of the optimal plant growing season, so certain annual species such as Himalayan balsam may not have been visible at the time of survey. Himalayan balsam occurs relatively commonly, and the network of ditches throughout the field survey area provide suitable habitat for this species. As a precaution, it is therefore assumed that there is potential for other invasive non-native plant species such as Himalayan balsam to occur.

546000

309000

N

Key

- Order limits
- 100m Survey area
- Target Note
- Ponds
- Ditch - wet
- Ditch - not accessible
- A3.1 - Parkland and scattered trees- broad-leaved
- J2.4 - Fence
- A1.1.2 - Broadleaved woodland - planta ion
- A2.1 - Scrub - dense/continuous
- A2.2 - Scrub- Scattered
- A3.2 - Parkland and scattered trees- coniferous
- B6 - Poor semi-improved grassland
- J1.3 - Ephemeral/short perennial
- J3.6 - Buildings
- Hardstanding
- J4 - Bare ground
- No access

0 50 100 150 200 250 300 m

Scale at A3: 1:5,500

Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 11D - Desk Study and Extended Phase 1 Habitat Survey

Figure 3.1i
Extended Phase 1 Habitat Survey Plan

June 2022

wood.

41310-Shr314_v3

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Key
- Order limits
- 100m Survey area
- Target Note
- Ponds
- Ditch - wet
- Ditch - dry
- Ditch - not accessible
- J2.3.2 - Hedge and trees native species poor
- J2.4 - Fence
- A1.1.2 - Broadleaved woodland - planta ion
- A1.2.2 - Coniferous woodland - plantation
- A1.1.2 – Broadleaved woodland – plantation; commercial orchard
- A2.1 - Scrub - dense/continuous
- A2.2 - Scrub- Scattered
- A3.1 - Parkland and scattered trees- broad-leaved
- A3.2 - Parkland and scattered trees- coniferous
- B4 - Improved grassland
- B6 - Poor semi-improved grassland
- C3.1 - Tall ruderal
- J1.1 - Cultivated/disturbed land - arable
- J1.2: Amenity Grassland
- J2.1.2 - Intact hedge na ive species poor
- J2.8 - Earth banks
- J3.6 - Buildings
- Hardstanding
- J4 - Bare ground

0 50 100 150 200 250 300 m

Scale at A3: 1:5,500

Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 11D - Desk Study and Extended Phase 1 Habitat Survey

Figure 3.1ii
Extended Phase 1 Habitat Survey Plan

June 2022

wood.

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N

South Bridge Field

South Bridge Field

The Railway Line

Redmoor Drain

Little Boleness Field

Boleness Rd

Estover Lodge

Key

- Order limits
- 100m Survey area
- Target Note
- Ditch - wet
- Ditch - dry
- Ditch - not accessible
- J2.3.2 - Hedge and trees native species poor
- A1.1.2 - Broadleaved woodland - planta ion
- A1.2.2 - Coniferous woodland - plantation
- A1.1.2 – Broadleaved woodland – plantation; commercial orchard
- A1.1.2 – Broadleaved woodland – plantation; traditional orchard
- A2.1 - Scrub - dense/continuous
- A2.2 - Scrub- Scattered
- A3.1 - Parkland and scattered trees- broad-leaved
- B4 - Improved grassland
- B6 - Poor semi-improved grassland
- C3.1 - Tall ruderal
- J1.1 - Cultivated/disturbed land - arable
- J1.2: Amenity
- J2.1.2 - Intact hedge na ive species poor
- J2.8 - Earth banks
- J3.6 - Buildings
- Hardstanding
- J4 - Bare ground

0 50 100 150 200 250 300 m

Scale at A3: 1:5,500

Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 11D - Desk Study and Extended Phase 1 Habitat Survey

Figure 3.1iii
Extended Phase 1 Habitat Survey Plan

June 2022

wood.

41310-Shr314_v3

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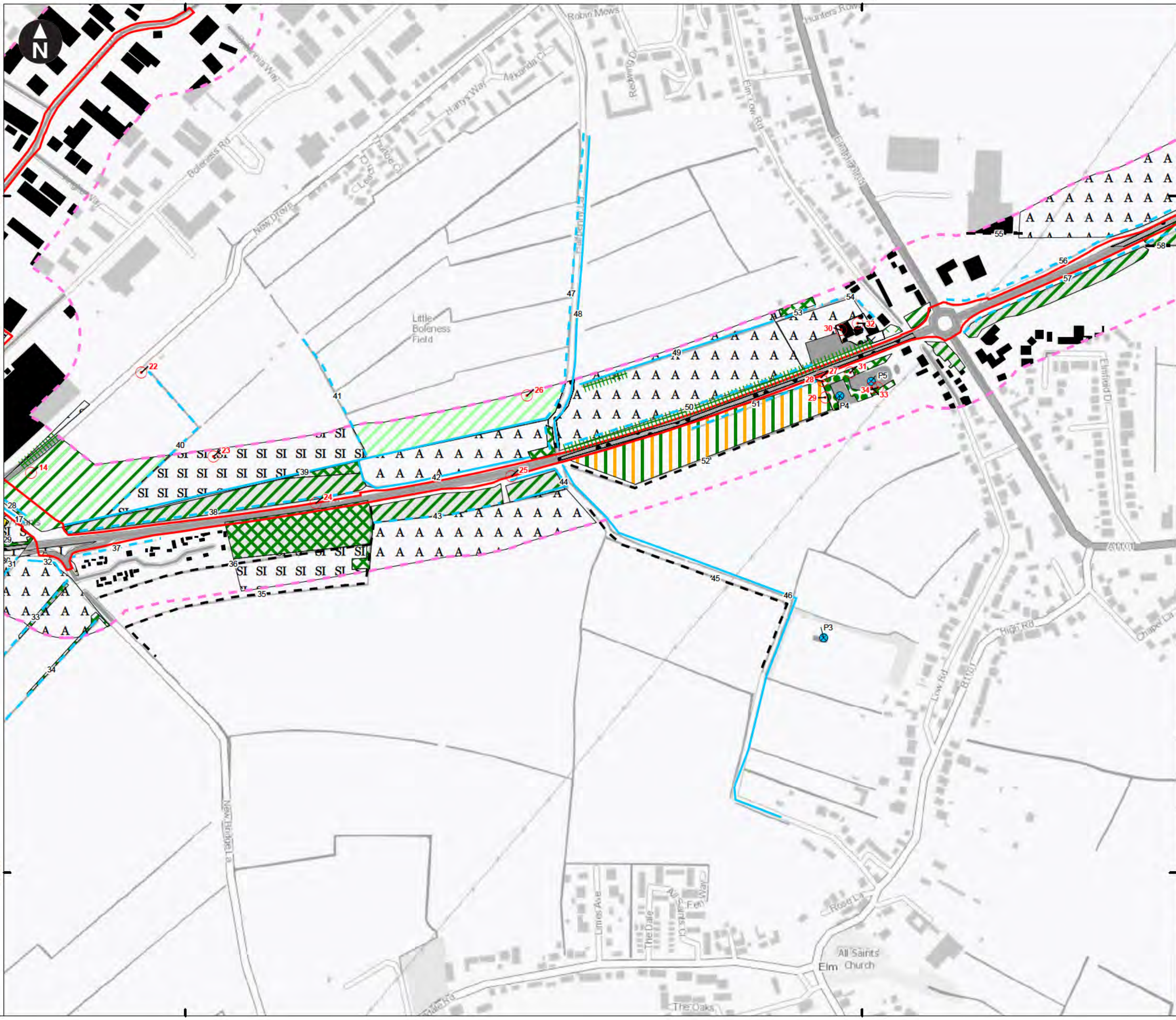

Key

- Order limits
- 100m Survey area
- Target Note
- Ponds
- Ditch - wet
- Ditch - dry
- Ditch - not accessible
- J2.3.2 - Hedge and trees native species poor
- A1.1.2 - Broadleaved woodland - planta ion
- A1.2.2 - Coniferous woodland - plantation
- A1.1.2 – Broadleaved woodland – plantation; commercial orchard
- A1.1.2 – Broadleaved woodland – plantation; traditional orchard
- A2.1 - Scrub - dense/continuous
- A2.2 - Scrub- Scattered
- A3.1 - Parkland and scattered trees- broad-leaved
- B4 - Improved grassland
- B6 - Poor semi-improved grassland
- J1.1 - Cultivated/disturbed land - arable
- J1.2: Amenity
- J1.3 - Ephemeral/short perennial
- J3.6 - Buildings
- Hardstanding
- J4 - Bare ground

0 50 100 150 200 250 300 m

Scale at A3: 1:5,500

Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 11D - Desk Study and Extended Phase 1 Habitat Survey

Figure 3.1iv
Extended Phase 1 Habitat Survey Plan

June 2022

wood.

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Key

- Order limits
- 100m Survey area
- Target Note
- Ponds
- Ditch - wet
- Ditch - dry
- Ditch - not present
- Ditch - not accessible
- A2.1 - Scrub - dense/continuous
- A3.1 - Parkland and scattered trees- broad-leaved
- J2.3.2 - Hedge and trees native species poor
- A1.1.2 - Broadleaved woodland - planta ion
- A1.1.2 – Broadleaved woodland – plantation; commercial orchard
- A1.1.2 – Broadleaved woodland – plantation; traditional orchard
- A2.1 - Scrub - dense/continuous
- A2.2 - Scrub- Scattered
- B4 - Improved grassland
- C3.1 - Tall ruderal
- G1 - Standing water
- J1.1 - Cultivated/disturbed land - arable
- J1.3 - Ephemeral/short perennial
- J3.6 - Buildings
- Hardstanding
- J4 - Bare ground

0 50 100 150 200 250 300 m

Scale at A3: 1:5,500

Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 11D - Desk Study and Extended Phase 1 Habitat Survey

Figure 3.1v
Extended Phase 1 Habitat Survey Plan

June 2022

wood.

41310-Shr314_v3

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Chapnall Field

Burnt Gate Rd

Sandy La

Ridge Rd

The Bungalow

Paradise Farm

Walnut Lodge

Oak Lodge

Three Lakes Nurseries

Wilkins Rd

Sal

P8 P9 P10 P11 P12 P13 P14 P15

36 37 38 41 42

67 68 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 95 97 98 99 100 101

Key

- Order limits
- 100m Survey area
- Target Note
- Ponds
- Ditch - wet
- Ditch - dry
- Ditch - not present
- Ditch - not accessible
- A3.1 - Parkland and scattered trees- broad-leaved
- A3.2: Parkland and scattered trees- coniferous
- A3.3 - Parkland and scattered trees- mixed
- J2.3.2 - Hedge and trees native species poor
- A1.1.2 - Broadleaved woodland - planta ion
- A1.1.2 – Broadleaved woodland – plantation; commercial orchard
- A1.1.2 – Broadleaved woodland – plantation; traditional orchard
- A2.1 - Scrub - dense/continuous
- A3.1 - Parkland and scattered trees- broad-leaved
- B4 - Improved grassland
- B6 - Poor semi-improved grassland
- C3.1 - Tall ruderal
- G1 - Standing water
- J1.1 - Cultivated/disturbed land - arable
- J1.4 - Introduced shrub
- J2.1.2 - Intact hedge na ive species poor
- J3.6 - Buildings
- Hardstanding
- J4 - Bare ground

0 50 100 150 200 250 300 m

Scale at A3: 1:5,500

Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 11D - Desk Study and Extended Phase 1 Habitat Survey

Figure 3.1vi
Extended Phase 1 Habitat Survey Plan

June 2022

wood.

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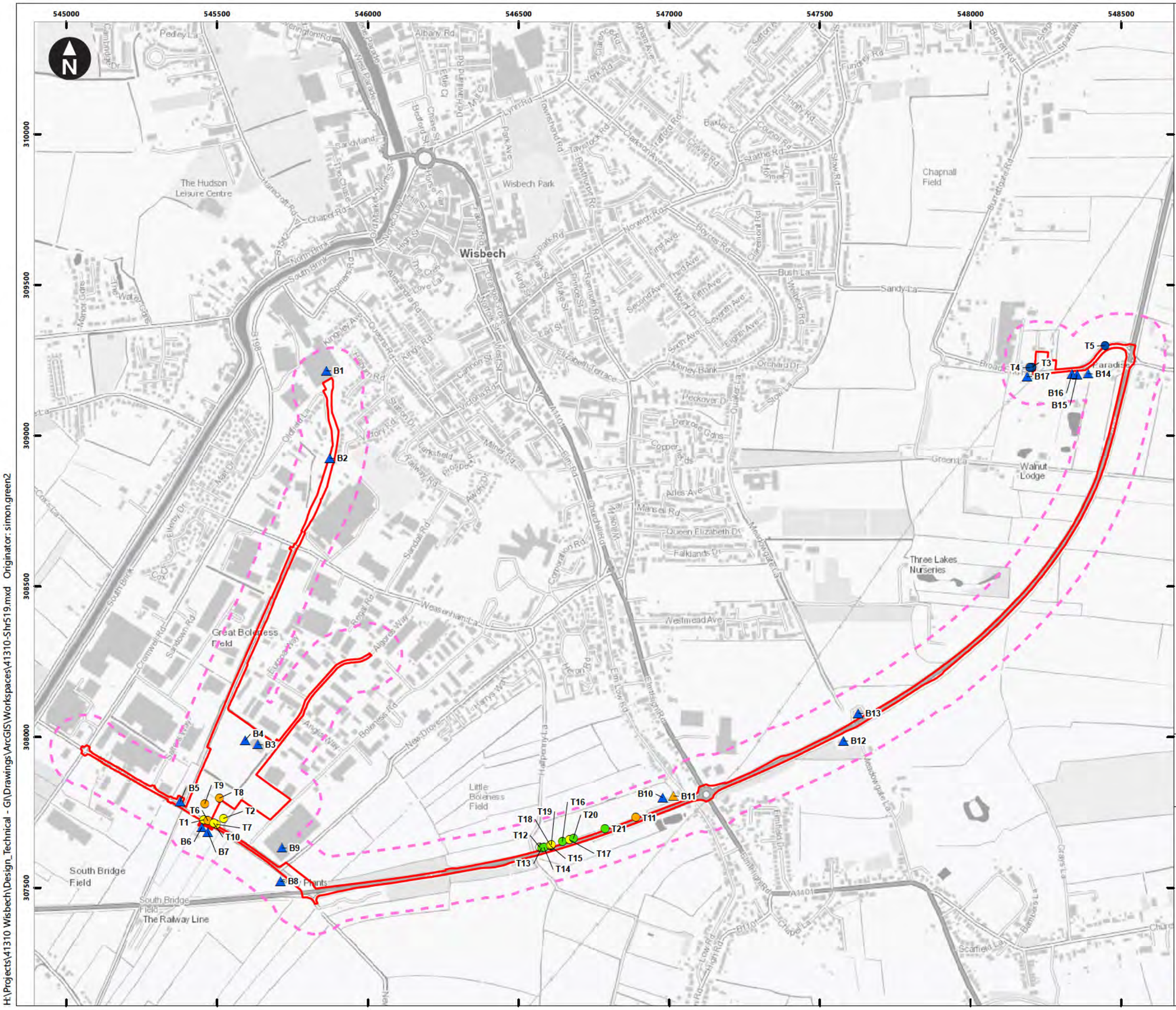

Key

Order limits

100m Survey Area

Suitability of buildings/structures for roosting bats

- Low / moderate
- Negligible

Suitability of trees for roosting bats

- Moderate
- Low / moderate
- Low
- Negligible

0 100 200 300 400 500 600 700 m

Scale at A3: 1:12,000

Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 11D - Desk Study and Extended Phase 1 Habitat Survey

Figure 3.2
Structures and trees assessed for suitability for roosting bats

June 2022

wood.

41310-Shr519

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4. Summary

4.1 Habitats

4.1.1 A range of habitat types were recorded within the survey area within the Order limits and 100m surrounding buffer. The desk study identified the notable habitats of deciduous woodland, traditional orchard and coastal floodplain grazing marsh within 2km of the Order limit, while hedgerows, traditional orchard, and ponds potentially qualifying as HPI were recorded within the survey are during the extended Phase 1 habitat survey. No SPI plant species, or species which are otherwise conservation-notable were recorded during the desk study or field survey. Presence of the legally controlled invasive non-native species Japanese knotweed and cotoneaster were recorded within the CHP Connection Corridor.

4.1.2 Habitat types recorded during the extended Phase 1 habitat survey are generally common and widespread in the locality. The majority of the EfW CHP Facility Site consists of hardstanding or bare ground which is devoid of any significant vegetation. Other habitats include partially vegetated earth bunds, treelines, scrub, poor semi-improved grassland, ditches and a species-poor hedgerow, located mainly around the peripheries of the EfW CHP Facility Site. Land use surrounding the EfW CHP Facility Site is predominantly urban and industrial development, with grassland pastures present to the south.

4.1.3 The CHP Connection Corridor consist predominantly of dense hawthorn and bramble scrub, interspersed with small areas of ephemeral/short perennial vegetation and patches of grassland. The CHP Connection Corridor, and the wider disused March to Wisbech Railway Line along which it lies, forms a linear corridor of connected habitat that runs through an otherwise urban and industrial area.

4.1.4 The Access Improvements, Water Connections and Grid Connection consist largely of tarmac roads and the immediately adjoining roadside verge which supports habitats such as poor semi-improved grassland and patches of bramble and other scrub. Land use adjacent to the Access Improvements and Water Connections is a mix of urban and industrial development, with grassland pastures present to the south. Land use surrounding the Grid Connection Corridor is largely arable, with occasional commercial orchards and other habitats including narrow field margins, grassland, plantation woodlands, scrub, treelines, scattered hedgerows and traditional orchards.

4.1.5 An extensive network of fenland drains is present through the survey area, within and adjacent to the order limits, with the majority of drains being managed by the Internal Drainage Board, including removal of in-channel and bankside vegetation and de-silting, and consequently lack significant aquatic vegetation. Drains often have poor water quality attributed to discharges and run off from adjacent urban, industrial, transport and agricultural land use.

4.2 Species

4.2.1 The desk study identified records of bats, water vole, otter, GCN, brown hare and Schedule 1, SPI and BoCC Red List bird species. The habitats present within the survey area within the Order limits and 100m surrounding buffer have potential to support a range of protected and notable species, however the habitats within the Order limits are generally common and widespread in the locality, and well connected to similar habitats outside of the Order limits; reducing the likelihood of the land within the Order limits supporting a unique assemblage of species in the local context.

4.2.2 Based on the currently available data and information on the Proposed Development, species which are potentially vulnerable (i.e., both exposed and sensitive) to the effects of the Proposed Development, in the absence of appropriate mitigation, are summarised in **Table 11D.8 Summary of species which could be affected by the Proposed Development**. The table identifies which species are scoped in for further surveys, i.e., where additional information on an ecological feature is deemed necessary to provide a robust baseline for the assessment of the effects of the Proposed Development.

4.2.3 For those species which are not scoped in for further surveys, given the potential effect-pathways, there is considered to be sufficient baseline information to inform the assessment of effects of the Proposed Development.

Table 11D.8 Summary of species which could be affected by the Proposed Development

Species	Results summary, and potential effect-pathways (in the absence of mitigation)	Scoped in/out of further surveys
Bats	The desk study identified records of bats and their roosts within the 2km search area, and two EPSLs for bats have been granted within 5km of the Order limits. No buildings suitable for roosting bats are present within the EFW CHP Facility Site, TCC, CHP Connection Corridor, Access Improvements or Water Connections. Trees with up to moderate suitability for roosting bats are present within treelines at the south of the EfW CHP Facility Site. Occasional buildings and trees with suitability for roosting bats are present adjacent to the Grid Connection Corridor. Habitats within the EfW CHP Facility Site, TCC and CHP Connection Corridor were assessed overall as being moderate quality for commuting and foraging bats. The CHP Connection Corridor provides a linear, dark, corridor of connective habitat, through an urban and industrial area of otherwise unsuitable or unfavourable habitat. Habitats within the Access Improvements and Water Connections are dominated by hardstanding roads and are negligible-low quality for commuting and foraging bats. Habitat along the Grid Connection consists predominantly of the	Scoped in

Species	Results summary, and potential effect-pathways (in the absence of mitigation)	Scoped in/out of further surveys
	carriageway and immediately adjoining roadside verge along the A47 and other smaller roads which are unsuitable for bats. A small area of habitat at the Grid Connection substation compound, and the habitats adjacent to the Grid Connection Corridor but outside of the Order limits are low-moderate suitability for commuting and foraging by bats. In the absence of mitigation, there is potential for loss of roosts, and loss/fragmentation of habitat due to land take during construction. There is also potential for disturbance of roosting and foraging during construction and operation of the Proposed Development.	
Great crested newts	The desk study identified four records of great crested newt within the 2km search area. The desk study identified seven ponds within 500m of the Order limits and 97 ditches within 100m, and a number of ponds and ditches were found to be potentially suitable for breeding by GCN, where suitable habitat linkages occur between the pond/ditch and terrestrial habitats within the Order limits. The suitability of terrestrial habitat for GCN is variable throughout the Order limits, with suitable habitat present within the EfW CHP Facility Site, TCC and CHP Connection such as scrub, grassland, hedgerow and treelines, while habitat within the Access Improvements, Water Connections and Grid Connection comprises largely of hardstanding road carriageway and immediately adjoining roadside verge which are unsuitable for GCN. The Proposed Development is unlikely to impact suitable breeding habitat, however in the absence of mitigation, there is potential to harm, disturb and obstruct GCN due to land take and other activities during construction.	Scoped in
Breeding birds	The desk study identified records of Schedule 1, SPI and BoCC Red List bird species within the 2km search area. A range of common bird species was recorded during the survey. Suitable habitats for breeding birds are present within parts of the EfW CHP Facility Site, TCC and CHP Connection Corridor including scrub, treelines, hedgerow, grassland and ditches, though habitat present is not unique within the locality. Habitat within the Access Improvements, Water Connections and Grid Connection comprises largely of hardstanding road carriageway and immediately adjoining roadside verge which are unsuitable for breeding birds, while other roadside habitats adjacent to the Grid Connection Corridor are disturbed by heavy traffic flow on the A47. In the absence of mitigation, there is potential to damage/destroy bird nests, and disturb breeding activity by Schedule 1 species, due to land take and other activities during construction of the Proposed Development.	Scoped in

Species	Results summary, and potential effect-pathways (in the absence of mitigation)	Scoped in/out of further surveys
Badger	The desk study identified records of badger within the 2km area of search. A decease badger was recorded at the side of the A47 within the Order limits. No badger setts or other evidence of badger was recorded within the survey area. Habitats present within the EfW CHP Facility Site, TCC and CHP Connection Corridor are suitable for foraging and commuting badger, with areas of suitable habitat for sett creation. Habitat within the Access Improvements, Water Connections and Grid Connection comprises largely of hardstanding road carriageway and immediately adjoining roadside verge which are unsuitable for badger. A small area of suitable foraging habitat is present at the Grid Connection substation, and suitable habitat is present adjacent to the Grid Connection Corridor but outside of the Order limits such as agricultural land, grassland, woodland and scrub and orchards. In the absence of mitigation, there is potential to harm foraging/commuting badgers, or damage or destroy badger setts (in the unlikely event that they occur within the Order limits) due to land take and other activities during construction of the Proposed Development.	Scoped in
Reptiles	The desk study identified no records of reptiles within the 2km search area. The suitability of habitat for reptiles is variable throughout the Order limits, with suitable habitat present within the EfW CHP Facility Site, TCC and CHP Connection such as scrub, grassland, hedgerow and treelines, and areas such as partially vegetated earth banks and rubble, while habitat within the Access Improvements, Water Connections and Grid Connection comprises largely of hardstanding road carriageway and immediately adjoining roadside verge which are unsuitable for reptiles. In the absence of mitigation, there is potential to harm reptiles due to land take and other activities during construction of the Proposed Development.	Scoped in
Otter	The desk study identified one record of otter within the 2km search area. No evidence of otter was recorded within the survey area. The River Nene, located approximately 200m west of the Order limits at the closest point, is suitable for otter. An extensive network of ditch habitat in the form of fenland drains is present throughout the survey area, including ditches crossing and adjoining the EfW CHP Facility Site and TCC. Although the ditch network provides commuting habitat for otter, the habitat is unfavourable, as ditches are mostly intensively managed and have poor water quality due to waste water discharges, litter and run off from the surrounding industrial, agricultural and transport land uses. Further to this, the habitat connectivity between the River Nene and habitat within the Order limits is limited due to the land in between consisting almost entirely	Scoped out

Species	Results summary, and potential effect-pathways (in the absence of mitigation)	Scoped in/out of further surveys
	of urban and industrial development. In the absence of mitigation, there is potential to harm and disturb otter due to land take and other activities during construction and operation of the Proposed Development.	
Water vole	The desk study identified one record of water vole within the 2km search area. Potential water vole droppings and a feeding station were recorded at a pond within the survey area along the Grid Connection Corridor, but outside of the Orde limits. An extensive network of ditch habitat in the form of fenland drains is present throughout the survey area, including ditches crossing and adjoining the EfW CHP Facility Site and TCC. Although the ditch network provides habitat for water vole and their burrows, the ditches present were assessed as either sub-optimal or unsuitable, with most being intensively managed (regular clearance of in-channel and bankside vegetation, and de-silting), and having poor water quality due to waste water discharges, litter and run off from the surrounding industrial, agricultural and transport land uses. In the absence of mitigation, there is potential to harm and disturb water voles or damage or destroy burrows due to land take and other activities during construction of the Proposed Development.	Scoped in
Other conservation-notable species	The desk study identified one record of brown hare within the 2km search area. The suitability of habitat for other conservation-notable species is variable throughout the Order limits, with suitable habitat for species such as brown hare and hedgehog present within the EfW CHP Facility Site, TCC and CHP Connection such as scrub, grassland, hedgerow and treelines, while habitat within the Access Improvements, Water Connections and Grid Connection comprises largely of hardstanding road carriageway and immediately adjoining roadside verge which are largely unsuitable for other conservation-notable species. In the absence of mitigation, there is potential to harm species such as brown hare and hedgehog due to land take and other activities during construction of the Proposed Development.	Scoped out

Annex A
Reptile Legislation

Bats

All British bat species are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence, inter alia, to:

- Deliberately capture, injure or kill a bat;
- Deliberately disturb a bat (this applies anywhere, not just at its roost), in particular in such a way as to be likely to:
  - Impair their ability to survive, breed or reproduce, or rear or nurture their young;
  - Impair their ability to hibernate or migrate;
  - Affect significantly the local distribution or abundance of that bat species;
- Damage or destroy a breeding site or resting place of any bat;
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not).

Great crested newts

The great crested newt is listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). It is afforded protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence, *inter alia*, to:

- Deliberately capture, injure or kill any such newt;
- Deliberately disturb any such newt, in particular in such a way as to be likely to:
  - Impair their ability to survive, breed or reproduce, or rear or nurture their young;
  - Impair their ability to hibernate or migrate;
  - Affect significantly the local distribution or abundance of that species.
- Deliberately take or destroy the eggs of such a newt;
- Damage or destroy a breeding site or resting place of any such newt;

- Intentionally or recklessly disturb any such newt while it is occupying a structure or place that it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any place that any such newt uses for shelter or protection.

4.2.4 This relates to both the aquatic and terrestrial habitat they occupy. The legislation applies to all life stages of this species.

Breeding birds

With certain exceptions[15], all wild birds, their nests and eggs are protected by Section 1 of the Wildlife and Countryside Act 1981 (as amended). Therefore, it is an offence, *inter alia*, to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
- intentionally take or destroy the egg of any wild bird.

Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

- intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young; or
- intentionally or recklessly disturb the dependent young of any such bird.

For golden eagle, white-tailed eagle and osprey, it is also an offence to:

- take, damage or destroy the nest of these species (this applies at any time, not only when the nest is in use or being built).

Badger

Badgers and their setts are legally protected under the Protection of Badgers Act 1992. This makes it an offence to:

- Wilfully kill, injure, take or attempt to kill a badger;
- Interfere with a badger sett by damaging a sett or any part thereof;
- Destroying a sett; and
- Obstructing access to a set or disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: “any structure or place which displays signs indicating current use by a badger”.

[15] Some species, such as game birds, are exempt in certain circumstances.

Reptiles

There are two different levels of legal protection for reptiles in the UK. The adder, common lizard, grass snake and slow worm are protected from killing and injuring under Schedule 5 (Section 9) of the Wildlife and Countryside Act 1981 (as amended).

The sand lizard and smooth snake and the respective habitats are fully protected under Schedule 5 (Section 9) of the Wildlife and Countryside Act 1981 (as amended) and under Conservation of Habitats & Species Regulations 2017 (as amended). It is illegal to kill, injure, capture, handle or disturb them, and the places they use for breeding, resting, shelter and protection are protected from being damaged or destroyed. It is also illegal to obstruct these animals from using such areas.

Otter

European otter are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). They are afforded full protection under Section 9(4) of the Act and Regulation 43 of the Regulations. These make it an offence, inter alia, to:

- Deliberately capture, injure or kill any such animal;
- Deliberately disturb any such animal, in particular in such a way as to be likely to:
- Impair their ability to survive, breed or reproduce, or rear or nurture their young;
- Impair their ability to hibernate or migrate;
- Affect significantly the local distribution or abundance of that species;
- Damage or destroy a breeding site or resting place of any such animal;
- Intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection.

Water vole

As of 6 April 2008 water voles have been given full protection under the Wildlife and Countryside Act 1981 (as amended). They are listed on Schedule 5 of the 1981 Act, and is therefore subject to the provisions of Section 9, which make it an offence to:

- Intentionally kill, injure or take water vole from the wild;
- Possess or control live or dead water voles or derivatives;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection;
- Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose; and

Sell water voles or offer or expose for sale or transport for sale.

Annex B
Species Scientific Names

The scientific names of species referred to in the report are provided in **Table B.1**.

Table B.1 Species scientific names

Common name	Scientific name
BIRDS	
Barn owl	*Tyto alba*
Common Buzzard	*Buteo buteo*
Goldfinch	*Carduelis carduelis*
Green Woodpecker	*Picus viridis*
Grey Heron	*Ardea cinerea*
Jay	*Garrulus glandarius*
Kestrel	*Falco tinnunculus*
Kingfisher	*Alcedo atthis*
Little egret	*Egretta garzetta*
Mallard	*Anas platyrhynchos*
Moorhen	*Gallinula chloropus*
Starling	*Sturnus vulgaris*
MAMMALS	
Badger	*Meles meles*
Brown hare	*Lepus europaeus*
Hedgehog	*Erinaceus europaeus*
Noctule	*Nyctalus noctula*
Otter	*Lutra lutra*
Soprano pipistrelle	*Pipistrellus pygmaeus*
Water vole	*Arvicola amphibius*
AMPHIBIANS	

Common name	Scientific name
Common toad	*Bufo bufo*
Great crested newt	*Triturus cristatus*
INSECTS	
Beaded chestnut	*Agrochola lychnidis*
Blood-vein	*Timandra comae*
Brindled beauty	*Lycia hirtaria*
Buff ermine	*Spilarctia luteum*
Centre barred sallow	*Atethmia centrago*
Cinnabar	*Tyria jacobaeae*
Dark-barred twin-spot carpet	*Xanthorhoe ferrugata*
Dot moth	*Melanchra persicariae*
Dusky brocade	*Apamea remissa*
Dusky lemon sallow	*Cirrhia gilvago*
Limestone snipefly	*Symphoromyia immaculata*
Mottled rustic	*Caradrina morpheus*
Mouse moth	*Amphipyra tragopoginis*
Powdered quaker	*Orthosia gracilis*
Rosy rustic	*Hydraecia micacea*
Shaded broad-bar	*Scotopteryx chenopodiata*
Small heath	*Coenonympha pamphilus*
Small square-spot	*Diarsia rubi*
White ermine	*Spilosoma lubricipeda*
PLANTS	
Alder	*Alnus glutinosa*
Apple	*Malus sp.*
Ash	*Fraxinus excelsior*
Birds foot trefoil	*Lotus corniculatus*
Black medic	*Medicago lupulina*
Blackthorn	*Prunus spinosa*

Common name	Scientific name
Bramble	*Rubus fruticosus agg.*
Bristly oxtongue	*Helminthotheca echioides*
Broom	*Cytisus scoparius*
Buddleia	*Buddleja davidii*
Cherry	*Prunus padus*
Cocks' foot	*Dactylis glomerata*
Common nettle	*Urtica dioica*
Common reed	*Phragmites australis*
Cornflower	*Centaurea cyanus*
Creeping cinquefoil	*Potentilla reptans*
Curled dock	*Rumex crispus*
Cypress	*Cupressus × leylandii*
Dogwood	*Cornus sanguinea*
Elder	*Sambucus nigra*
Field maple	*Acer campestre*
Hawthorn	*Crataegus monogyna*
Hazel	*Corylus avellana*
Hedge bindweed	*Calystegia sepium*
Herb Robert	*Geranium robertianum*
Holly	*Ilex aquifolium*
Ivy	*Hedera helix*
Lime	*Tilia cordata*
Pedunculate oak	*Quercus robur*
Perennial rye grass	*Lolium perenne*
Poplar	*Populus alba*
Red clover	*Trifolium pratense*
Ribwort plantain	*Plantago lanceolata*
Rose	*Rosa spp.*
Silver birch	*Betula pendula*

Common name	Scientific name
Slender hare's-ear	*Bupleurum tenuissimum*
Sycamore	*Acer pseudoplatanus*
Teasel	*Dipsacus fullonum*
Thistle	*Cirsium arvense*
Tufted hair grass	*Deschampsia cespitosa*
White dead nettle	*Lamium album*
Wild carrot	*Daucus carota*
Willow	*Salix sp.*
Willowherb	*Epilobium* spp.
Yorkshire fog	*Holcus lanatus*
REPTILES	
Common lizard	*Zootoca vivipara*
Slow worm	*Anguis fragilis*

Annex C
Target Notes

Table C.1 Target notes

Reference	Notes
TN1	River Nene bankside species include phragmites, horseradish, greater willowherb, common nettle, cleavers and common couch. Riverbanks are narrow and contained within flood defence wall.
TN2	The banks of the River Nene are canalised at this location. This section of river is tidal. Water is highly turbid with a smooth fast flow. Evidence of tidal scour, and an absence of in-channel aquatic vegetation. Exposed mud present and edges of channel during low tide. Riverbanks are narrow and contained within flood defence wall.
TN3	Area of disused railway accessible from within the EfW CHP Facility Site.
TN4	Dense scrub in the south of the EfW CHP Facility Site and TCC area that is impenetrable and enclosed by a line of poplar trees. Dense bramble, common nettle, curled Dock, elder, hemlock. Woodpecker holes present on poplar trees, potential for roosting bats.
TN5	Previously used for access into the area now overgrown with dense scrub and blocked off by two large concrete pipes.
TN6	Area of bare ground where land has historically been accessed from the A47. Scented mayweed, willowherb, teasel, biting stonecrop and occasional bramble present,
TN7	A wood pile within poor semi-improved grassland. May provide refuge for reptiles.
TN8	Earth buds that have previously been covered in mixed vegetation including bramble scrub, tall ruderal vegetation and ephemeral/short-perennial vegetation have been cleared to bare earth in July 2021.
TN9	A rubble pile within poor semi-improved grassland. May provide refuge for reptiles.
TN10	A dense area of common reed within poor-semi-improved grassland.
TN11	Localised area of horsetail and amphibious bistort suggesting waterlogged ground at this location.
TN12	Dense scrub within the CHP Connection Corridor where it crosses Weasenham Lane. House sparrow potentially nesting in the scrub.
TN13	Dense bramble scrub in this area covers potentially dangerous fly tipped material and prevents access along the CHP Connection Corridor to the south.

Reference	Notes
TN14	Line of cypress trees adjacent to an orchard. Green woodpecker seen.
TN15	Access point to the CHP Connection Corridor north of Weasenham Lane, though access along the corridor becomes blocked by impenetrably dense vegetation.
TN16	Log piles present between disused railway tracks. Potential refugia for reptiles.
TN17	End of physically accessible area of the CHP Connection heading north from Weasenham Lane.
TN18	Derelict signal box. No suitable roosting features for bats but could be used by nesting birds.
TN19	Two large piles of coconut waste.
TN20	Household waste discarded over garden fence into the CHP Connection Corridor.
TN21	A stand of Japanese knotweed that has been previously treated and is now growing back. Cotoneaster also present in this area.
TN22	A patch of bramble scrub.
TN23	Horses kept on grassland keep the sward short through grazing. Localised areas where sward is high and not grazed.
TN24	[redacted]
TN25	Area of woodland. Semi-mature to mature willow abundant in canopy, scattered oak, sycamore, elder, alder, horse chestnut. dense ivy on willow trees. bramble and tall ruderal ground flora. Dense ivy cover on ground.
TN26	Rubbish and wood pile in centre of the Christmas tree farm. Negligible potential for reptiles due to surrounding levels of high disturbance.
TN27	Roadside habitats subject to significant disturbance from heavy traffic flow and queuing traffic due to road junction.
TN28	Wood pile adjacent to ponds.
TN29	Impenetrably dense scrub preventing access into the potential traditional orchard. Range of fruit trees are visible.
TN30	Dense scrub and earth pile adjacent to open walled barn.
TN31	Wood pile adjacent to ponds and scrub.

Reference	Notes
TN32	Patches of tall ruderal vegetation dominated by common nettle within area of bare ground.
TN33	Potential water vole droppings at P5.
TN34	Potential water vole droppings and feeding station at P5.
TN35	Improved grassland access track.
TN36	Orchard that has been left and now overgrown with dense bramble and hawthorn scrub, No physical access into this habitat due to impenetrably dense scrub vegetation.
TN37	No physical access into this habitat due to impenetrably dense bramble scrub.
TN38	Recent vegetation clearance has taken place within the Walsoken Substation site.
TN39	Mature stand of Japanese knotweed visible growing up through a patch of dense scrub adjacent to a stand of previously treated Japanese knotweed at TN21
TN40	Stand of Japanese knotweed within scrub adjacent to Weasenham Lane and within the CHP Connection Corridor.
TN41	[redacted]
TN42	Log and rubbish piles.