FENWICK SOLAR FARM

Fenwick Solar Farm

EN010152

Biodiversity Net Gain Assessment

Document Reference: EN010152/APP/7.11

Regulation 5(2)(q)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

May 2025

Revision Number: 01

BOOM-POWER.CO.UK

BOOM POWER

Revision History

Revision Number	Date	Details
00	October 2024	DCO application
01	May 2025	Deadline 2

Prepared for:
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Executive Summary

ES1 AECOM were commissioned by Fenwick Solar Project Limited (hereby referred to as the 'Applicant') to undertake a Biodiversity Net Gain (BNG) assessment to inform the development consent order (DCO) application for the Fenwick Solar Farm (hereafter referred to as the 'Scheme').

ES2 The BNG assessment assesses the areas that fall within the BNG Parameters Plan (see Appendix A), instead of all areas within the Order limits. This approach is designed to focus on areas and habitats that are to be directly impacted by the Scheme and ensure that the proposed mitigation is proportionate to that impact. Therefore, areas that are not to be impacted will be excluded from the assessment (i.e. those areas where trenchless crossing methodology has been used to avoid impacts). This prevents the baseline habitat unit score from being inflated by areas of habitat that are not to be impacted and, therefore, does not disproportionately increase the required mitigation.

ES3 The BNG assessment covers a total area of approximately 421 ha. This comprises approximately 407 ha of land associated with the main site where Solar Photovoltaic (PV) Panels, On-Site Substation and Battery Energy Storage System (BESS) Area will be installed (hereafter referred to as the Solar PV Site); and 14 ha of land associated with areas to be impacted by the installation of the Grid Connection Cables, hereafter referred to as the 'Cable Construction Corridor' (CCC).

ES4 Government policy states that *"planning decisions should minimise impacts on and provide net gain for biodiversity".*

ES5 As a Nationally Significant Infrastructure Project (NSIP), the Scheme will require consent via a Development Consent Order (DCO), which is not currently subject to mandatory BNG requirements. DCO applications will be required to achieve 10% net gain in biodiversity units relative to the Site's baseline biodiversity value by November 2025 under Section 98 and 99 of the Environment Act, 2021.

ES6 The assessment included assessment of all three parts of the Statutory Biodiversity Metric (SBM), with area, hedgerow and watercourse habitats present.

ES7 Area habitats are calculated as due to achieve a 36.46% net gain, hedgerow habitats are calculated as due to achieve a 68.31% net gain, and watercourse habitats are calculated as due to achieve a 24.97% net gain.

ES8 The trading rules (i.e. ensuring any losses are mitigated for proportionately relative to the value of the baseline habitat), which is not a mandatory requirement for DCO projects, pass for all sections except for 'High' distinctiveness area habitats.

ES9 This failure of 'High' distinctiveness areas habitat trading rules is caused by temporary impacts to 'Urban – Open Mosaic Habitat of Previously Developed Land'. This impact is not considered significant because there is potential that the temporary disturbance could be beneficial, particularly if supplemented with wider management and enhancement of surrounding habitat present within the wider order limits.

1. Introduction

1.1.1 AECOM were commissioned by Fenwick Solar Project Limited (hereby referred to as the 'Applicant') to undertake a Biodiversity Net Gain (BNG) assessment to inform the development consent order (DCO) application for the Fenwick Solar Farm (hereafter referred to as the 'Scheme'). The land within which the Scheme will be delivered and is therefore being assessed as part of this BNG assessment, is referred to as the 'BNG Parameters Plan'. There are two sections to the BNG Parameters Plan, the areas within the main site where Solar Photovoltaic (PV) Panels, On-Site Substation and BESS Area will be installed, hereafter referred to as the 'Solar PV Site' ; and areas due to be impacted by the installation of the Grid Connection Cables, hereafter referred to as the 'Cable Construction Corridor' (CCC). The Solar PV Site and the CCC, when discussed collectively, will be referred to as 'the Site'. These areas fall within the wider Order limits – an explanation for this approach is provided in Section 2.2.

1.1.2 The BNG assessment has been undertaken to quantify the overall predicted effect of the Scheme upon the biodiversity value of the Site. This is achieved by comparing the baseline habitat value with that predicted following implementation of the Scheme. Calculations consider the level of proposed habitat loss, retention, enhancement and/or creation delivered by the Scheme and are measured using the Statutory Biodiversity Metric (SBM) (Ref. 1), hereafter referred to as SBM, in accordance with the SBM User Guide (Ref. 2) and BNG good practice principles for development (Ref. 3).

1.2 Site Description

1.2.1 The land on which the Scheme is located covers an area of approximately 509 hectares (ha). This comprises three main areas (refer to **ES Volume II Figure 1-3: Elements of the Site [EN010152/APP/6.2]**) which are described below and in Section 1.2 (hereafter referred to collectively as 'the Order limits'). These elements are the subject of the DCO application:

1.2.2 The area located east of Fenwick and immediately south of the River Went and denoted by green lines on **ES Volume II Figure 1-3: Elements of the Site [EN010152/APP/6.2]** (hereafter referred to as the 'Solar PV Site') within which the Solar PV Panels, planting and mitigation areas, Field Stations, BESS Area, On-Site Substation or Grid Connection Line Drop, and associated infrastructure would be located. The Solar PV Site would be approximately 407 ha, centred on the approximate National Grid Reference SE 60549 16313;

1.2.3 The area located between the Solar PV Site and the existing compound for National Grid's Thorpe Marsh Substation and denoted by orange lines on **ES Volume II Figure 1-3: Elements of the Site [EN010152/APP/6.2]** (hereafter referred to as the 'Grid Connection Corridor') within which the 400 kilovolt (kV) and associated cables (the Grid Connection Cables) would be installed between the On-Site Substation to the National Grid's Thorpe Marsh Substation. The Grid Connection Corridor would be approximately 95 ha, centred on the approximate National Grid Reference SE 60314 11457, with a length of approximately 6.3 kilometres (km).

1.2.4 The area located within the existing compound for the National Grid's Thorpe Marsh Substation and denoted by brown shading on **ES Volume II Figure 1-**

3: Elements of the Site [EN010152/APP/6.2] (hereafter referred to as the 'Existing National Grid Thorpe Marsh Substation') within which the 400 kV Grid Connection Cables would connect to the grid. The Existing National Grid Thorpe Marsh Substation is approximately 6 ha, centred on the approximate National Grid Reference SE 60526 09507.

1.2.5 The Scheme also includes a section of highway at the junction of the A19 and Station Road in the town of Askern to allow for abnormal indivisible load (AIL) vehicle access and escort. This area is approximately 1 ha and is centred on the approximate National Grid Reference SE 56598 13647.

1.2.6 The Order limits are located entirely within City of Doncaster Council's administrative area and comprise land which is predominantly agricultural in nature. The administrative areas of North Yorkshire Council and East Riding of Yorkshire Council are located immediately north and approximately 1 km northeast of the Solar PV Site, respectively. Landscape features immediately surrounding the Solar PV Site comprise largely agricultural fields and small rural villages, including Fenwick, Moss and Sykehouse, as well as the hamlet of Topham.

1.2.7 The BNG assessment covers a total area of approximately 421 ha. This comprises approximately 407 ha of land associated with the Solar PV Site; and 14 ha of land associated with the CCC. This approach aligns with the BNG Parameters Plan approach outlined above.

1.3 The Scheme

1.3.1 The Scheme would comprise the construction, operation and maintenance, and decommissioning of Solar PV Panels, BESS Area and associated infrastructure. The BESS Containers within the BESS Area will have the ability to store PV generation from the Scheme and/or import energy from the grid at times of excess generation, discharging the stored energy at times of peak demand and assisting in balancing the UK grid. Subject to being granted consent and following a final investment decision, the earliest construction could start is in 2028. Installation of the CCC is anticipated to require 12 months. Construction of the Solar PV Site will require an estimated 24 months, with operation therefore anticipated to commence in 2030, with decommissioning 40 years after final commissioning.

1.3.2 The location of the Scheme is shown in **ES Volume II Figure 1-1: Scheme Location [EN010152/APP/6.2]** with the Order limits shown on **ES Volume II Figure 1-2: Site Boundary Plan [EN010152/APP/6.2]**. The different elements of the Order limits (Solar PV Site, Grid Connection Corridor, and the Existing National Grid Thorpe Marsh Substation) are shown on **ES Volume II Figure 1-3: Elements of the Site [EN010152/APP/6.2]**. The land within the Order limits and its surroundings are described in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]** with the consideration of alternatives and progression of the Scheme design and layout described in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**.

1.3.3 The Indicative Landscape Masterplan presented in the **Framework Landscape and Ecology Management Plan (LEMP) [EN010152/APP/7.14]** has been used to determine the extent and type of habitats to be lost, retained and/or created post-development.

1.3.4 At the closest point, the boundary of the Solar PV Site is located immediately adjacent to the east of the village of Fenwick and approximately 1 km west and 1 km north of the villages of Sykehouse and Moss, respectively. The closest residential properties are located within 10 m of the Order limits, however, due to the provision of buffers and land for landscaping and habitat creation/enhancement, the actual distance of separation between these properties and the Solar PV Panels would be greater, as shown in the indicative layout presented in **ES Volume II Figure 2-3: Indicative Site Layout [EN010152/APP/6.2]**.

1.3.5 The design life of the Scheme is 40 years, with decommissioning to commence 40 years after final commissioning (currently anticipated to be 2030 to 2070). The technical assessments presented in the ES (**ES Volume I Chapter 6** to **Chapter 14 [EN010152/APP/6.1]**) therefore assess an operational life of 40 years.

1.3.6 Further information on the design and infrastructure associated with the Scheme is provided in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**.

1.4 Policy Complex

National Legislation and Policy

1.4.1 Government policy states that "*planning decisions should minimise impacts on and provide net gain for biodiversity*" (Ref. 4).

1.4.2 As a Nationally Significant Infrastructure Project (NSIP), the Scheme will require consent via a Development Consent Order (DCO), which is not currently subject to mandatory BNG requirements. DCO applications will be required to achieve 10% net gain in biodiversity units relative to the Site's baseline biodiversity value by November 2025 under Section 98 and 99 of the Environment Act, 2021 (Ref. 5).

1.4.3 Overarching National Policy Statement EN-1 (November 2023) (Ref. 6) states that "*Energy NSIP proposals, whether onshore or offshore, should seek opportunities to contribute to and enhance the natural environment by providing net gains for biodiversity, or the wider environment where possible*".

Local Planning Policy

1.4.4 The Doncaster Local Plan (Ref. 7) includes Policy 30: Valuing Biodiversity and Geodiversity which states:

"The Borough has a range of internationally, nationally, and locally important habitats, sites and species that will be protected through the following principles:

A) All proposals shall be considered in light of the mitigation hierarchy in accordance with National Policy.

B) Proposals which may harm designated Local Wildlife Sites, Local Geological Sites, Priority Habitats, Priority Species, protected species or non-designated sites or features of biodiversity interest, will only be supported where:

1. they use the DEFRA biodiversity metric to demonstrate that a proposal will deliver a minimum 10% net gain for biodiversity;

2. they protect, restore, enhance and provide appropriate buffers around wildlife and geological features and bridge gaps to link these to the wider ecological network;

3. they produce and deliver appropriate long term management plans for local wildlife and geological sites as well as newly created or restored habitats;

4. they can demonstrate that the need for a proposal outweighs the value of any features to be lost".

Minimum BNG Requirement

1.4.5 There is currently no target BNG based on national or local policy, instead the requirement is for the achievement of a no-net-loss (≥0% BNG).

1.4.6 Although not mandated for this NSIP, at a minimum, the Applicant is committed to providing a 10% net gain on a voluntary basis for the Scheme.

2. Methodology

2.1 Statutory Biodiversity Metric

2.1.1 The BNG assessment involves comparing the biodiversity value of habitats present within the Solar PV Site before development (i.e. the ‘baseline’) and the predicted biodiversity value of habitats following the completion of the development (i.e. ‘post-development’). The comparison is made in terms of ‘biodiversity units’, with SBM providing the mechanism to allow biodiversity values to be calculated and compared.

2.1.2 The SBM calculates the overall loss or gain of biodiversity of development projects by assessing the distinctiveness (i.e. type of habitat and its value), condition, extent, and strategic significance of habitats on site pre- and post-development, including both permanent and temporary land-take areas. To achieve BNG, the biodiversity unit score must have a post-development score higher than the baseline score.

2.1.3 When calculating the post-development biodiversity units, SBM includes a series of standard ‘risk multipliers’ to account for the inherent risk of creating and restoring habitats, the time taken to establish habitats and the location of the mitigation in relation to the habitats lost on site. The risk multipliers reduce the value of the proposed habitats, which means larger areas, habitats of higher distinctiveness, and/or conditions are required to mitigate losses and achieve BNG.

2.1.4 The SBM is guided by the rules set out in Table 1.

Table 1: SBM Rules

Rule	Explanation
Rule 1 – Trading rules	The trading rules are rules that try to prevent the 'trading down' of habitat distinctiveness. Under the trading rules, losses of habitat are to be compensated for on a ‘like for like’ or ‘like for better’ basis.
Rule 2 – The requirement to deliver at least a 10% net gain applies to each type of unit present on the Site	The SBM assesses and generates separate outputs for area habitats (measured in habitat units) and linear habitats, including hedgerows (measured in hedgerow units) and watercourses (measured in watercourse units). To claim a net gain in biodiversity, there must be an increase across all area, hedgerow and watercourse units, the units cannot be summed to give an overall biodiversity unit value i.e. an increase in area and hedgerow units cannot be used to offset a loss in watercourse units.
Rule 3 – Use of SBM	Assessment must use the latest version of the SBM released by DEFRA.
Rule 4 – Exceptional circumstances required LPA engagement	In exceptional ecological circumstances, deviation from the SBM methodology may be permitted by the relevant planning authority.

2.1.5 The information required to undertake the calculation is described below.

2.2 Assessment Boundary

2.2.1 The BNG assessment assesses the areas that fall within the BNG Parameters Plan (see Appendix A), instead of all areas within the Order limits. This approach is designed to focus on areas and habitats that are to be directly impacted by the Scheme and ensure that the proposed mitigation is proportionate to that impact. Therefore, areas that are not to be impacted will be excluded from the assessment (i.e. those areas where trenchless crossing methodology has been used to avoid impacts). This prevents the baseline habitat unit score from being inflated by areas of habitat that are not to be impacted and, therefore, does not disproportionately increase the required mitigation.

2.2.2 All areas within the Site are assessed as part of the BNG assessment. The above approach primarily applies to the CCC, the order limits which are larger than the area assessed in this assessment, allows for flexibility in design and route optioneering. The BNG assessment has based the assessment boundary for the BNG calculations within the CCC on the indicative cable alignment.

2.2.3 Should the indicative cable alignment change within the CCC as the design progresses, it is not anticipated that it would substantially change the overall conclusions of this assessment, as it is likely that neighbouring habitats will be of similar habitat types. The Applicant is committed to calculating the BNG in liaison with the host councils post-consent based on the detailed design once the alignment has been selected, and has committed to delivering BNG in accordance with the commitments in the **Framework LEMP [EN010152/APP/7.14]** as secured via DCO requirement.

2.3 Terrestrial Baseline Data

2.3.1 Phase 1 Habitat data collected by AECOM between February 2023 and August 2024 as detailed within **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** have been utilised to determine the Site's baseline area, hedgerow and watercourse habitats. Arboricultural data collected by AECOM between July 2023 and June 2024 as detailed within **ES Volume III Appendix 10-7: Arboricultural Impact Assessment (AIA)** [**EN010152/APP/6.3]** have been utilised to determine the Site's baseline tree data. This arboricultural data combined with the Phase 1 Habitat data is hereafter referred to as the 'baseline'. The baseline habitats were converted from standard Phase 1 Habitat types (Ref. 8) to UKHab Classification categories (Ref. 9) (Appendix B) before being digitised in the Geographic Information System (GIS) to provide area and length measurements of each habitat type.

2.3.2 A suitably qualified ecologist assigned a condition to all baseline habitats defined within the Site using the condition assessment criteria outlined in the SBM Technical Annex 1: Condition Assessment Sheets and Methodology (Ref. 10). The data was aggregated and entered into the SBM to calculate the baseline biodiversity units. Further information regarding the assignment of habitat conditions is available on request.

2.4 Watercourse Baseline Data

2.4.1 For rivers, habitat categories, associated distinctiveness, and condition scores have been defined as the SBM Technical Annex 1: Condition Assessment Sheets and Methodology (Ref. 10). A desk study was undertaken to identify all watercourse habitats present within the Site using the 'Discovering Priority Habitat in England' river data map (Ref. 11). Following this, water body habitats were assigned a habitat category (according to the criteria: Priority Habitat, Other Rivers and Streams, Ditches, Canals, Culvert) and distinctiveness using Section 41 of the NERC Act's Priority Habitat descriptions (Ref. 12).

2.4.2 Following the desk study, a scoping exercise was carried out to identify watercourses that are to be impacted by the Scheme, i.e. through culverting for access road crossings, open-cut crossings, and changes to the riparian zone. Only water bodies that have been assessed as being impacted by the Scheme have been included in this BNG assessment.

2.4.3 Watercourse crossings were given a 'sensitivity classification' based on assessment of aquatic ecology receptors and the severity of potential impact from the Scheme. Only higher sensitivity water bodies with potential impacts from crossing points were surveyed. Water bodies with lower sensitivity were given a precautionary condition by way of a desk-based assessment of readily available information from previous surveys, as well as aerial imagery.

2.4.4 Habitat classification, length measurement values, strategic significance, condition data and watercourse and riparian encroachment information were then inputted to the SBM to determine the baseline biodiversity units for watercourse habitats within the Site.

2.4.5 The assessment of watercourse habitats for the river condition assessment was undertaken by trained and accredited surveyors.

2.5 Post-Development Data

2.5.1 The Indicative Landscape Masterplan presented in the **Framework LEMP [EN010152/APP/7.14]** has been used to determine the extent and type of habitats to be lost, retained and/or created post-development. Habitats in the **Framework LEMP [EN010152/APP/7.14]** were converted to UKHab Classification categories (Appendix B) before being digitised into GIS to produce the 'Post-Development' Plan (Appendix C). Target condition scores for the proposed habitats were selected in accordance with the SBM User Guide (Ref. 2) using professional judgement to ensure the condition scores selected were realistic. The data was utilised to predict the post-development biodiversity units.

2.5.2 Most works within the CCC are temporary or involve avoiding impacts to habitats via trenchless crossing methods. It is intended that most habitats will be reinstated post-construction. The SBM User Guide (Ref. 2) states "*Where a habitat is disturbed for a short period of time, it may be considered temporary loss if specific criteria are met. If these criteria are met, then the habitat may be recorded as 'retained' within the metric tool. The temporary loss option is only available for disturbed habitats that can be restored (in full) to their baseline condition (or better) within 2 years from the date of impact*". This assessment has taken a worst-case scenario approach, as the

predicted construction phase for the Solar PV Site is anticipated to be 24 months, and 12 months for the CCC. It is assumed on a precautionary basis and for the purpose of this calculation, that temporary works within the CCC will not qualify for the 'retained' status within the SBM, and they will not be reinstated within a two-year time period. In this instance, temporarily lost habitats were inputted as 'lost' and subsequently 'created' within the SBM to accurately capture the timing of reinstatement.

2.6 Habitat Distinctiveness

2.6.1 Habitat distinctiveness is a measure based on the type of habitat and its distinguishing features. Habitats of higher distinctiveness are typically rarer, more valuable, harder to recreate if impacted and are typically considered priority habitats. Habitats of lower distinctiveness are more common and are easier to recreate if impacted. Habitat distinctiveness ranges from 'Very High', 'High', 'Medium', 'Low' and 'Very Low'.

Trading Rules

2.6.2 DEFRA define the trading rules as: "*minimum habitat creation and enhancement requirements to compensate for specific habitat losses, up to the point of no net loss. They are based on the habitat type and distinctiveness of the lost habitat*" (Ref. 2). Trading rules apply to all habitat modules, with the offsetting requirements differing for each. See Table 2 for a summary of these requirements.

Table 2: Trading Rules Summary

Habitat Distinctiveness	Area Habitats	Hedgerow Habitats	Watercourse Habitats
Very High	Priority should be given to replacing losses with area habitat units of the same habitat type	Losses must be replaced with hedgerow units of the same habitat type.	Priority should be given to replacing losses with watercourse units of the same habitat type
High	Losses must be replaced with area habitat units of the same habitat type	Losses must be replaced with hedgerow units of the same habitat type or of a higher band	Losses must be replaced with watercourse units of the same habitat type
Medium	Losses must be replaced by area habitat units of either: 'Medium' distinctiveness habitat within the same broad habitat type or, any habitat of higher distinctiveness.	Losses must be replaced with hedgerow units of the same or of a higher band	Losses must be replaced with watercourse units of the same habitat type

Habitat Distinctiveness	Area Habitats	Hedgerow Habitats	Watercourse Habitats
Low	Losses must be replaced with area habitat units of the same or higher band	Losses must be replaced with hedgerow units of the same or of a higher band	Losses must be replaced with watercourse units of a higher band
Very Low	Not applicable	Losses must be replaced with hedgerow units of the same or of a higher band	Not applicable

2.7 Strategic Significance

2.7.1 The SBM requires that the strategic significance (hereafter referred to as 'SS') of all baseline and post-development habitats are defined. SS refers to strategic locations for local biodiversity and nature improvements, identified within local planning policies.

2.7.2 City of Doncaster Council has yet to produce a Local Nature Recovery Strategy (LNRS), because of this, SS has been assigned to habitats using the alternative methodology, in line with guidance set out in the SBM User Guide (Ref. 2). The process of how the SS of a habitat is assessed is shown in Table 3.

Table 3: Strategic Significance Guidance – Alternative Methodology (No LNRS)

SS Category	Description
High	Where there is no published LNRS, assign 'High' SS if: a. the habitat type is mapped and described as locally ecologically important within a specific location within documents specified by the relevant planning authority. b. If the Scheme is proposed to contribute towards priorities or measures set out in the LNRS (or alternative strategy), assign 'Low' SS to the baseline habitat and 'High' SS to the proposed habitat.
Medium	Where no suitable document has been produced for assessing SS, 'Medium' SS should be assigned if: a. It can be explained how the habitat type is ecologically important within a specific location; b. It can be demonstrated The importance of that habitat in providing ecological linkage to other strategically significant locations; and/or, c. Professional judgement.
Low	Where the definitions for 'High' and 'Medium' SS are not met.

2.7.3 As part of this assessment, the following relevant documents were reviewed to determine the SS of the habitats on the Site:

a. **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]**

b. Doncaster Local Plan (Ref. 7)

c. Doncaster Local Plan – Policies Map (Ref. 13)

d. MAGIC Maps (Ref. 14)

e. Doncaster Biodiversity Action Plan (Ref. 15)

2.7.4 Detailed information is presented in Appendix D on how SS has been assigned.

2.8 BNG Good Practice Principles for Development

2.8.1 The BNG Good Practice Principles for Development are a set of ten principles which "*set out good practice for achieving Biodiversity Net Gain and must be applied all together, as one approach*" (Ref. 3). These principals are as follows:

a. Principle 1. Apply the Mitigation Hierarchy

b. Principle 2. Avoid losing biodiversity that cannot be offset by gains elsewhere

c. Principle 3. Be inclusive and equitable

d. Principle 4. Address risks

e. Principle 5. Make a measurable Net Gain contribution

f. Principle 6. Achieve the best outcomes for biodiversity

g. Principle 7. Be additional

h. Principle 8. Create a Net Gain legacy

i. Principle 9. Optimise sustainability

j. Principle 10. Be transparent

2.8.2 This assessment has adhered to this step-by-step process to ensure that good practices are followed. A comprehensive breakdown of how the Scheme aligns with these principles is provided in Appendix E.

2.9 Assumptions

2.9.1 In undertaking the calculation, the following assumptions have been made:

Area Based Habitats and Hedgerows

a. Habitats created as part of the Scheme will be subject to appropriate ongoing management as set out in the **Framework LEMP [EN010152/APP/7.14]** and will be monitored to ensure correct establishment and growth. Remedial action will be taken if this does not proceed as expected to achieve the target conditions in the specified timeframes according to the SBM.

b. Guidance published by Building Research Establishment recognises that on average 95% of a site used for solar farm development is "*still accessible for plant growth and potentially for wildlife enhancements and complementary agricultural activities such as conservation grazing*" (Ref. 16). An approach of 95% of the Solar PV Panel footprint within the Site has been categorised as the 'Grassland – Modified grassland', with the remaining 5% categorised as 'Urban – Developed land; sealed surface'

to take into account the Solar PV Panel and supporting infrastructure. This approach is understood to be supported by the Royal Society for the Protection of Birds (Ref. 17).

i. In some areas of the Site where Solar PV Panels are proposed, areas of 'Grassland – Other neutral grassland' were found to be present. It is planned that these areas of grassland will be retained and/or enhanced as much as viable, with some habitat loss expected to allow for the same assumption of 5% of the land being categorised as 'Urban – Developed land; sealed surface' to take into account Solar PV Panels and supporting infrastructure.

c. Any loss of biodiversity units arising from temporary impacts within the CCC will be 'offset' within the Solar PV Site.

d. Habitats impacted within the CCC are assumed to be reinstated following construction. Installation of the CCC is anticipated to require 12 months, thus, a one-year delay in starting habitat creation has been applied to habitats to be reinstated.

e. It is assumed that habitat creation and/or enhancement on the Solar PV Site will take place following construction. Construction of the Solar PV Site will require an estimated 24 months. A two-year delay in starting habitat creation and/or enhancement has been applied to habitats on the Solar PV Site.

f. All baseline habitats of the same type and condition have been aggregated within the SBM due to the findings from the ecology survey concluding relative uniformity within habitat types across the Site.

g. Where temporary access points or visibility splays are proposed, hedgerows have been assumed to be lost and reinstated.

h. Where permanent access points or visibility splays are proposed, permanent hedgerow loss has been assumed.

i. The Order limits also include a section of highway at the junction of the A19 and Station Road in the town of Askern to allow for abnormal indivisible load (AIL) vehicle access and escort. As the works would be limited to temporary traffic signal and banksman control for the period of AIL delivery, no impacts to habitats are anticipated, and therefore this area is not assessed further.

Watercourse Habitats

a. Only watercourses to be impacted or potentially impacted have been included in the calculations for the watercourse's SBM. Due to the relatively low scale of impacts to watercourses and riparian habitats, this is considered proportionate to avoid over-estimating the mitigation required to counter the impacts to watercourse and ditch habitats.

b. It is assumed that within the Solar PV Site, where the post-development riparian habitat of a watercourse is proposed to be 'Grassland - Other neutral grassland', a buffer will be applied to ensure that no management or grazing of vegetation within the riparian zone. This buffer is assumed to be 5 m from the bank tops for ditches and 10 m from the bank tops for other rivers and streams.

c. It is assumed that bridge abutments, where relevant, may encroach on the riparian zone but will not encroach on the watercourse.

2.10 Constraints or Limitations

Area Habitats, Hedgerows and Watercourse Habitats

2.10.1 The following limitations also apply:

a. The total areas of the Site may vary slightly between the baseline and post-development data within the SBM. This difference is caused by the rounding of areas and lengths of individual habitats within the dataset to two decimal places within the SBM calculations. This minor variation in area and lengths has a negligible impact on the assessment. This does generate the following error message: The following error code is present in the SBM: *"Input errors/rule breaks present in metric".*

b. The BNG assessment has assessed the **Framework LEMP [EN010152/APP/7.14]**, which represents the minimum planting, and a likely concept layout based on maximum design parameters. The calculation will therefore be updated as part of the detailed design stage of the Scheme to reflect the final design, to demonstrate a minimum 10% BNG is achieved (based on the approach to trading rules outlined in this report) and with aspirations to improve the BNG outcome presented in this report. Any updates to habitat surveys required as part of this update will also be actioned at this point.

c. All habitat areas and lengths have been measured using ArcGIS based on the Phase 1 Habitat data (see **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** for details) and the **Framework LEMP [EN010152/APP/7.14],** as such habitat areas and lengths are approximations only.

d. Any baseline habitats that were not assigned a condition during the field survey have been assigned 'Good' condition in line with good practice. The limitation here is that in cases where these baseline habitats are lost, the impact of this loss is potentially inflated.

e. **ES Volume III Appendix 10-7: AIA [EN010152/APP/6.3]** data has been used to assign sizes to 'Individual trees – Rural tree' present on the Site.

f. As per arboricultural requirements, in some cases, the **ES Volume III Appendix 10-7: AIA [EN010152/APP/6.3]** data collected tree data in groups with no reference to the number of individual trees present within the group in some areas of the Site (as this is not strictly required for Arboricultural assessments). In these situations, the Bluesky National Tree Map (Ref. 18) data has been utilized to identify trees within these groups. This dataset captures all trees in *"Great Britain and Republic of Ireland that are 3 metres and taller".* In cases where this data has been utilised, a precautionary assumed tree size of 'Large' has been assigned to account for the uncertainty.

3. Results

3.1 Baseline Habitats

3.1.1 The BNG Parameters Plan, for which this BNG assessment is based, covers a total area of 421.17 ha. The habitats identified vary in ecological value, ranging from 'High' to 'Very Low' distinctiveness. The most dominant habitat on site is 'Cropland – Cereal crops'. A total of 28.04 km of hedgerow habitat are present on-site and 7.15 km of watercourse habitats.

3.1.2 The 'Baseline Habitat Plan' is provided in Appendix A. Detailed descriptions of baseline habitats can be found within the **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]**. Details of habitat condition scores and associated data can be provided upon request.

Irreplaceable Habitat

3.1.3 A total of 69 Veteran trees and 13 ancient trees are present within the BNG Parameters Plan, these trees being of 'Very Large', 'Large' and 'Medium' size. These trees are not to be impacted by the Scheme. Details of these trees are provided in **ES Volume III Appendix 10-7: AIA [EN010152/APP/6.3]**.

Baseline Habitats – SS

3.1.4 As outlined in Section 2.6, SS has been assigned to all baseline habitats present within the Site, as follows:

3.1.5 'High' SS has been assigned to the habitat Woodland and forest – Lowland mixed deciduous woodland as it is considered a Habitat of Principal Importance and has potential suitability for protected species.

3.1.6 'Medium' SS has been assigned to habitats based on the potential value these habitats provide to protected species (in situations where these habitats fall with local conservation areas, 'High' SS has been assigned):

a. Ground-nesting birds:
    i. Individual trees – Rural tree
    ii. Hedgerows
    iii. Arable fields
b. Badgers:
    i. Woodland and forest
    ii. Grassland
    iii. Heathland and scrub
    iv. Hedgerows
    v. Lakes – Ponds (priority habitat)
c. Roosting bats:
    i. Individual trees – Urban tree
d. Otter/Water vole:
    i. Ditches

ii. Other rivers and streams
iii. Lakes – Ponds (priority habitat)

e. Reptiles
i. Grassland
ii. Hedgerows
iii. Woodland and forest
iv. Scrub
v. Ditches

f. Invertebrates:
i. Grassland – Floodplain wetland mosaic and CFGM

3.1.7 'Low' SS has been assigned to the habitats 'Sparsely vegetated land – Ruderal/ephemeral', 'Urban – Bare ground', 'Urban – Developed land; sealed surface' and 'Urban – Introduced shrub' as they are not within a conservation area or considered a local priority habitat and have low ecological value and habitat connectivity potential.

Baseline Habitat Units

3.1.8 The baseline biodiversity value was calculated as 1,737.08 units for area habitats, 301.80 for hedgerow habitats and 35.61 for watercourse habitats. See Appendix F for further detail.

3.2 Post-Development Habitats

3.2.1 The Indicative Landscape Masterplan includes the retention of 76.96 ha of baseline area habitat, the creation of 309.69 ha of area habitat and the enhancement of 41.97 ha of baseline area habitat. The Scheme will result in a loss of 311.51 ha of baseline area habitat.

3.2.2 A total of 1.32 km of hedgerow habitats will be lost due to the development of the Scheme, while 3.52 km will be retained. A total of 23.20 km of hedgerow habitats will be enhanced and 7.42 km of hedgerow habitats will be created.

3.2.3 A total of 0.02 km of watercourse habitats will be lost, while 1.31 km of watercourse habitats will be retained. A total of 5.82 km of watercourse habitats will be enhanced, with a further 0.02 km being created.

3.2.4 The post-development habitats are shown on the 'Post-Development Habitat Plan' in Appendix C.

Post-Development Habitats – SS

3.2.5 SS has been assigned to post-development habitats following the same methodology as baseline habitats.

Retained Habitats

3.2.6 The habitats that are due to be retained within the Scheme are detailed in Appendix F. In total, 645.73 area habitat units, 33.81 hedgerow units, and 6.92 watercourse units are proposed to be retained.

Enhanced Habitats

3.2.7 The habitats that are due to be enhanced within the Scheme are detailed in Appendix F. In total, 440.90 area habitat units, 413.61 hedgerow units, and 37.57 watercourse units are proposed to be delivered via habitat enhancement.

Created Habitats

3.2.8 The habitats that are due to be created within the Scheme are detailed in Appendix F. In total, 1,283.80 area habitat units, 60.52 hedgerow units, and 0.02 watercourse units are proposed to be delivered via habitat creation.

3.3 Summary of Results

3.3.1 All baseline habitats and retained, created or enhanced habitats are present within the accompanying SBM assessment for the Scheme (Appendix G). A summary of the results is presented in Table 4.

Table 4: Summary of Results

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change
Area Units	1,742.36	2,370.43	+633.34	+36.46%
Hedgerow Units	301.80	507.95	+206.15	+68.31%
Watercourse Units	35.61	44.51	+8.89	+24.97%

Trading Rules

Area Habitats

3.3.2 For Area habitats, the trading rules within the SBM are currently not satisfied for ‘High’ distinctiveness habitats (see Table 5). This failure of the trading rules is caused by a loss of ‘Urban – Open mosaic habitat on previously developed land’, which are due to be impacts by the Scheme, without direct mitigation.

3.3.3 Impacts to ‘Urban – Open mosaic habitat on previously developed land’ are not considered significant, because there is potential that the temporary disturbance could be beneficial, particularly if supplemented with wider management and enhancement of surrounding habitat present within the wider order limits.

Table 5: Trading Rules – Area Habitats

Broad Habitat	Habitat Type	Distinctiveness Group	Unit Change per habitat	Unit change per habitat group	Trading Satisfied?
Grassland	Floodplain wetland mosaic and CFGM	High	100.80		No
Lakes	Ponds (Priority Habitat)		0.00		
Urban	Open mosaic habitats on previously developed land		-10.73		
Grassland	Other neutral grassland	Medium	517.46	517.46	Yes
Heathland and shrub	Bramble scrub		0.00	14.19	
	Hawthorn scrub		-1.23		
	Mixed scrub		15.43		
Individual trees	Rural tree		-25.32	-25.32	
Woodland and forest	Other woodland; broadleaved		0.00	0.00	
	Other woodland; mixed		0.00	0.00	
Cropland	Cereal crops	Low	-637.05	36.94	Yes
	Temporary grass and clover leys		0.00		
	Winter stubble		0.00		
Grassland	Modified grassland		688.29		
Sparsely vegetated land	Ruderal/ephemeral		-13.34		
Urban	Bare ground		-0.68		
	Introduced shrub		-0.28		
TOTAL			**+633.34**	**+633.34**	

Hedgerow Habitats

3.3.4 For hedgerow habitats, the trading rules within the SBM are currently satisfied for each distinctiveness level (see Table 6).

Table 6: Trading Rules – Hedgerow Habitats

Habitat Group	Distinctiveness Group	Unit Change per habitat	Trading Satisfied?
Species-rich native hedgerow with trees - associated with bank or ditch	V. High	139.03	Yes
Species-rich native hedgerow with trees	High	126.27	Yes
Species-rich native hedgerow - associated with bank or ditch		26.25	
Native hedgerow with trees - associated with bank or ditch		-82.30	
Species-rich native hedgerow	Medium	124.85	Yes
Native hedgerow - associated with bank or ditch		-13.11	
Native hedgerow with trees		-75.84	
Native hedgerow	Low/V. Low	-38.99	Yes
TOTAL		**+206.15***	

*Any negative figures present within the table are either offset within their own distinctiveness level, or by a cumulative surplus of habitat units in the distinctiveness level above.

Watercourse Habitats

3.3.5 For watercourse habitats, the trading rules within the SBM are currently satisfied for each distinctiveness level (see Table 7).

Table 7: Trading Rules – Watercourse Habitats

Habitat Group	Distinctiveness Group	Unit Change per habitat	Trading Satisfied?
Other rivers and steams	High	+5.47	Yes
Ditches	Medium	+3.41	Yes
Culvert	Low	+0.01	Yes
TOTAL		**+8.89**	

4. Conclusion

4.1.1 Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area habitat units, 68.31% for hedgerow units, and 24.97% for watercourse units. The Scheme, therefore, is considered to exceed the BNG target of ≥0% BNG and the Applicant's commitment for 10% BNG for each habitat type. The trading rules are not met due to losses of 'Urban – Open Mosaic Habitat of Previously Developed Land', however, the trading rules are not a requirement for DCO projects.

4.1.2 The outputs of the SBM depend on all created and enhanced habitats meeting the target conditions, subject to the criteria outlined within SBM User Guide (Ref. 2).

4.1.3 Habitats would need to be monitored to ensure correct establishment and growth, and remedial action would need to be taken if this does not proceed as in line with the **Framework LEMP [EN010152/APP/7.14].** Otherwise, the target conditions used in the calculations may not be met, and the predicted biodiversity units might not be achieved.

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Abbreviations

Abbreviation/Term	Meaning
AIA	Arboricultural Impact Assessment
AIL	Abnormal Indivisible Load
BESS	Battery Energy Storage System
BNG	Biodiversity Net Gain
CCC	Cable Construction Corridor
CFGM	Coastal Floodplain Grazing Marsh
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DEFRA	Department for Environment, Food & Rural Affairs
ES	Environmental Statement
GIS	Geographic Information System
ha	Hectares
HGV	Heavy Goods Vehicle
km	Kilometres
LEMP	Landscape and Ecology Management Plan
LNRS	Local Nature Recovery Strategy
LPA	Local Planning Authority
LSOA	Lower Super Output Area
MAGIC	Multi-Agency Geographic Information for the Countryside
N/A	Not Applicable
NERC	Natural Environment and Rural Communities
NSIP	Nationally Significant Infrastructure Project
PV	Photovoltaic
SBM	Statutory Biodiversity Metric
SS	Strategic Significance
UKHab	UK Habitat Classification

Appendix A Baseline Habitat Plan

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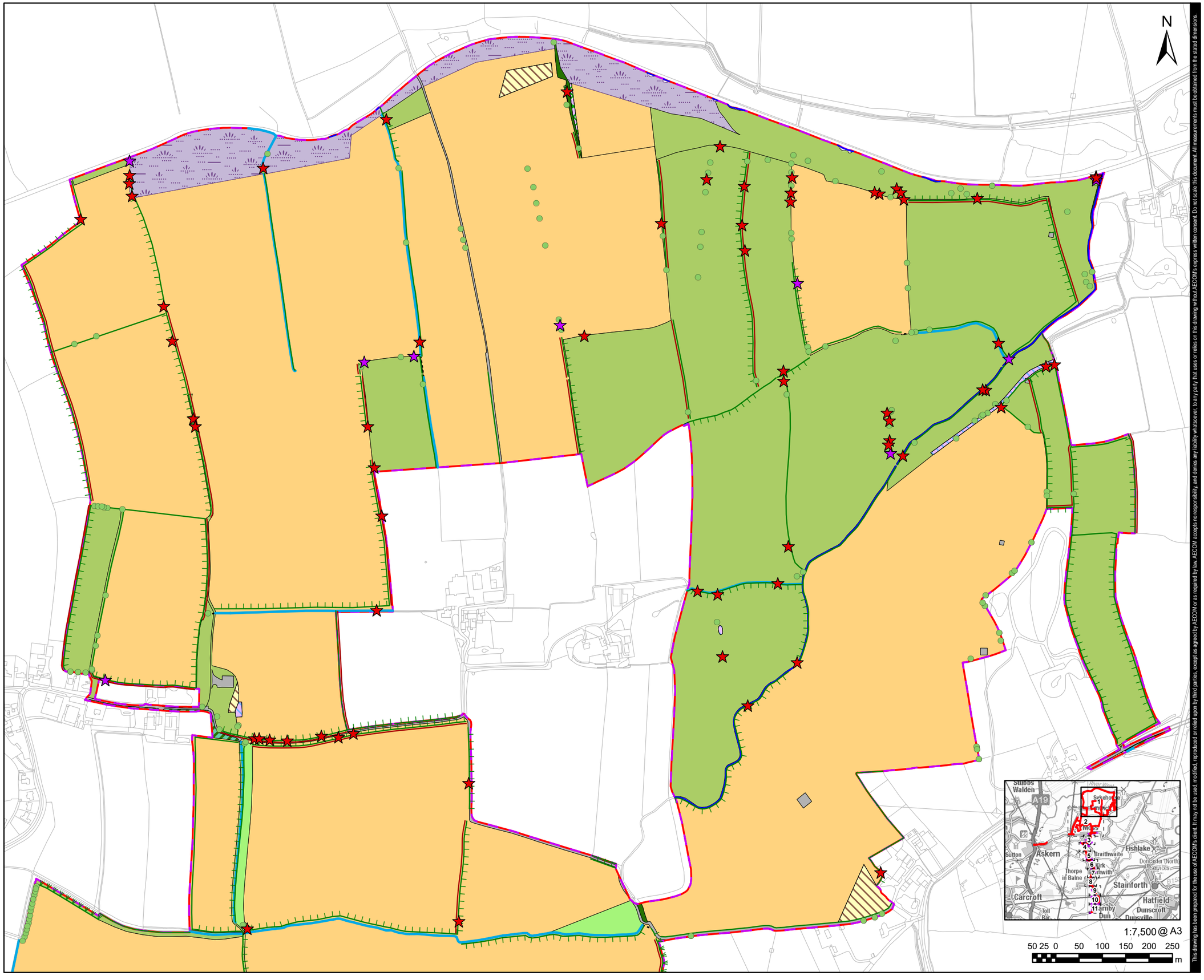

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Ancient tree
- Veteran tree
- Rural tree
- Native hedgerow
- Native hedgerow - associated with bank or ditch
- Native hedgerow with trees
- Native hedgerow with trees - associated with bank or ditch
- Species-rich native hedgerow with trees
- Species-rich native hedgerow with trees - associated with bank or ditch
- Culverts
- Ditches
- Other rivers and streams
- Cropland - Cereal crops
- Grassland - Floodplain wetland mosaic and CFGM
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Hawthorn scrub
- Heathland and shrub - Mixed scrub
- Lakes - Ponds (priority habitat)
- Sparsely vegetated land - Ruderal/ Ephemeral
- Urban - Bare ground
- Urban - Developed land; sealed surface
- Woodland and forest - Other woodland; broadleaved
- Woodland and forest - Other woodland; mixed

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FIGURE TITLE

Biodiversity Net Gain
Baseline Habitats
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Appendix A

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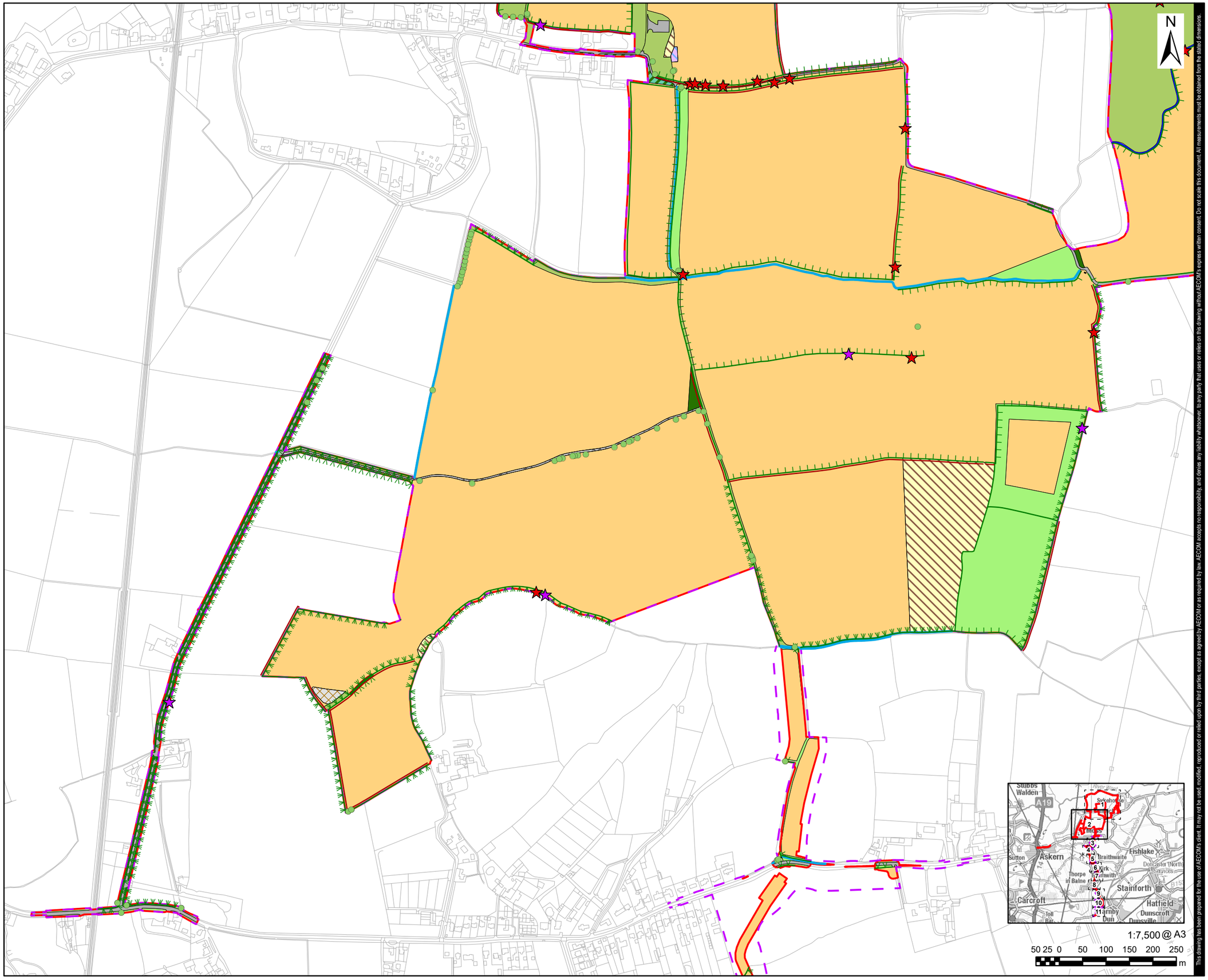

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- Species-rich native hedgerow
- Species-rich native hedgerow - associated with bank or ditch
- Species-rich native hedgerow with trees
- Species-rich native hedgerow with trees - associated with bank or ditch
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- Urban - Bare ground
- Urban - Developed land; sealed surface
- Urban - Introduced shrub
- Woodland and forest - Other woodland; broadleaved
- Woodland and forest - Other woodland; mixed

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FIGURE TITLE

Biodiversity Net Gain
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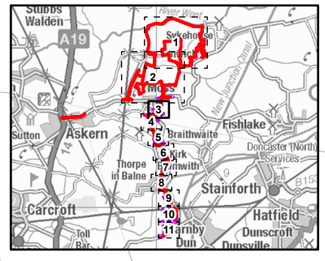

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Native hedgerow
- Species-rich native hedgerow
- Species-rich native hedgerow with trees
- Culverts
- Ditches
- Cropland - Cereal crops
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Bramble scrub
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface

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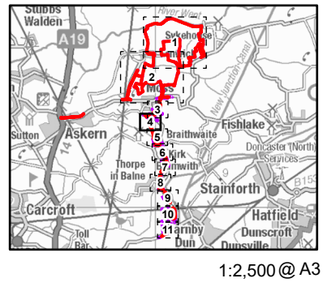

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Native hedgerow
- Species-rich native hedgerow
- Species-rich native hedgerow with trees
- Culverts
- Ditches
- Cropland - Cereal crops
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface

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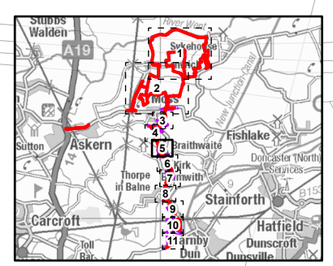

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- BNG Parameter Plan Boundary
- Veteran tree
- Rural tree
- Species-rich native hedgerow with trees
- Cropland - Cereal crops
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface

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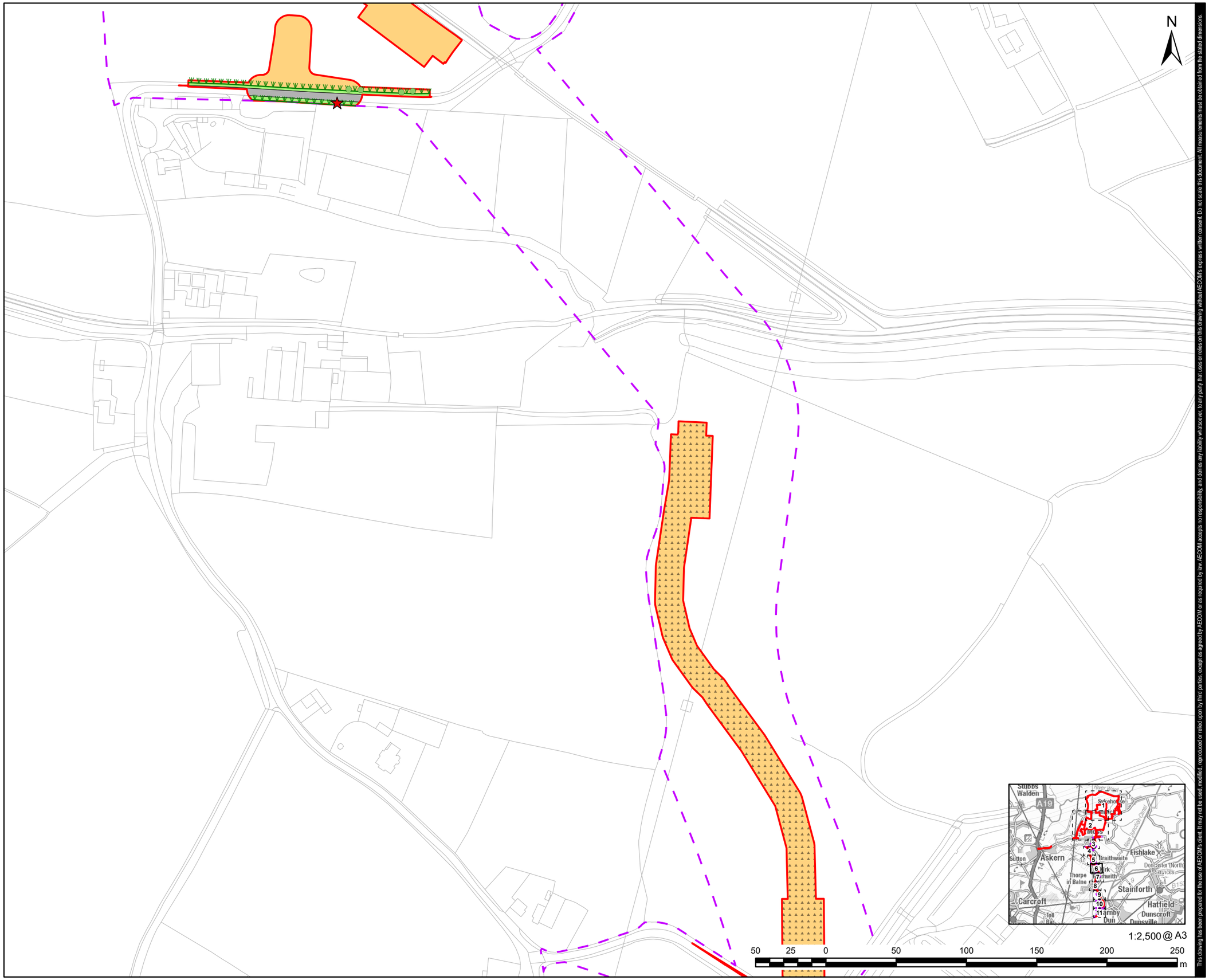

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Veteran tree
- Rural tree
- Species-rich native hedgerow with trees
- Cropland - Cereal crops
- Cropland - Winter stubble
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface

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- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Species-rich native hedgerow
- Species-rich native hedgerow with trees
- Culverts
- Ditches
- Cropland - Cereal crops
- Cropland - Winter stubble
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Urban - Developed land; sealed surface

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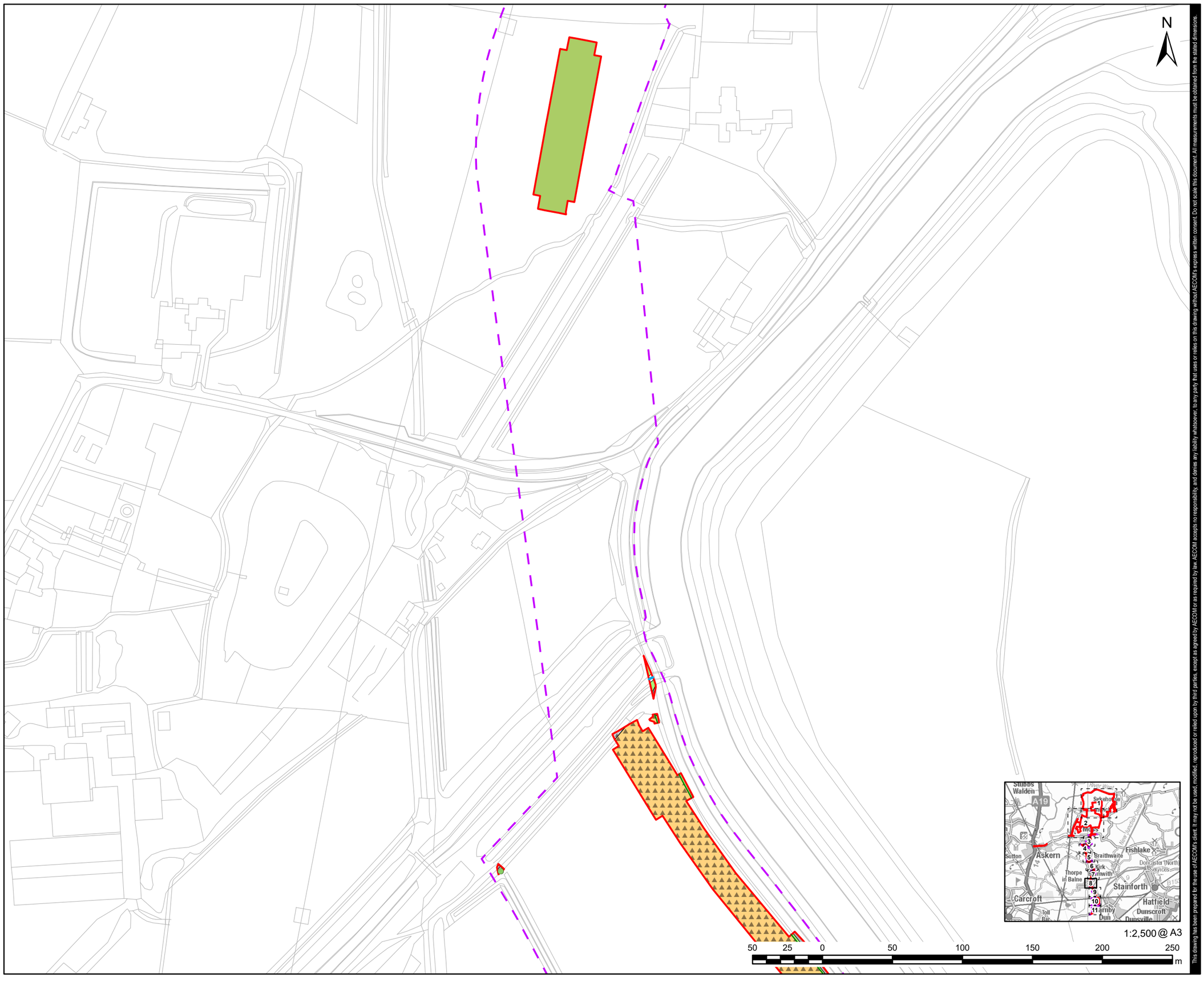

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Native hedgerow
- Culverts
- Ditches
- Cropland - Temporary grass and clover leys
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Bare ground
- Urban - Developed land; sealed surface

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Native hedgerow
- Native hedgerow with trees
- Cropland - Temporary grass and clover leys
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Urban - Developed land; sealed surface

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Species-rich native hedgerow
- Grassland - Other neutral grassland
- Urban - Developed land; sealed surface
- Urban - Open mosaic habitats on previously developed land

NOTES

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60698207

FIGURE TITLE

Biodiversity Net Gain
Baseline Habitats
Sheet 10 of 11

FIGURE NUMBER

Appendix A

Revision: 0 Drawn: CA Checked: JW Approved: LD Date: 2024-10-10

Filename: I:\5004 - Information Systems\60698207_Fenwick_Solar_Farm\02_Maps\BNG\FSF_BiodiversityNetGain_Final_Figures_R0_20241008_CA.aprx

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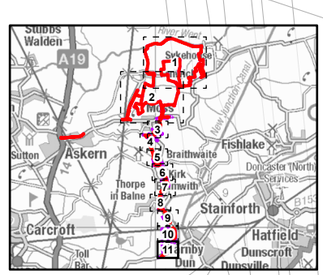

1:2,500 @ A3

50 25 0 50 100 150 200 250 m

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Grassland - Other neutral grassland
- Urban - Developed land; sealed surface

NOTES

ISSUE PURPOSE

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FIGURE TITLE

Biodiversity Net Gain
Baseline Habitats
Sheet 11 of 11

FIGURE NUMBER

Appendix A

Appendix B Habitat Classification Conversions

Phase 1 Habitat Classification	UKHab Classification
J1.1 - Cultivated/disturbed land - arable	Cropland - Cereal crops
F1 - Swamp	Grassland - Floodplain wetland mosaic and CFGM
B4 - Improved grassland	Grassland - Modified grassland
B6 - Poor semi-improved grassland	Grassland - Modified grassland
B2.2 - Neutral grassland - semi-improved	Grassland - Other neutral grassland
A2.1 - Scrub - dense/continuous	Heathland and shrub - Bramble scrub
A2.1 - Scrub - dense/continuous	Heathland and shrub - Hawthorn scrub
A2.1 - Scrub - dense/continuous	Heathland and shrub - Mixed scrub
G1 - Standing water	Lakes - Ponds (priority habitat)
C3.1 - Other tall herb and fern - ruderal	Sparsely vegetated land - Ruderal/Ephemeral
J4 - Bare ground	Urban - Bare ground
Z99 - Hardstanding	Urban - Developed land; sealed surface
J1.4 - Introduced shrub	Urban - Introduced shrub
A1.1.1 - Broadleaved woodland - semi-natural	Woodland and forest - Lowland Mixed Deciduous Woodland
A1.1.2 - Broadleaved woodland - plantation	Woodland and forest - Other woodland; broadleaved
A1.3.2 - Mixed woodland - plantation	Woodland and forest - Other woodland; mixed
Culvert	Culvert

Phase 1 Habitat Classification	UKHab Classification
G1 - Standing water/G2 - Running water	Ditches
G2 - Running water	Other Rivers and Streams
J2.1.2 - Intact hedge - species-poor/J2.2.2 - Defunct hedge - species-poor	Native hedgerow
J2.1.2 - Intact hedge - species-poor/J2.2.2 - Defunct hedge - species-poor	Native hedgerow - associated with bank or ditch
J2.3.2 - Hedge with trees - species-poor	Native hedgerow with trees
J2.3.2 - Hedge with trees - species-poor	Native hedgerow with trees - associated with bank or ditch
J2.1.1 - Intact hedge - native species-rich/J2.2.1 - Defunct hedge - native species-rich	Species-rich native hedgerow
J2.1.1 - Intact hedge - native species-rich/J2.2.1 - Defunct hedge - native species-rich	Species-rich native hedgerow - associated with bank or ditch
J2.3.1 - Hedge with trees - native species-rich	Species-rich native hedgerow with trees
J2.3.1 - Hedge with trees - native species-rich	Species-rich native hedgerow with trees - associated with bank or ditch

Landscape Plan Classification	UKHab Classification
Proposed Field Station	Urban - Developed land; sealed surface
Proposed Operations and Maintenance Hub	Urban - Developed land; sealed surface
Proposed Internal Access Track	Urban - Developed land; sealed surface
PRoW	Urban - Bare ground
Proposed Native Hedgerow/Vegetated Boundary	Native hedgerow
Proposed Gapping up of Existing Hedgerows/Hedgerow trees(avoiding underplanting of ancient or veteran trees)	Same as baseline hedgerows
Proposed Riparian Edge Hedgerow and Trees	Native hedgerow with trees
Proposed Gapping up of Existing Hedgerows/Hedgerow trees with wet-loving species (avoiding underplanting of ancient or veteran trees)	Native hedgerow with trees - associated with bank or ditch
Proposed Neutral Grassland (Good Condition)	Grassland - Other neutral grassland
Proposed Neutral Grassland (Moderate Condition)	Grassland - Other neutral grassland
Proposed Modified Grassland	Grassland – Modified grassland
Proposed Solar PV Panels	5% of areas covered by this have been captured as ‘Urban – Developed land; sealed surface’ to account for Solar PV Panel and supporting hard infrastructure. The underlying habitat is ‘Grassland – Modified grassland’ for the most part, with the exception of areas that are currently ‘Grassland – Other neutral grassland’ in the baseline; in these cases, the baseline grassland is due to be retained.
Conserve and Enhance the Existing Open Riparian Mosaic, Including the Creation of Some Wet Grassland	Grassland - Floodplain wetland mosaic and CFGM

Landscape Plan Classification	UKHab Classification
Existing Woodland (outside Solar PV Site)	Retained baseline woodland habitat
Proposed Native Scrub	Heathland and shrub – Mixed scrub
Proposed Temporary Construction Compound	Loss of baseline accounted for, no permanent habitat implications and this sits within 'Proposed Solar PV Panels' area which has been defined above.
Proposed BESS Area	Urban – Developed land; sealed surface
Proposed On-Site Substation	Urban – Developed land; sealed surface
Proposed Potential Grid Connection Line Drop Compound	Loss of baseline accounted for, no permanent habitat implications and this sits within 'Proposed modified grassland area which has been defined above.

Appendix C Post-Development Habitat Plan

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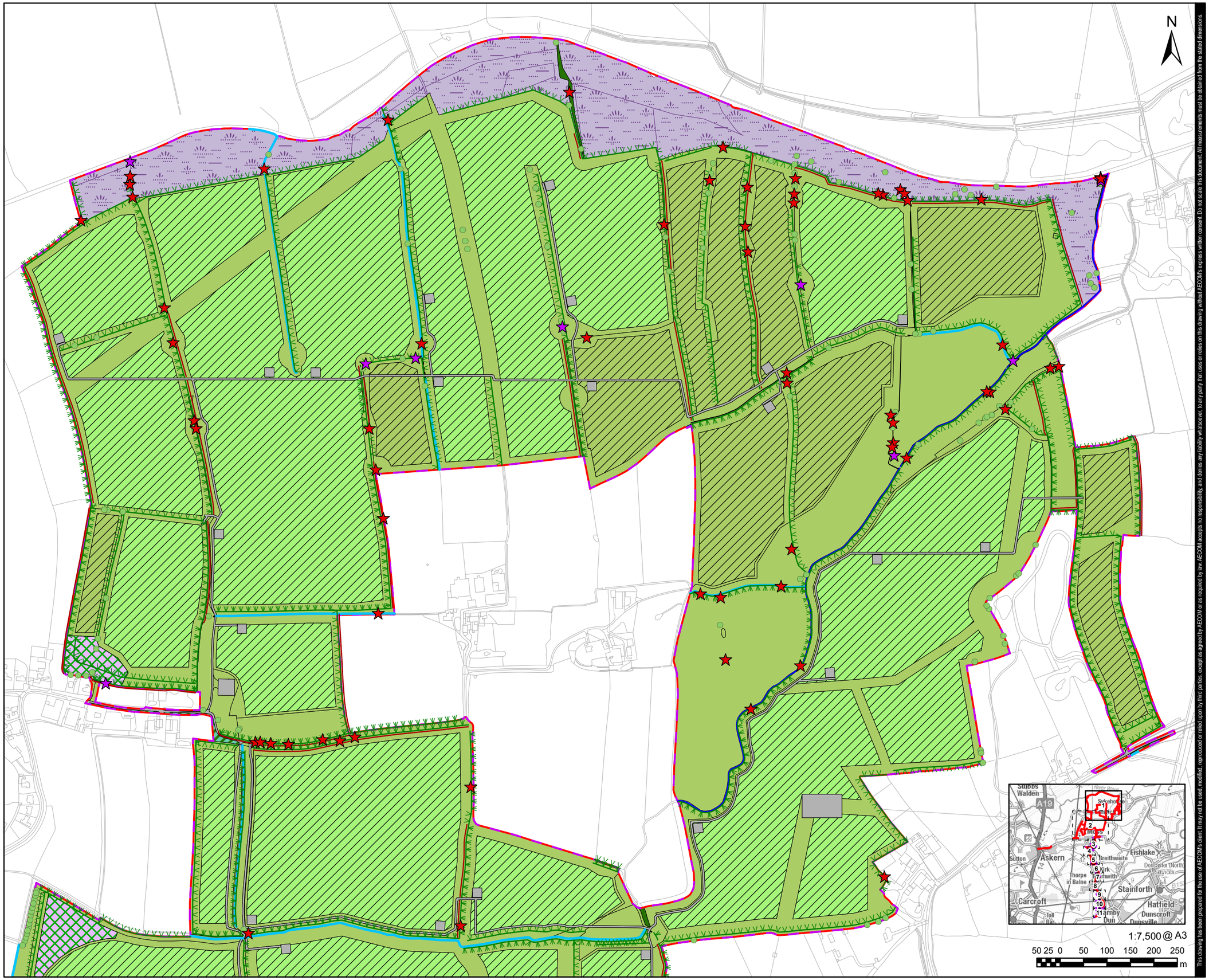

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Ancient tree
- Veteran tree
- Rural tree
- Species-rich native hedgerow
- Species-rich native hedgerow - associated with bank or ditch
- Species-rich native hedgerow with trees
- Species-rich native hedgerow with trees - associated with bank or ditch
- Culverts
- Ditches
- Other rivers and streams
- Cropland - Cereal crops
- Grassland - Floodplain wetland mosaic and CFGM
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Lakes - Ponds (priority habitat)
- Solar PV Panels with Modified Grassland Underneath
- Solar PV Panels with Other Neutral Grassland Underneath
- Urban - Bare ground
- Urban - Developed land; sealed surface
- Woodland and forest - Other woodland; broadleaved
- Woodland and forest - Other woodland; mixed

NOTES

ISSUE PURPOSE

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FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
Sheet 1 of 11

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Appendix C

Revision: 0 Drawn: CA Checked: JW Approved: LD Date: 2024-10-10

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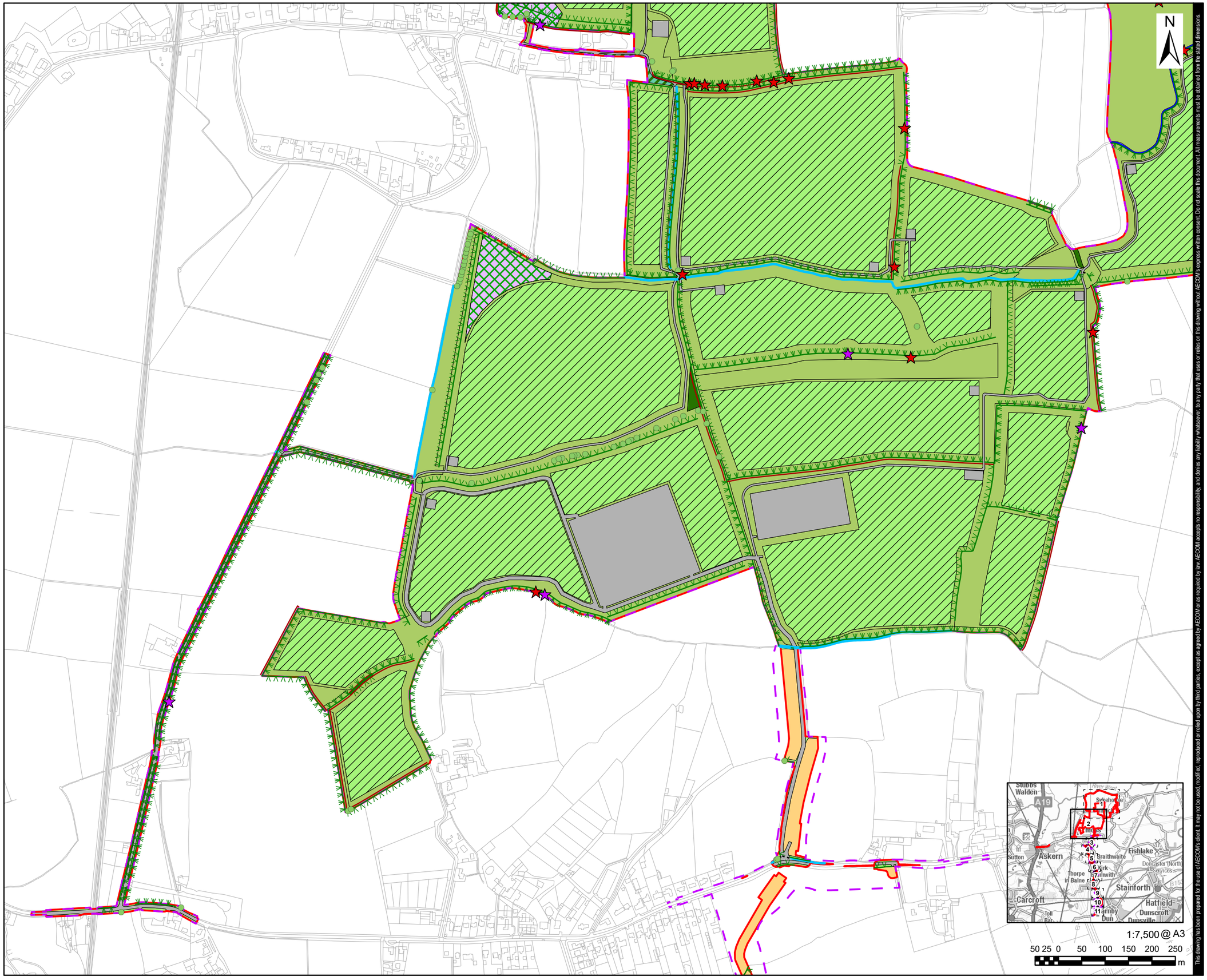

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Ancient tree
- Veteran tree
- Rural tree
- Native hedgerow
- Species-rich native hedgerow
- Species-rich native hedgerow - associated with bank or ditch
- Species-rich native hedgerow with trees
- Species-rich native hedgerow with trees - associated with bank or ditch
- Culverts
- Ditches
- Other rivers and streams
- Cropland - Cereal crops
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Solar PV Panels with Modified Grassland Underneath
- Sparsely vegetated land - Ruderal/ Ephemeral
- Urban - Developed land; sealed surface
- Woodland and forest - Other woodland; broadleaved
- Woodland and forest - Other woodland; mixed

NOTES

ISSUE PURPOSE

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60698207

FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
Sheet 2 of 11

FIGURE NUMBER

Appendix C

Revision: 0 Drawn: CA Checked: JW Approved: LD Date: 2024-10-10

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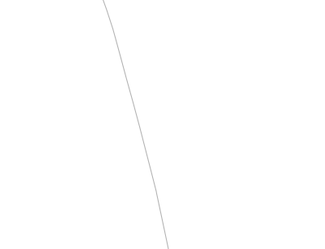

1:2,500 @ A3

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Native hedgerow
- Species-rich native hedgerow
- Species-rich native hedgerow with trees
- Culverts
- Ditches
- Cropland - Cereal crops
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Bramble scrub
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface

NOTES

ISSUE PURPOSE

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60698207

FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
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FIGURE NUMBER

Appendix C

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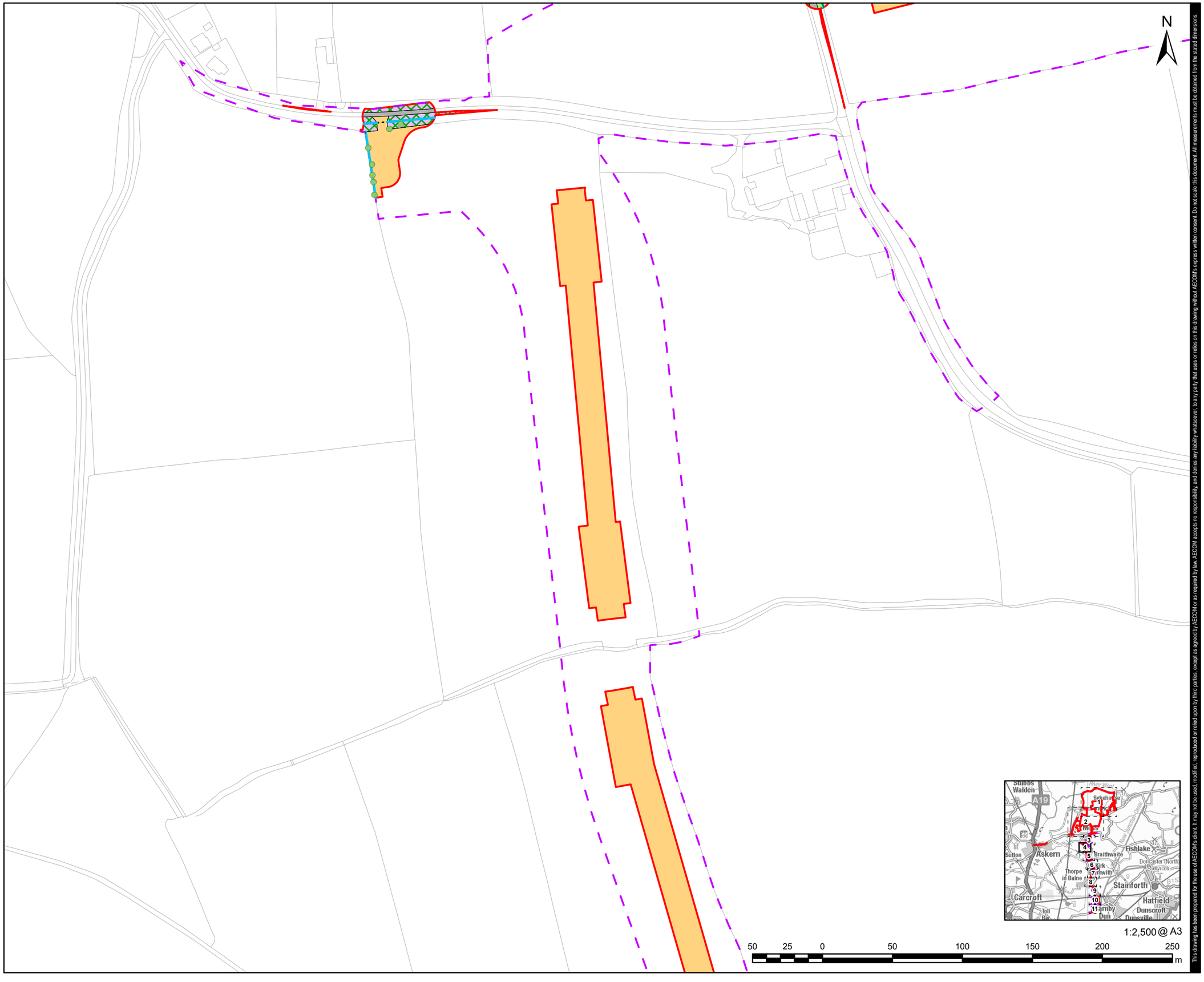

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Native hedgerow
- Species-rich native hedgerow
- Species-rich native hedgerow with trees
- Culverts
- Ditches
- Cropland - Cereal crops
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface

NOTES

ISSUE PURPOSE

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60698207

FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
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1:2,500 @ A3

50 25 0 50 100 150 200 250 m

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Veteran tree
- Rural tree
- Species-rich native hedgerow with trees
- Cropland - Cereal crops
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface

NOTES

ISSUE PURPOSE

Environmental Statement

PROJECT NUMBER

60698207

FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
Sheet 5 of 11

FIGURE NUMBER

Appendix C

Revision: 0 Drawn: CA Checked: JW Approved: LD Date: 2024-10-10

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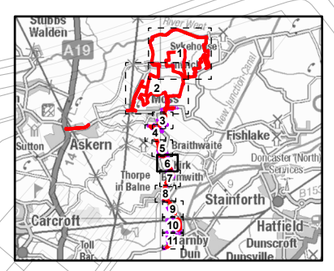

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Veteran tree
- Rural tree
- Species-rich native hedgerow with trees
- Cropland - Cereal crops
- Cropland - Winter stubble
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface

NOTES

ISSUE PURPOSE

Environmental Statement

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FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
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1:2,500 @ A3

50 25 0 50 100 150 200 250 m

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Species-rich native hedgerow
- Species-rich native hedgerow with trees
- Culverts
- Ditches
- Cropland - Cereal crops
- Cropland - Winter stubble
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Urban - Developed land; sealed surface

NOTES

ISSUE PURPOSE

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FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
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1:2,500 @ A3

50 25 0 50 100 150 200 250 m

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Native hedgerow
- Culverts
- Ditches
- Cropland - Temporary grass and clover leys
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Bare ground
- Urban - Developed land; sealed surface

NOTES

ISSUE PURPOSE

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60698207

FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Native hedgerow
- Native hedgerow with trees
- Cropland - Temporary grass and clover leys
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Urban - Developed land; sealed surface

NOTES

ISSUE PURPOSE

Environmental Statement

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FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
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FIGURE NUMBER

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Rural tree
- Species-rich native hedgerow
- Grassland - Other neutral grassland
- Urban - Developed land; sealed surface
- Urban - Open mosaic habitats on previously developed land

NOTES

ISSUE PURPOSE

Environmental Statement

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60698207

FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
Sheet 10 of 11

FIGURE NUMBER

Appendix C

Revision: 0 Drawn: CA Checked: JW Approved: LD Date: 2024-10-10

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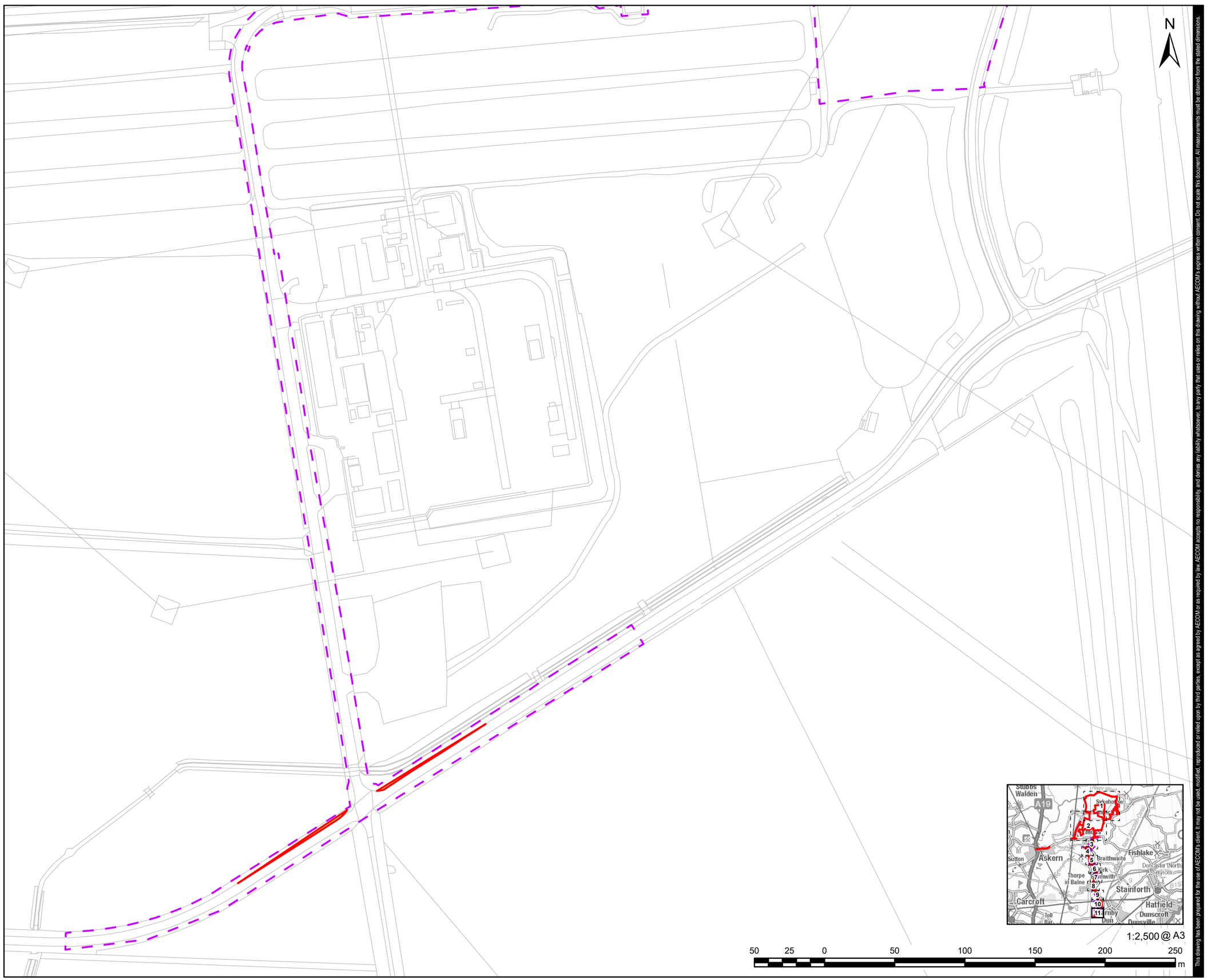

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LEGEND

- Order limits
- BNG Parameter Plan Boundary
- Grassland - Other neutral grassland
- Urban - Developed land; sealed surface

NOTES

ISSUE PURPOSE

Environmental Statement

PROJECT NUMBER

60698207

FIGURE TITLE

Biodiversity Net Gain
Post Development Habitats
Sheet 11 of 11

FIGURE NUMBER

Appendix C

Appendix D Strategic Significance

Source	Strategic Significance Information
Doncaster Local Plan (2015 – 2035) (Ref. 7)	Policy 30: Valuing Biodiversity and Geodiversity (Strategic Policy) *"The Borough has a range of internationally, nationally, and locally important habitats, sites and species that will be protected through the following principles:* *A) All proposals shall be considered in light of the mitigation hierarchy in accordance with National Policy.* *B) Proposals which may harm designated Local Wildlife Sites, Local Geological Sites, Priority Habitats, Priority Species, protected species or non-designated sites or features of biodiversity interest, will only be supported where:* *1. they use the DEFRA biodiversity metric to demonstrate that a proposal will deliver a minimum 10% net gain for biodiversity;* *2. they protect, restore, enhance and provide appropriate buffers around wildlife and geological features and bridge gaps to link these to the wider ecological network;* *3. they produce and deliver appropriate long term management plans for local wildlife and geological sites as well as newly created or restored habitats;* *4. they can demonstrate that the need for a proposal outweighs the value of any features to be lost."* **Application to assessment** 'High' SS assigned to any habitat that is both within a local conservation area and provides ecological value/habitat connectivity potential 'Medium' SS assigned to any habitats that are potentially suitable for wildlife

Source	Strategic Significance Information
MAGIC Maps (Ref 14)	Coastal Floodplain Grazing Marsh (CFGM) identified within north of the Site **Application to assessment** 'Medium' SS assigned to Marshy Grassland within the north of the Site
ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]	The ES details results from walkover extended phase 1 surveys including the potential suitability for habitats to support protected species. Results applicable to this BNG assessment include: a. Badgers- Woodland, scrub, grassland, hedgerow and waterbody were identified as potentially suitable habitats for badgers b. Roosting bats – Individual trees were identified as potentially suitable habitats for roosting bats c. Otter – Drains onsite were identified as potentially suitable habitats for otter d. Water vole – The River Went, ponds and ditches habitats were identified as potentially suitable habitats for water vole e. Reptiles – Marshy grassland, scrub, woodland, hedgerow and semi-improved grassland were identified as potential suitable habitats for reptiles f. Ground-nesting birds – Trees, hedgerows, reedbeds and arable fields were identified as potentially suitable habitats for ground-nesting birds g. Invertebrates – CFGM identified as potentially suitable habitat for invertebrates **Application to assessment** 'Medium' SS assigned to Cropland – Cereal crops, Grassland – Floodplain wetland mosaic and CFGM, Grassland – Modified grassland, Grassland – Other neutral grassland, Heathland and shrub – Bramble scrub, Heathland and shrub – Hawthorn scrub, Heathland and shrub – Mixed scrub, Lakes – Ponds (priority habitat), Woodland and forest – Other woodland; broadleaved, Woodland and forest – Other woodland; mixed, Culvert, Ditches, Other rivers and streams, Native hedgerow, Native hedgerow – associated with bank or ditch, Native hedgerow with trees, Native hedgerow with trees – associated with bank or ditch, Species-rich native hedgerow with trees, Species-rich native hedgerow with trees – associated with bank or ditch and Individual trees – Rural tree.

Source	Strategic Significance Information
Doncaster Local Plan (2015 – 2035) Policies Map (Ref 13)	As the habitat Woodland and forest – Lowland mixed deciduous woodland was identified as potentially suitable habitat for badgers within the ES, its presence within a local conservation area meets the criteria for 'High' SS assignment. **Application to assessment** 'High' SS assigned to Woodland and forest – Lowland mixed deciduous woodland
Doncaster Biodiversity Action Plan (Ref 15)	The Doncaster Biodiversity Partnership highlights local priority habitats within the LPA. These include: Ancient and species-rich hedgerows, arable field margins, crags, caves and tunnels, greenways, limestone grassland, limestone woodland, lowland heathland and acid grassland mosaic, lowland heathy oak woodland, lowland raised mire, marshes and swamps, lakes and ponds, ditches and drains, neutral and wet grassland, parkland, woodland pastures and veteran trees, post-industrial and brownfield land, reedbeds, rivers, canals, oxbows, major streams and subsidence flashes, urban green space and wet woodland. **Application to assessment** No changes to how SS has been assigned above.

Appendix E BNG Good Practice Principles for Development

Principle	How has this been applied in the assessment
Principle 1: Apply the Mitigation Hierarchy	Some general avoidance principles have been applied, where practicable. These include: All woodland – at least 15-meter buffer. Watercourses – at least 10-meter buffer. Standing water – at least 20-meter buffer. Hedgerows – at least five meters (not possible in all cases). Trees – Root protection area buffers (not possible in all cases. All Statutorily and Non-Statutorily Designated Sites avoided. Some impacts have not been possible to avoid, as mentioned above this includes impacts to hedgerows, trees, and potential open mosaic habitat (access to this location was not possible thus an assumed habitat of open mosaic habitat has been assigned based on aerial imagery). Impacts to hedgerows and trees have been mitigated for either directly or indirectly through hedgerow enhancements across the Scheme. Impacts to open mosaic habitat are not considered significant, as there is potential that the temporary disturbance could be beneficial, particularly if supplemented with wider management and enhancement of surrounding habitat present within the wider order limits.
Principle 2: Avoid losing biodiversity that cannot be offset by gains elsewhere	Impacts to irreplaceable habitats has been avoided. In the context of the Scheme, this includes avoidance of veteran and ancient trees which have all been retained.
Principle 3: Be inclusive and equitable	Stakeholder engagement with the Local Planning Authority ecologists has taken place to discuss the BNG approach and no concerns were raised.

Principle	How has this been applied in the assessment
Principle 4: Address risks	Delays in habitat creation have been applied to account for construction timelines, with habitats to be created and/or enhanced following completion of construction. Precautionary conditions of 'Good' have been assigned to all habitats that were not possible to condition assess due to access constraints and/or gaps in tree data. The assessment assumes a worst-case scenario for the impacts to open mosaic habitat, firstly the assumption that this area is potential open mosaic (based on aerial imagery), but also that this area will be open-cut trenching.
Principle 5: Make a measurable Net Gain contribution	Biodiversity net gains have been achieved in all three sections of the SBM.
Principle 6: Achieve the best outcomes for biodiversity	In line with Principle 1, the best outcomes for biodiversity have been targeted by means of following the mitigation hierarchy as a guiding principle. When avoidance was not possible, proportionate mitigation has been proposed which targets the provision of a diverse and interconnected landscape of habitats.
Principle 7: Be additional	The biodiversity enhancements achieved by the Scheme would not have happened by other means and is therefore considered additional.
Principle 8: Create a net gain legacy	The provision of a net gain legacy is a key focus of the Scheme, with innovative approaches to the retention of baseline grassland being targeted by the Scheme. In some locations Solar PV Panels are proposed in locations of species-rich grassland; in these cases, specified grazing/maintenance regimes are proposed to help ensure the grassland continues to succeed whilst having Solar PV Panels present above.
Principle 9: Optimise sustainability	Solar schemes offer a unique opportunity to provide significant net gains in biodiversity whilst also harnessing opportunities for generating sustainable power generation in the form of solar energy.

Principle	How has this been applied in the assessment
Principle 10: Be transparent	All net gain activities have been communicated in this report.

Appendix F Data Tables

Baseline Data

Table F1: Baseline Area Habitats

Broad Habitat	Habitat type	Irreplaceable Habitat	Area (ha)	Distinctiveness	Condition	SS	Habitat Units
Cropland	Cereal crops	No	1.96	Low	Condition assessment N/A	High	4.51
Cropland	Cereal crops	No	293.43	Low	Condition assessment N/A	Medium	645.55
Cropland	Temporary grass and clover leys	No	0.93	Low	Condition assessment N/A	Medium	2.05
Cropland	Winter stubble	No	1.01	Low	Condition assessment N/A	Medium	2.22
Grassland	Floodplain wetland mosaic and CFGM	No	2.52	High	Good	High	52.16
Grassland	Floodplain wetland mosaic and CFGM	No	5.67	High	Good	Medium	112.27
Grassland	Modified grassland	No	0.36	Low	Moderate	Medium	1.58
Grassland	Modified grassland	No	10.35	Low	Poor	Medium	22.77
Grassland	Other neutral grassland	No	3.32	Medium	Good	Medium	43.82
Grassland	Other neutral grassland	No	6.91	Medium	Moderate	High	63.57

Broad Habitat	Habitat type	Irreplaceable Habitat	Area (ha)	Distinctiveness	Condition	SS	Habitat Units
Grassland	Other neutral grassland	No	74.94	Medium	Moderate	Medium	659.47
Grassland	Other neutral grassland	No	5.31	Medium	Poor	Medium	23.36
Heathland and shrub	Bramble scrub	No	0.01	Medium	Condition assessment N/A	Medium	0.04
Heathland and shrub	Hawthorn scrub	No	0.28	Medium	Poor	Medium	1.23
Heathland and shrub	Mixed scrub	No	0.07	Medium	Good	Medium	0.92
Heathland and shrub	Mixed scrub	No	0	Medium	Moderate	Medium	0.00
Heathland and shrub	Mixed scrub	No	0.06	Medium	Poor	High	0.28
Heathland and shrub	Mixed scrub	No	0.01	Medium	Poor	Medium	0.04
Lakes	Ponds (priority habitat)	No	0	High	Moderate	Medium	0.00
Sparsely vegetated land	Ruderal/Ephemeral	No	0.08	Low	Good	Low	0.48
Sparsely vegetated land	Ruderal/Ephemeral	No	6.44	Low	Poor	Low	12.88
Urban	Bare ground	No	0.34	Low	Poor	Low	0.68
Urban	Developed land; sealed surface	No	3.62	V.Low	N/A - Other	Low	0.00

Broad Habitat	Habitat type	Irreplaceable Habitat	Area (ha)	Distinctiveness	Condition	SS	Habitat Units
Urban	Introduced shrub	No	0.14	Low	Condition assessment N/A	Low	0.28
Urban	Open mosaic habitats on previously developed land	No	0.99	High	Good	Medium	19.60
Watercourse footprint	Watercourse footprint	No	1.24	V.low	N/A - Other	High	0.00
Woodland and forest	Other woodland; broadleaved	No	0.04	Medium	Moderate	High	0.37
Woodland and forest	Other woodland; broadleaved	No	0.17	Medium	Poor	High	0.78
Woodland and forest	Other woodland; broadleaved	No	0.14	Medium	Poor	Medium	0.62
Woodland and forest	Other woodland; mixed	No	0.23	Medium	Poor	Medium	1.01
Grassland	Other neutral grassland	No	0.6	Medium	Moderate	Medium	5.28
Individual trees	Rural tree	No	0.07	Medium	Good	High	0.97
Individual trees	Rural tree	Yes	0.04	Medium	Good	High	0.00
Individual trees	Rural tree	No	0.07	Medium	Good	High	0.97
Individual trees	Rural tree	Yes	0.02	Medium	Good	High	0.00
Individual trees	Rural tree	No	0.04	Medium	Good	High	0.55
Individual trees	Rural tree	Yes	0.08	Medium	Good	High	0.00

Broad Habitat	Habitat type	Irreplaceable Habitat	Area (ha)	Distinctiveness	Condition	SS	Habitat Units
Individual trees	Rural tree	Yes	0.54	Medium	Good	High	0.00
Individual trees	Rural tree	No	1.03	Medium	Good	Medium	13.60
Individual trees	Rural tree	No	1.87	Medium	Good	Medium	24.68
Individual trees	Rural tree	Yes	1.06	Medium	Good	Medium	0.00
Individual trees	Rural tree	No	0.91	Medium	Good	Medium	12.01
Individual trees	Rural tree	Yes	0.07	Medium	Good	Medium	0.00
Individual trees	Rural tree	No	0.26	Medium	Good	Medium	3.43
Individual trees	Rural tree	No	0.23	Medium	Good	Medium	3.04
Individual trees	Rural tree	Yes	0.46	Medium	Good	Medium	0.00
Individual trees	Rural tree	Yes	0.46	Medium	Good	Medium	0.00
Individual trees	Rural tree	Yes	2.06	Medium	Good	Medium	0.00
TOTAL			**421.17**				**1737.08**

Table F2: Baseline Hedgerow Habitats

Habitat type	Length (km)	Distinctiveness	Condition	SS	Hedgerow Units
Species-rich native hedgerow	0.30	Medium	Moderate	Medium	2.64
Species-rich native hedgerow with trees	0.27	High	Moderate	Medium	3.56
Species-rich native hedgerow with trees	0.11	High	Good	Medium	2.18
Species-rich native hedgerow with trees	0.15	High	Good	Medium	2.97
Species-rich native hedgerow with trees	0.37	High	Moderate	Medium	4.88
Species-rich native hedgerow with trees	0.92	High	Poor	Medium	6.07
Species-rich native hedgerow with trees	0.41	High	Moderate	Medium	5.41
Species-rich native hedgerow with trees	0.89	High	Poor	Medium	5.87
Native hedgerow	0.10	Low	Poor	Medium	0.22
Native hedgerow	0.35	Low	Good	Medium	2.31
Native hedgerow	0.09	Low	Good	Medium	0.59
Native hedgerow	0.19	Low	Good	Medium	1.25
Native hedgerow	0.05	Low	Good	Medium	0.33
Native hedgerow	0.08	Low	Good	Medium	0.53
Native hedgerow	0.21	Low	Good	Medium	1.39
Native hedgerow	0.06	Low	Good	Medium	0.40
Native hedgerow	0.32	Low	Good	Medium	2.11
Native hedgerow	0.43	Low	Good	Medium	2.84

Habitat type	Length (km)	Distinctiveness	Condition	SS	Hedgerow Units
Native hedgerow	0.11	Low	Good	Medium	0.73
Native hedgerow	0.09	Low	Good	Medium	0.59
Native hedgerow	0.18	Low	Good	Medium	1.19
Native hedgerow	0.12	Low	Good	Medium	0.79
Native hedgerow	0.07	Low	Good	Medium	0.46
Native hedgerow	0.23	Low	Good	Medium	1.52
Native hedgerow	0.09	Low	Good	Medium	0.59
Native hedgerow	0.05	Low	Good	Medium	0.33
Native hedgerow	0.51	Low	Good	Medium	3.37
Native hedgerow	0.41	Low	Good	Medium	2.71
Native hedgerow	0.20	Low	Good	Medium	1.32
Native hedgerow	0.25	Low	Moderate	Medium	1.10
Native hedgerow	0.26	Low	Moderate	Medium	1.14
Native hedgerow	0.20	Low	Moderate	Medium	0.88
Native hedgerow	0.12	Low	Moderate	Medium	0.53
Native hedgerow	0.31	Low	Moderate	Medium	1.36
Native hedgerow	0.09	Low	Moderate	Medium	0.40
Native hedgerow	0.05	Low	Moderate	Medium	0.22
Native hedgerow	0.05	Low	Moderate	Medium	0.22

Habitat type	Length (km)	Distinctiveness	Condition	SS	Hedgerow Units
Native hedgerow	0.22	Low	Moderate	Medium	0.97
Native hedgerow	0.17	Low	Poor	Medium	0.37
Native hedgerow	0.08	Low	Poor	Medium	0.18
Native hedgerow - associated with bank or ditch	0.02	Medium	Good	Medium	0.26
Native hedgerow - associated with bank or ditch	0.12	Medium	Good	Medium	1.58
Native hedgerow - associated with bank or ditch	0.24	Medium	Good	Medium	3.17
Native hedgerow - associated with bank or ditch	0.06	Medium	Moderate	Medium	0.53
Native hedgerow - associated with bank or ditch	0.26	Medium	Moderate	Medium	2.29
Native hedgerow - associated with bank or ditch	0.14	Medium	Moderate	Medium	1.23
Native hedgerow - associated with bank or ditch	0.02	Medium	Moderate	Medium	0.18
Native hedgerow with trees	0.16	Medium	Good	Medium	2.11
Native hedgerow with trees	0.30	Medium	Good	Medium	3.96
Native hedgerow with trees	0.26	Medium	Good	Medium	3.43
Native hedgerow with trees	0.11	Medium	Good	Medium	1.45
Native hedgerow with trees	0.20	Medium	Good	Medium	2.64
Native hedgerow with trees	0.06	Medium	Good	Medium	0.79
Native hedgerow with trees	0.17	Medium	Good	Medium	2.24
Native hedgerow with trees	0.07	Medium	Good	Medium	0.92
Native hedgerow with trees	0.06	Medium	Good	Medium	0.79

Habitat type	Length (km)	Distinctiveness	Condition	SS	Hedgerow Units
Native hedgerow with trees	0.16	Medium	Good	Medium	2.11
Native hedgerow with trees	0.53	Medium	Good	Medium	7.00
Native hedgerow with trees	0.42	Medium	Good	Medium	5.54
Native hedgerow with trees	0.03	Medium	Good	Medium	0.40
Native hedgerow with trees	0.41	Medium	Good	Medium	5.41
Native hedgerow with trees	0.20	Medium	Good	Medium	2.64
Native hedgerow with trees	0.46	Medium	Good	Medium	6.07
Native hedgerow with trees	0.39	Medium	Good	Medium	5.15
Native hedgerow with trees	0.17	Medium	Good	Medium	2.24
Native hedgerow with trees	0.25	Medium	Moderate	Medium	2.20
Native hedgerow with trees	0.20	Medium	Moderate	Medium	1.76
Native hedgerow with trees	0.46	Medium	Moderate	Medium	4.05
Native hedgerow with trees	0.02	Medium	Moderate	Medium	0.18
Native hedgerow with trees	0.19	Medium	Moderate	Medium	1.67
Native hedgerow with trees	0.49	Medium	Moderate	Medium	4.31
Native hedgerow with trees	0.11	Medium	Moderate	Medium	0.97
Native hedgerow with trees	0.24	Medium	Moderate	Medium	2.11
Native hedgerow with trees	0.16	Medium	Moderate	Medium	1.41
Native hedgerow with trees	0.12	Medium	Moderate	Medium	1.06

Habitat type	Length (km)	Distinctiveness	Condition	SS	Hedgerow Units
Native hedgerow with trees	0.15	Medium	Poor	Medium	0.66
Native hedgerow with trees	0.12	Medium	Poor	Medium	0.53
Native hedgerow with trees - associated with bank or ditch	0.25	High	Good	Medium	4.95
Native hedgerow with trees - associated with bank or ditch	0.12	High	Good	Medium	2.38
Native hedgerow with trees - associated with bank or ditch	0.11	High	Good	Medium	2.18
Native hedgerow with trees - associated with bank or ditch	0.45	High	Good	Medium	8.91
Native hedgerow with trees - associated with bank or ditch	0.11	High	Good	Medium	2.18
Native hedgerow with trees - associated with bank or ditch	0.32	High	Good	Medium	6.34
Native hedgerow with trees - associated with bank or ditch	0.23	High	Good	Medium	4.55
Native hedgerow with trees - associated with bank or ditch	0.13	High	Good	Medium	2.57
Native hedgerow with trees - associated with bank or ditch	0.05	High	Good	Medium	0.99
Native hedgerow with trees - associated with bank or ditch	0.36	High	Moderate	Medium	4.75
Native hedgerow with trees - associated with bank or ditch	0.33	High	Moderate	Medium	4.36
Native hedgerow with trees - associated with bank or ditch	0.19	High	Moderate	Medium	2.51
Native hedgerow with trees - associated with bank or ditch	0.30	High	Moderate	Medium	3.96
Native hedgerow with trees - associated with bank or ditch	0.46	High	Moderate	Medium	6.07
Native hedgerow with trees - associated with bank or ditch	0.29	High	Moderate	Medium	3.83
Native hedgerow with trees - associated with bank or ditch	0.55	High	Moderate	Medium	7.26
Native hedgerow with trees - associated with bank or ditch	0.22	High	Poor	Medium	1.45

Habitat type	Length (km)	Distinctiveness	Condition	SS	Hedgerow Units
Native hedgerow with trees - associated with bank or ditch	0.21	High	Poor	Medium	1.39
Species-rich native hedgerow - associated with bank or ditch	0.06	High	Moderate	Medium	0.79
Species-rich native hedgerow with trees	0.18	High	Moderate	Medium	2.38
Species-rich native hedgerow with trees	0.19	High	Moderate	Medium	2.51
Species-rich native hedgerow with trees	0.44	High	Moderate	Medium	5.81
Species-rich native hedgerow with trees	0.29	High	Moderate	Medium	3.83
Species-rich native hedgerow with trees	0.19	High	Moderate	Medium	2.51
Species-rich native hedgerow with trees	0.22	High	Moderate	Medium	2.90
Species-rich native hedgerow with trees	0.24	High	Moderate	Medium	3.17
Species-rich native hedgerow with trees - associated with bank or ditch	0.28	V.High	Moderate	Medium	4.93
Species-rich native hedgerow with trees - associated with bank or ditch	0.16	V.High	Moderate	Medium	2.82
Species-rich native hedgerow with trees - associated with bank or ditch	0.09	V.High	Moderate	Medium	1.58
Species-rich native hedgerow with trees - associated with bank or ditch	0.22	V.High	Moderate	Medium	3.87
Species-rich native hedgerow with trees - associated with bank or ditch	0.07	V.High	Moderate	Medium	1.23
Species-rich native hedgerow with trees - associated with bank or ditch	0.29	V.High	Moderate	Medium	5.10

Habitat type	Length (km)	Distinctiveness	Condition	SS	Hedgerow Units
Species-rich native hedgerow with trees - associated with bank or ditch	0.22	V.High	Poor	Medium	1.94
Species-rich native hedgerow with trees	0.02	High	Good	Medium	0.40
Species-rich native hedgerow with trees	0.00 (<0.005)	High	Good	High	0.00
Species-rich native hedgerow with trees	0.01	High	Good	Medium	0.20
Species-rich native hedgerow with trees	0.00 (<0.005)	High	Good	Medium	0.00
Species-rich native hedgerow with trees	0.07	High	Good	Medium	1.39
Species-rich native hedgerow with trees	0.17	High	Moderate	Medium	2.24
Species-rich native hedgerow	0.02	Medium	Good	Medium	0.26
Species-rich native hedgerow	0.10	Medium	Good	Medium	1.32
Species-rich native hedgerow	0.03	Medium	Good	Medium	0.40
Species-rich native hedgerow	0.00 (<0.005)	Medium	Good	Medium	0.00
Species-rich native hedgerow	0.07	Medium	Good	Medium	0.92
Species-rich native hedgerow	0.24	Medium	Good	Medium	3.17
Species-rich native hedgerow	0.04	Medium	Good	Medium	0.53
Species-rich native hedgerow	0.03	Medium	Good	Medium	0.40
Species-rich native hedgerow	0.07	Medium	Moderate	Medium	0.62
Native hedgerow with trees - associated with bank or ditch	0.25	High	Good	Medium	4.95

Habitat type	Length (km)	Distinctiveness	Condition	SS	Hedgerow Units
Native hedgerow with trees - associated with bank or ditch	0.51	High	Moderate	Medium	6.73
Native hedgerow with trees	0.01	Medium	Moderate	Medium	0.09
Native hedgerow - associated with bank or ditch	0.21	Medium	Moderate	Medium	1.85
Native hedgerow - associated with bank or ditch	0.23	Medium	Moderate	Medium	2.02
Native hedgerow	0.10	Low	Good	Medium	0.66
Native hedgerow	0.45	Low	Moderate	Medium	1.98
Native hedgerow	0.40	Low	Moderate	Medium	1.76
Native hedgerow	0.24	Low	Moderate	Medium	1.06
Native hedgerow	0.15	Low	Moderate	Medium	0.66
Native hedgerow	0.04	Low	Moderate	Medium	0.18
Native hedgerow	0.06	Low	Moderate	Medium	0.26
Species-rich native hedgerow	0.00 (<0.005)	Medium	Good	Medium	0.00
Species-rich native hedgerow with trees	0.01	High	Good	Medium	0.20
TOTAL	**28.04**				**301.80**

Table F3: Baseline Watercourse Habitats

Habitat type	Length (km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
Other rivers and streams	0.183	High	Moderate	Medium	No Encroachment	Major/Major	1.81
Other rivers and streams	0.594	High	Moderate	Low	No Encroachment	Major/Major	5.35
Other rivers and streams	0.987	High	Moderate	Low	No Encroachment	Major/Major	8.88
Other rivers and streams	0.231	High	Moderate	Low	No Encroachment	Major/Major	2.08
Ditches	0.015	Medium	Moderate	Low	No Encroachment	No Encroachment/No Encroachment	0.12
Ditches	0.213	Medium	Poor	Low	No Encroachment	Major/Major	0.64
Ditches	0.034	Medium	Moderate	Low	No Encroachment	Major/Minor	0.23
Ditches	0.252	Medium	Poor	Low	No Encroachment	Major/Major	0.76
Ditches	0.005	Medium	Moderate	Low	No Encroachment	Major/Major	0.03
Ditches	0.019	Medium	Moderate	Low	No Encroachment	Major/Major	0.11
Ditches	0.048	Medium	Moderate	Low	No Encroachment	Major/Major	0.29
Ditches	0.009	Medium	Moderate	Low	No Encroachment	Major/No Encroachment	0.06
Ditches	0.092	Medium	Moderate	Low	No Encroachment	Major/Major	0.55
Ditches	0.388	Medium	Poor	Low	No Encroachment	Major/Major	1.16

Habitat type	Length (km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
Ditches	0.581	Medium	Poor	Low	No Encroachment	Major/Major	1.74
Ditches	0.546	Medium	Poor	Low	No Encroachment	Major/No Encroachment	1.90
Ditches	0.372	Medium	Moderate	Low	No Encroachment	Major/Major	2.23
Ditches	0.252	Medium	Poor	Low	No Encroachment	Major/Major	0.76
Ditches	0.208	Medium	Poor	Low	No Encroachment	Major/Major	0.62
Ditches	0.313	Medium	Poor	Low	No Encroachment	Major/Major	0.94
Ditches	0.381	Medium	Poor	Low	No Encroachment	Major/Major	1.14
Ditches	0.003	Medium	Moderate	Low	No Encroachment	Major/Major	0.02
Ditches	0.027	Medium	Moderate	Low	No Encroachment	Major/Major	0.16
Ditches	0.115	Medium	Poor	Low	No Encroachment	Major/Major	0.34
Ditches	0.878	Medium	Poor	Low	No Encroachment	Major/Major	2.63
Ditches	0.003	Medium	Moderate	Low	No Encroachment	Major/Major	0.02
Ditches	0.011	Medium	Moderate	Low	No Encroachment	Major/Major	0.07
Ditches	0.023	Medium	Moderate	Low	No Encroachment	Major/Major	0.14
Ditches	0.196	Medium	Poor	Low	No Encroachment	Major/Major	0.59
Culvert	0.007	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.01
Culvert	0.000	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.00
Culvert	0.008	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.01

Habitat type	Length (km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
Culvert	0.008	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.01
Culvert	0.021	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.03
Culvert	0.007	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.01
Culvert	0.02	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.03
Culvert	0.013	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.02
Culvert	0.005	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.01
Culvert	0.008	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.01
Culvert	0.047	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.06
Culvert	0.012	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.02
Culvert	0.004	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.00
Culvert	0.004	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.01
Culvert	0.003	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.00
TOTAL	**7.15**						**35.61**

Post-Development Data

Retained and Lost Habitats

Table F4: Retained and Lost Area Habitats

Broad Habitat	Habitat Type	Irreplaceable	Area (Ha)		Dist.	Condition	SS	Area Units	
			Retained	Lost				Retained	Lost
Cropland	Cereal crops	No	0.00	1.96	Low	Condition assessment N/A	High	0.00	4.51
Cropland	Cereal crops	No	5.91	287.52	Low	Condition assessment N/A	Medium	13.00	632.54
Cropland	Temporary grass and clover leys	No	0.93	0.00	Low	Condition assessment N/A	Medium	2.05	0.00
Cropland	Winter stubble	No	1.01	0.00	Low	Condition assessment N/A	Medium	2.22	0.00
Grassland	Floodplain wetland mosaic and CFGM	No	2.52	0.00	High	Good	High	52.16	0.00
Grassland	Floodplain wetland mosaic and CFGM	No	5.67	0.00	High	Good	Medium	112.27	0.00
Grassland	Modified grassland	No	0.00	0.36	Low	Moderate	Medium	0.00	1.58
Grassland	Modified grassland	No	1.96	3.65	Low	Poor	Medium	4.31	8.03
Grassland	Other neutral grassland	No	0.56	2.76	Medium	Good	Medium	7.39	36.43
Grassland	Other neutral grassland	No	0.00	0.00	Medium	Moderate	High	0.00	0.00
Grassland	Other neutral grassland	No	47.27	2.64	Medium	Moderate	Medium	415.98	23.23
Grassland	Other neutral grassland	No	0.04	0.58	Medium	Poor	Medium	0.18	2.55

Broad Habitat	Habitat Type	Irreplaceable	Area (Ha)		Dist.	Condition	SS	Area Units	
			Retained	Lost				Retained	Lost
Heathland and shrub	Bramble scrub	No	0.00	0.01	Medium	Condition assessment N/A	Medium	0.00	0.04
Heathland and shrub	Hawthorn scrub	No	0.00	0.28	Medium	Poor	Medium	0.00	1.23
Heathland and shrub	Mixed scrub	No	0.00	0.07	Medium	Good	Medium	0.00	0.92
Heathland and shrub	Mixed scrub	No	0.00	0.00	Medium	Moderate	Medium	0.00	0.00
Heathland and shrub	Mixed scrub	No	0.00	0.06	Medium	Poor	High	0.00	0.28
Heathland and shrub	Mixed scrub	No	0.00	0.01	Medium	Poor	Medium	0.00	0.04
Lakes	Ponds (priority habitat)	No	0.00	0.00	High	Moderate	Medium	0.00	0.00
Sparsely vegetated land	Ruderal/Ephemeral	No	0.00	0.08	Low	Good	Low	0.00	0.48
Sparsely vegetated land	Ruderal/Ephemeral	No	0.01	6.43	Low	Poor	Low	0.02	12.86
Urban	Bare ground	No	0.00	0.34	Low	Poor	Low	0.00	0.68
Urban	Developed land; sealed surface	No	1.95	1.67	V.Low	N/A - Other	Low	0.00	0.00
Urban	Introduced shrub	No	0.00	0.14	Low	Condition assessment N/A	Low	0.00	0.28
Urban	Open mosaic habitats on previously developed land	No	0.00	0.99	High	Good	Medium	0.00	19.60

Broad Habitat	Habitat Type	Irreplaceable	Area (Ha)		Dist.	Condition	SS	Area Units	
			Retained	Lost				Retained	Lost
Watercourse footprint	Watercourse footprint	No	1.24	0.00	V.low	N/A - Other	High	0.00	0.00
Woodland and forest	Other woodland; broadleaved	No	0.04	0.00	Medium	Moderate	High	0.37	0.00
Woodland and forest	Other woodland; broadleaved	No	0.17	0.00	Medium	Poor	High	0.78	0.00
Woodland and forest	Other woodland; broadleaved	No	0.14	0.00	Medium	Poor	Medium	0.62	0.00
Woodland and forest	Other woodland; mixed	No	0.23	0.00	Medium	Poor	Medium	1.01	0.00
Grassland	Other neutral grassland	No	0.00	0.00	Medium	Moderate	Medium	0.00	0.00
Individual trees	Rural tree	No	0.07	0.00	Medium	Good	High	0.97	0.00
Individual trees	Rural tree	Yes	0.04	0.00	Medium	Good	High	N/A	0.00
Individual trees	Rural tree	No	0.07	0.00	Medium	Good	High	0.97	0.00
Individual trees	Rural tree	Yes	0.02	0.00	Medium	Good	High	N/A	0.00
Individual trees	Rural tree	No	0.04	0.00	Medium	Good	High	0.55	0.00
Individual trees	Rural tree	Yes	0.08	0.00	Medium	Good	High	N/A	0.00
Individual trees	Rural tree	Yes	0.54	0.00	Medium	Good	High	N/A	0.00
Individual trees	Rural tree	No	1.03	0.00	Medium	Good	Medium	13.60	0.00
Individual trees	Rural tree	No	0.00	1.87	Medium	Good	Medium	0.00	24.68
Individual trees	Rural tree	Yes	1.06	0.00	Medium	Good	Medium	N/A	0.00
Individual trees	Rural tree	No	0.85	0.06	Medium	Good	Medium	11.22	0.79

Broad Habitat	Habitat Type	Irreplaceable	Area (Ha)		Dist.	Condition	SS	Area Units	
			Retained	Lost				Retained	Lost
Individual trees	Rural tree	Yes	0.07	0.00	Medium	Good	Medium	N/A	0.00
Individual trees	Rural tree	No	0.23	0.03	Medium	Good	Medium	3.04	0.40
Individual trees	Rural tree	No	0.23	0.00	Medium	Good	Medium	3.04	0.00
Individual trees	Rural tree	Yes	0.46	0.00	Medium	Good	Medium	N/A	0.00
Individual trees	Rural tree	Yes	0.46	0.00	Medium	Good	Medium	N/A	0.00
Individual trees	Rural tree	Yes	2.06	0.00	Medium	Good	Medium	N/A	0.00
TOTAL			**76.94**	**311.51**				**645.73**	**771.18**

Table F5: Retained and Lost Hedgerow Habitats

Habitat type	Length (km)		Dist.	Condition	SS	Hedgerow Units	
	Retained	Lost				Retained	Lost
Species-rich native hedgerow with trees	0.00	0.00	High	Good	Medium	0.00	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Good	Medium	0.00	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Good	Medium	0.00	0.00
Species-rich native hedgerow with trees	0.00	0.00	High	Good	High	0.00	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Good	Medium	0.00	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Good	Medium	0.00	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Good	Medium	0.00	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Good	Medium	0.00	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Good	Medium	0.00	0.00
Native hedgerow with trees	0.00	0.15	Medium	Poor	Medium	0.00	0.66
Native hedgerow with trees - associated with bank or ditch	0.00	0.22	High	Poor	Medium	0.00	1.45
Native hedgerow with trees - associated with bank or ditch	0.00	0.19	High	Moderate	Medium	0.00	2.51
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	0.22	V.High	Moderate	Medium	0.00	3.87
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	0.22	V.High	Poor	Medium	0.00	1.94
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	0.07	V.High	Moderate	Medium	0.00	1.23
Species-rich native hedgerow with trees	0.00	0.44	High	Moderate	Medium	0.00	5.81

Habitat type	Length (km)		Dist.	Condition	SS	Hedgerow Units	
	Retained	Lost				Retained	Lost
Species-rich native hedgerow with trees	0.00	0.29	High	Moderate	Medium	0.00	3.83
Species-rich native hedgerow with trees	0.11	0.00	High	Good	Medium	2.18	0.00
Species-rich native hedgerow with trees	0.00	0.18	High	Moderate	Medium	0.00	2.38
Species-rich native hedgerow with trees	0.00	0.22	High	Moderate	Medium	0.00	2.90
Species-rich native hedgerow with trees	0.00	0.24	High	Moderate	Medium	0.00	3.17
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	0.29	V.High	Moderate	Medium	0.00	5.10
Native hedgerow with trees	0.00	0.16	Medium	Good	Medium	0.00	2.11
Species-rich native hedgerow with trees	0.15	0.00	High	Good	Medium	2.97	0.00
Species-rich native hedgerow with trees	0.00	0.00	High	Good	Medium	0.00	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Good	Medium	0.00	0.00
Species-rich native hedgerow with trees	0.00	0.00	High	Good	Medium	0.00	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Good	Medium	0.00	0.00
Species-rich native hedgerow with trees	0.37	0.00	High	Moderate	Medium	4.88	0.00
Species-rich native hedgerow with trees	0.92	0.00	High	Poor	Medium	6.07	0.00
Species-rich native hedgerow with trees	0.41	0.00	High	Moderate	Medium	5.41	0.00
Species-rich native hedgerow with trees	0.89	0.00	High	Poor	Medium	5.87	0.00
Species-rich native hedgerow	0.00	0.00	Medium	Moderate	Medium	0.00	0.00
Native hedgerow	0.00	0.00	Low	Moderate	Medium	0.00	0.00
Species-rich native hedgerow with trees	0.00	0.00	High	Good	Medium	0.00	0.00

Habitat type	Length (km)		Dist.	Condition	SS	Hedgerow Units	
	Retained	Lost				Retained	Lost
Native hedgerow	0.00	0.09	Low	Good	Medium	0.00	0.59
Species-rich native hedgerow with trees	0.00	0.00	High	Moderate	Medium	0.00	0.00
Species-rich native hedgerow with trees	0.00	0.00	High	Good	Medium	0.00	0.00
Native hedgerow with trees	0.00	0.3	Medium	Good	Medium	0.00	3.96
Native hedgerow	0.1	0.00	Low	Poor	Medium	0.22	0.00
Native hedgerow with trees	0.00	0.00	Medium	Moderate	Medium	0.00	0.00
Native hedgerow	0.00	0.00	Low	Moderate	Medium	0.00	0.00
Native hedgerow	0.00	0.44	Low	Moderate	Medium	0.00	1.94
Native hedgerow - associated with bank or ditch	0.00	0.02	Medium	Good	Medium	0.00	0.26
Native hedgerow with trees - associated with bank or ditch	0.00	0.11	High	Good	Medium	0.00	2.18
Native hedgerow with trees - associated with bank or ditch	0.00	0.32	High	Good	Medium	0.00	6.34
Native hedgerow with trees	0.00	0.26	Medium	Good	Medium	0.00	3.43
Native hedgerow with trees	0.00	0.11	Medium	Good	Medium	0.00	1.45
Native hedgerow	0.00	0.39	Low	Moderate	Medium	0.00	1.72
Native hedgerow	0.00	0.23	Low	Moderate	Medium	0.00	1.01
Native hedgerow	0.00	0.19	Low	Moderate	Medium	0.00	0.84
Native hedgerow	0.00	0.23	Low	Moderate	Medium	0.00	1.01
Native hedgerow - associated with bank or ditch	0.00	0.06	Medium	Moderate	Medium	0.00	0.53
Native hedgerow with trees - associated with bank or ditch	0.00	0.25	High	Good	Medium	0.00	4.95
Native hedgerow - associated with bank or ditch	0.00	0.2	Medium	Moderate	Medium	0.00	1.76

Habitat type	Length (km)		Dist.	Condition	SS	Hedgerow Units	
	Retained	Lost				Retained	Lost
Native hedgerow - associated with bank or ditch	0.00	0.23	Medium	Moderate	Medium	0.00	2.02
Native hedgerow with trees - associated with bank or ditch	0.00	0.49	High	Moderate	Medium	0.00	6.47
Native hedgerow with trees	0.00	0.18	Medium	Good	Medium	0.00	2.38
Native hedgerow with trees - associated with bank or ditch	0.00	0.3	High	Moderate	Medium	0.00	3.96
Native hedgerow with trees - associated with bank or ditch	0.00	0.23	High	Good	Medium	0.00	4.55
Native hedgerow	0.00	0.19	Low	Good	Medium	0.00	1.25
Native hedgerow with trees - associated with bank or ditch	0.00	0.36	High	Moderate	Medium	0.00	4.75
Native hedgerow	0.00	0.05	Low	Good	Medium	0.00	0.33
Native hedgerow	0.00	0.08	Low	Good	Medium	0.00	0.53
Native hedgerow	0.00	0.12	Low	Moderate	Medium	0.00	0.53
Native hedgerow with trees	0.00	0.06	Medium	Good	Medium	0.00	0.79
Native hedgerow	0.00	0.21	Low	Good	Medium	0.00	1.39
Native hedgerow with trees	0.00	0.17	Medium	Good	Medium	0.00	2.24
Native hedgerow	0.00	0.05	Low	Good	Medium	0.00	0.33
Native hedgerow with trees	0.00	0.07	Medium	Good	Medium	0.00	0.92
Native hedgerow	0.00	0.32	Low	Good	Medium	0.00	2.11
Native hedgerow	0.00	0.31	Low	Moderate	Medium	0.00	1.36
Native hedgerow	0.00	0.43	Low	Good	Medium	0.00	2.84
Native hedgerow with trees	0.00	0.25	Medium	Moderate	Medium	0.00	2.20
Native hedgerow with trees - associated with bank or ditch	0.00	0.24	High	Good	Medium	0.00	4.75

Habitat type	Length (km)		Dist.	Condition	SS	Hedgerow Units	
	Retained	Lost				Retained	Lost
Native hedgerow with trees	0.00	0.2	Medium	Moderate	Medium	0.00	1.76
Native hedgerow	0.00	0.11	Low	Good	Medium	0.00	0.73
Native hedgerow	0.00	0.09	Low	Good	Medium	0.00	0.59
Native hedgerow with trees	0.00	0.06	Medium	Good	Medium	0.00	0.79
Native hedgerow with trees	0.00	0.16	Medium	Good	Medium	0.00	2.11
Native hedgerow - associated with bank or ditch	0.00	0.12	Medium	Good	Medium	0.00	1.58
Native hedgerow with trees	0.00	0.46	Medium	Moderate	Medium	0.00	4.05
Native hedgerow	0.00	0.18	Low	Good	Medium	0.00	1.19
Native hedgerow	0.00	0.12	Low	Good	Medium	0.00	0.79
Native hedgerow with trees - associated with bank or ditch	0.00	0.21	High	Poor	Medium	0.00	1.39
Native hedgerow	0.00	0.28	Low	Good	Medium	0.00	1.85
Native hedgerow with trees - associated with bank or ditch	0.00	0.12	High	Good	Medium	0.00	2.38
Native hedgerow	0.00	0.09	Low	Good	Medium	0.00	0.59
Native hedgerow with trees	0.00	0.53	Medium	Good	Medium	0.00	7.00
Native hedgerow with trees	0.00	0.42	Medium	Good	Medium	0.00	5.54
Native hedgerow	0.00	0.07	Low	Good	Medium	0.00	0.46
Native hedgerow	0.00	0.23	Low	Good	Medium	0.00	1.52
Native hedgerow	0.00	0.09	Low	Good	Medium	0.00	0.59
Native hedgerow	0.00	0.05	Low	Good	Medium	0.00	0.33
Native hedgerow with trees	0.00	0.03	Medium	Good	Medium	0.00	0.40

Habitat type	Length (km)		Dist.	Condition	SS	Hedgerow Units	
	Retained	Lost				Retained	Lost
Native hedgerow	0.00	0.51	Low	Good	Medium	0.00	3.37
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	0.28	V.High	Moderate	Medium	0.00	4.93
Native hedgerow with trees	0.00	0.02	Medium	Moderate	Medium	0.00	0.18
Native hedgerow with trees	0.00	0.19	Medium	Moderate	Medium	0.00	1.67
Native hedgerow - associated with bank or ditch	0.00	0.24	Medium	Good	Medium	0.00	3.17
Native hedgerow with trees	0.00	0.49	Medium	Moderate	Medium	0.00	4.31
Native hedgerow with trees	0.00	0.41	Medium	Good	Medium	0.00	5.41
Native hedgerow with trees	0.00	0.2	Medium	Good	Medium	0.00	2.64
Native hedgerow with trees	0.00	0.46	Medium	Good	Medium	0.00	6.07
Native hedgerow with trees	0.00	0.11	Medium	Moderate	Medium	0.00	0.97
Native hedgerow with trees - associated with bank or ditch	0.00	0.12	High	Good	Medium	0.00	2.38
Native hedgerow with trees - associated with bank or ditch	0.00	0.11	High	Good	Medium	0.00	2.18
Native hedgerow with trees - associated with bank or ditch	0.00	0.33	High	Moderate	Medium	0.00	4.36
Native hedgerow	0.00	0.41	Low	Good	Medium	0.00	2.71
Native hedgerow with trees	0.00	0.38	Medium	Good	Medium	0.00	5.02
Native hedgerow with trees	0.00	0.17	Medium	Good	Medium	0.00	2.24
Native hedgerow with trees - associated with bank or ditch	0.00	0.46	High	Moderate	Medium	0.00	6.07
Native hedgerow	0.00	0.09	Low	Moderate	Medium	0.00	0.40
Native hedgerow with trees	0.00	0.24	Medium	Moderate	Medium	0.00	2.11

Habitat type	Length (km)		Dist.	Condition	SS	Hedgerow Units	
	Retained	Lost				Retained	Lost
Native hedgerow with trees - associated with bank or ditch	0.00	0.29	High	Moderate	Medium	0.00	3.83
Native hedgerow - associated with bank or ditch	0.00	0.26	Medium	Moderate	Medium	0.00	2.29
Native hedgerow with trees	0.00	0.12	Medium	Poor	Medium	0.00	0.53
Native hedgerow	0.00	0.05	Low	Moderate	Medium	0.00	0.22
Native hedgerow	0.00	0.24	Low	Moderate	Medium	0.00	1.06
Native hedgerow with trees - associated with bank or ditch	0.00	0.05	High	Good	Medium	0.00	0.99
Native hedgerow with trees	0.00	0.16	Medium	Moderate	Medium	0.00	1.41
Native hedgerow with trees	0.00	0.12	Medium	Moderate	Medium	0.00	1.06
Species-rich native hedgerow	0.3	0.00	Medium	Moderate	Medium	2.64	0.00
Species-rich native hedgerow - associated with bank or ditch	0.00	0.06	High	Moderate	Medium	0.00	0.79
Native hedgerow	0.00	0.05	Low	Moderate	Medium	0.00	0.22
Native hedgerow	0.00	0.15	Low	Poor	Medium	0.00	0.33
Native hedgerow	0.00	0.2	Low	Good	Medium	0.00	1.32
Native hedgerow with trees - associated with bank or ditch	0.00	0.43	High	Good	Medium	0.00	8.51
Native hedgerow - associated with bank or ditch	0.00	0.14	Medium	Moderate	Medium	0.00	1.23
Native hedgerow	0.00	0.22	Low	Moderate	Medium	0.00	0.97
Native hedgerow	0.00	0.08	Low	Poor	Medium	0.00	0.18
Species-rich native hedgerow with trees	0.00	0.18	High	Moderate	Medium	0.00	2.38
Native hedgerow	0.00	0.12	Low	Moderate	Medium	0.00	0.53
Native hedgerow - associated with bank or ditch	0.00	0.02	Medium	Moderate	Medium	0.00	0.18

Habitat type	Length (km)		Dist.	Condition	SS	Hedgerow Units	
	Retained	Lost				Retained	Lost
Native hedgerow with trees - associated with bank or ditch	0.00	0.55	High	Moderate	Medium	0.00	7.26
Species-rich native hedgerow with trees	0.27	0.00	High	Moderate	Medium	3.56	0.00
Species-rich native hedgerow with trees	0.00	0.19	High	Moderate	Medium	0.00	2.51
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	0.16	V.High	Moderate	Medium	0.00	2.82
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	0.09	V.High	Moderate	Medium	0.00	1.58
TOTAL	**3.52**	**1.32**				**33.81**	**252.63**

Table F6: Retained and Lost Watercourse Habitats

Habitat type	Length (km)		Dist.	Condition	SS	Watercourse Units	
	Retained	Lost				Retained	Lost
Other rivers and streams	0.183	N/A	High	Moderate	Medium	1.81	N/A
Ditches	0.015	N/A	Medium	Moderate	Low	0.12	N/A
Ditches	0.034	N/A	Medium	Moderate	Low	0.23	N/A
Ditches	0.005	N/A	Medium	Moderate	Low	0.03	N/A
Ditches	0.019	N/A	Medium	Moderate	Low	0.11	N/A
Ditches	0.048	N/A	Medium	Moderate	Low	0.29	N/A
Ditches	0.009	N/A	Medium	Moderate	Low	0.06	N/A
Ditches	0.072	0.020	Medium	Moderate	Low	0.43	0.12
Ditches	0.372	N/A	Medium	Moderate	Low	2.23	N/A

Habitat type	Length (km)		Dist.	Condition	SS	Watercourse Units	
	Retained	Lost				Retained	Lost
Ditches	0.208	N/A	Medium	Poor	Low	0.62	N/A
Ditches	0.003	N/A	Medium	Moderate	Low	0.02	N/A
Ditches	0.027	N/A	Medium	Moderate	Low	0.16	N/A
Ditches	0.115	N/A	Medium	Poor	Low	0.34	N/A
Ditches	0.003	N/A	Medium	Moderate	Low	0.02	N/A
Ditches	0.011	N/A	Medium	Moderate	Low	0.07	N/A
Ditches	0.023	N/A	Medium	Moderate	Low	0.14	N/A
Culvert	0.007	N/A	Low	Poor	Low	0.01	N/A
Culvert	0.000	N/A	Low	Poor	Low	0.00	N/A
Culvert	0.008	N/A	Low	Poor	Low	0.01	N/A
Culvert	0.008	N/A	Low	Poor	Low	0.01	N/A
Culvert	0.021	N/A	Low	Poor	Low	0.03	N/A
Culvert	0.007	N/A	Low	Poor	Low	0.01	N/A
Culvert	0.02	N/A	Low	Poor	Low	0.03	N/A
Culvert	0.013	N/A	Low	Poor	Low	0.02	N/A
Culvert	0.008	N/A	Low	Poor	Low	0.01	N/A
Culvert	0.047	N/A	Low	Poor	Low	0.06	N/A
Culvert	0.012	N/A	Low	Poor	Low	0.02	N/A
Culvert	0.004	N/A	Low	Poor	Low	0.00	N/A
Culvert	0.004	N/A	Low	Poor	Low	0.01	N/A

Habitat type	Length (km)		Dist.	Condition	SS	Watercourse Units	
	Retained	Lost				Retained	Lost
Culvert	0.003	N/A	Low	Poor	Low	0.00	N/A
TOTAL	**1.31**	**0.02**				**6.92**	**0.12**

Enhanced Habitats

Table F7: Enhanced Area Habitats

Broad Habitat	Baseline Habitat	Post-Development Habitat	Area (ha)	Distinctiveness Change	Condition Change	Area Units Delivered
Grassland	Modified grassland	Other neutral grassland	4.74	Low - Medium	Lower Distinctiveness Habitat - Moderate	30.83
Grassland	Other neutral grassland	Floodplain wetland mosaic and CFGM	6.91	Medium - High	Lower Distinctiveness Habitat - Moderate	77.46
Grassland	Other neutral grassland	Other neutral grassland	25.03	Medium - Medium	Moderate - Good	292.08
Grassland	Other neutral grassland	Other neutral grassland	4.69	Medium - Medium	Poor - Moderate	34.09
Grassland	Other neutral grassland	Floodplain wetland mosaic and CFGM	0.60	Medium - High	Lower Distinctiveness Habitat - Moderate	6.43
TOTAL			**41.97**			**440.90**

Table F8: Enhanced Hedgerow Habitats

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow with trees	Species-rich native hedgerow with trees	0.15	Medium - High	Lower Distinctiveness Habitat - Good	2.46
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.22	High - V.High	Lower Distinctiveness Habitat - Good	4.85
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.19	High - V.High	Lower Distinctiveness Habitat - Good	4.46
Species-rich native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.22	V.High - V.High	Moderate - Good	5.44
Species-rich native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.22	V.High - V.High	Poor - Good	4.46
Species-rich native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.07	V.High - V.High	Moderate - Good	1.73

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Species-rich native hedgerow with trees	Species-rich native hedgerow with trees	0.44	High - High	Moderate - Good	8.15
Species-rich native hedgerow with trees	Species-rich native hedgerow with trees	0.29	High - High	Moderate - Good	5.37
Species-rich native hedgerow with trees	Species-rich native hedgerow with trees	0.18	High - High	Moderate - Good	3.34
Species-rich native hedgerow with trees	Species-rich native hedgerow with trees	0.22	High - High	Moderate - Good	4.08
Species-rich native hedgerow with trees	Species-rich native hedgerow with trees	0.24	High - High	Moderate - Good	4.45
Species-rich native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.29	V.High - V.High	Moderate - Good	7.16
Native hedgerow with trees	Species-rich native hedgerow with trees	0.16	Medium - High	Lower Distinctiveness Habitat - Good	2.93
Native hedgerow	Species-rich native hedgerow	0.09	Low - Medium	Lower Distinctiveness Habitat - Good	1.06
Native hedgerow with trees	Species-rich native hedgerow with trees	0.3	Medium - High	Lower Distinctiveness Habitat - Good	5.50
Native hedgerow	Species-rich native hedgerow	0.44	Low - Medium	Lower Distinctiveness Habitat - Good	4.95
Native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.02	Medium - High	Lower Distinctiveness Habitat - Good	0.37

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.11	High - V.High	Lower Distinctiveness Habitat - Good	2.74
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.32	High - V.High	Lower Distinctiveness Habitat - Good	7.98
Native hedgerow with trees	Species-rich native hedgerow with trees	0.26	Medium - High	Lower Distinctiveness Habitat - Good	4.77
Native hedgerow with trees	Species-rich native hedgerow with trees	0.11	Medium - High	Lower Distinctiveness Habitat - Good	2.02
Native hedgerow	Species-rich native hedgerow	0.39	Low - Medium	Lower Distinctiveness Habitat - Good	4.39
Native hedgerow	Species-rich native hedgerow	0.23	Low - Medium	Lower Distinctiveness Habitat - Good	2.59
Native hedgerow	Species-rich native hedgerow	0.19	Low - Medium	Lower Distinctiveness Habitat - Good	2.14
Native hedgerow	Species-rich native hedgerow	0.23	Low - Medium	Lower Distinctiveness Habitat - Good	2.59
Native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.06	Medium - High	Lower Distinctiveness Habitat - Good	1.04

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.25	High - V.High	Lower Distinctiveness Habitat - Good	6.24
Native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.2	Medium - High	Lower Distinctiveness Habitat - Good	3.47
Native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.23	Medium - High	Lower Distinctiveness Habitat - Good	4.00
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.49	High - V.High	Lower Distinctiveness Habitat - Good	11.51
Native hedgerow with trees	Species-rich native hedgerow with trees	0.18	Medium - High	Lower Distinctiveness Habitat - Good	3.30
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.3	High - V.High	Lower Distinctiveness Habitat - Good	7.05
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.23	High - V.High	Lower Distinctiveness Habitat - Good	5.74
Native hedgerow	Species-rich native hedgerow	0.19	Low - Medium	Lower Distinctiveness Habitat - Good	2.23

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.36	High - V.High	Lower Distinctiveness Habitat - Good	8.46
Native hedgerow	Species-rich native hedgerow	0.05	Low - Medium	Lower Distinctiveness Habitat - Good	0.59
Native hedgerow	Species-rich native hedgerow	0.08	Low - Medium	Lower Distinctiveness Habitat - Good	0.94
Native hedgerow	Species-rich native hedgerow	0.12	Low - Medium	Lower Distinctiveness Habitat - Good	1.35
Native hedgerow with trees	Species-rich native hedgerow with trees	0.06	Medium - High	Lower Distinctiveness Habitat - Good	1.10
Native hedgerow	Species-rich native hedgerow	0.21	Low - Medium	Lower Distinctiveness Habitat - Good	2.47
Native hedgerow with trees	Species-rich native hedgerow with trees	0.17	Medium - High	Lower Distinctiveness Habitat - Good	3.12
Native hedgerow	Species-rich native hedgerow	0.05	Low - Medium	Lower Distinctiveness Habitat - Good	0.59
Native hedgerow with trees	Species-rich native hedgerow with trees	0.07	Medium - High	Lower Distinctiveness Habitat - Good	1.28
Native hedgerow	Species-rich native hedgerow	0.32	Low - Medium	Lower Distinctiveness Habitat - Good	3.76
Native hedgerow	Species-rich native hedgerow	0.31	Low - Medium	Lower Distinctiveness Habitat - Good	3.49

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow	Species-rich native hedgerow	0.43	Low - Medium	Lower Distinctiveness Habitat - Good	5.05
Native hedgerow with trees	Species-rich native hedgerow with trees	0.25	Medium - High	Lower Distinctiveness Habitat - Good	4.34
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.24	High - V.High	Lower Distinctiveness Habitat - Good	5.99
Native hedgerow with trees	Species-rich native hedgerow with trees	0.2	Medium - High	Lower Distinctiveness Habitat - Good	3.47
Native hedgerow	Species-rich native hedgerow	0.11	Low - Medium	Lower Distinctiveness Habitat - Good	1.29
Native hedgerow	Species-rich native hedgerow	0.09	Low - Medium	Lower Distinctiveness Habitat - Good	1.06
Native hedgerow with trees	Species-rich native hedgerow with trees	0.06	Medium - High	Lower Distinctiveness Habitat - Good	1.10
Native hedgerow with trees	Species-rich native hedgerow with trees	0.16	Medium - High	Lower Distinctiveness Habitat - Good	2.93
Native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.12	Medium - High	Lower Distinctiveness Habitat - Good	2.20
Native hedgerow with trees	Species-rich native hedgerow with trees	0.46	Medium - High	Lower Distinctiveness Habitat - Good	7.99
Native hedgerow	Species-rich native hedgerow	0.18	Low - Medium	Lower Distinctiveness Habitat - Good	2.11

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow	Species-rich native hedgerow	0.12	Low - Medium	Lower Distinctiveness Habitat - Good	1.41
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.21	High - V.High	Lower Distinctiveness Habitat - Good	4.63
Native hedgerow	Species-rich native hedgerow	0.28	Low - Medium	Lower Distinctiveness Habitat - Good	3.29
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.12	High - V.High	Lower Distinctiveness Habitat - Good	2.99
Native hedgerow	Species-rich native hedgerow	0.09	Low - Medium	Lower Distinctiveness Habitat - Good	1.06
Native hedgerow with trees	Species-rich native hedgerow with trees	0.53	Medium - High	Lower Distinctiveness Habitat - Good	9.72
Native hedgerow with trees	Species-rich native hedgerow with trees	0.42	Medium - High	Lower Distinctiveness Habitat - Good	7.70
Native hedgerow	Species-rich native hedgerow	0.07	Low - Medium	Lower Distinctiveness Habitat - Good	0.82
Native hedgerow	Species-rich native hedgerow	0.23	Low - Medium	Lower Distinctiveness Habitat - Good	2.70
Native hedgerow	Species-rich native hedgerow	0.09	Low - Medium	Lower Distinctiveness Habitat - Good	1.06

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow	Species-rich native hedgerow	0.05	Low - Medium	Lower Distinctiveness Habitat - Good	0.59
Native hedgerow with trees	Species-rich native hedgerow with trees	0.03	Medium - High	Lower Distinctiveness Habitat - Good	0.55
Native hedgerow	Species-rich native hedgerow	0.51	Low - Medium	Lower Distinctiveness Habitat - Good	5.99
Species-rich native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.28	V.High - V.High	Moderate - Good	6.92
Native hedgerow with trees	Species-rich native hedgerow with trees	0.02	Medium - High	Lower Distinctiveness Habitat - Good	0.35
Native hedgerow with trees	Species-rich native hedgerow with trees	0.19	Medium - High	Lower Distinctiveness Habitat - Good	3.30
Native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.24	Medium - High	Lower Distinctiveness Habitat - Good	4.40
Native hedgerow with trees	Species-rich native hedgerow with trees	0.49	Medium - High	Lower Distinctiveness Habitat - Good	8.51
Native hedgerow with trees	Species-rich native hedgerow with trees	0.41	Medium - High	Lower Distinctiveness Habitat - Good	7.52
Native hedgerow with trees	Species-rich native hedgerow with trees	0.2	Medium - High	Lower Distinctiveness Habitat - Good	3.67
Native hedgerow with trees	Species-rich native hedgerow with trees	0.46	Medium - High	Lower Distinctiveness Habitat - Good	8.44

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow with trees	Species-rich native hedgerow with trees	0.11	Medium - High	Lower Distinctiveness Habitat - Good	1.91
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.12	High - V.High	Lower Distinctiveness Habitat - Good	2.99
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.11	High - V.High	Lower Distinctiveness Habitat - Good	2.74
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.33	High - V.High	Lower Distinctiveness Habitat - Good	7.75
Native hedgerow	Species-rich native hedgerow	0.41	Low - Medium	Lower Distinctiveness Habitat - Good	4.81
Native hedgerow with trees	Species-rich native hedgerow with trees	0.38	Medium - High	Lower Distinctiveness Habitat - Good	6.97
Native hedgerow with trees	Species-rich native hedgerow with trees	0.17	Medium - High	Lower Distinctiveness Habitat - Good	3.12
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.46	High - V.High	Lower Distinctiveness Habitat - Good	10.80
Native hedgerow	Species-rich native hedgerow	0.09	Low - Medium	Lower Distinctiveness Habitat - Good	1.01

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow with trees	Species-rich native hedgerow with trees	0.24	Medium - High	Lower Distinctiveness Habitat - Good	4.17
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.29	High - V.High	Lower Distinctiveness Habitat - Good	6.81
Native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.26	Medium - High	Lower Distinctiveness Habitat - Good	4.52
Native hedgerow with trees	Species-rich native hedgerow with trees	0.12	Medium - High	Lower Distinctiveness Habitat - Good	1.97
Native hedgerow	Species-rich native hedgerow	0.05	Low - Medium	Lower Distinctiveness Habitat - Good	0.56
Native hedgerow	Species-rich native hedgerow	0.24	Low - Medium	Lower Distinctiveness Habitat - Good	2.70
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.05	High - V.High	Lower Distinctiveness Habitat - Good	1.25
Native hedgerow with trees	Species-rich native hedgerow with trees	0.16	Medium - High	Lower Distinctiveness Habitat - Good	2.78
Native hedgerow with trees	Species-rich native hedgerow with trees	0.12	Medium - High	Lower Distinctiveness Habitat - Good	2.08

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Species-rich native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.06	High - High	Moderate - Good	1.14
Native hedgerow	Species-rich native hedgerow	0.05	Low - Medium	Lower Distinctiveness Habitat - Good	0.56
Native hedgerow	Species-rich native hedgerow	0.15	Low - Medium	Lower Distinctiveness Habitat - Good	1.62
Native hedgerow	Species-rich native hedgerow	0.2	Low - Medium	Lower Distinctiveness Habitat - Good	2.35
Native hedgerow with trees - associated with bank or ditch	Species-rich native hedgerow with trees - associated with bank or ditch	0.43	High - V.High	Lower Distinctiveness Habitat - Good	10.73
Native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.14	Medium - High	Lower Distinctiveness Habitat - Good	2.43
Native hedgerow	Species-rich native hedgerow	0.22	Low - Medium	Lower Distinctiveness Habitat - Good	2.48
Native hedgerow	Species-rich native hedgerow	0.08	Low - Medium	Lower Distinctiveness Habitat - Good	0.86
Species-rich native hedgerow with trees	Species-rich native hedgerow with trees	0.18	High - High	Moderate - Good	3.34
Native hedgerow	Species-rich native hedgerow	0.12	Low - Medium	Lower Distinctiveness Habitat - Good	1.35

Baseline Habitat	Post-Development Habitat	Length (km)	Distinctiveness Change	Condition Change	Hedgerow Units Delivered
Native hedgerow - associated with bank or ditch	Species-rich native hedgerow - associated with bank or ditch	0.02	Medium - High	Lower Distinctiveness Habitat - Good	0.35
TOTAL		**23.20**			**413.61**

Table F9: Enhanced Watercourse Habitats

Baseline Watercourse Type	Post-Development Watercourse Type	Length (km)	Riparian Encroachment Change	Watercourse Units Delivered
Other rivers and streams	Other rivers and streams	0.594	Major/Major - No Encroachment/No Encroachment	7.13
Other rivers and streams	Other rivers and streams	0.987	Major/Major - No Encroachment/No Encroachment	11.84
Other rivers and streams	Other rivers and streams	0.231	Major/Major - No Encroachment/No Encroachment	2.77
Ditches	Ditches	0.213	Major/Major - No Encroachment/No Encroachment	0.85
Ditches	Ditches	0.252	Major/Major - No Encroachment/No Encroachment	1.01
Ditches	Ditches	0.388	Major/Major - Major/No Encroachment	1.35
Ditches	Ditches	0.581	Major/Major - No Encroachment/No Encroachment	2.33
Ditches	Ditches	0.546	Major/No Encroachment - No Encroachment/No Encroachment	2.18
Ditches	Ditches	0.252	Major/Major - No Encroachment/No Encroachment	1.01

Baseline Watercourse Type	Post-Development Watercourse Type	Length (km)	Riparian Encroachment Change	Watercourse Units Delivered
Ditches	Ditches	0.313	Major/Major - No Encroachment/No Encroachment	1.25
Ditches	Ditches	0.381	Major/Major - No Encroachment/No Encroachment	1.52
Ditches	Ditches	0.878	Major/Major - No Encroachment/No Encroachment	3.51
Ditches	Ditches	0.196	Major/Major - No Encroachment/No Encroachment	0.78
Culvert	Other rivers and streams	0.005	N/A – Culvert - No Encroachment/No Encroachment	0.03
TOTAL		**5.816**		**37.57**

Created Habitats

Table F10: Created Area Habitats

Broad Habitat	Habitat Type	Area (ha)	Dist.	Target Condition	SS	Time to target condition (yrs)	Habitat Units Delivered
Grassland	Floodplain wetland mosaic and CFGM	0.06	High	Moderate	High	12	0.18
Grassland	Floodplain wetland mosaic and CFGM	1.96	High	Moderate	High	12	5.82
Grassland	Floodplain wetland mosaic and CFGM	0.46	High	Moderate	Medium	12	1.31
Grassland	Floodplain wetland mosaic and CFGM	3.38	High	Moderate	Medium	12	9.60
Grassland	Modified grassland	0.36	Low	Moderate	Medium	5	1.33
Grassland	Modified grassland	198.98	Low	Moderate	Medium	6	707.01
Grassland	Other neutral grassland	10.26	Medium	Good	Medium	12	88.32
Grassland	Other neutral grassland	2.76	Medium	Good	Medium	11	24.62

Broad Habitat	Habitat Type	Area (ha)	Dist.	Target Condition	SS	Time to target condition (yrs)	Habitat Units Delivered
Grassland	Other neutral grassland	4.93	Medium	Moderate	Medium	7	33.81
Grassland	Other neutral grassland	0.00	Medium	Moderate	Medium	6	0.00
Grassland	Other neutral grassland	56.24	Medium	Moderate	Medium	7	385.67
Grassland	Other neutral grassland	0.00	Medium	Poor	Medium	3	0.00
Heathland and shrub	Bramble scrub	0.01	Medium	Condition assessment N/A	Medium	2	0.04
Heathland and shrub	Mixed scrub	0.07	Medium	Good	Medium	11	0.62
Heathland and shrub	Mixed scrub	2.34	Medium	Moderate	Medium	7	16.05
Heathland and shrub	Mixed scrub	0.00	Medium	Moderate	Medium	6	0.00
Urban	Developed land; sealed surface	14.06	V.Low	N/A - Other	Low	2	0.00
Urban	Developed land; sealed surface	1.76	V.Low	N/A - Other	Low	2	0.00
Urban	Developed land; sealed surface	0.11	V.Low	N/A - Other	Low	2	0.00
Urban	Developed land; sealed surface	10.47	V.Low	N/A - Other	Low	2	0.00
Urban	Developed land; sealed surface	0.32	V.Low	N/A - Other	Low	1	0.00
Urban	Open mosaic habitats on previously developed land	0.99	High	Good	Medium	11	8.88
Individual trees	Rural tree	0.17	Medium	Moderate	Medium	28	0.55
TOTAL		**309.69**					**1283.80**

Table F11: Created Hedgerow Habitats

Hedgerow type	Length (km)	Dist.	Target Condition	SS	Time to target condition (yrs)	Hedgerow Units Delivered
Species-rich native hedgerow with trees	0.02	High	Good	Medium	20	0.19
Species-rich native hedgerow	0.02	Medium	Good	Medium	12	0.17
Species-rich native hedgerow	0.10	Medium	Good	Medium	12	0.83
Species-rich native hedgerow with trees	0.00	High	Good	Medium	20	0.00
Species-rich native hedgerow	0.03	Medium	Good	Medium	12	0.25
Species-rich native hedgerow	0.00	Medium	Good	Medium	12	0.00
Species-rich native hedgerow	0.07	Medium	Good	Medium	12	0.58
Species-rich native hedgerow	0.24	Medium	Good	Medium	12	1.99
Species-rich native hedgerow	0.04	Medium	Good	Medium	12	0.33
Species-rich native hedgerow with trees	0.00	High	Good	Medium	20	0.00

Hedgerow type	Length (km)	Dist.	Target Condition	SS	Time to target condition (yrs)	Hedgerow Units Delivered
Species-rich native hedgerow	0.03	Medium	Good	Medium	12	0.25
Species-rich native hedgerow	0.07	Medium	Moderate	Medium	5	0.50
Native hedgerow	0.04	Low	Moderate	Medium	5	0.14
Species-rich native hedgerow with trees	0.00	High	Good	Medium	20	0.00
Species-rich native hedgerow with trees	0.17	High	Moderate	Medium	10	1.52
Species-rich native hedgerow with trees	0.07	High	Good	Medium	20	0.66
Native hedgerow with trees	0.01	Medium	Moderate	Medium	10	0.06
Native hedgerow	0.04	Low	Moderate	Medium	5	0.14
Species-rich native hedgerow	0.00	Medium	Good	Medium	12	0.00
Species-rich native hedgerow	0.07	Medium	Good	Medium	12	0.56
Species-rich native hedgerow	0.01	Medium	Good	Medium	12	0.08

Hedgerow type	Length (km)	Dist.	Target Condition	SS	Time to target condition (yrs)	Hedgerow Units Delivered
Species-rich native hedgerow	0.00	Medium	Good	Medium	12	0.00
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	V.High	Good	Medium	20	0.00
Species-rich native hedgerow - associated with bank or ditch	0.00	High	Good	Medium	12	0.00
Species-rich native hedgerow	0.11	Medium	Good	Medium	12	0.88
Species-rich native hedgerow - associated with bank or ditch	0.00	High	Good	Medium	12	0.00
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	V.High	Good	Medium	20	0.00
Species-rich native hedgerow with trees - associated with bank or ditch	0.00	V.High	Good	Medium	20	0.00
Species-rich native hedgerow	0.12	Medium	Good	Medium	12	0.96

Hedgerow type	Length (km)	Dist.	Target Condition	SS	Time to target condition (yrs)	Hedgerow Units Delivered
Species-rich native hedgerow with trees	0.01	High	Good	Medium	20	0.09
Species-rich native hedgerow	0.03	Medium	Good	Medium	12	0.24
Species-rich native hedgerow	0.01	Medium	Good	Medium	12	0.08
Species-rich native hedgerow	0.01	Medium	Good	Medium	12	0.08
Species-rich native hedgerow	0.16	Medium	Good	Medium	12	1.28
Species-rich native hedgerow	0.01	Medium	Good	Medium	12	0.08
Species-rich native hedgerow	0.01	Medium	Good	Medium	12	0.08
Species-rich native hedgerow	0.01	Medium	Good	Medium	12	0.08
Species-rich native hedgerow	0.01	Medium	Good	Medium	12	0.08
Species-rich native hedgerow	0.13	Medium	Good	Medium	12	1.04
Species-rich native hedgerow	0.36	Medium	Good	Medium	12	2.89

Hedgerow type	Length (km)	Dist.	Target Condition	SS	Time to target condition (yrs)	Hedgerow Units Delivered
Species-rich native hedgerow	0.1	Medium	Good	Medium	12	0.80
Species-rich native hedgerow	0.09	Medium	Good	Medium	12	0.72
Species-rich native hedgerow - associated with bank or ditch	0.26	High	Good	Medium	12	3.13
Species-rich native hedgerow	0.2	Medium	Good	Medium	12	1.60
Species-rich native hedgerow	0.61	Medium	Good	Medium	12	4.89
Species-rich native hedgerow	0.25	Medium	Good	Medium	12	2.00
Species-rich native hedgerow	0.11	Medium	Good	Medium	12	0.88
Species-rich native hedgerow	0.09	Medium	Good	Medium	12	0.72
Species-rich native hedgerow	0.51	Medium	Good	Medium	12	4.09
Species-rich native hedgerow	3.19	Medium	Good	Medium	12	25.57
TOTAL	**7.42**					**60.52**

Table F12: Created Watercourse Habitats

Watercourse type	Length (km)	Dist.	Target Condition	SS	Time to target condition (yrs)	Watercourse Units Delivered
Culvert	0.02	Low	Poor	Low	0	0.02
TOTAL	**0.02**					**0.02**

Appendix G Statutory Biodiversity Metric Calculation

A copy of the SBM will be provided alongside this report. Headline summary page provided below:

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	633.27
	Hedgerow units	206.15
	Watercourse units	8.89
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	36.46%
	Hedgerow units	68.31%
	Watercourse units	24.97%
Trading rules satisfied?	No - Check Trading Summaries ▲	

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