

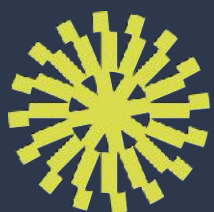
Northern Gateway (JPA1.1)

Outline Planning Application

Biodiversity Net Gain Assessment



Biodiversity Net Gain Assessment



**Tyler
Grange**

**Northern Gateway (JPA1.1)
9th April 2025**

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Summary

- S.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Northern Gateway Development Vehicle LLP ('the NGDV'). The NGDV are preparing an application for outline planning permission (with all matters reserved) ('the Application') relating to 209.8 hectares of land ('the Application Site') situated within the Northern Gateway JPA1.1 (Heywood / Pilsworth) Allocation Site ('the JPA1.1 Allocation Site'). The Application Site straddles the administrative boundaries of Bury Metropolitan Borough Council ('BMBC') and Rochdale Metropolitan Borough Council ('RMBC') and therefore the Application is cross-boundary.
- S.2. The Application seeks outline planning permission for a national-scale employment development, including logistics, warehousing, industrial and manufacturing uses, with a range of other supporting ancillary uses and associated demolition works, landscaping, drainage, ecological enhancements, highway works, cycleway and footpath linkages and other ancillary infrastructure ('the Proposed Scheme'). The Proposed Scheme comprises up to 600,000 sqm of employment floorspace, consisting of 70% Use Class B8 and 30% Use Class B2, E(g)(ii) and E(g)(iii) floorspace, alongside up to 5,000 sqm of other supporting ancillary uses (in accordance with the Uses Schedule).
- S.3. The Proposed Scheme forms an early phase of delivery of the JPA1.1 Allocation Site, which is allocated within Greater Manchester's Places for Everyone (PfE) Joint Development Plan Document (adopted March 2024) for around 1,200,000 sqm of industrial and warehousing floorspace (with around 935,000 sqm being delivered within the plan period to 2039), around 1,200 new homes, a new primary school and an appropriate range of supporting and ancillary services and facilities, such as a new local centre, hotel, leisure and conference facilities, as well as new and improved sustainable transport, active travel and highways infrastructure and multifunctional green and blue infrastructure.
- S.4. This Biodiversity Net Gain (BNG) assessment focuses on Application Site boundary and Proposed Scheme only.
- S.5. The baseline habitats within the Application Site overwhelmingly comprised species poor modified grassland, which is of low distinctiveness. The Parameters Plan (**Appendix 2**), submitted as part of the Application, was used to assess the post-development proposals.
- S.6. The Statutory Biodiversity Net Gain calculated that the Proposed Scheme will result in a total net biodiversity change of:
- -247.39 habitat units equating to -47.45%;
 - hedgerow units are proposed to be fully lost, equating to -100%
 - watercourse units are proposed to be partially lost equating to -13.70%.
- S.7. The assessment of the Parameters Plan shows a loss of -47.45%; and trading rules not satisfied. However, the BNG Mitigation Strategy (**Section 3**), describes methodology to achieve 10% net gain, through offsite habitat creation, while also meeting trading rules.



Section 1: Introduction and Context

- 1.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Northern Gateway Development Vehicle LLP ('the NGDV'). The NGDV are preparing an application for outline planning permission (with all matters reserved) ('the Application') relating to 209.8 hectares of land ('the Application Site') situated within the Northern Gateway JPA1.1 (Heywood / Pilsworth) Allocation Site ('the JPA1.1 Allocation Site'). The Application Site straddles the administrative boundaries of Bury Metropolitan Borough Council ('BMBC') and Rochdale Metropolitan Borough Council ('RMBC') and therefore the Application is cross-boundary.
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- 1.4. This Biodiversity Net Gain (BNG) Assessment focuses on Application Site boundary and Proposed Scheme only.
- 1.5. The Application Site boundary can be viewed on the Proposed Scheme Parameters Plan at **Appendix 2**, as well as at **Figure 1.1**.

¹ Greater Manchester Combined Authorities Places for Everyone [online]: <https://www.greatermanchester-ca.gov.uk/what-we-do/planning-and-housing/strategic-planning/places-for-everyone/>





Figure 1.1: Proposed Scheme Boundary (© Google Aerial Imagery)

- 1.6. Although spanning a substantial area, the habitats within the Application Site are largely homogeneous; comprising large swathes of agriculturally managed modified grassland, which is a low distinctiveness habitat². There are some isolated pockets of medium distinctiveness habitats within the Application Site, including broadleaved woodland and neutral grassland, which are of medium distinctiveness. There are a number of streams and Brooks running through the wider JPA1.1 Allocation Site – namely Whittle Brook, Castle Brook, Brightley Brook and Pilsworth Clough – most of which fall outside of the Application Site boundary, however some of the watercourses are either within or comprise the Application Site boundary. The wider context is semi-urban, with housing developments to the south and west, and large industrial units to the north.
- 1.7. Tyler Grange have undertaken habitat and protected species surveys at the JPA1.1 Allocation Site, including the Application Site, for a number of years. Due to ecological data becoming (largely) invalid after 12 months, this BNG Assessment uses data collected throughout 2024; survey scope and methodologies for desk studies and habitat surveys are available in **Appendix 1**.
- 1.8. The UK Habitat classification survey (UK Habs) and Habitat Condition Assessment for the Application Site was undertaken by Tyler Grange on a number of days throughout 2024 (see **Appendix 1** for methodologies and **Appendix 3** for Condition Assessments) using Defra's latest Biodiversity Metric guidance. The BNG assessment used The Statutory Biodiversity Metric to assess net gains and losses, which is provided alongside this report (ref: 16551_R02_BNG_Statutory_Metric_270125).

² Statutory Biodiversity Metric, User Guidance: "A measure based on the type of habitat and its distinguishing features, including; considerations of species richness and rarity; extent to which the habitat is protected by designations; degree to which a habitat supports species rarely found in other habitats:



- 1.9. The design of the Proposed Scheme, including the formulation of the submitted Parameters Plan (**Appendix 2**), has been informed by the BNG assessment process and the mitigation hierarchy, through avoiding impacts to habitats where possible, then minimising the impact, using mitigation, and finally compensating for a loss of habitat where this cannot be avoided.

Aims and objectives

- 1.10. The aim of this report is to provide findings of the BNG calculation and assessment undertaken to accompany the project. The objectives of this process are outlined below, with the assessment methodology detailed in **Appendix 1**:
- Demonstrate the application of the mitigation hierarchy through the design evolution of the site to inform the design of the scheme and to minimise impacts on biodiversity where possible;
 - Calculate the project's pre- and post-development biodiversity unit value ;
 - Determine the change in biodiversity units as a result of the proposed development and proposed on site enhancements for biodiversity; and
 - Advise on how the project will deliver a minimum of +10% BNG if applicable.
- 1.11. This BNG assessment has been undertaken with respect to the British Standard for BNG BS8683:2020 and this report follows the CIEEM BNG reporting guidance³ and was completed with reference to the CIRIA BNG good practice principles for development⁴.

Legislation and Planning Policy

National Planning Policy Framework

- 1.12. The National Planning Policy Framework (NPPF)⁵ (Section 15, Paragraph 187) requires the planning system to aim to *"contribute to and enhance the natural environment by: ... d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority of threatened species such as swifts, bats and hedgehogs"*.
- 1.13. Paragraph 193 of the NPPF states that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:
- If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - Opportunities to incorporate biodiversity in and around development should be encouraged; and

³ CIEEM (2021). Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK.

⁴ Baker, J. Hoskin, R. & Butterworth (2019). Biodiversity net gain: Good practice principles for development. A practical guide. Ciria, CIEEM & IEMA

⁵ The National Planning Policy Framework (NPPF) [December 2024]: <https://www.gov.uk/guidance/national-planning-policy-framework>



- Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless there are wholly exceptional reasons for its loss and a suitable compensation strategy exists.

Development Plan

- 1.14. The Application Site straddles the administrative boundaries of Bury and Rochdale Councils.
- 1.15. Within Bury, the relevant adopted Development Plan comprises:
- Places for Everyone Joint Development Plan Document for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan 2022 to 2039 ('PfE') (adopted 21 March 2024)
 - Saved policies of the Bury Unitary Development Plan ('Bury UDP') (adopted 29 August 1997)⁶
- 1.16. Within Rochdale, the adopted Development Plan comprises:
- Places for Everyone Joint Development Plan Document for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan 2022 to 2039 ('PfE') (adopted 21 March 2024)
 - Rochdale Core Strategy ('Rochdale CS') (adopted 19 October 2016)⁷
 - Saved policies of the Rochdale Borough Unitary Development Plan ('Rochdale UDP') (adopted June 2006)⁸

Places for Everyone

- 1.17. PfE Policy JP-Strat13 (Strategic Green Infrastructure) focuses on protecting and enhancing key strategic green infrastructure assets, including river valleys and waterways, lowland wetlands and mosslands, uplands, and trees and woodland. This policy is supported by additional measures to safeguard and improve green infrastructure networks and sites of ecological value, aiming to enhance residents' access to and benefits from green spaces for their health and wellbeing.
- 1.18. PfE Policy JP-G2 (Green Infrastructure Network) states that development within and around the Green Infrastructure Network should be consistent with delivering major green infrastructure improvements within them and should contribute to improvements. Wherever practicable, opportunities to integrate new and existing green infrastructure into new development will be taken to protect, enhance and expand the green infrastructure network. Where new or improved green infrastructure is delivered as part of a development, the developer should make appropriate provision for its long-term management and maintenance.
- 1.19. PfE Policy JP-G3 (River Valleys and Waterways) states that River valleys and waterways will be protected and improved as central components of our Green Infrastructure Network and a vital

⁶ PfE Appendix A Table A.2 sets out the policies of the Bury UDP which have been superseded following adoption of PfE and are therefore no longer relevant.

⁷ PfE Appendix A Table A.5 sets out the policies of the Rochdale CS and Rochdale UDP which have been superseded following adoption of PfE and are therefore no longer relevant.

⁸ PfE Appendix A Table A.5 sets out the policies of the Rochdale CS and Rochdale UDP which have been superseded following adoption of PfE and are therefore no longer relevant.



part of a Nature Recovery Network, making a major contribution to local identity, quality of life and the natural environment. Where development relates positively to waterways, they should take advantage of this and provide high quality frontages to the water and public realm along the water.

- 1.20. PfE Policy JP-G8 (A Net Enhancement of Biodiversity and Geodiversity) aims to achieve a net enhancement of biodiversity and geodiversity through several key actions. These include improving the quality, quantity, and diversity of habitats, enhancing habitat connectivity, and managing existing habitats to prevent fragmentation and combat invasive species. The policy emphasizes protecting nature conservation sites and supporting access to nature, especially in urban areas. It also focuses on developing the Greater Manchester Wetlands Nature Recovery Network and managing soil resources effectively. For development projects, the policy requires:
- Following a mitigation hierarchy to avoid, mitigate, and compensate for harm to biodiversity.
 - Avoiding fragmentation of habitat connectivity.
 - Achieving at least a 10% net gain in biodiversity.
 - Ensuring long-term management of habitats and geological features.
 - Mitigating specific impacts on designated conservation areas, as needed.
 - Using relevant biodiversity assessments to guide development proposals.
- 1.21. PfE Policy JP Allocation 1.1 (Heywood / Pilsworth (Northern Gateway)) requires development within the JPA1.1 Allocation Site to make provision for new, high quality, publicly accessible multi-functional green and blue infrastructure including the integration and enhancement of existing features such as Brightly Brook, Whittle Brook and Castle Brook.

Bury UDP

- 1.22. Bury UDP Policy EN6/1 (Sites of Nature Conservation Interest) states that planning permission will be refused for developments that harm nationally or regionally important conservation sites unless overriding factors justify approval.
- 1.23. Bury UDP Policy EN6/3 (Features of Ecological Value) confirms that the effect of land use changes on existing features of ecological or wildlife value will be taken into account when assessing development proposals. Any proposal should seek to retain such features and incorporate them into the development.
- 1.24. Bury UDP Policy EN6/4 (Wildlife Links and Corridors) confirms that the Council will seek to consolidate and, where appropriate, strengthen wildlife links and corridors, and will not permit development which would adversely affect identified areas. In particular, the Council will seek to ensure that new development within or adjacent to identified links or corridors contributes to their effectiveness through the design, landscaping and siting of development proposals and mitigation works, where appropriate.



Rochdale Core Strategy & UDP

- 1.25. The borough of Rochdale contains a diverse range of habitats and features of nature conservation; therefore, the Council seeks to ensure that development proposals protect and enhance biodiversity, existing features such as ponds, wetlands, trees, hedges, meadows, flora and fauna, takes opportunities to promote biodiversity and create new habitats and improves access to new or existing biodiversity interest for public enjoyment (Rochdale CS Policy G7 – Increasing the value of biodiversity and geodiversity).
- 1.26. Additionally, the CS seeks opportunities for new development to promote biodiversity and create new habitats through landscaping and construction features such as green walls (Rochdale CS Policy G6 – Enhancing Green Infrastructure and G7 – Increasing the Value of Biodiversity and Geodiversity).
- 1.27. Rochdale UDP Policy NE/2 (Designated Sites of Ecological and Geological / Geomorphological Importance) states that development proposals which negatively impact ecologically or geologically important sites will be refused by the Council, which aims to protect and enhance these areas. If a site contains a priority natural habitat or species, development will only be allowed for urgent human health, public safety reasons, or significant environmental benefits. When development is approved, conditions or planning obligations will be imposed to safeguard and enhance the site's nature conservation value.
- 1.28. RMBC's Biodiversity and Development Supplementary Planning Document (adopted January 2008) emphasises that the challenges of climate change are necessitating significant changes to the approach to new development and outlines actions for developments to help climate change adaption. It states that proposals for new development will be expected to demonstrate how the overall layout and massing of the development will be designed around natural vegetation and green space, rather than vice versa.

Statutory BNG

- 1.29. As of February 2024, BNG is required under a statutory framework introduced by Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021)⁹. This statutory framework is referred to as 'biodiversity net gain' in Planning Practice Guidance to distinguish it from other or more general biodiversity gains. This objective is for development to deliver at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of the onsite habitat. This increase can be achieved through onsite biodiversity gains, registered offsite biodiversity gains or statutory biodiversity credits.

Mitigation hierarchy and good practice principles

- 1.30. The Proposed Scheme has been developed with reference to the ecological mitigation hierarchy which is central to the BNG process. This was applied by advising avoidance of damage to habitats, then minimising the impact and using mitigation, and finally compensating for a loss of habitat (see **Section 2**). Advice was provided throughout the project to inform the preparation of the Proposed Scheme Parameters Plan (**Appendix 2**) to adhere to this and to achieve a minimum of +10% BNG (see Legislation and Planning Policy above).

⁹ Town and Country Planning Act (1990): Schedule 7A Biodiversity Net Gain [online]: <https://www.legislation.gov.uk/ukpga/2021/30/schedule/14/enacted>



- 1.31. The CIRIA BNG good practice principles for development¹⁰ (which include the mitigation hierarchy) were also applied at all stages of the assessment.

Quality assurance

- 1.32. All ecologists at Tyler Grange Group Ltd are members of the Chartered Institute for Ecology and Environmental Management (CIEEM), or are working towards membership, and act under the direction of members, and abide by the Institute's Code of Professional Conduct.

¹⁰ CIRIA Biodiversity Net Gain – Principles and Guidance for UK construction and development [online]: https://www.ciria.org/CIRIA/Resources/Biodiversity_Net_Gain.aspx



Section 2: Baseline Assessment

Strategic Significance

- 2.1. The Application Site is not located within any statutory or non-statutory sites designation.
- 2.2. Pilsworth Site of Biological Importance (SBI), (non-statutory) is located adjacent to the north of the Application Site. It is designated for its large expanses of open-water; habitats which are not present within the Application Site. The Proposed Scheme Parameters Plan also includes a buffer from developable areas to the SBI.
- 2.3. No local strategic policy or objectives were therefore identified which would classify the Application Site habitats as being of strategic significance to the local area. In addition, consultation of Magic.gov¹¹ mapping did not identify any part of the Application Site as being located within a Network Enhancement Zone and as such the Application Site habitats (both pre and post development) are assessed as being of Low strategic significance – and are defined as “Area/compensation not in local strategy/ no local strategy” within the strategic significance column on the Statutory Metric sheet.

Baseline Habitats

- 2.4. The habitats present on Application Site are summarised below in **Table 2.1**, with further descriptions within **Appendix 5 and 6**, along with a description of the composition of the main plant species present. The location of habitats are shown on the Proposed Scheme Habitat Features Plan (**Plan 1 - ref: 16551 / P10**).
- 2.5. The results of the habitat surveys were used to inform the completion of condition assessments for all habitats, which were completed with reference to The Statutory Biodiversity Metric User Guide¹² (see **Appendix 3**).
- 2.6. A summary of the BNG assessment of the baseline habitats is detailed below in **Table 2.2** and **Table 2.3**. This includes their BNG unit value as calculated through the BNG metric (ref: 16551_R02_BNG_Statutory_Metric_270125)

Assumptions and Constraints

- 2.7. The vast majority of the baseline habitats were assessed in detail, including condition assessments. However, the five watercourses within the Application Site, and comprising the boundaries, were not subject to condition assessment. It is unknown at this stage, whether there will be impacts on the watercourses. Through detailed design, impacts (if any) will be established and therefore detailed River MoRPh surveys can be undertaken as part of future applications for Reserved Matters approval pursuant to the outline planning permission to establish their baseline condition. However, the Metric does not allow a ‘null entry’ for a condition, so for the purposes of this assessment, the five watercourses were precautionarily assigned a moderate condition. This is considered to be a realistic assumption, as most of the watercourses have elements of degradation present (extensive poaching, encroachment, litter, invasive species, for example)

¹¹ Multi-Agency Geographic Information for the Countryside [online]: <https://magic.defra.gov.uk/>

¹² DEFRA (2023) The Statutory Biodiversity Metric User Guide. 2023



which would likely reduce the condition of the watercourses to at least moderate, if not poor condition.

- 2.8. Assumptions have also been made on the post-development habitat type condition, based on what is practicable (see Proposed Offsite Habitats and BNG Mitigation Strategy section below) and what would be required to provided like-for-like habitat replacement.
- 2.9. There are areas of broadleaved woodland across the Application Site. MAGIC¹¹ describes some blocks of woodland as Priority¹³ woodland habitat, which have been categorised as lowland mixed deciduous for the purpose of this BNG assessment, see the Habitat Features Plan (**Plan 1 - ref: 16551 / P10**) for locations. This is because there is no 'Priority woodland' categorisation with the Metric, and lowland mixed deciduous woodland is automatically assigned a higher distinctiveness than 'other woodland; broadleaved', which replicates the higher distinctiveness afforded to a Priority woodland, in comparison to a non-Priority woodland. The locations of the Priority woodland are often contiguous with the 'other woodland; broadleaved' (non-Priority woodland) and therefore the condition described for the overall woodland block is relevant for both non-Priority and Priority woodland; for example woodland W1 was assessed as poor condition (see **Appendix 3**), therefore both the Priority (lowland mixed deciduous) and non-Priority (other woodland; broadleaved) habitats have been assessed as poor condition.



Table 2.1. Habitats and Flora

Habitat Type (UKhab)	Description and Species	Photograph
<u>Primary code:</u> Modified grassland g4	Detailed description and photographs of each field are available in Appendix 6. The vast majority of the site (Fields F1 – F57) comprised managed modified grassland. The fields were regularly cut and managed for haylage/ silage and are rye grass dominant. Average species across this habitat were recorded as: perennial rye grass <i>Lolium perenne</i>, meadow foxtail <i>Alopecurus pratensis</i>, Yorkshire fog <i>Holcus lanatus</i> and white clover <i>Trifolium repens</i>. Average number of species per m2 were fewer than 6-8 species, and did not show characteristics of a higher distinctiveness grassland. Therefore, fields F1-F57 were assessed as being poor condition modified grassland. Photographs of Fields F10 and F14 provided for reference, see Appendix 6 for full details. Habitat not subject to statutory protection.	 F10



		 F14
Primary code: Other neutral grassland g3c	There are four areas of neutral grassland within the Application Site: F58, F59, F60 and F61. F59 Assumed to be a former pasture, which has been left to grow-out. This field contained 6-8 species per m2 and showed characteristics of a higher distinctiveness grassland. Species present per m2 were: cocksfoot <i>Dactylis glomerata</i>, perennial rye, fescue sp., common bent <i>Agrostis capillaris</i>, reed canary grass <i>Phalaris arundinacea</i>, ribwort plantain <i>Plantago lanceolata</i>, common nettle <i>Urtica dioica</i> and broad-leaved dock <i>Rumex obtusifolius</i>. Other species found within this parcel, but did not account for average species per m2 were Himalayan balsam <i>Impatiens glandulifera</i>, teasel <i>Dipsacus</i>, cleavers <i>Galium aparine</i>, bramble <i>Rubus fruticosus</i>, dandelion <i>Taraxacum officinale</i>, creeping thistle <i>Cirsium arvense</i> and great willowherb <i>Epilobium hirsutum</i>. It was therefore assessed as being moderate condition neutral grassland.	 F59



F60

A rush dominant, damp area. This field contained 6-8 species per m2 and showed characteristics of a higher distinctiveness grassland. Average species present per m2 were: hard rush *Juncus inflexus*, cock's foot, Yorkshire fog *Holcus lanatus*, nettle, broad-leaved dock, ragwort *Jacobaea vulgaris* and tufted hair grass *Deschampsia cespitosa*. Other species within this parcel included Himalayan balsam, meadow buttercup *Ranunculus acris* and horsetail *Equisetum*. It was therefore assessed as being moderate condition neutral grassland.

F61

A rush dominant unmanaged area, with some footpaths running through. This field contained 6-8 species per m2 and therefore categorised as a higher distinctiveness grassland. Species present per m2 were: hard rush, cock's foot, broad-leaved dock, creeping thistle, teasel and horsetail. Other species present in the wider sward included occasional stands of gorse *Ulex europaeus* and goat willow *Salix caprea*, with some isolated areas of common reed *Phragmites australis* and tufted hair grass; there was Himalayan balsam present to the western boundary. It was therefore assessed as being moderate condition neutral grassland.

F62

Comprised a strip of rush dominant habitat on a small embankment, which was left unmanaged. This field contained 6-8 species per m2 and showed characteristics of a higher distinctiveness grassland. Average species present per m2 were: hard rush, cock's foot, Yorkshire fog, nettle, broad-leaved dock, tufted hair grass and red clover. There were scattered goat willow and occasional self-seeded hawthorn and Himalayan balsam. It was therefore assessed as being moderate condition neutral grassland.

Habitat not subject to statutory protection.



F60



F61



		 F62
<u>Primary code:</u> Other woodland, broadleaved w1	There are Priority¹³ and non-priority woodland blocks within the Application Site, as described in Paragraph 2.9. In most cases, the Priority and non-priority woodland are contiguous. W1 was the largest and located to the south east of the site, it predominately comprised oak <i>Quercus robur</i>, ash <i>Fraxinus excelsior</i>, silver birch <i>Betula pendula</i> and hawthorn <i>Crataegus monogyna</i>. Ground flora predominantly comprised grasses such as cock's foot and perennial rye; Himalayan balsam	 W1



was present in many areas. W1 was recorded as poor condition. However, W1 is recognised on the Priority Habitat Inventory¹³ on MAGIC.

W2 is a thin strip of woodland, marking a boundary and adjacent to neutral grassland. The woodland comprised oak, silver birch, ash, hawthorn, sycamore and holly *Ilex aquifolium*. Ground flora comprised cock's foot, perennial rye, common nettle and bramble. W2 was recorded as poor condition.

W3 is a large area of woodland adjacent to Whittle Brook (photograph showing the northern end). Species present included oak, silver birch, hawthorn, beech *Fagus sylvatica*, cherry *Prunus avium*, aspen *Populus tremula*, ash and holly. W3 was recorded as moderate condition. W3 is recognised on the Priority Habitat Inventory¹³ on MAGIC

W4 was a small, isolated block of woodland within the modified grassland fields to the west of the Proposed Scheme. Species comprised oak, ash, silver birch, sycamore and holly. Ground flora was limited to occasional grasses such as cock's foot, with some bramble and common nettle. This woodland was assessed as poor condition.

W5 was a small woodland in the northwest corner of the Application Site. Species comprised holly, hawthorn, oak, silver birch and sycamore. The woodland was located on a steep bank which was poached extensively by horses, resulting in very little ground flora. The condition of W5 was assessed as poor.

W6 was a block of woodland to the northern end of Brightley Brook. The southern side of the woods was a steep embankment, with the northern side being a field boundary. Species comprised oak, silver birch, sycamore, beech and holly. Himalayan balsam was extensive throughout the ground flora. The condition of W5 was assessed as poor.



W2



W3

¹³ NERC (2006) Section 41 Habitats of Principal Importance: <https://www.data.gov.uk/dataset/4b6ddab7-6c0f-4407-946e-d6499f19fcde/priority-habitats-inventory-england>



W7 was located to the north of the Application Site, close to Butterfields Farm. The woodland block comprised horse chestnut *Aesculus hippocastanum* hawthorn, cherry, holly, goat willow and sycamore. There was no recognisable NVC ground flora, as it was limited to common grasses. This woodland was of poor condition.

W8 is a small block of woodland directly south of Butterfield Farm. It is located on a steep bank, with species comprising oak, sycamore, silver birch, horse chestnut and hawthorn. Ground flora was limited to common grasses with some nettle and bramble. This woodland was of moderate condition.

W9 was located in the far north of the Application Site and comprised oak, ash, hawthorn, elder and silver birch. Ground flora was limited to common grasses with common nettle and isolated patches of Himalayan balsam. The condition of this woodland was assessed as moderate.

Habitat not subject to statutory protection.



W4



W5



		 W6  W7
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		 W8  W9
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Primary code: Lakes and ponds r1	There are nine ponds within the Application Site. Most of which were categorised as moderate condition, with one good condition and one poor condition. Refer to Appendix 3 for the Condition Assessments. P5 a narrow, tree lined pond to the north of the Application Site. Moderate condition P12 a small, common reed dominant pond to the northeast of the Application Site. Poor condition. P13 an oval shaped, moderate size pond within the southeastern fields. Moderate condition. P14 only seasonally wet, bullrush dominant. Poor condition. P15 a large pond with good water quality and emergent vegetation. Moderate condition. P17a newly created pond to store run-off and provide water for cattle. No submergent or emerging vegetation, linked to P17b through a pipe. Poor condition. P17b newly created pond to store run-off and provide water for cattle. Only seasonally wet. No submergent or emerging vegetation, linked to P17a through a pipe. Poor condition. P18 small pond with good water quality and submerged and emergence vegetation. Moderate condition. P39 a large stone-lined reservoir, storing water. Some submerged vegetation. Poor condition Habitat subject to statutory protection under UKBAP Priority Habitats¹⁴	 P5 
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¹⁴ JNCC UKBAP Priority Habitats: <https://jncc.gov.uk/our-work/uk-bap-priority-habitats/#uk-bap-broad-habitats>



		P12  P13  P14
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		 P15  P17a
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		 P17b  P18
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		 P39
<u>Primary code:</u> Heathland and shrub h <u>Secondary Code</u> Dense scrub h3	There were three main areas of dense scrub habitat within the Application Site. H3a is located around the small reservoir to the north of the Application Site. This habitat included bramble, gorse, hawthorn and goat willow with some self-seeded trees such as silver birch to the west. Himalayan balsam was present. This habitat scored a poor condition on the condition assessment. There was a large area of dense scrub to the east of the Application Site (H3b), situated on an embankment leading down to woodland W1. This habitat comprised dense bramble with teasel. Himalayan balsam was present. This habitat scored a poor condition on the condition assessment. H3c comprised a large area of dense scrub, located towards the southeast of the Application Site. It comprised an unmanaged bund of bramble, dock and rosebay willowherb <i>Chamerion angustifolium</i>, with bramble scrub to the east of the hardstanding area. Himalayan balsam was present to the east. This habitat scored a poor condition on the condition assessment.	 H3a



Habitat not subject to statutory protection.



H3b



H3c



Primary Code
Rivers and
streams r2

Stream S1 comprised a narrow and shallow channel, often recorded as being almost dry/ only found to have running water when seasonally wet. It runs entirely within woodland W1 and connects to Whittle Brook. It has a relatively flat gradient to the north, then the embankments become increasingly steep towards the south. A condition assessment of the brook itself has not been undertaken as impacts are unknown at this stage; for the purpose of this assessment, it was considered to be moderate.

Stream S2 (Brightley Brook) comprised narrow (c. 30-40cm) channel, with modified grassland on both embankments to the north, and common and widespread grasses found within the channel itself, suggesting that the water level and flow may fluctuate. The brook flows along a culverted section to the south of Pilsworth Lake, then drops steeply down an artificial waterfall and into a predominantly artificial stone-lined channel comprising the northwest boundary of the Application site. A condition assessment of the brook itself has not been undertaken; although the parameters plans show a full retention of its length, impacts are not known at this stage. For the purpose of this assessment, it was considered to be moderate.

Stream S3 (Pilsworth Clough) comprised a narrow channel (c. 20-35cm), with neutral grassland on both embankments at its northern extent (F62). The brook then runs through an area of 'no access', it is culverted underneath Moss Hall Road, re-emerges within F8 (modified grassland) and then follows the access track to Pilsworth Fisheries and enters the small reservoir (P39). A condition assessment of the brook itself has not been undertaken; although the parameters plans show a full retention of its length, impacts are not known at this stage. For the purpose of this assessment, it was considered to be moderate.

Stream S4 comprised a narrow channel (c. 20-35cm), located to the north east of the application site and comprising the boundary. It is situated within a small woodland block (W9). The stream was found to be showing signs of iron oxidation during the habitat survey (see photograph). The embankments appeared to be poached, through cattle accessing from the eastern embankment. A condition assessment of the brook itself has not



Stream S1



Stream S2 (Brightley Brook, NE)



been undertaken; although the parameters plans show a full retention of its length, impacts are not known at this stage. For the purpose of this assessment, it was considered to be moderate.

Stream S5 (Whittle Brook) comprises the majority of the southern boundary of the Application Site, but deviates away from the boundary towards the southwest. Whittle Brook is a meandering watercourse, where some sections are up to 2.5m in width, however in some location it can be as narrow as 50cm. The depth of the watercourse fluctuates, in some locations it is shallow with shingle substrate, in other locations – often where water pools at a meander – it can be up to 1m deep. There is a moderate flow along its length. Adjacent habitats largely comprise broadleaved woodland and modified grassland. Encroachment and poaching is relatively minor as sheep and cattle are not often present within the adjacent fields. A condition assessment of the brook itself has not been undertaken; although the parameters plans show a full retention of its length, impacts are not known at this stage. For the purpose of this assessment, it was considered to be moderate.

Habitat subject to statutory protection under UKBAP Priority Habitats¹⁵



Stream S3 (Pilsworth Clough)

¹⁵ JNCC UKBAP Priority Habitats: <https://jncc.gov.uk/our-work/uk-bap-priority-habitats/#uk-bap-broad-habitats>



		 Stream S4  Stream S5 (Whittle Brook, west)
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		 Stream S5 (Whittle Brook) with Woodland W3
<u>Primary Code</u> Line of trees	There are three lines of trees habitat across the Application Site. LT1 comprised predominantly oak, silver birch and ash. It was assessed as being moderate condition. LT2 comprised beech, cherry, silver birch and oak. It was assessed as being moderate condition. LT3 comprised beech, silver birch, oak and hawthorn. It was assessed as being moderate condition.	 LT1



		 LT2  LT3
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<u>Primary Code</u> Developed land; sealed surfaces u1b	There were areas of developed land; sealed surface throughout the Application Site, comprising buildings, hardstanding, access roads and storage/ lay-down areas. This habitat has no intrinsic ecological value and therefore is not applicable for condition assessment. Habitat not subject to statutory protection.	
<u>Primary code</u> Heathland and shrub h <u>Secondary code</u> Hedgerows h2	There were 52 hedgerows across the Application Site. The vast majority of the hedgerows were homogenous in species diversity and condition, due to similar farming management and maintenance practices. Hedgerow descriptions and photographs are provided in Appendix 5. Hedgerows H1 – H10, H12, H13, H15-H22, H24-H29, H32, H33-H46, H48-52 were found to be species-poor, native hedgerows largely comprising hawthorn and elder. Hedgerows H11, H14, H23, H30, H31, H33 and H47 were found to be better condition hedgerows, with a greater species diversity, however were still associated with heavily managed modified grassland fields with little or no field boundary/ understorey vegetation. All hedgerows within the Application Site were found to be Priority habitat, largely due their length. This habitat is therefore subject to statutory protection under UKBAP Priority Habitats¹³.	



Table 2.2. Baseline Habitats and BNG Unit Value

Broad Habitat	Habitat Type	Area (ha)	Distinctiveness	Condition	BNG unit Value – Total
Urban	Developed land; sealed surface	5.17	V.Low	N/A - Other	0.00
Heathland and shrub	Mixed scrub/ dense scrub	1.47	Medium	Poor	5.88
Grassland	Modified grassland	182.58	Low	Poor	365.76
Grassland	Other neutral	7.21	Medium	Moderate	55.28
Woodland and forest	Lowland mixed deciduous woodland	2.48	High	Moderate	29.76
Woodland and forest	Lowland mixed deciduous woodland	2.38	High	Poor	14.28
Lakes	Ponds	0.17	High	Moderate	2.04
Lakes	Ponds	0.26	High	Poor	1.56
Cropland	Cereal crops	3.39	Low	Condition Assessment N/A	6.78
Woodland and forest	Other woodland; broadleaved	4.16	Medium	Poor	16.64
Woodland and forest	Other woodland; broadleaved	0.73	Medium	Moderate	5.84
Individual trees ¹⁶	Rural trees	2.19	Medium	Moderate	17.52
Total habitat areas		212.19			
Total Area (Excluding individual trees)		210.00	Total		521.34

- 2.11. For ease of reference, hedgerows have been grouped into the two habitat types which are present within the Application Site, which are native hedgerows and native hedgerows with trees. Detailed descriptions and photographs of each hedgerow are provided in **Appendix 5**. Watercourse lengths and units are described in **Table 2.4**.

Table 2.3. Baseline Hedgerows and Unit Value

Hedge/ Tree Line number	Hedgerow type	Length (km)	Distinctiveness	Condition	BNG unit Value – Total
H1 – H10, H12, H13, H15-H22, H24-H29, H32, H33–H46, H48-52	Native Hedgerow	8.9	Low	Poor	17.80
H11, H14, H23, H30, H31, H33 and H47	Native Hedgerow with trees	2.0	Medium	Moderate	16.00
H18	Native Hedgerow with trees	0.12	Medium	Poor	0.48
LT1 – LT3	Line of Trees	0.84	Low	Moderate	3.36

¹⁶ Individual trees are counted separately to habitat 'areas' and therefore the 2.19ha is in addition to the overall habitat area.



Total	11.86	Total	37.64
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Table 2.4. Watercourses and Unit Value

Watercourse Number	Watercourse type	Length (km)	Distinctiveness	Condition	BNG unit Value – Total
S1	Other rivers and streams	0.49	High	Moderate	4.47
S2	Other rivers and streams	0.69	High	Moderate	3.11
S3	Other rivers and streams	0.31	High	Moderate	2.53
S4	Other rivers and streams	0.31	High	Moderate	2.83
S5	Other rivers and streams	2.16	High	Moderate	19.70
Total		3.96	Total		32.63



Proposals

- 2.12. The Application seeks outline planning permission for a national-scale employment development, including logistics, warehousing, industrial and manufacturing uses, with a range of other supporting ancillary uses and associated demolition works, landscaping, drainage, ecological enhancements, highway works, cycleway and footpath linkages and other ancillary infrastructure ('the Proposed Scheme'). The Proposed Scheme comprises up to 600,000 sqm of employment floorspace, consisting of 70% Use Class B8 and 30% Use Class B2, E(g)(ii) and E(g)(iii) floorspace, alongside up to 5,000 sqm of other supporting ancillary uses (in accordance with the Uses Schedule).
- 2.13. At this stage of the planning process (outline application), specific details on the number of commercial units; their specific locations and details on post-development habitats are not available. Therefore, this assessment is based on the Parameters Plan (**Appendix 2**), which illustrates the maximum developable area and habitats for retention.

Mitigation hierarchy

- 2.14. The Parameters Plan (**Appendix 2**) has been designed to follow the mitigation hierarchy by avoiding ecological impacts as much as possible, with the majority of development to be located within the habitats of lowest ecological importance, namely the large expanses of modified grassland.
- 2.15. The Parameters Plan has also been designed to retain and buffer those habitats of highest ecological value, namely Whittle and Brightley Brook (although offsite, substantial buffers are included within the Application Site boundary), and sections of woodland.
- 2.16. Tyler Grange were involved in scheme design meetings from the inception of the project; whereby recommendations were made to avoid, buffer and enhance the habitats of highest value, such as the Whittle Brook corridor, which has been provided with a minimum buffer of 50m from the flood plain – meaning that in some locations, the buffer from the watercourse itself is substantially bigger.
- 2.17. Where impacts to habitats cannot be avoided, specific measures will be undertaken to mitigate and compensate any loss of habitats and impacts that occur, to ensure opportunities for wildlife are provided for the long-term, biodiversity increases, and an overall ecological enhancement occurs.

Habitat Loss

- 2.18. The Parameters Plan (**Appendix 2**) shows an 'all-out loss' of habitats within the 'developable area'. This includes either in-part, or in full, the following habitats:
- Hedgerows (fully lost);
 - Tree lines (fully lost);
 - Watercourse S1 (fully lost);
 - Modified grassland (partially lost);



- Broadleaved woodland (partially lost);
- Lowland mixed deciduous woodland (partially lost);
- Dense scrub (fully lost); and
- Neutral grassland (partially lost)

- 2.19. Despite the Parameters Plan showing 'all-out loss' within the development area, in reality, once plots and phases come forward through the detailed design process and applications for reserved matters approval, it is likely that habitats will be retained and incorporated into the green infrastructure of future proposals, such as boundary hedgerows and tree lines. However, this BNG report assesses habitat loss as per the Parameters Plan.
- 2.20. A summary of the BNG assessment of the baseline habitats is detailed below in **Table 2.5** and **Table 2.6**. This includes a breakdown of the habitats to be retained, enhanced and lost as part of the proposals, their condition (see **Appendix 3**) and their BNG unit value as calculated through the BNG metric (ref: **16551_R02_BNG_Statutory_Metric_270125**)

Habitats Created, Retained and Enhanced

- 2.21. As previously described, this assessment assesses the Parameters Plans only, which lacks detailed post-development proposed habitat types and target condition. A number of areas on the Parameters Plan (for example, Whittle Brook corridor and the northwestern boundary) have been designed to allow for green infrastructure, habitat retention, habitat enhancement and habitat creation. At this stage, assumptions have been made, and broad habitat types have been ascribed to those areas.
- 2.22. Nevertheless, appropriate compensatory planting/habitat creation should be implemented to replace losses and create new habitats at the Application Site that are not currently present, namely wildflower grassland (to provide a betterment on the modified grassland), enhancement of retained broadleaved woodland, ponds, attenuation features and extensive tree and hedgerow planting. For the purpose of this assessment, the retained moderate condition woodland (both lowland mixed deciduous and other woodland; broadleaved) shall not be retained only (and not enhanced), this is because of the challenges in achieving a 'Good' condition woodland within a 30 year management period.
- 2.23. The details of post-development planting are shown on the Parameters Plan (see **Appendix 2**). The measurements of the created and enhanced habitats as well as their conditions and BNG unit value are detailed in **Tables 2.7** and **Table 2.8** below. Detail on post-development habitat conditions are provided in **Appendix 4**.

Habitat Creation

- 2.24. The following broad habitat types have been proposed, based on the parameters plan:
- Other neutral grassland, 0.69 ha;
 - Mixed scrub (20m landscaped buffer), 2.81 ha; and,
 - Developed land; sealed surfaces, 169.84 ha.



Habitats Retained and Enhanced

2.25. The following habitat shall be retained and/or enhanced:

- Mixed scrub, enhanced from poor to moderate condition, 0.35 ha;
- Modified grassland, enhanced to neutral grassland, 29.89 ha;
- Other neutral grassland, retained, 1.34 ha;
- Lowland mixed deciduous woodland (moderate condition), retained, 2.18 ha;
- Lowland mixed deciduous woodland (poor condition), enhanced, 0.57 ha;
- Ponds (one pond) retained, 0.091 ha;
- Individual trees, retained, 0.67 ha;
- Broadleaved woodland (poor condition), enhanced, 1.75 ha;
- Broadleaved woodland (moderate condition), retained, 0.49 ha; and,
- Watercourses (S2-S5) retained, 3.47 ha.



Table 2.5. Created, Retained and Enhanced Habitats

Broad Habitat	Proposed habitat	Area (ha)	Created/ Retained/ Enhanced	Distinctiveness	Baseline condition	Target condition	BNG unit Value – Final
Heathland and shrub	Mixed scrub	2.81	Created	Medium	-	Moderate	18.81
Grassland	Other neutral	0.69	Created	Medium	-	Moderate	4.62
Urban	Developed land; sealed surface	169.84	Created	V.Low	-	N/A	0.00
Grassland	Other neutral	1.34	Retained	Medium	Moderate	N/A	10.72
Woodland	Lowland mixed deciduous	2.18	Retained	High	Moderate	N/A	26.16
Woodland	Other woodland; broadleaved	0.49	Retained	Medium	Moderate	N/A	3.92
Lakes	Ponds	0.091	Retained	High	Moderate	N/A	0.55
Heathland and shrub	Mixed scrub	0.35	Enhanced	Medium	Poor	Moderate	2.57
Grassland	Other neutral	29.89	Enhanced	Medium	Poor (Modified)	Moderate	185.37
Woodland	Other woodland; broadleaved	1.75	Enhanced	Medium	Poor	Moderate	11.90
Woodland	Lowland mixed deciduous	0.57	Enhanced	High	Poor	Moderate	3.97
Total		210.00					268.59

Table 2.6. Created, Retained and Enhanced Habitats

Watercourse Number	Watercourse type	Length (km)	Created/ Retained/ Enhanced	Distinctiveness	Condition	BNG unit Value – Total
S1	Other rivers and streams	0.49	Lost	High	Moderate	0.00 (-4.47 lost)
S2	Other rivers and streams	0.69	Retained	High	Moderate	3.11



S3	Other rivers and streams	0.31	Retained	High	Moderate	2.53
S4	Other rivers and streams	0.31	Retained	High	Moderate	2.83
S5	Other rivers and streams	2.16	Retained	High	Moderate	19.70
Total		3.96	Total			28.16



- 2.26. The above BNG assessment shows that there is an onsite baseline habitat unit value of 521.34. Based on the Parameters Plan (**Appendix 2**), there will be a post-development habitat unit loss of -247.39 and the Parameters Plan is also showing a loss of all hedgerows.
- 2.27. **Table 2.6** shows that, of the five watercourses either within the Application Site or comprising the boundaries, four shall be retained and one shall be lost. Further discussion on mitigation is provided in the following section.
- 2.28. The BNG Mitigation Strategy should therefore include offsite habitat creation and enhancement to achieve an overall biodiversity net gain for the Proposed Scheme. The proposed BNG Mitigation Strategy is discussed in **Section 3** below.



Section 3: BNG Mitigation Strategy

- 3.1. The Biodiversity Gain Hierarchy¹⁷ largely mirrors the Mitigation Hierarchy in that its emphasis is on the avoidance of impacts on habitats of higher distinctiveness where possible. Distinctiveness in this context refers to the distinctiveness categories listed within Defra's biodiversity metric.
- 3.2. Articles 37A and 37D of the Town and Country Planning (Development Management Procedure) (England) Order 2015¹⁸ sets out a list of priority actions:
- *First, in relation to onsite habitats which have a medium, high and very high distinctiveness (a score of four or more according to the statutory biodiversity metric), the avoidance of adverse effects from the development and, if they cannot be avoided, the mitigation of those effects; and,*
 - *Then, in relation to all onsite habitats which are adversely affected by the development, the adverse effects should be compensated by prioritising in order, where possible, the enhancement of existing onsite habitats, creation of new onsite habitats, allocation of registered offsite gains and finally the purchase of biodiversity credits*

On-Site Approach

- 3.3. The principles of the hierarchy have been embedded within the Proposed Scheme in the ways outlined below. **Figures 2** and **3** summarise the on-site changes in broad habitat types and distinctiveness bands, extracted directly from the metric.
- 3.4. The baseline value of the Application Site has been calculated at 521.34 units, which are broadly broken down into, grassland, woodland, scrub and scattered (individual) tree units, as detailed above. Linear habitats (hedgerow, line of trees and watercourses) have been assessed separately, and have been assumed to be lost, based on the Parameters Plan (**Appendix 2**) at this stage.

On-site change by broad habitat type						
Habitat group	Baseline		Post-development on-site		On-site change	
	On-site existing area	On-site existing value	On-site proposed area	On-site proposed value	On-site area change	On-site unit change
Cropland	3.39	6.78	0.00	0.00	-3.39	-6.78
Grassland	189.79	421.04	31.92	200.71	-157.87	-220.33
Heathland and shrub	1.47	5.88	3.16	21.38	1.69	15.50
Lakes	0.43	3.60	0.09	0.55	-0.34	-3.05
Sparsely vegetated land	0.00	0.00	0.00	0.00	0.00	0.00
Urban	5.17	0.00	169.84	0.00	164.67	0.00
Wetland	0.00	0.00	0.00	0.00	0.00	0.00
Woodland and forest	9.75	66.52	4.99	45.96	-4.76	-20.56
Intertidal sediment	0.00	0.00	0.00	0.00	0.00	0.00
Coastal saltmarsh	0.00	0.00	0.00	0.00	0.00	0.00
Rocky shore	0.00	0.00	0.00	0.00	0.00	0.00
Coastal lagoons	0.00	0.00	0.00	0.00	0.00	0.00
Intertidal hard structures	0.00	0.00	0.00	0.00	0.00	0.00
Watercourse footprint	0.00	0.00	0.00	0.00	0.00	0.00
Individual trees	2.19	17.52	0.67	5.36	-1.52	-12.16

Figure 2 – summary of on-site habitat changes by broad habitat type

¹⁷ Biodiversity Net Gain Hierarchy [online]: <https://www.gov.uk/guidance/biodiversity-net-gain>

¹⁸ The Town and Country Planning (Development Management Procedure) (England) Order 2015 [online]: <https://www.legislation.gov.uk/uksi/2015/595/contents>



Combined area lost from baseline(s) by distinctiveness band		
Category	Area lost (hectares)	Area lost (%)
V.High	0	
High	2.449	1
Medium	10.86	6
Low	156.38	89
V.Low	5.17	3

Figure 3 – summary of habitat areas lost by distinctiveness band

- 3.5. In the context of the Application Site, there are no habitat areas of very high distinctiveness. Ponds and lowland mixed deciduous woodland represent the only habitats of high distinctiveness, with eight (of nine) ponds anticipated to be lost, and 2.11 ha of lowland mixed deciduous woodland to be lost. However, the loss of high distinctiveness habitat represents only 1% of the total area (**Figure 3**). Watercourses are also of high distinctiveness; all of which, other than S1 are showing as retained on the parameters plan. The largest percentage of habitat loss comes from the low distinctiveness category, which represents the modified grassland and arable habitats.
- 3.6. **Figure 3** shows that, where possible, the mitigation hierarchy has been adopted by proposing development on habitat of very low (3%), low (89%) and medium distinctiveness (6%).
- 3.7. In addition to the habitat areas detailed above, hedgerow and tree line planting would be required. It is anticipated that, through detailed design, some hedgerows within the Application Site shall in fact be retained (and therefore available for enhancement), and additional hedgerow planting would be achievable on-site; for example, the planting-up of plot/phase boundaries, car park borders, SuDS borders, boundaries with adjacent land, etc. It is therefore considered that there would be capacity within the Application Site, post-development, to mitigate for a proportion of the lost linear features and some losses of scattered/ individual trees; any remaining deficit would be achieved off-site.
- 3.8. With regards to watercourses, four of the five either within the Application Site or comprising the Application Site boundaries are due to be fully retained. As S2-S5 are all located within areas set-aside for green infrastructure, it is considered achievable that these watercourses could be enhanced. Should all four retained watercourses be enhanced (from moderate to good condition), this would in fact provide the Application Site with a 43.94% net gain in watercourse units (Figure 4).



Watercourse summary	
Total Net Unit Change	14.34
Total Net % Change	43.94%
Trading Rules Satisfied	Yes ✓

Figure 4 - Potential watercourse units, should S2, S3, S4 and S5 be enhanced.

Off-Site Approach

- 3.9. In the context of the Application Site and the Mitigation/BNG Hierarchy, the most important aspects of the off-site habitat compensation strategy are:
- 1. To ensure that retained habitats are enhanced where possible and that there is a like-for-like replacement of habitats of high and medium distinctiveness (ponds, woodland and neutral grassland), so there is no overall loss in the unit value of said habitat;**
 - 2. To ensure there is an overall 10% net gain in habitat value in accordance with the metric, along with trading rules being satisfied; and,**
 - 3. Where possible, provide off-site mitigation within the same borough as the habitats lost.**
- 3.10. To this end, it is not considered appropriate to simply 'enhance' offsite woodland/scrub/ grassland habitats. Whilst such measures could achieve the objectives of Point 2 above, it would fail against Point 1 and not be in line with best-practice. For this reason, any off-site compensation package would need to account for the creation of habitat, which is detailed below.
- 3.11. It should be noted that there is land available within the landowners control for offsite mitigation, which would meet Objective 3 (providing mitigation within the same borough); this land is assessed as part of the EIA Environmental Statement.

Habitat Creation

- 3.12. The deficit observed with regards to the woodland is the unit/area losses associated with 'broadleaved' woodland (both 'other broadleaved' and 'lowland mixed deciduous'). Overall, 4.76 ha would be lost. To ensure that a) an equivalent area and b) equivalent unit value can be replaced off-site to satisfy trading rules, a minimum of 4.5 ha¹⁹ of moderate condition broadleaved woodland planting is required off-site within the same borough, and in an area ecologically desirable (i.e. within ecological network or other designation identified under ENV2). The target condition has been set as 'moderate', as it is acknowledged that achieving a 'good' condition woodland within the suggested time frame of management (30 years) is unlikely. This habitat creation would satisfy trading rules regarding general woodland loss and would also satisfy the trading rules for lowland mixed deciduous woodland which requires the "same habitat" to be replaced.

¹⁹ To calculate this, the habitat area was entered into the Metric, with the proposed post-development condition (i.e. moderate condition woodland), in order to establish the area required to achieve a 10% uplift for that habitat type and condition. NB, a smaller area of what is lost, is required, because a higher/ better condition is being proposed.



- 3.13. A total of eight onsite ponds shall be lost, which equates to 0.34 ha. A minimum approximate area of 0.4 ha¹⁹ of good condition pond habitat should be created. However, it is recommended that multiple ponds should be created, rather than one pond which would total the minimum required size on its own. As per the requirements for woodland, this would need to be in the same borough and in an ecologically important area. Good condition has been assumed, as some ponds have moderate condition and some ponds have poor condition.
- 3.14. The remaining consideration is the loss of grassland area and units. There would be an overall loss of 5.57 ha of medium distinctiveness neutral grassland. Therefore, to ensure there is like-for-like replacement, at least 7.4 ha¹⁹ of moderate condition neutral grassland would need to be incorporated into off-site mitigation, or approximately 5.9 ha of good condition grassland. Additionally, to compensate for the overall loss of modified grassland, albeit of low distinctiveness, additional areas of higher distinctiveness grassland (i.e. moderate condition neutral) shall be created in order to achieve an overall 10% net gain across the offsite area(s) and therefore meeting the objectives of Point 2, as set out above.
- 3.15. As set out above, it may also be necessary for replacement hedgerow and tree line planting to be provided off-site.
- 3.16. To reiterate, the above required quantum of land for off-site provision is based on the parameters plan (**Appendix 2**); once detailed design for individual plots comes forward, which will incorporate habitat retention, enhancement and creation, the quantum of off-site land required as mitigation is likely to be lower.

Future Management

- 3.17. Once detailed post-development plans come forward, all habitats created, retained and enhanced as part of the Proposed Scheme, and any potential offsite enhancements, will be maintained for at least 30 years post development to satisfy the conditions for BNG in the Environment Act 2021, as well as best practice guidelines²⁰. This should be secured through a Habitat Management and Monitoring Plan (HMMP) as a planning condition. The management will be adapted based on monitoring results to ensure the best desired outcomes are achieved.

²⁰ Construction Industry Research and Information Association (2019). Biodiversity Net Gain – Principles and Guidance for UK construction and developments.



Section 4: Conclusions

4.1. The Statutory Biodiversity Metric calculated that the Proposed Scheme will result in a total net biodiversity unit change of:

- -247.39 habitat units equating to -47.45%;
- hedgerow units are fully lost, equating to -100%, and,
- watercourse units are partially lost, equating to -13.70%.

4.2. The headline results of the metric are shown in the screenshot in **Figure 4.1**.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	-247.39
	<i>Hedgerow units</i>	-41.00
	<i>Watercourse units</i>	-4.47
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	-47.45%
	<i>Hedgerow units</i>	-100.00%
	<i>Watercourse units</i>	-13.70%
Trading rules satisfied?	No - Check Trading Summaries ▲	

Figure 4.1. Screenshot of Biodiversity Metric 4.0 Headline Results

- 4.3. The assessment of the Parameters Plan shows a loss of -47.45% and trading rules not satisfied. However, the BNG Mitigation Strategy presented in Section 3, describes methods in order to potentially achieve 10% net gain, through offsite habitat creation and also meet trading rules.
- 4.4. In addition to the above, a number of measures are proposed to provide additional ecological enhancements for protected and priority species known or with potential to be present within the Application Site and local area. This includes the provision of amphibian specific ponds, as well as bat and bird boxes. Although these measures cannot be captured in the Defra metric, they will contribute to enhancing the conservation status of these species, contributing to further biodiversity gains at the Application Site.
- 4.5. Considering the planning stage of the Proposed Scheme, the constraints to the layout and the fact the opportunities for biodiversity have been maximised with the Parameters Plan as far as possible, it should be possible to undertake biodiversity offsetting through offsite gains, to compensate for losses.
- 4.6. It is anticipated that BNG assessment would be required at Reserve Matters stage for each plot, as they come forward for planning. This would include detailed re-survey of the baseline conditions (included watercourse surveys), within an appropriate timeframe of the application and assessment of the proposed post-development habitats, based on detailed landscaping plans.
- 4.7. With the implementation of appropriate offsite compensation, it would be possible to secure an overall measurable biodiversity net gain for the Application Site. The Proposed Scheme would



therefore be in conformity with relevant national, regional and local planning policy and legislation (as summarised in Section 1).



Appendix 1: Methodology

Desk Study

- A1.1. Tyler Grange undertook UK Habs and Condition Assessment surveys throughout 2024. Additionally, a background desk study was undertaken to identify any designated sites within or in close proximity to the Application Site which could be impacted by the Proposed Scheme, with further detail provided in the Environmental Impact Assessment.
- A1.2. As part of this process, the strategic significance of the Application Site and its habitats were also determined so as to identify and give extra value to any habitats in optimal locations or that meet local objectives for biodiversity. This process is informed by reviewing local plans and strategies and with habitats assigned a multiplier based on being of 'low', 'medium' or 'high' strategic significance²¹.
- A1.3. No local strategic policy or objectives were identified which would classify the Application Site habitats as being of strategic importance to that local area. Consultation of Magic.gov mapping did however identify the Application Site as being partly located within Network Enhancement Zone 2 of the National Habitat Network²² which comprises *"Land connecting existing patches of primary and associated habitats which is less likely to be suitable for creation of the primary habitat"*. As such natural England guidance state that actions that *"improves the biodiversity value through land management changes and/or green infrastructure provision can be targeted here"*.
- A1.4. Based on the above the Application Site habitats (both pre and post development) are therefore assessed as being of Medium strategic significance – *"Location ecologically desirable but not in local strategy"*.

Habitat survey

- A1.5. Due to the size of the Application Site, surveys were undertaken throughout spring and summer 2024. An extended Phase 1 habitat field survey, UK Habs and Condition Assessments of the Application Site were undertaken on 1st May 2024, 13th June 2024 and 3rd October 2024. The surveys were conducted by Olivia McKechnie, Bethany Pythian and Nick Bell, all members of CIEEM, experienced ecologists and BNG assessors at Tyler Grange.
- A1.6. The methods used during the walkover survey broadly followed methods used in an 'extended' Phase I habitat survey ²³ and entailed recording the main plant species and classifying and mapping habitat types with reference to the Habitat Definitions provided by the UK Habitat Classification Working Group ²⁴ to feed into the Biodiversity Metric. The Statutory Biodiversity Metric User Guide was used during surveys to determine habitat condition and ecological importance.

²¹ Natural England (2023). The Biodiversity Metric 4.0 User Guide: Natural England Joint Publication JP039.

²² https://magic.defra.gov.uk/Metadata_for_magic/Habitat%20Network%20Mapping%20Guidance.pdf

²³ Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey – a technique for environmental audit. JNCC, Peterborough.

²⁴ UKHab Ltd. (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)



- A1.7. All habitats were assessed utilising the relevant condition criteria for the relevant habitat type under the Statutory Metric, which included confirming 'pass' / 'fail' criteria taken from the UK Habitat/Phase 1 methodology where necessary.
- A1.8. Hedgerow surveys were also undertaken on all hedgerows within the Application Site, during the three survey dates described above, using the methodology detailed in 'The Hedgerow Survey Handbook. 2nd Edition'²⁵, in order to determine their species-richness. Based on this survey methodology, 30m sections of each hedgerow were surveyed and if 5 or more native wooded species were recorded in that section, the hedge was classified as species-rich. If a hedge was less than 30m in length, the entire length of hedge was surveyed using this methodology.
- A1.9. All hedge features, management and dimensions were also recorded, along with their condition as defined in the survey handbook.

Modular River Physical (MoRPh) Survey

- A1.10. Whittle, Brightley and Castle Brook are located outside of the Application Site boundary and therefore were not included within this BNG assessment, but are included in the EIA. A condition assessment of Stream S1 was not undertaken, as at this stage, potential impacts on watercourses are unknown. It is considered that condition assessments of watercourses can be undertaken as part of future applications for reserved matters approval, once detailed plans come forward and information is available with regards to extents of impacts, if any.

Metric calculations

- A1.11. The Statutory Biodiversity Metric operates by calculating the number of biodiversity units associated with a particular habitat type (both pre-and post-development) – the 'unit' value associated with each habitat type is calculated based on the following parameters:
- Size (in hectares)/Length (in km);
 - Distinctiveness (i.e. how rare/valuable a given habitat is);
 - Condition (i.e. how well the recorded habitat fits [or will fit] the standardised description of that habitat); and
 - Strategic significance (i.e. if the existing or proposed habitat is within an area formally adopted in the local plan for green infrastructure or biodiversity improvements).
- A1.12. When considering the creation of new habitats post-development, other factors are also considered when calculating the 'unit' value of a given habitat and these are:
- Time to reach the target condition of each habitat; and
 - Difficulty category for the creation of a given habitat.

²⁵ Defra (2007) Hedgerow Survey Handbook. A standard procedure for local surveys in the UK. Defra, London.



A1.13. Habitat survey metric calculations were undertaken by Mr Elliot Grundy and Mr Nick Bell, experienced ecologists at Tyler Grange who are suitably qualified persons under the definition of the BS8683:2020²⁶.

Application of Mitigation Hierarchy

A1.14. Application of the mitigation hierarchy is fundamental to the ecological impact assessment process. This requires consideration of the following measures, in order of priority, for all potential impacts, to determine the most appropriate mitigation, compensation and enhancement strategy for the project. This is taken into account within **Section 3** of this report and set out below:

- Avoidance – measures to avoid harm to ecological features;
- Mitigation – measures to avoid or minimise potential impacts as part of the design or guaranteed by planning controls;
- Compensation – measures required to offset significant residual negative effects following avoidance and mitigation; and
- Enhancement – measures over and above requirements for avoidance, mitigation and compensation to provide biodiversity net gain.

Limitations

A1.15. The metric uses habitats as a proxy for biodiversity and does not account for other biodiversity enhancements such as species-targeted enhancements like bat and bird boxes. Detail on biodiversity mitigation and enhancement measures to be delivered outside of the BNG are detailed in the EIA and would be included within a HMMP.

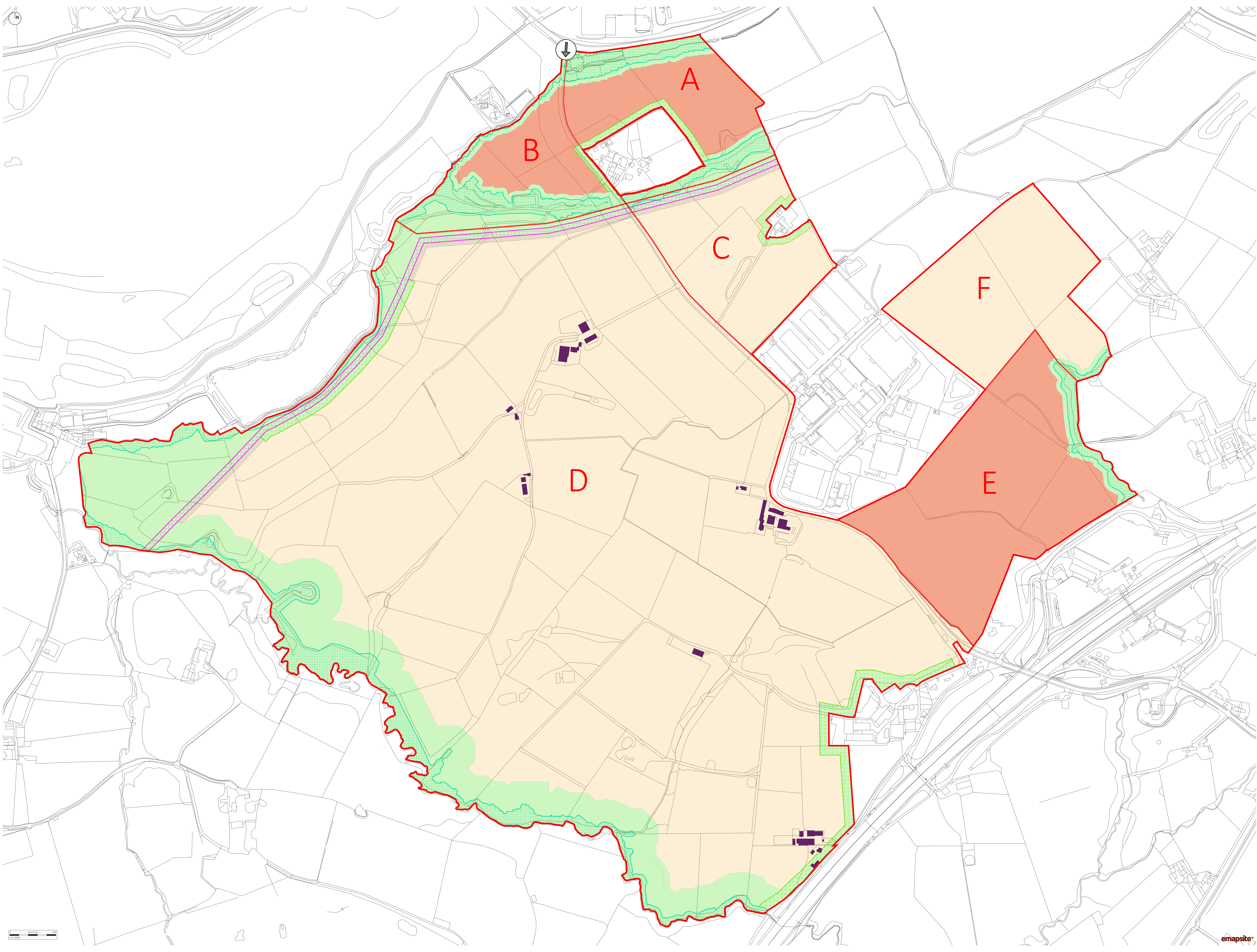
A1.16. When mapping and recording habitats, types and conditions were assigned using professional judgement and with reference to the appropriate guidance.

²⁶ The British Standards Institution (2021). Process for designing and implementing Biodiversity Net Gain Specification.



Appendix 2: Parameters Plan for Proposed Scheme





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KEY

Boundaries

- Application Boundary
- Application Plot

Developable Areas and Uses

- Developable Area 1**
(Application Plots C, D and F)
This may include land use classes: B2, B8 and E(g)(i-iii)
- Developable Area 2**
(Application Plots A, B and E)
This may include land use classes: B2, B8, C1, E(a-b), E(c)(i-iii), E(d-f), E(g)(i-iii), F1(a), F2(a-c) and Sui Generis Uses (in accordance with the Uses Schedule)

Maximum Quantum of Development
Employment Uses: Up to 600,000 sqm (Incl. B2, B8 and E(g)(i-iii))
Other Uses: Up to 5,000 sqm. (Incl. C1, E(a-b), E(c)(i-iii), E(d-f), F1(a), E(g)(i), F2(a-c) and Sui Generis Uses)

Developable Areas
(Incl. earthworks, access, cycleways and footpath links, and other mitigation and associated works)

- Peripheral Landscape Buffer
- Temporary Peripheral Landscape Buffer
- Landscape Mitigation Area
- Building Proximity Offset

Non-Developable Areas

- Wetland Habitat Corridor (Bridge crossings only)
- Build Over Easements (Access only)

Other

- Existing Building (To be demolished)
- Location of Primary Access

CLIENT
Northern Gateway Development Vehicle

PROJECT
Northern Gateway

DRAWING
Proposed Scheme -
Parameter Plan 1: Uses

PROJECT NUMBER
NORM3018

DRAWING NUMBER
Fig. 5.1

REVISION
D

DATE
January 2025

CHECKED BY
TJ & NW

STATUS
Final

SCALE
1:2,500 @ A0

emapsite

Turley

Appendix 3: Baseline Habitat Condition Assessments

- A3.1. The attached Statutory Metric Condition Assessment Excel provides a summary of the condition assessments completed with regards to the baseline habitats of the Application Site, as described in the Section 3. Each habitat is described on a separate tab; habitats not present at the Application Site have been removed for ease of review.
- A3.2. Hedgerow descriptions and photographs are provided in Appendix 5.
- A3.3. Field descriptions and photographs are provided in Appendix 6.



Appendix 4: Post-development Habitat Condition Assessments

A4.1. The following tables provide a summary of the condition assessments completed with regards to the post development site habitats. These criteria in the below tables are taken from The Statutory Biodiversity Metric User Guide.

Table A4.1. Hardstanding and Buildings (Urban Habitat Type)

No condition assessment required

Table A4.2. Other neutral grassland

Criteria	Details	Result
A – Species number	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description)	Pass
B – Sward height	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass
C – Bare Ground	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.	Pass
D – Bracken	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Pass
E – Suboptimal species	Combined cover of species indicative of suboptimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA5) are present, this criterion is automatically failed.	Fail
Result	Pass 0-3 Criteria OR 4-6 Criteria but fails Criteria 1 = Poor / 4-5 Criteria (inc. Criteria 1) = Moderate / 6-7 Criteria (inc. Criteria 1) = Good	Moderate

Table A4.3. Mixed Scrub

Criteria	Details	Result
A – Indicator Species	The parcel represents a good example of its habitat type	Pass
B – Dwarf Shrub Species	There are at least two dwarf shrub species and cover of dwarf shrubs is between 25-75%	Pass
C – Age Classes	All heather age classes are present	Fail
D – Bare Ground	Unshaded bare ground is 1-110%	Pass



E – Invasive/ non-natives	There is an absence of invasives	Pass
F – Disturbance/ Poaching	No signs of disturbance of sensitive areas	Fail
G – Grazing	No more than 33% heather shoots have been grazed	Fail
H – Scattered trees	Canopy cover of scattered trees or scrub is less than 20%	Pass
I – Gorse Presence	Total gorse cover is less than 50%	Pass
J – Bracken	Cover of bracken is less than 5%	Pass
K – Damage	No signs of any damaging activities such as peat extraction	Pass
Result	Passes 9-11 = Good Passes 7 or 8 = Moderate Passes 6 or fewer - Poor	Moderate



Appendix 5: Hedgerow Descriptions and Photographs

The following table provides hedgerow description and ecological importance.

Hedgerow	Description
H1	Hawthorn and elder, 0.07km in length, >1.5m height. Priority ²⁷ habitat due to the length of the hedgerow.
H2	Hawthorn, 0.34km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H3	Hawthorn, elder, holly. 0.23km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H4	Hawthorn. 0.06km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H5	Hawthorn and elder, 0.18km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H6	Hawthorn and elder, 0.26km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H7	Hawthorn. 0.65km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H8	Hawthorn. 0.35km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H9	Hawthorn, elder. 0.11km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H10	Hawthorn, elder. 0.11km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H11	Hawthorn, wild cheery, oak. 0.22km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H12	Hawthorn, elder. 0.51km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H13	Hawthorn, elder. 0.54km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H14	Hawthorn, elder, silver birch, holly. 0.27km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H15	Hawthorn. 0.07km in length, <1.5m height. Priority habitat due to the length of the hedgerow

²⁷ UK Biodiversity Action Plan, Priority Habitat Descriptions: <https://data.jncc.gov.uk/data/ca179c55-3e9d-4e95-abd9-4edb2347c3b6/UKBAP-BAPHabitats-17-Hedgerows.pdf>



H16	Hawthorn. 0.81km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H17	Hawthorn. 0.07km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H18	Hawthorn, elder. 0.12km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H19	Hawthorn. 0.13km in length, <1.5m height. Priority habitat due to the length of the hedgerow
H20	Hawthorn, elder. 0.13km in length, <1.5m height. Priority habitat due to the length of the hedgerow
H21	Hawthorn, elder. 0.13km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H22	Hawthorn, elder. 0.26km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H23	Hawthorn, elder, sycamore. 0.22km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H24	Hawthorn, elder, wild cherry. 0.11km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H25	Hawthorn, elder. 0.3km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H26	Hawthorn, elder. 0.15km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H27	Hawthorn. 0.13km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H28	Hawthorn. 0.19km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H29	Hawthorn. 0.16km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H30	Hawthorn, elder, wild cherry, sycamore. 0.5km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H31	Hawthorn, elder, wild cherry, sycamore. >0.16km in length, <1.5m height. Priority habitat due to the length of the hedgerow
H32	Hawthorn. 0.09m in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H33	Hawthorn, elder, wild cherry. 0.35km in length, >1.5m height. Priority habitat due to the length of the hedgerow
H34	Hawthorn. 0.04km in length, >1.5m height. Priority habitat due to the length of the hedgerow



H35	Hawthorn. 0.13km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H36	Hawthorn. 0.25km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H37	Hawthorn, elder. 0.13km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H38	Hawthorn, elder. 0.11km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H39	Hawthorn. 0.08km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H40	Hawthorn. 0.14km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H41	Hawthorn, elder. 0.08km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H42	Hawthorn. 0.04km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H43	Hawthorn. 0.23km in length, <1.5m height. Priority habitat due to the length of the hedgerow.
H44	Hawthorn, elder. 0.24km length, >1.5m height. Priority habitat due to the length of the hedgerow.
H45	Hawthorn, elder. 0.08km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H46	Hawthorn, elder. 0.16km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H47	Hawthorn, elder. 0.15km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H48	Hawthorn, elder. 0.13km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H49	Hawthorn, elder. 0.16km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H50	Hawthorn, elder. 0.15km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H51	Hawthorn, elder. 0.16km in length, >1.5m height. Priority habitat due to the length of the hedgerow.
H52	Hawthorn, elder. 0.12km in length, >1.5m height. Priority habitat due to the length of the hedgerow.



H1



H2



H3



H4



H5 and H6





H7



H8



H9 and H10



H11



H12



H13



H14



H15



H16



H17



H18



H19



H20





H21



H22 and H23



H24



H25





H26



H27



H28



H29





H30 and H31



H32



H33 and H34



H35





H36



H37



H38



H39



H40 and H41



H42



H43



H44





H45



H46



H47





H48



H49 and H50



H51





H52



Appendix 6: Field Descriptions and Photographs

Field	Description	Photograph
F1	Modified grassland, species per average m2: perennial rye grass, meadow foxtail, Yorkshire fog and white clover	
F2	Modified grassland, species per average m2: perennial rye grass, meadow foxtail, Yorkshire fog, red clover and dandelion	
F3	Modified grassland, species per average m2: perennial rye grass, meadow foxtail, Yorkshire fog, red clover and dandelion; occasional hard rush	
F4	Modified grassland, species per average m2: perennial rye grass, annual meadow grass, meadow foxtail	



F5	Modified grassland, species per average m2: perennial rye grass, annual meadow grass, meadow foxtail	
F6	Modified grassland with goat willow (dry pond). Species per average m2: perennial rye grass, annual meadow grass, cock's foot.	
F7	Ploughed on May 2024, but recorded as modified grassland during subsequent visits. Species per average m2: perennial rye grass, meadow foxtail, sweet vernal.	
F8	Modified grassland, species per average m2: perennial rye grass, cock's foot, annual meadow grass, sweet vernal and dandelion.	



F9	Modified grassland, species per average m2: perennial rye grass, cock's foot, dandelion and red clover.	
F10	Modified grassland, species per average m2: perennial rye grass, cock's foot, annual meadow grass, sweet vernal and dandelion.	
F11	Small area of modified grassland, species per average m2: perennial rye grass, cock's foot, annual meadow grass, and dandelion.	
F12 F13	Modified grassland, species per average m2: perennial rye grass, sweet vernal, annual meadow grass, and red clover.	



F14	Modified grassland, species per average m2: perennial rye grass, sweet vernal, annual meadow grass, and red clover	
F15	Modified grassland, species per average m2: perennial rye grass, sweet vernal, annual meadow grass, and red clover.	
F16	Modified grassland, species per average m2: hard rush, perennial rye grass and annual meadow grass	
F17	Modified grassland, species per average m2: perennial rye grass, sweet vernal, annual meadow grass.	



F18	Modified grassland, species per average m2: perennial rye grass, sweet vernal, annual meadow grass.	
F19	Modified grassland, species per average m2: perennial rye grass, sweet vernal, annual meadow grass.	
F20	Modified grassland, species per average m2: perennial rye grass, sweet vernal, annual meadow grass.	
F21 F22 F23	Modified grassland, species per average m2: perennial rye grass, annual meadow grass, Yorkshire fog.	



F24 F25 F26	Modified grassland, species per average m2: perennial rye grass, annual meadow grass, Yorkshire fog and dandelion	
F27	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, cock's foot and meadow buttercup.	
F28	Modified grassland adjacent to W9; species per average m2: perennial rye grass, Yorkshire fog, cock's foot and meadow buttercup	



F29	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, cock's foot and meadow buttercup.	
F30	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, cock's foot, dandelion and white clover	
F31 F32	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, cock's foot and red clover	
F33	Modified grassland, species per average m2: perennial rye grass, cock's foot, dandelion.	



F34		
F35	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, cock's foot and red clover	
F36	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, sweet vernal, cock's foot and meadow buttercup	
F37	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, sweet vernal, cock's foot and meadow buttercup.	
F38	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, sweet vernal, cock's foot and meadow buttercup. (same assessment for F38, F42, F46 and F47 as one continuous field)	



F39	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, sweet vernal, cock's foot and meadow buttercup. (same assessment as F43)	
F40	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, cock's foot and meadow buttercup.	
F41	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, cock's foot and dandelion	
F42	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, sweet vernal, cock's foot and meadow buttercup (same assessment as F38, as one continuous field)	



F43	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, sweet vernal, cock's foot and meadow buttercup. (same assessment as F43)	
F44	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, sweet vernal, cock's foot and meadow buttercup.	
F45	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, cock's foot and meadow buttercup.	
F46 F47	Modified grassland, species per average m2: perennial rye grass, Yorkshire fog, sweet vernal, cock's foot and meadow buttercup. (same assessment for F38, F42, F46 and F47 as one continuous field)	



F48	Modified grassland, species per average m2: hard rush, perennial rye grass, cock's foot and meadow buttercup.	
F49 F50	Modified grassland, species per average m2: hard rush, perennial rye grass, cock's foot and meadow buttercup.	
F51	Modified grassland, species per average m2: perennial rye grass, cock's foot, annual meadow and red clover.	
F52	Modified grassland, species per average m2: perennial rye grass, cock's foot, annual meadow.	



F53	Modified grassland, species per average m2: perennial rye grass, cock's foot, annual meadow and red clover.	
F54 F55	Modified grassland, species per average m2: perennial rye grass, cock's foot, annual meadow and red clover.	
F56	Modified grassland, species per average m2: perennial rye grass, cock's foot, annual meadow and red clover	
F57	Modified grassland, species per average m2: perennial rye grass, cock's foot, annual meadow and dandelion	



F58	Arable crop field	
F59	Assumed to be a former pasture, which has been left to grow-out. This field contained 6-8 species per m2 and showed characteristics of a higher distinctiveness grassland. Species present per m2 were: cocksfoot <i>Dactylis glomerata</i>, perennial rye, fescue sp., common bent <i>Agrostis capillaris</i>, reed canary grass <i>Phalaris arundinacea</i>, ribwort plantain <i>Plantago lanceolata</i>, common nettle <i>Urtica dioica</i> and broad-leaved dock <i>Rumex obtusifolius</i>. Other species found within this parcel, but did not account for average species per m2 were Himalayan balsam <i>Impatiens glandulifera</i>, teasel <i>Dipsacus</i>, cleavers <i>Galium aparine</i>, bramble <i>Rubus fruticosus</i>, dandelion <i>Taraxacum officinale</i>, creeping thistle <i>Cirsium arvense</i> and great willowherb <i>Epilobium hirsutum</i>. It was therefore assessed as being moderate condition neutral grassland.	
F60	A rush dominant, damp area. This field contained 6-8 species per m2 and showed characteristics of a higher distinctiveness grassland. Average species present per m2 were: hard rush <i>Juncus inflexus</i>, cock's foot, Yorkshire fog <i>Holcus lanatus</i>, nettle, broad-leaved dock, ragwort <i>Jacobaea vulgaris</i> and tufted hair grass <i>Deschampsia cespitosa</i>. Other species within this parcel included Himalayan balsam, meadow buttercup <i>Ranunculus acris</i> and horsetail <i>Equisetum</i>. It was therefore assessed as	



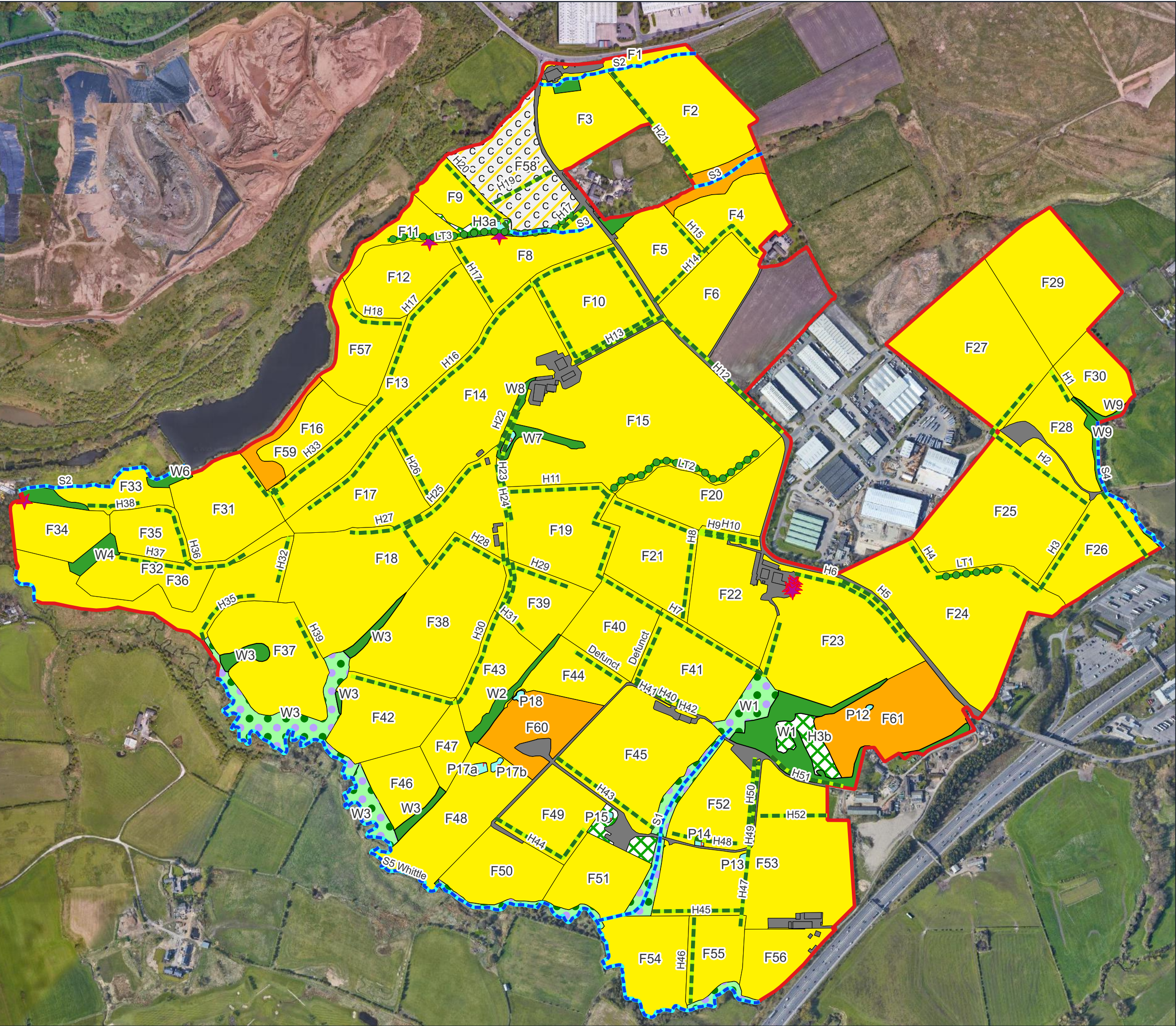
	being moderate condition neutral grassland.	
F61	A rush dominant unmanaged area, with some footpaths running through. This field contained 6-8 species per m2 and therefore categorised as a higher distinctiveness grassland. Species present per m2 were: hard rush, cock's foot, broad-leaved dock, creeping thistle, teasel and horsetail. Other species present in the wider sward included occasional stands of gorse <i>Ulex europaeus</i> and goat willow <i>Salix caprea</i>, with some isolated areas of common reed <i>Phragmites australis</i> and tufted hair grass; there was Himalyan balsam present to the western boundary. It was therefore assessed as being moderate condition neutral grassland.	
F62	F62 Comprised a strip of rush dominant habitat on a small embankment, which was left unmanaged. This field contained 6-8 species per m2 and showed characteristics of a higher distinctiveness grassland. Average species present per m2 were: hard rush, cock's foot, Yorkshire fog, nettle, broad-leaved dock, tufted hair grass and red clover. There were scattered goat willow and occasional self-seeded hawthorn and Himalayan balsam. It was therefore assessed as being moderate condition neutral grassland.	



Plans:

Plan 1: Baseline Habitat Features Plan





Legend

Application Boundary

Cropland - Cereal crops

Grassland - Other neutral grassland

Grassland - Modified grassland

Woodland and forest - Lowland mixed deciduous woodland

Woodland and forest - Other woodland; broadleaved

Heathland and shrub - Mixed scrub

Lakes - Ponds (priority habitat)

Urban - Developed land; sealed surface

Linear Baseline

Line of trees

Native hedgerow

Native hedgerow with trees

Other rivers and streams

Japanese Knotweed



Project	Northern Gateway
Drawing Title	Application Site Habitats Plan
Scale	Scale: 1:7,251
Drawing No.	Figure 11.16
Date	April 2025
Checked	ECG/NB

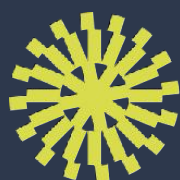


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