Tween Bridge Solar Farm

Environmental Statement
Appendix 7.12: Biodiversity Net Gain

Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

APFP Regulation 5(2)(a)

Document Reference: 6.3.7.12

June 2026

Revision 3

Biodiversity Net Gain Report

Tween Bridge Solar Farm

June 2026

TG Report No. 16413_R11e_RR

Tyler Grange

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Section 1: Introduction, Legislation and Conservation Status

Introduction

1.1. Tyler Grange was commissioned to undertake ecological surveys in relation to 'The Scheme' of a renewable energy generating project; comprising ground-mounted solar photovoltaic ('PV') arrays, together with on-site energy storage and associated infrastructure. The Scheme is located on land to the east of the town of Thorne and to the west of the town of Crowle (the 'Order Limits').

1.2. This report details results from habitat and field surveys and a Biodiversity Net Gain (BNG) assessment. undertaken by Tyler Grange in August 2024 and June/July 2025 . The objectives of this report are to provide the results of the BNG assessment.

1.3. This report presents the detailed field survey methodology and should be read with reference to the **ES Chapter 7 Ecology and Nature Conservation [REP2-035]**. This report should also be read alongside **Appendix 7.1 Baseline Habitats Report [APP-072]**included within the **ES Chapter 7 Ecology and Nature Conservation [REP2-035].**

1.4. Landscape plans are provided in Appendix 1, illustrating the proposed post-development habitats and their locations within the site.

1.5. This report has been updated to reflect the latest post-development habitat proposals and associated updates to the Biodiversity Metric. The updates comprise the removal of parcels 1/A, 1/B, 1/C, 1/D, 2/B, 3/C, 3/D and 3/E from the extent of land subject to compulsory acquisition, temporary possession and works powers; the modification of Mitigation Parcel M1(A) to avoid registered common land/Countryside and Rights of Way Act 2000 access land parcels 1/E, 2/A, 3/A and 3/B; an amendment to a proposed permissive path route through Mitigation Parcel M1(A) so that it would avoid encroaching upon parcel 2/A; and revised condition assessment of grassland within the solar compartments, culverts, a precautionary allowance for panel bases and associated footings. The BNG assessment has been updated to reflect these changes and effect of these on the BNG conclusions reached in this report is negligible. These updates have been made to ensure the BNG assessment reflects the latest design, habitat management assumptions and stakeholder comments received during the Examination.

Legislation and Conservation Status

1.6. It is not yet a mandatory requirement for NSIP applications to demonstrate a quantifiable biodiversity net gain (BNG) of at least 10% under the Environment Act 2021. However, the Applicant intends to provide evidence of the deliverability of measurable biodiversity gains. in accordance with NERC obligations and the Overarching National Policy Statement for Energy (EN-1) and National Policy Statement for Renewable Energy Infrastructure (EN-3).

1.7. The DEFRA Statutory Biodiversity Metric Calculator has been utilised to provide evidence of achievable on-Site biodiversity gains, which is an established method to quantify biodiversity gains.

Section 2: Methodology

Survey Methodology 2022

2.1. Habitat surveys were undertaken by Avian Ecology Ltd. in 2022, and the full methodology and results are presented within **Appendix 7.1 Baseline Habitats and Desk Study Report [APP-072]** included within the **ES Chapter 7 Ecology and Nature Conservation [REP2-035]**, to be read alongside this report.

Survey Methodology 2024 and 2025

2.2. Following updates to the Order Limits a habitat survey was undertaken on areas not previously covered by Avian Ecology in August 2024 and June/July 2025 by Tyler Grange, with further detail in **Appendix 7.1 Baseline Habitats Report [APP-072]** included within the **ES Chapter 7 Ecology and Nature Conservation [REP2-035].**

'Extended' Phase I Habitat Survey and UKHabs

2.3. The methods used during the habitat surveys broadly followed methods used in an 'extended' Phase I habitat survey[1] 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[2].

2.4. Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species. Where access allowed, adjacent habitats were also considered in order to assess the Order Limits within the wider landscape and to provide information with which to assess possible impacts within the context of the Order Limits boundary.

2.5. All habitats were assessed utilising the relevant condition criteria for the relevant habitat type which included confirming 'pass' / 'fail' criteria in accordance with the Biodiversity Metric User Guide[3].

[1] Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.
[2] UKHab Ltd. (2023). UK Habitat Classification Version 2.0 (at https://www.ukhab.org)
[3] DEFRA (2025) Statutory biodiversity metric: user guide

Biodiversity Net Gain

2.6. 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).

2.7. When considering the creation of new habitats in the 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.

2.8. The UK Habitat Classification was used to identify habitat types. Note that the calculation is completed separately for non-linear and linear habitats. Habitat areas entered into The Statutory Biodiversity Metric in hectares were rounded to two decimal places.

2.9. The BNG assessment has been completed in consideration with latest guidance for NSIPS, Biodiversity net gain: nationally significant infrastructure projects[4] published 2 June 2026, which comes into force from 2 November 2026.

Limitations and Assumptions

2.10. Although all habitats within the Order Limits have been surveyed, due to the timing of the original surveys prior to the implementation of BNG, not all habitats within the Order Limits were surveyed with detailed condition assessments for BNG, although notes on the habitat conditions was still made. To provide a robust and precautionary approach in line with best practice, where sufficient data was not available, higher condition scores for baseline habitats have been assumed. This ensures that the assessment does not underestimate baseline biodiversity value and avoids overestimating potential net gain.

[4] Department for Environment, Food and Rural Affairs, Biodiversity net gain: nationally significant infrastructure projects, published 2 June 2026, accessed 29 June 2026.

2.11. The majority of hedgerows within the Order Limits contain some gaps and are subject to impacts from ongoing farming activities, which would result in them achieving poor or moderate condition within BNG. However as full condition assessments were not available for all hedgerows, as a precautionary approach, all hedgerows have been included as being of good condition. This precautionary approach ensures that the baseline reflects the likely ecological function of the hedgerows while avoiding underestimation of their contribution to the Order Limits biodiversity value.

2.12. The Order Limits contains a large ditch network, comprising both large drainage ditches and smaller field ditches. The condition criteria[5] for ditches states:

- The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.
- A range of emergent, submerged and floating-leaved plants are present. As a guide >10 species of emergent, floating or submerged plants present in a 20 m ditch length.
- There is less than 10% cover of filamentous algae and or duckweed *Lemna* spp. (these are signs of eutrophication).
- A fringe of aquatic marginal vegetation is present along more than 75% of the ditch.
- Physical damage is evident along less than 5% of the ditch, with examples of damage including: excessive poaching, damage from machinery use or storage, or any other damaging management activities.
- Sufficient water levels are maintained - as a guide a minimum summer depth of approximately 50 cm in minor ditches and 1 m in main drains.
- Less than 10% of the ditch is heavily shaded.
- There is an absence of non-native plant and animal species

2.13. Based on available survey data, the majority of ditches would fail one or more of the condition criteria, which would result in them being of moderate condition, with many also failing at least 3 of the condition criteria, resulting in them achieving poor condition. The main reasons being due to poor water quality from agricultural run-off, low water levels, lack of emergent vegetation, lack of marginal vegetation and / or the presence of invasive species. However, to ensure the Order Limits is not undervalued within the BNG baseline, and adopting a precautionary approach, 25% of ditches have been recorded as being in good condition, 50% in moderate condition, and 25% in poor condition. This approach ensures that the potential

[5] DEFRA (2025) Statutory biodiversity metric condition assessments

ecological value of the ditches in Order Limits is captured within the baseline. Further to this, all ditches are being retained and enhanced as part of the Scheme.

2.14. All ditches have been accounted for in the BNG calculations, but no River Morphology survey of the Stainforth and Keadby Canal or River Torne has been completed. This is due to only a small section of the canal located within the Order Limits boundary, the fact the canal and River are being fully retained and buffered, with habitat creation and enhancement to take place in proximity. Therefore, there will be no change or impact to the canal or River[6]. Furthermore, as BNG is not required for NSIPs, this detail is not needed as part of the assessment, which has focused within the boundaries of the Order Limits where potential impacts and changes to habitats are to take place.

[6] Department for Environment, Food and Rural Affairs, Biodiversity net gain: nationally significant infrastructure projects, published 2 June 2026, accessed 29 June 2026.

Section 3: Results

3.1. The full extent of baseline habitats recorded across the site during all surveys is shown on Figure 1.

Survey Results 2022

3.2. Full habitat survey results from Avian Ecology Ltd are included in **ES Chapter 7 Ecology and Nature Conservation [REP2-035] and Appendix 7.1 Baseline Habitats and Desk Study Report [APP-072].** Surveys undertaken in 2022 recorded and mapped all habitat types within the Order Limits at that time.

Survey Results 2024 and 2025

3.3. The 2024 and 2025 surveys covered areas of the not previously included in the Order Limits boundary. These surveys also included high-level walkovers of the Order Limits to confirm that habitats had not significantly changed since the 2022 assessment. The 2022 surveys did not include a BNG assessment at the time, but the habitat survey results, including habitat descriptions and photographs, have been used alongside the 2024 and 2025 surveys to inform the current baseline habitat assessment.

3.4. The 2024 and 2025 surveys confirmed that there had been no significant change in the habitats recorded in 2022, and the results from the 2022 surveys are therefore still considered valid for the current assessment.

Habitats and Flora

3.5. The habitats present in the Order Limits are summarised below in **Table 3.2**, the location of habitats are shown on the Figure 1 - Habitats Features Condition assessment sheets are included on Appendix 2.

Table 3.2: Habitats and Flora

Habitat	Description and BNG Condition	Photograph
Arable Crops	Arable land is the dominant habitat within the Order Limits, with the majority of fields under cereal crops and smaller areas supporting non-cereal crops. Condition assessments are not required within BNG for cropland habitats.	

Modified Grassland	A small proportion of the Order Limits comprises modified grassland, primarily as pasture used for livestock and silage production, dominated by perennial rye-grass with other grass and herb species present. Field margins of modified grassland are present along arable edges, varying in width and species composition. This habitat has been assessed as Poor condition.	

Tall Ruderal	Present along field boundaries and comprising species such as nettle and common thistle, with occasional grass and herb species including false-oat grass, bramble, hogweed and reed canary grass. This habitat has been assessed as Moderate condition.	
Scrub	Scrub habitats include mixed scrub with willow, bramble, blackthorn, hawthorn, elder, and dogrose, and bramble-dominated scrub with tall herbs. This habitat has been assessed as Moderate condition.	

Hedgerows	Hedgerows throughout the Order Limits vary between unmanaged and intensively managed, intact and defunct, and are typically species-poor and hawthorn-dominated, with occasional blackthorn, elder, ash, and other native species. Most hedgerows contain immature to mature trees. Assessed as good condition.	
Lines of Trees	Lines of trees are present throughout the Order Limits, comprising mature, semi-mature, and immature trees of various native and occasional non-native species, including oak, lime, hazel, ash, willow, and birch. Assessed as moderate condition.	

Lakes and Ponds	Ponds within the Order Limits vary from shallow pools to deep waterbodies, with some supporting common reed and marginal willow scrub while others lack marginal vegetation. Some ponds support waterfowl and fish. This habitat has been assessed as Moderate condition.	
Ditches and Watercourses	The Order Limits contains a network of wet and dry ditches with seasonal water level fluctuations, supporting aquatic and marginal vegetation including bramble scrub, reed canary grass, and common reed. Banks vary from shallow to steep, often with modified grassland margins. Larger watercourses include the River Torne and the Stainforth and Keadby Canal within or adjacent to the Order Limits. Assessed as good, moderate and poor condition as described above.	

Woodland	Woodland habitats within the Order Limits include wet woodland and deciduous woodland copses dominated by birch, oak, ash, poplar, and additional native tree species. Ground flora typically includes bramble and bracken. This habitat has been assessed as Moderate condition.	

Strategic Significance

3.6. The Order Limits spans the administrative areas of City of Doncaster Council and North Lincolnshire Council. The relevant strategic significance for each of the areas has been applied to both areas.

3.7. The part of the Order Limits within City of Doncaster Council falls within the South Yorkshire Local Nature Recovery Strategy (LNRS) area. The South Yorkshire LNRS is being prepared by the South Yorkshire Mayoral Combined Authority, with City of Doncaster Council identified as a supporting authority. At the time of writing, the South Yorkshire LNRS has not been formally published[5]. Therefore, the Doncaster section of the BNG assessment has had regard to City of Doncaster Council's interim planning guidance for assigning strategic significance.

3.8. City of Doncaster Council's interim guidance[6] identifies Biodiversity Opportunity Areas as the relevant interim basis for assigning strategic significance prior to publication of the South Yorkshire LNRS. Where habitat creation or enhancement comprises a habitat type identified as important within the relevant Biodiversity Opportunity Area, this has been recorded within the Biodiversity Metric as "Formally identified in a Local Strategy". This includes relevant habitat types such as other neutral grassland, ditches, ponds, woodland and native species hedgerows, where these are located within the relevant opportunity area or otherwise meet the criteria set out in the guidance.

3.9. The part of the Order Limits within North Lincolnshire Council falls within the Greater Lincolnshire LNRS area[7]. The Greater Lincolnshire LNRS has been progressed through consultation and was adopted in June 2026[8]. The Greater Lincolnshire LNRS includes a Statement of Biodiversity Priorities and a Local Habitat Map, including areas of particular importance for biodiversity and areas that could be of particular importance for biodiversity.

3.10. The North Lincolnshire section of the Order Limits within the BNG assessment has therefore had regard to the Greater Lincolnshire LNRS. Where proposed habitat creation or enhancement corresponds with relevant mapped LNRS actions or priorities, this has been recorded within the Biodiversity Metric as "Formally identified in a Local Strategy". This includes relevant habitats such as neutral grassland, woodland, wet woodland, hedgerows, ditches, watercourses, ponds and other wetland habitats.

[5] Defra (2026). Local nature recovery strategies: responsible authorities. Webpage accessed June 2026.
[6] City of Doncaster Council (2024). Planning Policy Guidance: Assigning Strategic Significance for Applications Subject to Mandatory Biodiversity Net Gain. March 2024.
[7] Greater Lincolnshire Local Nature Recovery Strategy (2026). Progress. Webpage accessed June 2026.
[8] Greater Lincolnshire Local Nature Recovery Strategy (2026). Local Habitat Map. Webpage accessed June 2026.

3.11. As the same broad habitat types are identified as local priorities across both areas, they have been recorded consistently within the Biodiversity Metric. The same strategic significance category has therefore been applied to the same habitat types across the Order Limits, where supported by the relevant local strategies.

Proposed Habitats

3.12. The proposals, as shown within Appendix 1 and Figure 2, have been used to calculate the proposed habitat areas. The rationale for target condition assessments is detailed within the metric 16413_M01a.

3.13. The post-development habitat areas have been updated to reflect the latest design and management approach, including the classification of grassland within the solar compartments, the allowance for panel bases and associated footings, areas of mixed native scrub, proposed culverts and the treatment of Mitigation Parcel M1(A).

3.14. Grassland within the solar compartments, defined as the areas beneath or between the rows of solar panels as shown on Figure 2, have been recorded as modified grassland in poor condition[9]. This takes account of shading from the solar panels.

3.15. The panels will be a maximum of 3.6 m high, with a clearance above ground level ranging from approximately 0.8 m to 2.3 m. This will allow grassland to establish beneath and between the panels.

3.16. Some areas within the solar compartments, including wider gaps between panels and security fence are likely to support grassland of a higher distinctiveness than areas directly beneath panels; however, the whole solar compartment grassland area beneath and between the panels have been recorded as modified grassland of poor condition to provide a precautionary assessment.

3.17. The total area within the solar compartments is approximately 1073.491 ha. As a precautionary approach in response to **8.10 Comments on Local Impact Reports (City of Doncaster Council) [REP2-089],** 10% of this area has been recorded as developed land to allow for the bases of the solar panels. This equates to an additional 107.349 ha of developed land. This is a precautionary assumption within the BNG assessment to account for the pilings of the panels and any concrete pads in line with guidance[10].

[9] South Yorkshire Councils, Advice Note – Post-development habitat creation and enhancement measures on solar farm sites for the purposes of Biodiversity Net Gain (BNG): South Yorkshire Councils (Barnsley, Doncaster, Rotherham and Sheffield) position, Revision B

[10] South Yorkshire Councils, Advice Note – Post-development habitat creation and enhancement measures on solar farm sites for the purposes of Biodiversity Net Gain (BNG): South Yorkshire Councils (Barnsley, Doncaster, Rotherham and Sheffield) position, Revision B

3.18. The remaining area of grassland within the solar compartments have therefore been recorded as 966.142 ha of modified grassland in poor condition.

3.19. Areas within the security fences, but not located beneath or directly adjacent to the solar panels, have been recorded as other neutral grassland in poor condition, as shown on Figure 2. These areas are expected to support a higher species diversity than the grassland beneath and between the solar panels, due to reduced shading and fewer direct impacts from the panel infrastructure. However, a poor condition target has been applied as a precautionary approach.

3.20. Areas of grassland outside the solar compartments and security fencing, as shown on Figure 2, include buffers to retained habitats, ditch margins, hedgerow margins, grassland buffers and larger open mitigation parcels across the Order Limits. These areas have been recorded as other neutral grassland in moderate condition. These areas will be subject to appropriate management to maintain a varied sward height and species composition, supporting structural diversity and providing habitat for a range of flora and fauna. These areas will also provide buffers to retained ecological features such as ditches, hedgerows and woodland and contribute to habitat connectivity across the Order Limits.

3.21. The BNG metric has been updated in respect of Mitigation Parcel M1(A). The updates are precautionary and ensure that areas subject to existing rights of public access, described below, are still included within the BNG assessment.

3.22. Within Mitigation Parcel M1(A), the area of registered common land / Countryside and Rights of Way (CRoW) Act 2000 access land[11] within parcels 1/E, 2A [12], 3/A and 3/B, and the proposed permissive footpath through M1(A), all of which measures approximately 3.63ha, has been recorded in the BNG metric as lost and then recreated as other neutral grassland in Poor condition. This land was previously recorded as other neutral grassland in Moderate condition and will be retained in practice and managed to achieve Moderate condition. However, this precautionary approach has been used whereby the grassland is classified as Poor condition within the BNG metric, to take into account the potential effects of recreational pressure from the existence of public rights of access over the land.

3.23. The area of M1(A) outside of the CRoW access land and proposed permissive footpath route, comprising 6.81 ha, has been recorded as retained other neutral grassland in Moderate

11 By virtue of section 2 (1) of the Countryside and Rights of Way Act 2000, any person is entitled to enter and remain on any access land for the purposes of open-air recreation

12A small area of land previously forming part of parcel 2A is now identified as parcel 2B in the Land Plans [Document Reference 2.2 Revision 4]. That land is not subject to compulsory acquisition, temporary possession or works powers. In addition, no benefit is assigned to that land for the purposes of the assessment contained in this report as it has never formed part of Mitigation Parcel M1(A) and no other habitat enhancement is proposed in respect of the land.

condition. Management will aim to maximise the importance of this grassland and achieve a higher condition where possible, although moderate condition has been used in the BNG metric as part of a precautionary approach.

3.24. The permissive footpath through M1(A) will be fenced to prevent recreational impacts to the grassland in M1(A), such as from trampling and dog fouling, and will comprise a mown grass path.

3.25. The bird mitigation areas have been included within the Biodiversity Net Gain assessment. Defra guidance[13][14] confirms that mitigation or compensation for functionally linked land may count only in part towards BNG, and that where such measures are counted in part, at least 10% of the total biodiversity units must come from additional activities other than mitigation and compensation. The assessment confirms that the Scheme achieves the required biodiversity units without relying on the bird mitigation areas and therefore accords with the additionality approach set out in the guidance.

3.26. Parcels 1/A, 1/B, 1/C, 1/D, 3/C, 3/D and 3/E, which total 0.0524 ha, are removed from the extent of land subject to compulsory acquisition, temporary possession or works powers. These parcels comprise small areas of drain and agricultural land. The existing areas of arable land within these parcels have been recorded in the BNG metric as retained. Approximately 100 m of ditch within the drains in these parcels has also been recorded as retained, rather than enhanced.

3.27. The proposals include the planting of new woodland areas comprising a range of native tree species. This woodland habitat is expected to establish well and achieve at least poor condition initially, with potential for improvement through ongoing management. The native species mix will provide valuable habitat for a variety of wildlife and contribute positively to the Order Limits ecological network.

3.28. The proposals include the creation of new areas of mixed native scrub, as shown on Figure 2. The scrub planting will include a minimum of five native woody species and will be managed to establish dense and continuous vegetation. This will provide structural diversity, nesting and foraging opportunities for birds, invertebrates and other wildlife, and will contribute to habitat connectivity across the Order Limits. The scrub will be located to complement retained and proposed habitats, including hedgerows with trees, woodland, ditches and grassland buffers.

[13] Department for Environment, Food and Rural Affairs, What you can count towards a development's biodiversity net gain, published 2 May 2023, updated 2 June 2026, accessed 29 June 2026.
[14] Department for Environment, Food and Rural Affairs, Biodiversity net gain: nationally significant infrastructure projects, published 2 June 2026, accessed 29 June 2026.

3.29. New hedgerow planting, including hedgerows with trees, is also proposed across the Order Limits, as shown on Figure 2. These features will strengthen existing field boundaries, increase habitat connectivity and provide additional nesting, foraging and commuting habitat for a range of species.

3.30. Areas impacted by the proposed new culverts have been recorded within the watercourse section of the metric, this includes a total of 125 new culverts. As precautionary approach these are assumed to impact 5m each so a total of 0.625km of ditches have been recorded as lost and created as culverts. These comprise small areas across the wider ditch network and have been included to ensure that the effects of all the proposed culverts are appropriately reflected within the BNG assessment.

3.31. Areas of hardstanding are also incorporated within the proposals which includes roads and other infrastructure. These are non-vegetated surfaces that do not require condition assessment under current BNG guidelines but contribute to the overall land use and Order Limits infrastructure.

3.32. Details of habitat establishment and long-term management is provided through the **Outline Landscape Ecological Management Plan (LEMP) [REP2-070]**which has been prepared in line with this BNG assessment. The LEMP sets out the prescriptions for the establishment and maintenance of the habitats for 40 years. These management measures take into account biodiversity enhancement alongside specific species enhancements.

Trading rules

3.33. The BNG metric has been updated to include the new areas of mixed native scrub. This has been included to address the scrub trading requirement and to provide like-for-like replacement for scrub habitats affected by the Scheme. Therefore the trading rules of the metric have been met,

BNG Conclusion

3.34. As described within The Statutory Biodiversity Metric **16413_M01a** and summarised below in **Figure 4.1**, based on the habitats present that will be lost and those to be created, the development would result in a gain of 1339.96 habitat units, a gain of 349.75 hedgerow units, and a gain of 99.39 watercourse units. This is a percentage gain of 29.50% in habitat units, 172.57% in hedgerow units and 10.26% in watercourse units.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	1339.96
	Hedgerow units	349.75
	Watercourse units	99.39
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	28.50%
	Hedgerow units	172.88%
	Watercourse units	10.26%
Trading rules satisfied?	Yes ✓	

Figure 4.1: Biodiversity Net Gain Assessment Results Summary, taken from The Statutory Biodiversity Metric.

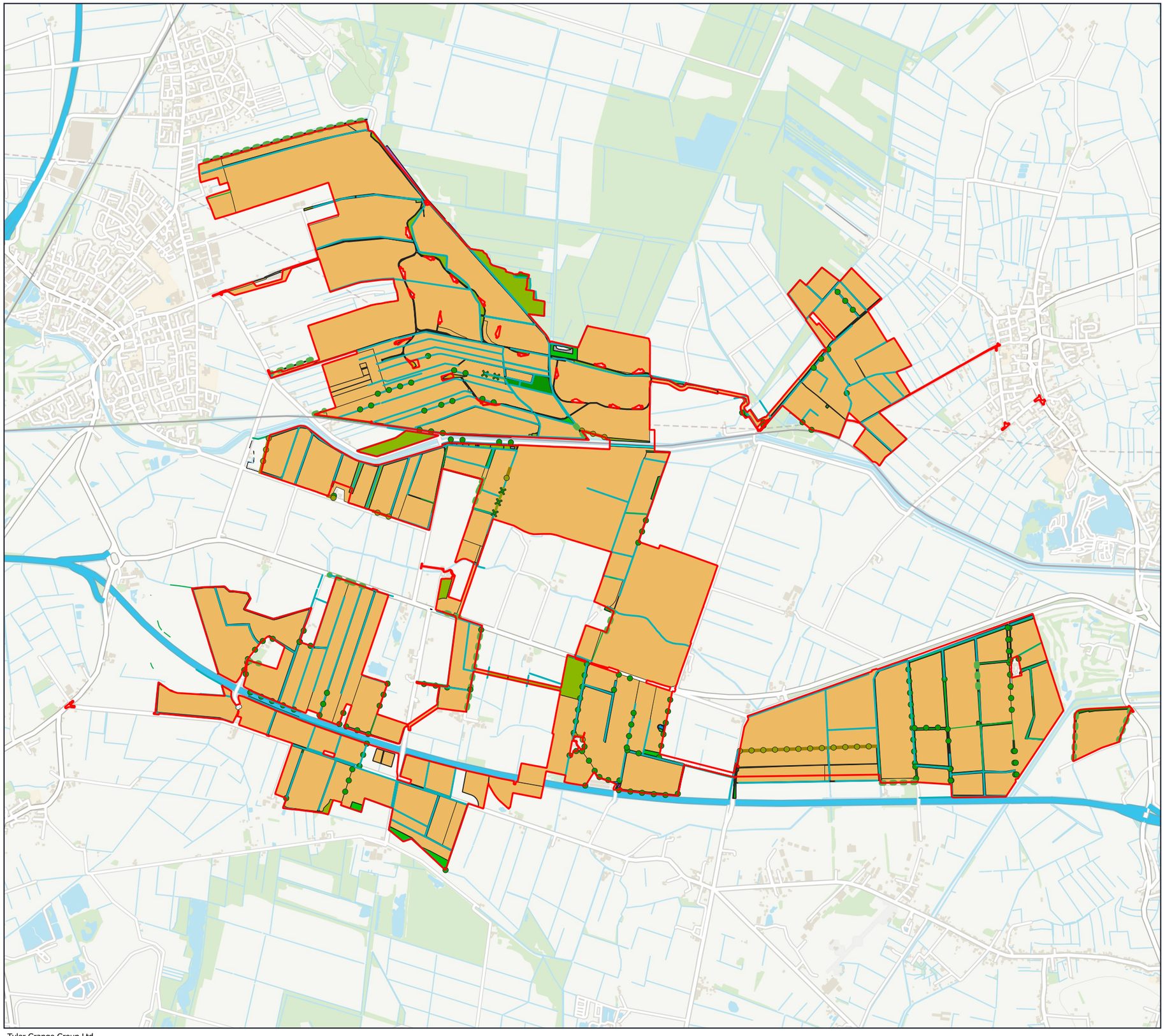
3.35. The BNG assessment for the Order Limits demonstrates that the proposed Scheme will deliver a measurable net gain in biodiversity across habitats, hedgerows, and watercourses.

3.36. The DEFRA Statutory Biodiversity Metric has demonstrated that the Scheme will achieve a net gain in biodiversity units exceeding 10% across the Order Limits, even when applying a precautionary baseline approach. This demonstrates the deliverability of measurable biodiversity improvements in line with the Applicant's commitments under the NERC Act and relevant national policy, despite the Scheme not being subject to mandatory BNG requirements.

3.37. These outcomes will be secured and maintained over the long term through implementation of the **Outline Landscape Ecological Management Plan (LEMP) [REP2-070]** prepared for the Scheme and will be implemented for 40 years, which is for the lifetime of the Scheme, although only 30 years is required for BNG.

Figure 1 : 16413_P13_Habitat Features_JS_RR

Figure 2 : 16413_P19_Post Development Habitats_TLR_RR



Legend

Habitats

- Arable
- Reedbeds
- Bracken
- Modified Grassland
- Bramble Scrub
- Mixed Scrub
- Canal
- Ponds (see Pond Location Plan - Appendix 2)
- Buildings
- Developed Land; Sealed Surface
- Artificial Unvegetated, Unsealed Surface & Bare Ground
- Wet Woodland
- Other Woodland; Broadleaved
- Other Neutral Grassland

Linear Habitats

- Native Hedgerow
- Native Hedgerow with Trees
- Native Hedgerow with Trees and Ditch
- Non-native & Ornamental Hedgerow
- Ditches
- Line of Trees
- Line of Trees with Ditch

N

0 1 km

Project	Tween Bridge
Drawing Title	Habitat Features Plan
Scale	As Shown (Approximate)
Drawing No.	16413/P13b
Date	August 2025
Checked	JS/RR

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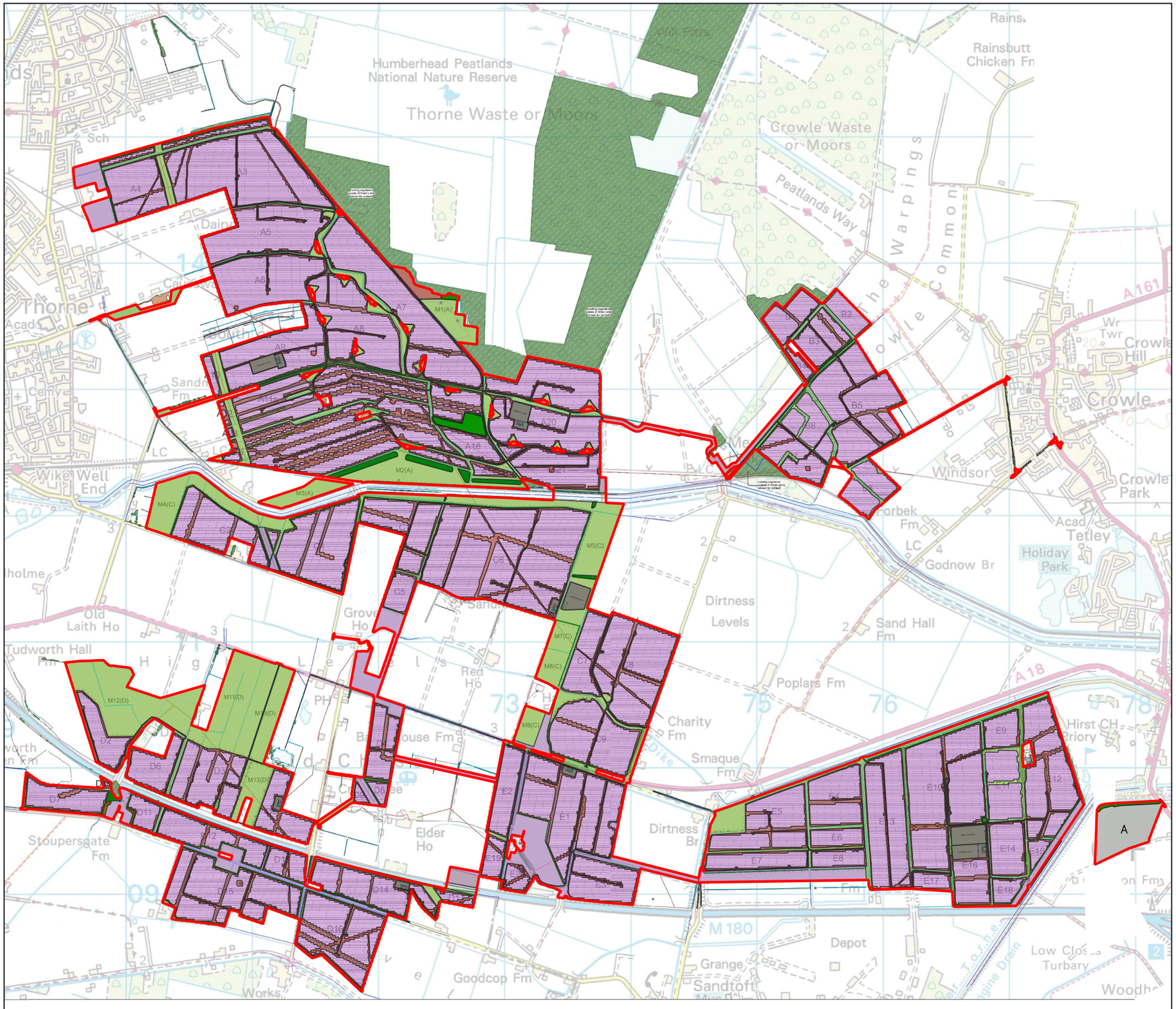

- Order Limits
- Developed Land - Sealed Surface - No condition assessment required
- Modified Grassland - Poor Condition
- Other Neutral Grassland - Poor Condition
- Other Neutral Grassland - Moderate Condition
- Mixed Scrub - Moderate Condition
- Other Woodland - Poor Condition
- Arable - No condition assessment required
- Wet Woodland - Moderate Condition
- Lowland Mixed Deciduous Woodland - Moderate Condition
- New Native Hedgerow - Moderate Condition
- Ditches

N

0 0.75 km

Project	Tween Bridge
Drawing Title	Post Development Habitats
Scale	As Shown (Approximate)
Drawing No.	16413/P19
Date	June 2026
Checked	TLR/RR

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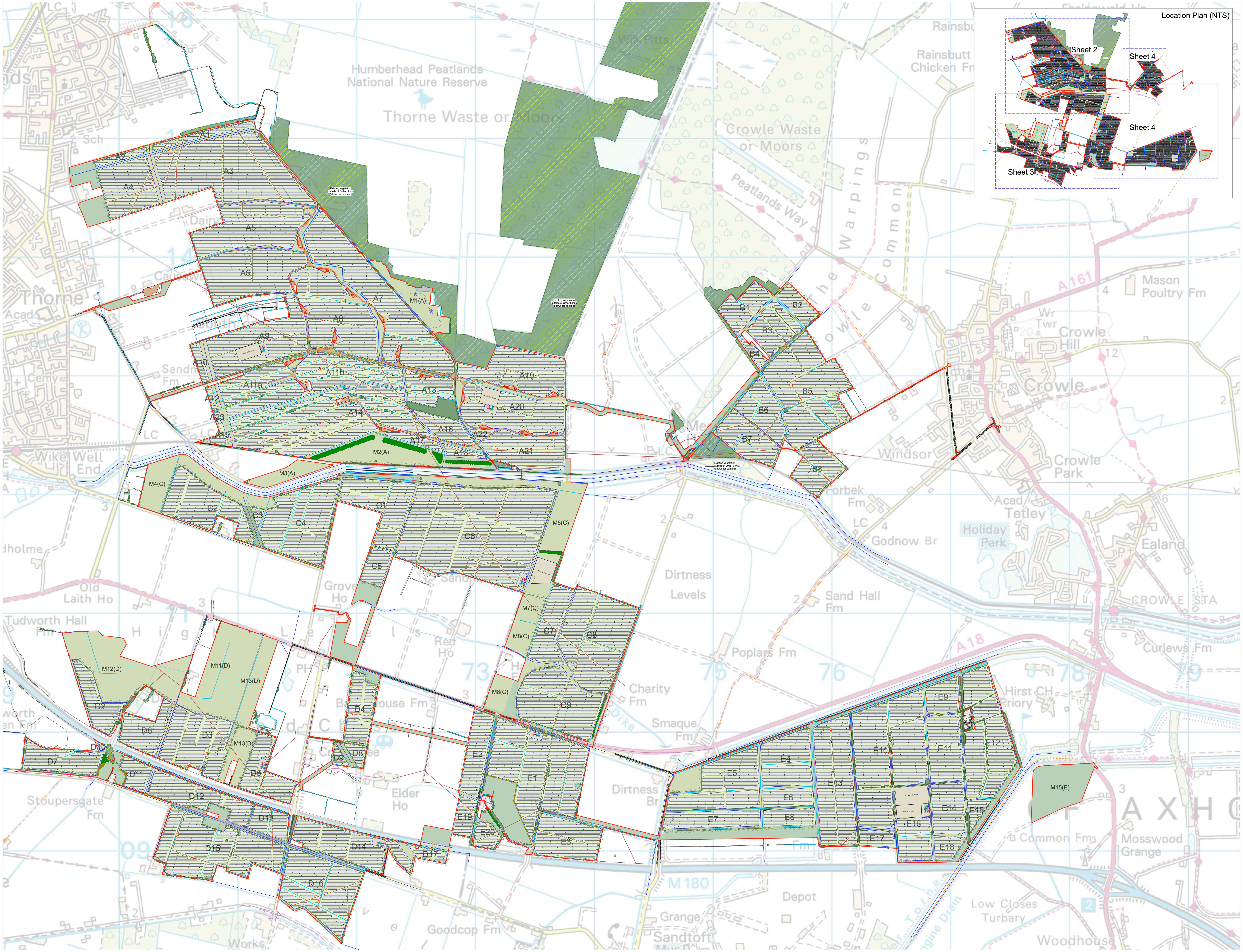
Appendix 1: Landscape Proposals



LEGEND

- Order Limits
- Existing Vegetation with RPAs
- Existing Vegetation outside Order Limits
- Existing Vegetation to be Removed
- Existing Public Right of Way Footpath
- Existing Drain
- Existing River/ IDB Drain
- Existing Water Main
- Existing Fuel Pipe
- Existing High Voltage Cable
- Existing Low Voltage Cable
- Existing Wind Farm High Voltage Cable
- Existing Telecom Cable
- Existing Wind Farm Access Track

Proposed:

- Security Fence
- Access Gate
- Solar Arrays
- Access Road
- Hard Standing to BESS/Substation
- Inverter Container
- Switchgear
- Spare Container
- Construction Compound
- Indivative Cable/ Drain Crossing
- Existing Ground Conditions to be retained and made good following construction
- Species-Rich Neutral Grassland Seed Mix
- Species-Rich Neutral Grassland Seed Mix to Solar Compartment
- Proposed Native Scrub Planting
- Proposed Hedgerow Planting
- Proposed Woodland Planting
- Proposed Tree Planting
- Indicative permissive footpath route with high level viewing huts - all routes to be fenced and secure. Fencing to be 1.2m high, wooden pole and wire fence
- Proposed scrapes - shown indicatively, refer to ecology reports for further details
- Special catagory - Common Land: not subject to compulsory aquisition, temporary possession or works powers

Notes
1. The drawing is for illustrative purposes only

Figure 6.4 Landscape and Visual Mitigation Strategy

Tween Bridge Solar Farm

N S E W — 0 200 400 600 m

Coordinate System: British National Grid Projection: Transverse Mercator Datum: OSGB 1936	

Scale: 1:10000	Paper Size: A0	Sheet: 1 of 4

RWE

Document Ref: 6.4.6.4	APFP Reg: 5(2)(a)	Revision: 4
PINS Number: EN010148	Drawing Status: Final	

Drawn: LAB	Checked: HS	Approved: KC	Date: 09/06/2026

Path: W:\Drawings4/USQ-2021/P21-3484/P21-3484 Tween Bridge Solar Farm/ENV/LD/P21-3484_52F Landscape Strategy

LEGEND

- Order Limits
- Existing Vegetation with RPAs
- Existing Vegetation outside Order Limits
- Existing Vegetation to be Removed
- Existing Public Right of Way Footpath
- Existing Drain
- Existing River/ IDB Drain
- Existing Water Main
- Existing Fuel Pipe
- Existing High Voltage Cable
- Existing Low Voltage Cable
- Existing Wind Farm High Voltage Cable
- Existing Telecom Cable
- Existing Wind Farm Access Track

Proposed:

- Security Fence
- Access Gate
- Solar Arrays
- Access Road
- Hard Standing to BESS/Substation
- Inverter Container
- Switchgear
- Spare Container
- Construction Compound
- Indicative Cable/ Drain Crossing
- Existing Ground Conditions to be retained and made good following construction
- Species-Rich Neutral Grassland Seed Mix
- Species-Rich Neutral Grassland Seed Mix to Solar Compartment
- Proposed Native Scrub Planting
- Proposed Hedgerow Planting
- Proposed Woodland Planting
- Proposed Tree Planting
- Indicative permissive footpath route with high level viewing huts - all routes to be fenced and secure. Fencing to be 1.2m high, wooden pole and wire fence
- Proposed scrapes - shown indicatively, refer to ecology reports for further details
- Special catagory - Common Land: not subject to compulsory aquisition, temporary possession or works powers

Notes
1. The drawing is for illustrative purposes only

Figure 6.4 Landscape and Visual Mitigation Strategy

Tween Bridge Solar Farm

0 100 200 300 m

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Scale: 1:5000 | Paper Size: A0 | Sheet: 2 of 4

RWE

Document Ref: 6.4.6.4 | APFP Reg: 5(2)(a) | Revision: 4
PINS Number: EN010148 | Drawing Status: Final
Drawn: LAB | Checked: HS | Approved: KC | Date: 09/06/2026

Path: W:\Drawings4/USQ-2021/P21-3484 Tween Bridge Solar Farm/ENV/LD/P21-3484_52F Landscape Strategy

LEGEND

- Order Limits
- Existing Vegetation with RPAs
- Existing Vegetation outside Order Limits
- Existing Vegetation to be Removed
- Existing Public Right of Way Footpath
- Existing Drain
- Existing River/ IDB Drain
- Existing Water Main
- Existing Fuel Pipe
- Existing High Voltage Cable
- Existing Low Voltage Cable
- Existing Wind Farm High Voltage Cable
- Existing Telecom Cable
- Existing Wind Farm Access Track

Proposed:

- Security Fence
- Access Gate
- Solar Arrays
- Access Road
- Hard Standing to BESS/Substation
- Inverter Container
- Switchgear
- Spare Container
- Construction Compound
- Indicative Cable/ Drain Crossing
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- Species-Rich Neutral Grassland Seed Mix
- Species-Rich Neutral Grassland Seed Mix to Solar Compartment
- Proposed Native Scrub Planting
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- Proposed Woodland Planting
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- Proposed scrapes - shown indicatively, refer to ecology reports for further details
- Special catagory - Common Land: not subject to compulsory aquisition, temporary possession or works powers

Notes
1. The drawing is for illustrative purposes only

Figure 6.4 Landscape and Visual Mitigation Strategy

Tween Bridge Solar Farm

N S W E

0 100 200 300 m

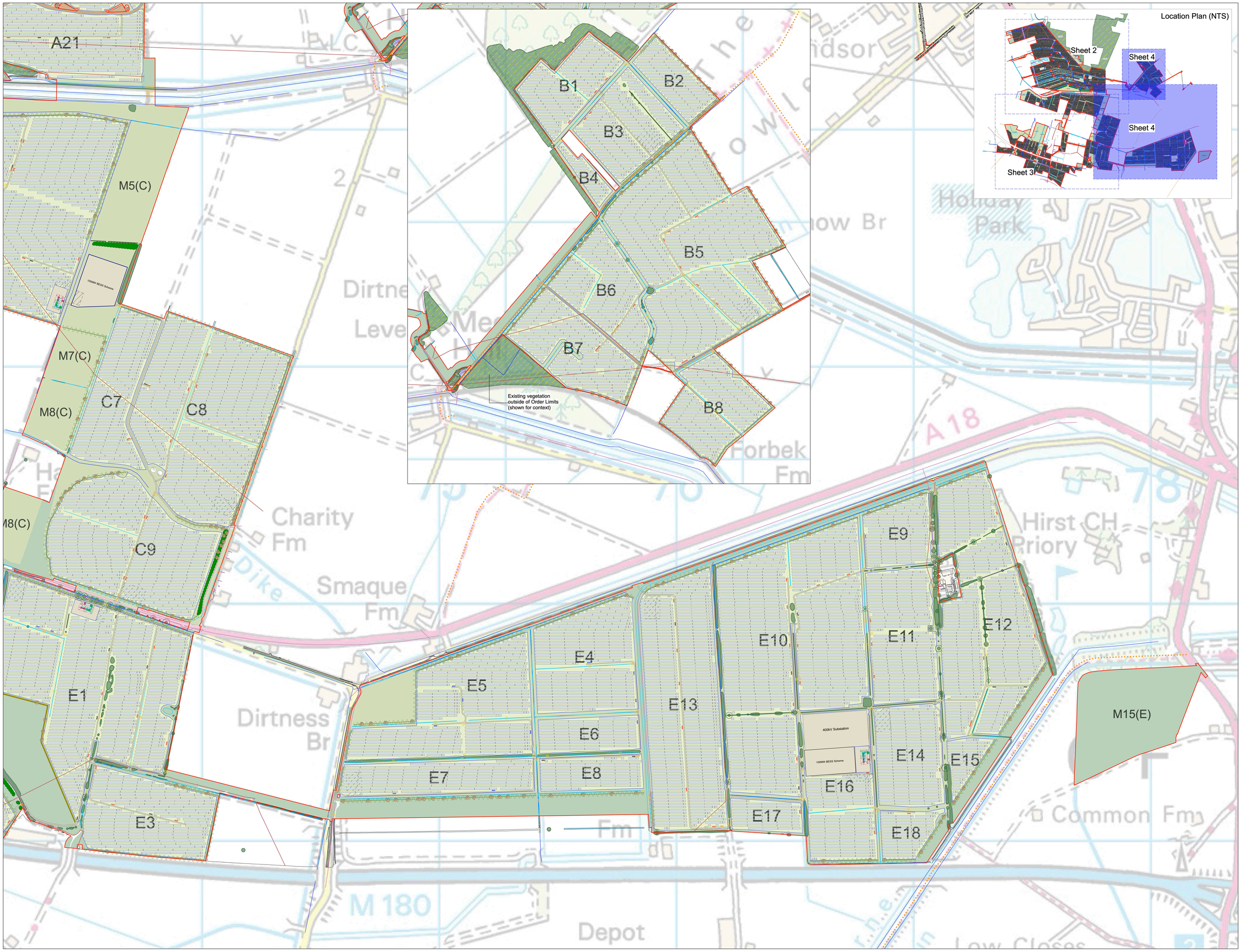
Coordinate System: British National Grid Projection: Transverse Mercator Datum: OSGB 1936	

Scale: 1:5000	Paper Size: A0	Sheet: 3 of 4

Document Ref: 6.4.6.4	APFP Reg: 5(2)(a)	Revision: 4
PINS Number: EN010148	Drawing Status: Final	

Drawn: LAB	Checked: HS	Approved: KC	Date: 09/06/2026

Path: W:\Drawings4/USQ-2021/P21-3484/P21-3484 Tween Bridge Solar Farm/ENV/LD/P21-3484_52F Landscape Strategy



LEGEND

- Order Limits
- Existing Vegetation with RPAs
- Existing Vegetation outside Order Limits
- Existing Vegetation to be Removed
- Existing Public Right of Way Footpath
- Existing Drain
- Existing River/ IDB Drain
- Existing Water Main
- Existing Fuel Pipe
- Existing High Voltage Cable
- Existing Low Voltage Cable
- Existing Wind Farm High Voltage Cable
- Existing Telecom Cable
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Proposed:

- Security Fence
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- Proposed scrapes - shown indicatively, refer to ecology reports for further details
- Special catagory - Common Land: not subject to compulsory aquisition, temporary possession or works powers

Notes
1. The drawing is for illustrative purposes only

Figure 6.4 Landscape and Visual Mitigation Strategy

Tween Bridge Solar Farm

0 100 200 300 m

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Scale: 1:5000 | Paper Size: A0 | Sheet: 4 of 4

RWE

Document Ref: 6.4.6.4		APFP Reg: 5(2)(a)	Revision: 4
PINS Number: EN010148		Drawing Status: Final	
Drawn: LAB	Checked: HS	Approved: KC	Date: 09/06/2026

Path: W:\Drawings\4.LSQ\2.2021\P21-3404 Tween Bridge Solar Farm\ENV\13\P21-3404_537 Landscape Strategy

Appendix 2: 16313_C01_Condition Assessments

Condition Sheet: LINE OF TREES Habitat Type

Habitat Types

Line of trees
Line of trees – associated with bank or ditch
Ecologically valuable line of trees
Ecologically valuable line of trees – associated with bank or ditch

Please see the separate Individual trees condition sheet for linear blocks and groups of trees in an urban setting. You should only use this Line of trees condition assessment and record this habitat type in rural locations.

Habitat Description

See 16413_R11_BNG Report

See the Statutory Biodiversity Metric User Guide.
This assessment is based on the Hedgerow Survey Handbook[1]. For further clarifications please refer to the Handbook.
Where ancient and veteran trees are present within the line of trees, see Footnote 2 for standing advice.

On-site or off-site, site name and location	See 16413_R11_BNG Report	**Survey date and Surveyor name**	See 16413_R11_BNG Report
		Survey reference (if relating to a wider survey)	See 16413_R11_BNG Report
Limitations (if applicable)	See 16413_R11_BNG Report		

Habitat parcel reference										
5										
Grid reference										

	Condition Assessment Criteria	**Criterion passed (Yes or No)**										**Notes (such as justification)**
A	At least 70% of trees are native species.	Yes										
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Yes										
C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	No										
D	There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice[2].	No										
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Yes										
	Number of criteria passed	3										

Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved ×/✓										
Passes 5 criteria	Good (3)											
Passes 3 or 4 criteria	Moderate (2)	Moder										
Passes 2 or fewer criteria	Poor (1)											
Suggested enhancement interventions to improve condition score												
Footnotes												

Condition Sheet: POND Habitat Type

Habitat Type

Lakes - Ponds (priority habitat)
Lakes - Ponds (non-priority habitat)
Lakes - Temporary lakes ponds and pools (H3170) [Use this condition sheet for Temporary ponds and pools, use Lake condition sheet for Temporary lakes]
Lakes - Ornamental lake or pond [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornamental lakes]

Habitat Description

ukhab – UK Habitat Classification												
On-site or off-site, site name and location		**Survey date and Surveyor name**										
		Survey reference (if relating to a wider survey)										
Limitations (if applicable)		**Habitat parcel reference**										
		13, 14, 15										
		Grid reference										
Condition Assessment Criteria												
		Criterion passed (Yes or No)										**Notes (such as justification)**
Core Criteria - applicable to all ponds (woodland[1] and non-woodland):												
A	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Yes										
B	There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	No										
C	Less than 10% of the water surface is covered with duckweed *Lemna* spp. or filamentous algae.	Yes										
D	The pond is not artificially connected to other waterbodies, such as agricultural ditches or artificial pipework.	Yes										
E	Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams[2], pumps or pipework.	No										
F	There is an absence of listed non-native plant and animal species[3].	Yes										
G	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Yes										
Additional Criteria - must be assessed for all non-woodland ponds:												
H	Emergent, submerged or floating plants (excluding duckweed)[4] cover at least 50% of the pond area which is less than 3 m deep.	No										

l	The pond surface is no more than 50% shaded by adjacent trees and scrub.	Yes										
	Number of criteria passed	6										

Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**									
Results for woodland ponds which require assessment of 7 core criteria											
Passes 7 criteria	Good (3)										
Passes 5 or 6 criteria	Moderate (2)	Moderat									
Passes 4 or fewer criteria	Poor (1)										
Results for non-woodland ponds which require assessment of 9 criteria											
Passes 9 criteria	Good (3)										
Passes 6 to 8 criteria	Moderate (2)	Moderat									
Passes 5 or fewer criteria	Poor (1)										

Suggested enhancement interventions to improve condition score

Footnote 1 - A woodland pond will be surrounded on all sides by woodland habitat.

Footnote 2 – This excludes natural dams such as those created by Eurasian beaver *Castor fiber* .

Footnote 3 - Any species included on the Water Framework Directive (WFD) UKTAG GB High Impact Species List should be absent: WFD UKTAG (2021) *Classification of aquatic alien species according to their level of impact* [online]. Available from:

Condition Sheet: SCRUB Habitat Type

Habitat Types

Heathland and shrub - Blackthorn scrub
Heathland and shrub - Gorse scrub
Heathland and shrub - Hawthorn scrub
Heathland and shrub - Hazel scrub
Heathland and shrub - Mixed scrub
Heathland and shrub - Dunes with sea buckthorn (H2160)
Heathland and shrub - Willow scrub

Habitat Description

For Dunes with sea buckthorn see:	Dunes with sea-buckthorn (Dunes with Hippophae rhamnoides) - Special Areas of Conservation (jncc.gov.uk)
For other scrub types see:	ukhab – UK Habitat Classification

On-site or off-site, site name and location		**Survey date and Surveyor name**	
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)		**Habitat parcel reference**	12
		Grid reference	

	Condition Assessment Criteria	**Criterion passed (Yes or No)**	**Notes (such as justification)**
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range).[1] - At least 80% of scrub is native, - There are at least three native woody species[2], - No single species comprises more than 75% of the cover (except hazel *Corylus avellana*, common juniper *Juniperus communis*, sea buckthorn *Hippophae rhamnoides* (only in its restricted native range), or box *Buxus sempervirens*, which can be up to 100% cover).	Yes	
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran[3]) shrubs are all present.	No	
C	There is an absence of invasive non-native plant species[4] (as listed on Schedule 9 of WCA[5]) and species indicative of suboptimal condition[6] make up less than 5% of ground cover.	Yes	
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Yes	
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	
	Number of criteria passed	3	

Condition Assessment Result (out of 5 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**
Passes 5 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	Moderate

Passes 2 or fewer criteria	Poor (1)											
Suggested enhancement interventions to improve condition score												

Condition Sheet: WETLAND Habitat Type

Habitat Types

Grassland - Floodplain wetland mosaic and CFGM - See the Statutory Biodiversity Metric User Guide.
Wetland - Blanket bog
Wetland - Depression on peat substrates (H7150)
Wetland - Fens (upland and lowland)
Wetland - Lowland raised bog
Wetland - Oceanic valley mire [1] (D2.1)
Wetland - Purple moor grass and rush pastures
Wetland - Reedbeds
Wetland - Transition mires and quaking bogs (H7140)

Habitat Description

For Oceanic valley mires - see EUNIS

See the Statutory Biodiversity Metric User Guide for Floodplain wetland mosaic (FWM) and coastal and floodplain grazing marsh (CFGM). For CFGM also see the below:

Coastal and floodplain grazing marsh UK BAP Priority Habitat description

Priority Habitat Inventory (England) - data.gov.uk

All other wetland habitats - see UK Habitat Classification (UKHab):

UKHab

On-site or off-site, site name and location		**Survey date and Surveyor name**	
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)		**Habitat parcel reference**	7
		Grid reference	

	Condition Assessment Criteria	**Criterion passed (Yes or No)**	**Notes (such as justification)**
Core Criteria - must be assessed for **all wetland habitat types**:			
A	The water table is at, or near the surface throughout the year - this could be open water or saturation of soil at the surface. There is no artificial drainage, unless specifically to maintain water levels as specified above. **Note - this criterion is essential for achieving Good condition.**	No	
B	The parcel represents a good example of its specific habitat type - the appearance and composition of the vegetation closely matches its UKHab description, with vascular and non-vascular characteristic indicator species consistently present.[1]	Yes	
C	The water supplies (groundwater, surface water and or rainwater) to the wetland are of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.	No	
D	Cover of scrub and scattered trees are less than 10%.	Yes	
E	Cover of bare ground is less than 5%.	Yes	
F	There is an absence of invasive non-native plant species[2] (as listed on Schedule 9 of WCA[3]) and species indicative of suboptimal condition[4] make up less than 5% of ground cover.	Yes	
Additional Criterion - must be assessed for **Fen and Purple moor grass and rush pasture** habitats only:			

G	No more than 25% of the habitat area has a continuous cover of litter (such as dead vegetation) preventing regeneration.												
Additional Criterion - must be assessed for **Bog** habitats only:													
H	Sphagnum moss *Sphagnum* spp. and cottongrasses *Eriophorum* spp. are at least Frequent[5]. Cover of ericaceous dwarf shrubs[6] is less than 75%.												
Additional Criterion - must be assessed for **Reedbed** habitats only:													
I	The reedbed has a diverse structure with between 60% and 80% reeds *Phragmites australis* . Other areas may include open water (at least 10%), species-rich fen and or wet woodland.	Yes											
Additional Criterion - must be assessed for **Floodplain wetland mosaic and CFGM** only:													
J	All ditches recorded within the habitat achieve Good condition as assessed using the Ditch condition sheet.												
Essential criterion achieved (required for Good condition) Yes or No:		No											
Number of criteria passed		5											

Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**										
Results for habitats requiring assessment of 6 criteria (Depression on peat substrates (H7150) and Oceanic valley mire [1] (D2.1)):												
•Passes 5 or 6 core criteria, including criterion A.	Good (3)											
•Passes 3 or 4 core criteria; OR •Passes 5 core criteria but fails criterion A.	Moderate (2)											
•Passes 2 or fewer core criteria.	Poor (1)											
Results for habitats requiring assessment of 7 criteria - core criteria and additional criterion specified for habitat type - all habitat types except Depression on peat substrates (H7150) and Oceanic valley mire [1] (D2.1):												
•Passes 5 or 6 core criteria including criterion A; AND •Passes additional criterion G, H, I or J (choose the one specified for the habitat type).	Good (3)											
•Passes 4 or 5 of 7 criteria; OR •Passes 6 of 7 criteria but fails criterion A or additional criterion G, H, I or J (choose the one specified for the habitat type).	Moderate (2)	Moderate										
•Passes 3 or fewer criteria.	Poor (1)											

Suggested enhancement interventions to improve condition score

Condition Sheet: WOODLAND Habitat Type

UK Habitat Classification (UKHab) Habitat Types

Woodland and forest - Lowland beech and yew woodland
Woodland and forest - Lowland mixed deciduous woodland
Woodland and forest - Native pine woodlands
Woodland and forest - Other coniferous woodland
Woodland and forest - Other Scot's pine woodland
Woodland and forest - Other woodland; broadleaved
Woodland and forest - Other woodland; mixed
Woodland and forest - Upland birchwoods
Woodland and forest - Upland mixed ashwoods
Woodland and forest - Upland oakwood
Woodland and forest - Wet woodland

Habitat Description

ukhab – UK Habitat Classification

This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here:

Woodland Wildlife Toolkit (sylva.org.uk)

IMPORTANT: This biodiversity metric woodland condition assessment must be used to assess woodland being input into the biodiversity metric. The outputs of this condition assessment are not equivalent to, nor are they comparable with the scores from the EWBG condition assessment, because the EWBG assessment has been adapted for the biodiversity metric, including the removal of EWBG Indicator 7 (Proportion of favourable land cover around woodland) and Indicator 14 (Size of woodland), and minor changes to other indicators.

On-site or off-site, site name and location		**Survey date and Surveyor name**		**Habitat parcel reference**											
				21, 22,											
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**		**Grid reference**											

Condition Assessment Criteria

	Indicator	**Good (3 points)**	**Moderate (2 points)**	**Poor (1 point)**	**Score per indicator**										**Notes (such as justification)**
A	**Age distribution of trees**	Three age-classes[1] present.	Two age-classes[1] present.	One age-class[1] present.	2										
B	**Wild, domestic and feral herbivore damage**	No significant browsing damage evident in woodland[2].	Evidence of significant browsing pressure is present in less than 40% of whole woodland[2].	Evidence of significant browsing pressure is present in 40% or more of whole woodland[2].	2										
C	**Invasive plant species**	No invasive species[3] present in woodland.	Rhododendron *Rhododendron ponticum* or cherry laurel *Prunus laurocerasus* not present, and other invasive species[3] <10% cover.	Rhododendron or cherry laurel present, or other invasive species[3] ≥10% cover.	1										
D	**Number of native tree species**	Five or more native tree or shrub species[4] found across woodland parcel.	Three to four native tree or shrub species[4] found across woodland parcel.	Two or less native tree or shrub species[4] across woodland parcel.	3										
E	**Cover of native tree and shrub species**	>80% of canopy trees and >80% of understory shrubs are native[5].	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native[5].	<50% of canopy trees and <50% of understory shrubs are native[5].	2										
F	**Open space within woodland**	10 - 20% of woodland has areas of temporary open space[6]. Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted[7].	21 - 40% of woodland has areas of temporary open space[6].	<10% or >40% of woodland has areas of temporary open space[6]. But if woodland <10ha has <10% temporary open space, please see Good category[7].	2										

G	**Woodland regeneration**	All three classes present in woodland[8]; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	One or two classes only present in woodland[8].	No classes or coppice regrowth present in woodland[8].	2											
H	**Tree health**	Tree mortality 10% or less, no pests or diseases and no crown dieback[9].	11% to 25% tree mortality and or crown dieback or low-risk pest or disease present[9].	Greater than 25% tree mortality and or any high-risk pest or disease present[9].	3											
I	**Vegetation and ground flora**	Recognisable NVC plant community[10] at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community[10] at ground layer present.	No recognisable woodland NVC plant community[10] at ground layer present.	2											
J	**Woodland vertical structure**	Three or more storeys across all survey plots, or a complex woodland[11].	Two storeys across all survey plots[11].	One or less storey across all survey plots[11].	2											
K	**Veteran trees**	Two or more veteran trees[12] per hectare.	One veteran tree[12] per hectare.	No veteran trees[12] present in woodland.	2											
L	**Amount of deadwood**	50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities[13].	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities[13].	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities[13].	2											
M	**Woodland disturbance**	No nutrient enrichment or damaged ground evident[14].	Less than 1 hectare in total of nutrient enrichment across woodland area, and or less than 20% of woodland area has damaged ground[14].	1 hectare or more of nutrient enrichment, and or 20% or more of woodland area has damaged ground[14].	2											
				Total Score (out of a possible 39)	27											

Condition Assessment Result	**Condition Assessment Score**	**Result Achieved**										
Total score >32 (33 to 39)	Good (3)											
Total score 26 to 32	Moderate (2)	Moder										
Total score <26 (13 to 25)	Poor (1)											

Suggested enhancement interventions to improve condition score

Condition Sheet: DITCH Habitat Type

Habitat Type

Watercourses - Ditches

Habitat Description

See the Statutory Biodiversity Metric User Guide.

On-site or off-site, site name and location		**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	

		Habitat parcel reference										
		Grid reference										
	Condition Assessment Criteria	1	2	3								
		Criterion passed (Yes or No)										**Notes (such as justification)**
A	The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.	Yes	No	No								
B	A range of emergent, submerged and floating-leaved plants are present. As a guide >10 species of emergent, floating or submerged plants present in a 20 m ditch length.	Yes	Yes	No								
C	There is less than 10% cover of filamentous algae and or duckweed *Lemna* spp. (these are signs of eutrophication).	Yes	Yes	Yes								
D	A fringe of aquatic marginal vegetation is present along more than 75% of the ditch.	Yes	Yes	Yes								
E	Physical damage is evident along less than 5% of the ditch, with examples of damage including: excessive poaching, damage from machinery use or storage, or any other damaging management activities.	Yes	Yes	Yes								
F	Sufficient water levels are maintained - as a guide a minimum summer depth of approximately 50 cm in minor ditches and 1 m in main drains.	Yes	Yes	Yes								
G	Less than 10% of the ditch is heavily shaded.	Yes	No	No								
H	There is an absence of non-native plant and animal species[1].	Yes	Yes	No								
	Number of criteria passed	8	6	4								

Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved ×/✓									
Passes 8 criteria	Good (3)	Good									
Passes 6 or 7 criteria	Moderate (2)		Moderate								
Passes 5 or fewer criteria	Poor (1)			Poor							

Suggested enhancement interventions to improve condition score

Footnotes

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)													
UK Habitat Classification (UKHab) Habitat Type													
Grassland - Modified grassland													
Habitat Description													
See 16413_R11_BNG Report													
ukhab – UK Habitat Classification													
On-site or off-site, site name and location	See 16413_R11_BNG Report	**Survey date and Surveyor name**	See 16413_R11_BNG Report										
		Survey reference (if relating to a wider survey)	See 16413_R11_BNG Report										
Limitations (if applicable)	See 16413_R11_BNG Report	**Habitat parcel reference**											
		2, 5											
		Grid reference											
Condition Assessment Criteria		**Criterion passed (Yes or No)**											**Notes (such as justification)**
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	No										
B	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 vertebrates and invertebrates to live and breed.	No										
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes										
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No										
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	No										
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Yes										
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Yes										
	Essential criterion achieved (Yes or No)	No										
	Number of criteria passed	3										
Condition Assessment Result (out of 7 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**										

Passes 6 or 7 criteria including passing essential criterion A	Good (3)											
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)											
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	Poor										

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – Creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* , white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris* .

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)

UK Habitat Classification (UKHab) Habitat Types

Grassland - Lowland calcareous grassland
Grassland - Lowland dry acid grassland
Grassland - Lowland meadows
Grassland - Other lowland acid grassland
Grassland - Other neutral grassland
Grassland - Tall herb communities (H6430) [Not to be confused with the Tall forbs secondary code – see UKHab guidance for details.]
Grassland - Upland acid grassland
Grassland - Upland calcareous grassland
Grassland - Upland hay meadows
Sparsely vegetated land - Calaminarian grassland

Habitat Description

See 16413_R11_BNG Report

ukhab – UK Habitat Classification												
On-site or off-site, site name and location	See 16413_R11_BNG Report	**Survey date and Surveyor name**	See 16413_R11_BNG Report									
		Survey reference (if relating to a wider survey)	See 16413_R11_BNG Report									
Limitations (if applicable)	See 16413_R11_BNG Report	**Habitat parcel reference**										
Condition Assessment Criteria		**Grid reference**										
		9										
		Criterion passed (Yes or No)										**Notes (such as justification)**
A	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).[1] **Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**	No										
B	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.	Yes										
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens[2].	Yes										
D	Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) is less than 5%.	Yes										
E	Combined cover of species indicative of suboptimal condition[3] 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 WCA[5]) are present, this criterion is automatically failed.	Yes										

Additional Criterion - must be assessed for all non-acid grassland types

F	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). **Note - this criterion is essential for achieving Good condition for non-acid grassland types only.**	No										
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		No										
Number of criteria passed		4										
Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**										
Acid grassland types (Result out of 5 criteria)												
Passes 5 criteria	Good (3)											
Passes 3 or 4 criteria	Moderate (2)											
Passes 2 or fewer criteria	Poor (1)											
Non-acid grassland types (Result out of 6 criteria)												
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)											
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	Moderate										
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)											
Suggested enhancement interventions to improve condition score												
Notes												

Footnote 1 - Professional judgement should be used alongside the UKHab description.

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* , white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris* . There may be additional relevant species local to the region and or site.

Footnote 4 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.

Footnote 5 – Wildlife and Countryside Act 1981 (as amended).

Condition sheet: HEDGEROW Habitat Types

Habitat Type

Native hedgerow
Native hedgerow - associated with bank or ditch
Native hedgerow with trees
Native hedgerow with trees - associated with bank or ditch
Species-rich native hedgerow
Species-rich native hedgerow - associated with bank or ditch
Species-rich native hedgerow with trees
Species-rich native hedgerow with trees - associated with bank or ditch

Habitat Description

See 16413_R11_BNG Report

ukhab – UK Habitat Classification

On-site or off-site, site name and location	See 16413_R11_BNG Report	**Survey date and Surveyor name**	See 16413_R11_BNG Report
Limitations (if applicable)	See 16413_R11_BNG Report	**Survey reference (if relating to a wider survey)**	See 16413_R11_BNG Report

Condition Assessment Details

A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.

This assessment is based on the Hedgerow Survey Handbook[1] and Favourable Conservation Status document[2]. For further clarification please refer to the Hedgerow Survey Handbook.

Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.

Hedgerow favourable condition attributes

Attributes and functional groupings (A, B, C, D and E)		**Criteria - the minimum requirements for 'favourable condition'**	**Criteria description**	**Habitat parcel reference**									
				1, 2, 3, 6	4								
				Grid reference									
Core groups - applicable to all hedgerow types				**Criterion passed (Yes or No)**									**Notes (such as justification)**
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	Yes	Yes								
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn *Prunus spinosa* suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	Yes	Yes								

B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	Yes	No									
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	No	No									
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	Yes	No									
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	Yes	No									
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA[3]) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website[4], as well as the BSBI website[5] where the 'Online Atlas of the British and Irish Flora'[6] contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website[7].	Yes	Yes									
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	No	No									
Additional group - applicable to hedgerows with trees only														
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient[8]), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	No										

E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	Yes											

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees			Score achieved						
Category	**Category Requirements**	**Metric Score**							
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3							
Moderate	No more than 4 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2							
Poor	Fails a total of more than 4 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1							
	Score achieved:								

Condition categories for hedgerows with trees			Score achieved						
Category	**Category Requirements**	**Metric score**							
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3							
Moderate	No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2							
Poor	Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1							
	Score achieved:								

Suggested enhancement interventions to improve condition score

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