

Land at South Farm Biodiversity Net Gain Calculations edp6190 r006c

1. Introduction

- 1.1 This Biodiversity Impact Assessment (BIA) has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Bloor Homes (South West) (hereafter referred to as 'the Applicant'). This document presents the BIA Calculations (**Annex EDP 1**) for a proposed residential development of Land at South Farm, Wickwar ('hereafter referred to as the 'Application Site').
- 1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cardiff and Cheltenham. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website www.edp-uk.co.uk.

2. Background Information and Site Context

- 2.1 The Application Site is centred approximately at Ordnance Survey Grid Reference (OSGR) ST 72387 87684, at the southern edge of the village of Wickwar in South Gloucestershire. The wider landscape is dominated by agricultural land, predominately grazing pasture and arable fields subdivided by native hedgerow.
- 2.2 Overall, the Application Site is circa. 7.9 hectares (ha) in size and comprises four field parcels predominantly within agricultural use, divided by native hedgerows reinforced in places with wire fencing. South Farm, comprising a complex of agricultural buildings, is present off site adjacent to the northern boundary of the Application Site bordered by Sodbury Road. The southern boundary of the Application Site is bordered by additional areas of agricultural land with Frith Lane located further south. The location and extents of the Application Site are illustrated at **Plan EDP 1**.
- 2.3 An outline planning application was submitted to South Gloucestershire Council in February 2022, for residential development of Land at South Farm, Wickwar. To inform the planning submission, a desk study, Extended Phase 1 Habitat survey and further detailed survey respect to bats, breeding birds, badger (Meles meles), (Muscardinus avellanarius), otter (Lutra lutra), water vole (Arvicola amphibius) and great crested newt (Triturus cristatus) was undertaken by EDP between 2020 and 2021, the results of which are provided within an Ecological Appraisal (report reference: edp6190_r005). This was in addition to a BIA assessment to calculate the proposed change in biodiversity units for the Application Site following completion of construction.



- 2.4 Following receipt of initial comments on the application from South Gloucestershire Council's officers, statutory consultees and the Design Review Panel, a revised planning application is proposed for submission alongside a revised Framework Masterplan (provided at **Annex EDP 2**) and Landscape Strategy (provided at **Annex EDP 3**) for development. The revised Framework Masterplan incorporates the following amendments to the scheme:
 - Revision of the Sustainable Urban Drainage (SuD) strategy, replacing a single basin with three dispersed through the development;
 - Inclusion of rain gardens within the built development footprint providing further opportunities for biodiversity enhancement whilst contributing to the overall drainage strategy;
 - Relocation of the Local Equipped Area for Play (LEAP) and Local Area for Play (LAP) from green open space along the western boundary to the built-development footprint, facilitating the creation of additional habitat for wildlife;
 - Additional planting along the northern boundary of the Application Site, enhancing wildlife corridors for dispersal of protected/notable species across the Application Site whilst providing additional breeding/foraging habitat;
 - Additional tree planting across the Application Site including provision of orchard trees
 providing additional habitat for protected/notable species and enhancing biodiversity
 overall whilst delivering benefits to visual amenity; and
 - Provision of additional footpath routes/connections through the Application Site, improving links to the wider Public Right of Way (PRoW) network, providing additional benefits to recreation and visual amenity whilst seeking to reduce recreational pressures on statutory designated sites in the wider landscape.
- 2.5 This report, therefore, provides the results of an update BIA assessment, based on the Landscape Strategy (**Annex EDP 3**) alongside details of the methodologies adopted and any assumptions and limitations.

3. Methodology

3.1 The BIA has been undertaken using the 'Department for Environment, Food and Rural Affairs (DEFRA) Biodiversity Metric 3.0' (JP039)¹ by an Associate Ecological Consultant with experience of using such calculators in January 2023.

 $^{^1\,}http://publications.naturalengland.org.uk/publication/6049804846366720$



- 3.2 The assessment has been based on the Extended Phase 1 Habitat survey by EDP on 12 and 13 March 2020 with a further update assessment undertaken on 22 January 2021. Geographical Information System software has been used to calculate approximate areas of habitat to be lost, retained, enhanced and/or created. Calculations are based on the Landscape Strategy provided at **Annex EDP 2**.
- 3.3 The condition of all habitats has been assessed using the condition assessment criteria provided within the 'Technical Supplement' and 'Habitat Condition Assessment Sheets' published alongside the Biodiversity Metric 3.0, where available. The following should be read in conjunction with the detailed BIA calculations provided in **Annex EDP 1**, along with the Phase 1 Habitat Plan (baseline habitats) included at **Plan EDP 1**. Post-development habitats to be enhanced and created are illustrated at **Plan EDP 2**. Any additional information required (for example the full set of calculations, condition assessment data and GIS files) are available upon request.
- 3.4 The BIA calculations do not account for other protected species enhancement measures such as the provision of bird and bat boxes and reptile hibernacula, nor does it account for the additional value of habitat resources important to specific species groups, which may not score highly within the calculator. Compensatory habitat will therefore need to take into account protected species issues in addition to creating sufficient biodiversity units to achieve a net gain.

4. Baseline and Post-intervention Calculations

- 4.1 Baseline habitats and hedgerows present within the Application Site are illustrated at **Plan EDP 1** and have been entered into the metric as detailed below.
- 4.2 With respect to post-development habitats to be created onsite, various assumptions have been made for the purposes of the calculations. Where appropriate, these have been added to the impact calculation table in the note's column, with the key ones being discussed below. Post-intervention calculations are based on a high-level Landscape Strategy (Annex EDP 3). Proposed habitats and hedgerows are illustrated at Plan EDP 2.

Baseline Habitats

4.3 **Table EDP 4.1** outlines the conditions of the habitats present within the Application Site based on an assessment undertaken following the Defra Metric 3.0 Technical Supplement condition criteria.

Table EDP 4.1: On-site Baseline Habitat Condition

| Habitat | Phase 1 Habitat Classification as shown on Plan 1 | Condition Criteria Passed | Condition Criteria Failed | Condition |
|-------------|---|------------------------------|------------------------------|-----------|
| Cereal Crop | Arable | N/A | N/A | N/A |



| Habitat | Phase 1 Habitat Classification as shown on Plan 1 | Condition Criteria Passed | Condition Criteria Failed | Condition |
|-----------|---|------------------------------|------------------------------|-----------|
| Modified | Improved Grassland | 3 and 6 | 1, 2, 4, 5, 7 | Poor |
| Grassland | | | | |
| Modified | Poor Semi-improved | 3, 6 and 7 | 1, 2, 4, 5, 7 | Poor |
| Grassland | Grassland | | | |

Baseline Hedgerows

4.4 **Table EDP 4.2** outlines the conditions of the hedgerows present within/adjacent to the Application Site based on the assessment undertaken following the Defra Metric 3.0 Technical Supplement condition criteria.

Table EDP 4.2: Baseline Hedgerow Condition

| ID | A1 | A2 | B1 | B2 | C1 | C2 | D1 | D2 | E1 | E2 | Condition |
|-----|----|----|----|----|----|----|----|----|----|----|-----------|
| H1 | F | Р | Р | Р | Р | Р | Р | F | Р | Р | Good |
| H2 | Р | Р | Р | Р | Р | F | Р | F | - | - | Good |
| Н3 | Р | Р | Р | Р | Р | F | Р | Р | Р | Р | Good |
| H4 | F | F | Р | Р | Р | F | Р | F | - | - | Moderate |
| H5 | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р | Good |
| Н6 | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р | Good |
| H7 | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р | Good |
| Н8 | Р | Р | Р | Р | Р | F | Р | F | - | - | Good |
| Н9 | Р | Р | Р | Р | Р | F | Р | F | Р | Р | Good |
| H10 | Р | Р | Р | Р | Р | F | Р | F | Р | Р | Good |
| H11 | Р | Р | Р | р | Р | Р | Р | Р | Р | Р | Poor |
| H12 | Р | F | Р | F | Р | Р | Р | Р | - | - | Good |
| H13 | Р | F | Р | F | Р | Р | Р | Р | - | - | Good |
| H14 | Р | F | Р | F | Р | N | Р | Р | - | - | Moderate |
| H15 | Р | F | Р | F | Р | N | Р | Р | - | - | Moderate |

Post-intervention Habitats

- 4.5 The residential area has been split into 70% 'developed land, sealed surface' and 30% 'urban vegetated garden' in accordance with best practice guidance.
- 4.6 Proposed allotments have been assigned a moderate condition on the assumption that management will be in place to preclude the spread of any non-native species, with allotments instead providing a range of crop and species of value as a foraging and nectar resource to wildlife. However, given allotments will be for the use of local residents, the presence of diverse, ecotone habitats cannot be guaranteed. Proposed rain gardens are assessed against the same criteria and similarly have been assigned moderate condition.
- 4.7 Orchard planting is proposed within areas of open green space along the northern and western boundaries of the Application Site. This has been input as 'traditional orchard' with moderate



condition to reflect the absence of mature specimens and deadwood which are a feature of typical traditional orchards. It is assumed the underlying habitat will comprise species-rich grassland, albeit managed for both amenity and wildlife.

- 4.8 Proposed attenuation basins will be seeded with a species-rich seed mix suitable for underlying hydrological conditions and managed to promote structural and botanical diversity within a sward with removal of undesirable and invasive species.
- 4.9 The proposed swale has been included under the category for Sustainable Urban Drainage (SuDS) feature and has been assigned a moderate condition post-development. It is considered that with a well-designed planting schedule, the SuDS could meet the majority of the condition criteria, except criteria 4b for maintaining the water table at or near the surface throughout the year.
- 4.10 Proposed mixed scrub will incorporate several woody species and can be managed in the long-term through thinning, coppicing and removal of undesirable species as necessary, promoting structural diversity and thus contributing to the achievement of 'good' condition.
- 4.11 A pond is proposed within open space in the north of the Application Site characterised by grassland habitat with scattered mixed shrub and tree planting. The pond will be designed and managed for wildlife and remain unstocked so as to provide suitable habitat for a great crested newt population. With implementation of a suitable management programme to maintain water quality and prevent proliferation of undesirable species, the pond will be capable of achieving good condition.
- 4.12 Areas of species-rich amenity grassland (as per the Landscape Strategy) will be managed for public access and recreation. Grassland will be maintained at a relatively low and uniform height with physical damage from public use likely to occur in localised patches. This habitat (labelled 'other neutral grassland' in the calculator has thus been assigned moderate condition. In addition, areas of species-rich meadow grassland are proposed. This will be sown with a species-rich meadow flower mix and managed to promote a structurally and botanically diverse grassland sward of value to wildlife. Nevertheless, this habitat (also entered as 'other neutral grassland') has been assigned moderate condition given its proximity to public areas.

Post-intervention Hedgerows

4.13 Retained hedgerows will be protected during construction and enhanced to target 'good' condition through additional planting including the infilling of gaps. New native hedgerow planting will incorporate at least five species. Retained and newly created hedgerows will be subject to sensitive management in the long-term to promote a bushy, A-frame structure. Habitat buffers measuring circa 5m or greater, incorporating shrub and grassland planting are proposed between development and retained/newly created hedgerows to maintain their integrity and protect these features from damage/degradation.



5. Results

- 5.1 The BIA calculations pertaining to habitat areas are provided in **Annex EDP 1**. Overall, the biodiversity impact habitat area score of the proposed development has been calculated as follows:
 - Total net unit change = 5.64units (net gain); and
 - Total net percentage change = 35.14% (net gain).
- 5.2 With respect to the biodiversity impact score of the proposed development for hedgerows specifically, this has been calculated as follows:
 - Total net unit change = 9.09 units (net gain); and
 - Total net percentage change = 50.91% (net gain).
- 5.3 The Metric includes an assessment of whether certain trading rules have been met by the proposed scheme. Trading rules applied by the metric require that any loss of habitat is replaced on a 'like for like' or 'like for better' distinctiveness basis, to prevent 'trading down' whereby more ecologically valuable habitats are lost and replaced with larger area of lower value habitats. Under the above assessment the Trading Rules for the metric are satisfied.

6. Discussion and Conclusions

- 6.1 The Application Site is largely dominated by arable land of limited ecological value. An initial loss of biodiversity units is due to loss of habitats almost exclusively of poor condition and low distinctiveness (predominantly improved grassland and arable crop). The Framework Masterplan (Annex EDP 2) has sought to mitigate this loss through the incorporation of habitats of higher quality and distinctiveness. These proposed habitats, situated within areas of informal open green space will include wildflower and wet meadow grasslands in addition to new tree and shrub planting whilst allotments are proposed for a local community and combined will provide a biodiversity net gain.
- 6.2 The gain in linear units is due to the site-wide retention and enhancement of existing hedgerows. The expected loss of hedgerow amounts to approximately 220m of hedgerow compared to an additional creation of 820m of new species-rich native hedgerow creation.
- 6.3 Habitat establishment and management details included within a Landscape and Ecological Management Plan can be secured via planning condition to ensure that the target habitat conditions required for the assessment will be achieved. Overall, the development is capable of delivering a net gain in biodiversity units.



Annex EDP 1
Biodiversity Metric Calculator

| Land at South Farm Wickwar Headline Results Return to results menu | | |
|--|----------------|--------|
| | Habitat units | 16.06 |
| On-site baseline | Hedgerow units | 17.85 |
| | River units | 0.00 |
| | Habitat units | 21.70 |
| On-site post-intervention | Hedgerow units | 26.94 |
| (Including habitat retention, creation & enhancement) | River units | 0.00 |
| | Habitat units | 35.14% |
| On-site net % change | Hedgerow units | 50.91% |
| (Including habitat retention, creation & enhancement) | River units | 0.00% |
| | | |
| | Habitat units | 0.00 |
| Off-site baseline | Hedgerow units | 0.00 |
| | River units | 0.00 |
| | Habitat units | 0.00 |
| Off-site post-intervention | Hedgerow units | 0.00 |
| (Including habitat retention, creation & enhancement) | River units | 0.00 |
| | | |
| | Habitat units | 5.64 |
| Total net unit change | Hedgerow units | 9.09 |
| (including all on-site & off-site habitat retention, creation & enhancement) | River units | 0.00 |

Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)

Trading rules Satisfied?

35.14%

50.91%

0.00%

Yes

River units

Habitat units

Hedgerow units

River units

| Land at South | ı Farm Wickwar |
|-------------------------|----------------------|
| A-1 Site Hal | bitat Baseline |
| Condense / Show Columns | Condense / Show Rows |
| Main Menu | Instructions |

| | | Habitats and areas | | Distinctivene | ess | Condit | ion | Strategic signi | ficance | | Currented action to address | Ecological baseline |
|-----|---------------|--------------------|--------------------|-----------------|-------|-----------------------|-------|--|--------------------------------|---|---|------------------------|
| Ref | Broad habitat | Habitat type | Area (hectares) | Distinctiveness | Score | Condition | Score | Strategic significance | Strategic significance | Strategic Significance multiplier | Suggested action to address habitat losses | Total habitat units |
| 1 | Cropland | Cereal crops | 2.86 | Low | 2 | N/A - Agricultural | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | Same distinctiveness or better habitat required | 5.72 |
| 2 | Grassland | Modified grassland | 4.07 | Low | 2 | Poor | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | Same distinctiveness or better habitat required | 8.14 |
| 3 | Grassland | Modified grassland | 0.27 | Low | 2 | Poor | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | Same distinctiveness or better habitat required | 0.54 |
| 4 | Grassland | Modified grassland | 0.72 | Low | 2 | Poor | 1 | Within area formally identified in local strategy | High strategic significance | 1.15 | Same distinctiveness or better habitat required | 1.66 |
| 5 | | | | | | | | | | | | |
| | | | 7.92 | | | | | | | | | 16.06 |

| | Re | etention cat | tegory biodi | versity value | | Bespoke compensation | Comr | nents |
|------------------|------------------|-------------------------------|--------------|---------------|------------|--------------------------------------|---|-------------------|
| Area retained | Area enhanced | Baseline units retained | units | Area lost | Units lost | agreed for unacceptable losses | Assessor comments | Reviewer comments |
| 0 | 0 | 0.00 | 0.00 | 2.86 | 5.72 | No | Strategic significance amended following comments from SGC's appointed ecologist | |
| 0 | 0.3 | 0.00 | 0.60 | 3.77 | 7.54 | No | 0.23 improved grassland retained and enhanced with species-rich meadow mix for wildlife. | |
| 0 | 0.11 | 0.00 | 0.22 | 0.16 | 0.32 | No | Poor semi-improved grassland retained and enhanced with species-rich seed mix but managed for amenity with increase in condition due to greater species | |
| 0 | 0.72 | 0.00 | 1.66 | 0.00 | 0.00 | No | 0.72ha improved grassland retained and enhanced with species-rich seed mix but managed for amenity with increase in condition due to greater species- | |
| 0.00 | 1.13 | 0.00 | 2.48 | 6.79 | 13.58 | | | |

A-2 Site Habitat Creation Condense / Show Rows Condense / Show Columns Main Menu Instructions Post development/ post intervention habitats Strategic significance Temporal multiplier Final difficulty of creation applied Habitat delivered Strategic position target multiplier condition/years Habitat created in advance/years Creation/years Final time to Final time to Standard Strategic significance Broad Habitat Proposed habitat Standard or adjusted time to target condition target target difficulty of Applied difficulty multiplier (hectares) Distinctiveness Score Condition Score Strategic significance Assessor comments Reviewer comments rea/compensation not in local strategy/ no Low Strategic Urban Allotments Low 2 Moderate Standard time to target condition applied Low Standard difficulty applied irea/compensation not in local strategy/ no Low Strategic Urban 0.09 V.Low N/A - Other 1.000 Standard difficulty applied Medium Developed land; sealed surface Standard time to target condition applied local strategy irea/compensation not in local strategy/ no Low Strategic Urban Developed land; sealed surface 3.28 V.Low N/A - Other 1.000 Standard time to target condition applied Standard difficulty applied Medium 0.67 0% of total residential developed area area/compensation not in local strategy/ no Low Strategic 1.4 Low Poor Standard time to target condition applied 0.965 Urban Vegetated garden Standard difficulty applied local strategy 30% of total residential developed area irea/compensation not in local strategy/ no Low Strategic Urban 0.13 Sustainable urban drainage feature Low Moderate 0.899 Standard difficulty applied Medium 0.67 Standard time to target condition applied Area/compensation not in local strategy/ no Low Strategic ruit trees with underlying species-rich High Urban Moderate 0.490 Low 1.00 Traditional orchards Standard time to target condition applied Standard difficulty applied Species-rich, native shrub planting. ocation ecologically desirable but not in local Medium strategic 3.97 Strategic significance amended as per Good Heathland and shrub 0.43 0.700 Mixed scrub Medium Standard time to target condition applied Standard difficulty applied strategy significance comments from SGC's appointed ecologis irea/compensation not in local strategy/ no Low Strategic 0.03 Good Lakes 0.837 Ponds (Non- Priority Habitat) Medium Standard time to target condition applied Standard difficulty applied and to be designed for wildlife pecies-rich wildflower grassland. ocation ecologically desirable but not in local Medium strategic 0.29 Strategic significance amended as per 0.04 0.837 Moderate Grassland Other neutral grassland Medium Standard time to target condition applied Standard difficulty applied significance SGC's appointed ecologist. Area/compensation not in local strategy/ no Low Strategic Grassland 0.39 Medium 4 Moderate 5 0.837 Low Other neutral grassland Standard time to target condition applied Standard difficulty applied Attenuation basin to be sown with wetland species-rich grassland mix and managed for wildife promotIng structural diversity Area/compensation not in local strategy/ no Low Strategic 0.59 Medium 4 Moderate 0.837 Standard difficulty applied Grassland Other neutral grassland Standard time to target condition applied Significance local strategy within the sward and ensuring scrub cover s managed with removal of any o be planted with species of value to wildife life with a diveristy of different Area/compensation not in local strategy/ no Low Strategic Urban 0.06 Moderate 0.899 Rain garden Standard time to target condition applied Standard difficulty applied local strategy species with management to control spread or any invasive/non-desirable species. Amenity grasland with street trees along main spine road. Although a species-rich Area/compensation not in local strategy/ no Low Strategic 0.09 Medium 4 Poor Standard time to target condition applied 2 0.931 Low Standard difficulty applied 1 0.34 mix is propsed, proximity of development Grassland Other neutral grassland local strategy Significance will likley limit condition of grassland with a vard maintained at a sort height.

Total Units 16.05

Land at South Farm Wickwar

| | d at South Farm B Site Habita Condense/ShowCo Main Menu | t Enhancement Condense | e / Show Rows ructions | | | | | | | | | | | | | | | | | Post de | evelopment/ post intervention habitats | | | | | | | | | |
|------|--|--------------------------------|---------------------------|-------------------------------|--------------------------------------|-----------------------------------|----------------------------|---|-----------------------------|------|------------------|---|------------------------|--|------------------------|---|------------|----------------------|----------|---------|--|--|--------|---|--|---|-------------------------------------|--------|--|-------------------|
| | | | | | | Baseline ha | abitats | | | | | | Proposed Ha | abitat (Pre-Populated but can be overridden) | Change in distincti | veness and condition | _ | | | | Strategic signif | | | Т | emporal risk multiplier | | Difficulty risk multipliers | Habita | Comme | lents |
| Base | eline ef | Baseline habitat | Tota habita area | Baseline distinctiveness band | Baseline distinctiveness score | Baseline condition category | Baseline condition scor | Baseline strat significanc category | tegic ce significance | 9 | abitat Suggested | ed action to address nabitat losses | Proposed Broad Habitat | Proposed habitat | Distinctiveness change | Condition change | (nectares) | Distinctiveness Scor | | Score | Strategic significance | Strategic Strategic position multiplie | taraat | Habitat enhanced in advance/years enhancement | | Final time to Final time target condition/years multiplie | | | Assessor comments | Reviewer comments |
| | 2 | Grassland - Modified grassland | 4.07 | Low | 2 | Poor | 1 | Low Strategr Significance | | 8.14 | | ctiveness or better habitat required | Grassland | Other neutral grassland | Low - Medium | Lower Distinctiveness Habitat - Moderate | 0.3 | | Moderate | 2 | Location ecologically desirable but not in loc strategy | Medium strategic 1.1 significance | 10 | 0 0 | Standard time to target conditio applied | 10 0.700 | Low Standard difficulty applied Low | 1 2.05 | area enhanced to species-rich grassland managed for wildlife. Strategic significance amended as per comments from SGC's appointed ecologist. | |
| | 3 | Grassland - Modified grassland | 0.27 | Low | 2 | Poor | 1 | Low Stratego | | 0.54 | | ctiveness or better habitat required | Grassland | Modified grassland | Low - Low | Poor - Good | 0.11 | Low 2 | Good | 3 | Area/compensation not in local strategy/ no local strategy | Low Strategic 1 Significance | 15 | 0 0 | Standard time to target conditio applied | 15 0.586 | Low Standard difficulty applied Low | 1 0.48 | retained and enhanced with species-rich seed mix but managed for amenity with increase in condition due to proposed | |
| | 4 | Grassland - Modified grassland | 0.72 | Low | 2 | Poor | 1 | High strateg significance | gic le 1.15 | 1.66 | | ctiveness or better habitat required | Grassland | Modified grassland | Low - Low | Poor - Good | 0.72 | | Good | 3 | Area/compensation not in local strategy/ no local strategy | Low Strategic 1 Significance | 15 | 0 0 | Standard time to target conditio applied | 15 0.586 | Low Standard difficulty applied Low | 1 3.13 | 0.72ha retained and enhanced with speciesrich seed mix but managed for amenity with increase in condition due to proposed | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <u></u> |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 1.13 | | | | | | | | | | | 5.65 | | |

B-1 Site Hedge Baseline

Condense / Show Columns

Condense / Show Rows

Main Menu

Instructions

| | | UK Habitats - existing habitats | | Habitat distinctiv | veness | Habitat con | dition | Strategic signif | ficance | | Suggested action to | Ecological baseline | | Retention of | category bio | odiversity v | ralue | | Comme |
|-----------------|-----------------|--|--------------|--------------------|--------|-------------|--------|--|--------------------------------|-------------------------------|-------------------------------------|----------------------------|-----------------|--------------------|-------------------|-------------------|-------------|---------------|--|
| Baseline ref | Hedge number | Hedgerow type | Length KM | Distinctiveness | Score | Condition | Score | Strategic significance | Strategic significance | Strategic position multiplier | address habitat losses | Total hedgerow units | Length retained | Length enhanced | Units retained | Units enhanced | Length lost | Units lost | Assessor comments |
| 1 | Hl | Native Hedgerow with trees - Associated with bank or ditch | 0.07 | High | 6 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 1.45 | 0 | 0.06 | 0.00 | 1.24 | 0.01 | 0.21 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 2 | H2 | Native Hedgerow - Associated with bank or ditch | 0.14 | Medium | 4 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 1.93 | 0 | 0.12 | 0.00 | 1.66 | 0.02 | 0.28 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 3 | НЗ | Native Hedgerow | 0.11 | Low | 2 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Same distinctiveness band or better | 0.76 | 0.04 | 0.07 | 0.28 | 0.48 | 0.00 | 0.00 | Hedgerow extends outside red line boundary. Only enhance length within red line. Strategic significance amended as per comments from SGC's appointed |
| 4 | H4 | Native Species Rich Hedgerow | 0.15 | Medium | 4 | Moderate | 2 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 1.38 | 0.15 | 0 | 1.38 | 0.00 | 0.00 | 0.00 | Hedgerow within survey area but outside red line boundary. Will be retained in full but not enhanced. Strategic significance amended as per comments from SGC's appointed ecologist. |
| 5 | H5 | Native Species Rich Hedgerow with trees | 0.04 | High | 6 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 0.83 | 0.04 | 0 | 0.83 | 0.00 | 0.00 | 0.00 | Hedgerow extends outside red line boundary. Will be retained in full but not enhanced. Strategic significance amended as per comments from SGC's appointed |
| 6 | H6 | Native Species Rich Hedgerow with trees | 0.04 | High | 6 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 0.83 | 0.04 | 0 | 0.83 | 0.00 | 0.00 | 0.00 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 7 | H7 | Native Hedgerow with trees | 0.09 | Medium | 4 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 1.24 | 0 | 0.08 | 0.00 | 1.10 | 0.01 | 0.14 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 8 | H8 | Native Species Rich Hedgerow | 0.18 | Medium | 4 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 2.48 | 0.16 | 0 | 2.21 | 0.00 | 0.02 | 0.28 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 9 | Н9 | Native Species Rich Hedgerow with trees | 0.06 | High | 6 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 1.24 | 0.06 | 0 | 1.24 | 0.00 | 0.00 | 0.00 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 10 | H10 | Native Hedgerow with trees | 0.09 | Medium | 4 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 1.24 | 0 | 0.07 | 0.00 | 0.97 | 0.02 | 0.28 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 11 | Hll | Hedge Ornamental Non Native | 0.07 | V.Low | 1 | Poor | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | Same distinctiveness band or better | 0.07 | 0 | 0 | 0.00 | 0.00 | 0.07 | 0.07 | |
| 12 | H12 | Native Hedgerow - Associated with bank or ditch | 0.11 | Medium | 4 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 1.52 | 0 | 0.11 | 0.00 | 1.52 | 0.00 | 0.00 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 13 | H13 | Native Hedgerow | 0.19 | Low | 2 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | Same distinctiveness band or better | 1.31 | 0 | 0.19 | 0.00 | 1.31 | 0.00 | 0.00 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 14 | H14 | Native Hedgerow - Associated with bank or ditch | 0.07 | Medium | 4 | Moderate | 2 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 0.64 | 0 | 0 | 0.00 | 0.00 | 0.07 | 0.64 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 15 | H15 | Native Hedgerow - Associated with bank or ditch | 0.1 | Medium | 4 | Moderate | 2 | Within area formally identified in local strategy | High strategic significance | 1.15 | Like for like or better | 0.92 | 0 | 0.1 | 0.00 | 0.92 | 0.00 | 0.00 | Strategic significance amended as per comments from SGC's appointed ecologist. |
| 16 17 | | | | | | | | o ta dito g y | 5191111001100 | | | | | | | | | | 5-0-0-0-1-1-1-0-0-0-0-0-0-0-0-0-0-0-0-0- |
| 18 | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | |
| 20 | | | 1.51 | | | | | | | | | 17.85 | 0.49 | 0.80 | 6.76 | 9.20 | 0.22 | 1.89 | |
| | | | 1101 | | | | | | | | | 11.00 | 0110 | 0,00 | 0.20 | 0.20 | 0,22 | 1100 | |

Reviewer comments

B-2 Site Hedge Creation

Condense / Show Columns

Condense / Show Rows

Main Menu

Instructions

| | | Proposed habitats | | Habitat distinc | ctiveness | Habitat c | ondition | Strategic signific | ance | | | | Tem | poral multiplier | | | | Difficulty risk m | nultipliers | | Hedge units | Commo | ents |
|--------------|------------------------|---|--------------|-----------------|-----------|-----------|----------|---|-----------------------------|-------------------------------|---|----------------------------------|--|---|--------------------------------------|---------------------------------|---------------------------------------|--------------------------------------|------------------------------|---------------------------------|-------------|--|-------------------|
| Baseline ref | New hedge number | Habitat type | Length km | Distinctiveness | Score | Condition | Score | Strategic significance | Strategic significance | Strategic position multiplier | Standard Time to target condition/years | Habitat created in advance/years | Delay in starting habitat creation/years | Standard or adjusted time to target condition | Final time to target condition/years | Final Time to target multiplier | Standard difficulty of creation | Applied difficullty multiplier | Final difficulty of creation | Difficulty f multiplier applied | delivered | Assessor comments | Reviewer comments |
| 1 | H16 | Native Species Rich Hedgerow | 0.31 | Medium | 4 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | 12 | 0 | 0 | Standard time to target condition applied | 12 | 0.652 | Low | Standard difficulty applied | Low | 1 | 2.79 | Strategic significance amended as per comments from SGC's appointed ecologist. | |
| 2 | H17 | Native Species Rich Hedgerow with trees | 0.41 | High | 6 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | 20 | 0 | 0 | Standard time to target condition applied | 20 | 0.490 | Low | Standard difficulty applied | Low | 1 | 4.16 | Strategic significance amended as per comments from SGC's appointed ecologist. | |
| 3 | H18 | Native Species Rich Hedgerow | 0.1 | Medium | 4 | Good | 3 | Within area formally identified in local strategy | High strategic significance | 1.15 | 12 | 0 | 0 | Standard time to target condition applied | 12 | 0.652 | Low | Standard difficulty applied | Low | 1 | 0.90 | Replaces H11.Strategic significance amended as per comments from SGC's appointed | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 0.82 | | | | | | | | | | | | | | | | | | 7.85 | | |

| dense / Show Colum | Enhancement mns Condense/Sh | how Rows | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---------------------------------------|---------------|-------------------------------------|--------------------------------------|-----------------------------|---------|---------------------------------------|------|------------------------------|---------------------------------|---|----------------|--------------------------------------|-------------|---------------|---------|-----|---|---|---|---|---|---------------------------|--------------------------------------|---|--|-------------------|
| Main Menu | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Baseline H | ahitats | | | | | | | | Die | stinctiveness | Conditi | ion | Post development/ post interve | | Тет | poral multiplier | | Difficult | y risk multipliers | | Com | nents |
| Э | Baseline habitat | Length KM | Baseline tinctiveness of band | Baseline distinctiveness score | Baseline condition category | T | Baseline strate significance category | | gic Baseline hab units | itat Suggested action | Proposed (Pre-Populated but can be overridden) | Change in dist | ent Condition movement | Length | eness Score | | | | Strategic Standard Time to position target multiplier condition/years | O Habitat enhanced in advance/years Delay in starting habitat | | Final time to Final Time target target condition/years multiplies | 4. Chandand | ullty Final difficulty o enhancement | Difficulty units multiplier deliver applied | e - | Reviewer comments |
| Native Hedgerow | v with trees - Associated with bank o | or ditch 0.07 | High | 6 | Good | 3 | High strategic significance | 1.15 | 1.449 | Like for like or better | Native Species Rich Hedgerow with trees - Associated with bank or ditch | High - V.High | Lower Distinctiveness Habitat - Good | 0.06 V.High | h 8 | Good | 3 W | Vithin area formally identified in local strategy | igh strategic 1.15 5 | 0 0 | Standard time to target condition applied | 5 0.837 | Low Standard difficulty a | applied Low | 1 1.59 | Strategic significance amended as per comments from SGC's appointed ecologist. | |
| Native Hedge | gerow - Associated with bank or ditcl | ch 0.14 | Medium | 4 | Good | 3 | High strategic significance | 1.15 | 1.932 | Like for like or better | Native Species Rich Hedgerow - Associated with bank or ditch | Medium - High | Lower Distinctiveness Habitat - Good | 0.12 High | 6 | Good | 3 W | Vithin area formally identified in local strategy | igh strategic significance | 0 0 | Standard time to target condition applied | 5 0.837 | Low Standard difficulty | applied Low | 1 2.35 | Strategic significance amended as per comments from SGC's appointed ecologist. | |
| | Native Hedgerow | 0.11 | Low | 2 | Good | 3 | High strategic significance | | 0.759 | Same distinctiveness band or be | er Native Species Rich Hedgerow | Low - Medium | Lower Distinctiveness Habitat - Good | 0.07 Mediu: | m 4 | Good | 3 W | Vithin area formally identified in local strategy | igh strategic significance | 0 0 | Standard time to target condition applied | 5 0.837 | Low Standard difficulty a | applied Low | 1 0.89 | Strategic significance amended as per comments from SGC's appointed ecologist. | |
| Na | ative Hedgerow with trees | 0.09 | Medium | 4 | Good | 3 | High strategic significance | 1.15 | 1.242 | Like for like or better | Native Species Rich Hedgerow with trees | Medium - High | Lower Distinctiveness Habitat - Good | 0.08 High | 6 | Good | 3 W | Vithin area formally identified in local strategy | igh strategic significance | 0 0 | Standard time to target condition applied | 5 0.837 | Low Standard difficulty a | applied Low | 1 1.57 | Strategic significance amended as per comments from SGC's appointed ecologist. | |
| Na | ative Hedgerow with trees | 0.09 | Medium | 4 | Good | 3 | High strategic significance | | 1.242 | Like for like or better | Native Species Rich Hedgerow with trees | Medium - High | Lower Distinctiveness Habitat - Good | 0.07 High | 6 | Good | 3 W | Vithin area formally identified in local strategy | igh strategic significance | 0 0 | Standard time to target condition applied | 5 0.837 | Low Standard difficulty | applied Low | 1 1.37 | Strategic significance amended as per comments from SGC's appointed ecologist. | |
| Native Hedge | gerow - Associated with bank or ditcl | ch 0.11 | Medium | 4 | Good | 3 | High strategic significance | 1.15 | 1.518 | Like for like or better | Native Species Rich Hedgerow - Associated with bank or ditch | Medium - High | Lower Distinctiveness Habitat - Good | 0.11 High | 6 | Good | 3 W | Vithin area formally identified in local strategy | igh strategic significance | 0 0 | Standard time to target condition applied | 5 0.837 | Low Standard difficulty | applied Low | | Strategic significance amended as per comments from SGC's appointed ecologist. | |
| | Native Hedgerow | 0.19 | Low | 2 | Good | 3 | High strategic significance | | 1.311 | Same distinctiveness band or be | er Native Species Rich Hedgerow | Low - Medium | Lower Distinctiveness Habitat - Good | 0.19 Mediu | .m 4 | Good | 3 W | Vithin area formally identified in local strategy | igh strategic significance | 0 0 | Standard time to target condition applied | 5 0.837 | Low Standard difficulty a | applied Low | 1 2.41 | Strategic significance amended as per comments from SGC's appointed ecologist. | |
| | Native Hedgerow | 0.19 | Low | 2 | Good | 3 | significance | 1.15 | 1.311 | Same distinctiveness band or be | Native Species Rich Hedgerow | Low - Medium | Lower Distinctiveness Habitat - Good | 0.19 Mediu: | m 4 | Good | 3 W | Vithin area formally identified in local strategy | significance 1.15 5 | 0 0 | applied | 5 0.837 | Low Standard difficulty a | applied Low | 1 2.41 | comments from SGC's appointed ecologist. | |



Annex EDP 2 Framework Masterplan (Turley, 3001 Rev M, January 2023)





Copyright of Turley



Annex EDP 3
Landscape Strategy
(edp6190_d026a 13 February 2023, MMm/EBa)





Registered office: 01285 740427 - www.edp-uk.co.uk - info@edp-uk.co.uk

date scale drawn by checked

QΑ

13 FEBRUARY 2023 drawing number edp6190_d026a 1:2500 @ A3 MMmEBa

JFr

Bloor Homes (South West)

project title

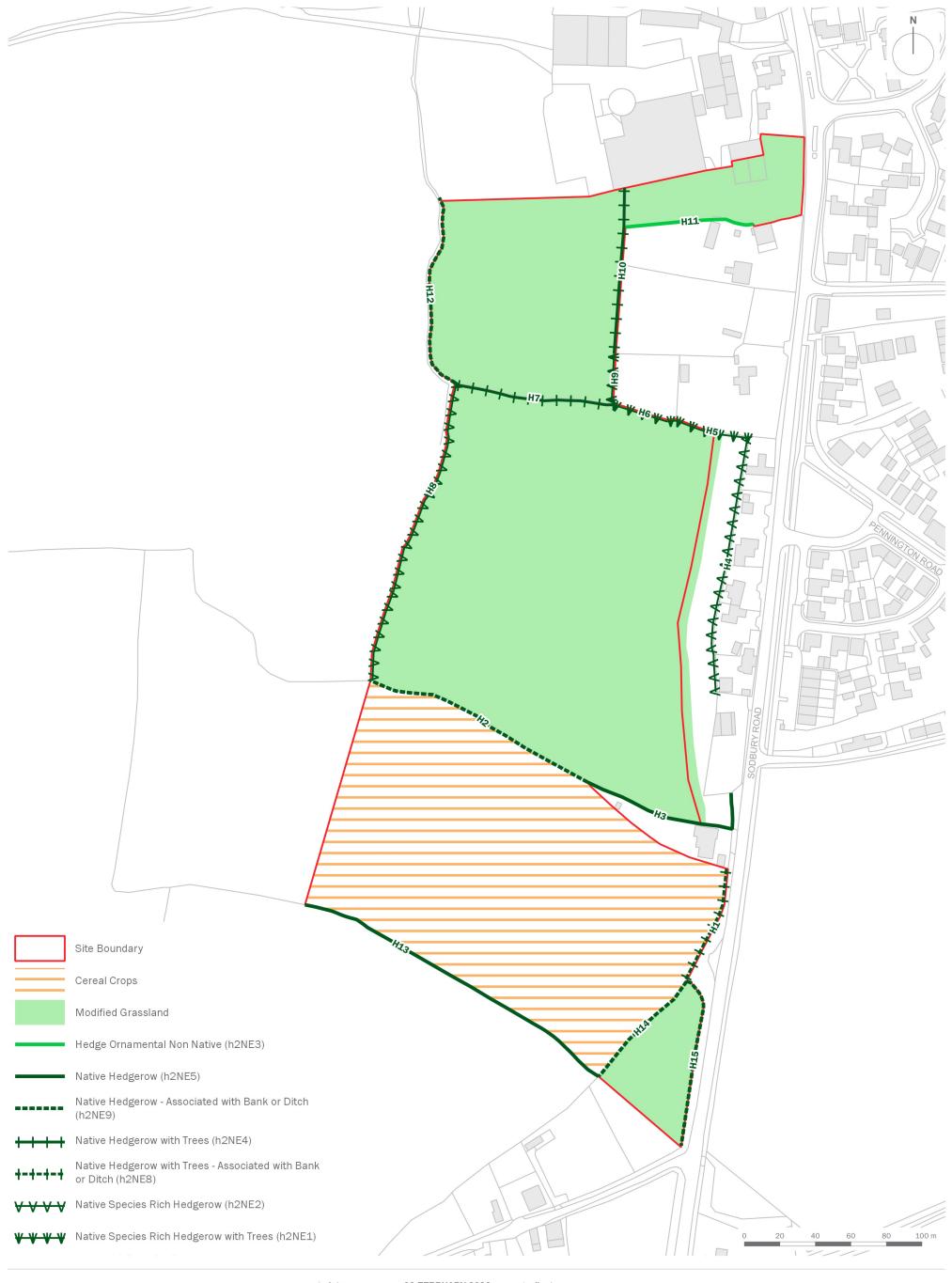
Land at South Farm, Wickwar

drawing title

Landscape Strategy



Plan EDP 1 Biodiversity Net Gain Assessment – Baseline Habitats (edp6190_d027 09 February 2023 MCa/EWi)





 $Registered\ office: 01285\ 740427\ -\ www.edp-uk.co.uk\ -\ info@edp-uk.co.uk$

date drawing number edp6190_d027 drawn by checked

09 FEBRUARY 2023 1:2,000 @ A3 MCa EWi GYo

Bloor Homes (South West)

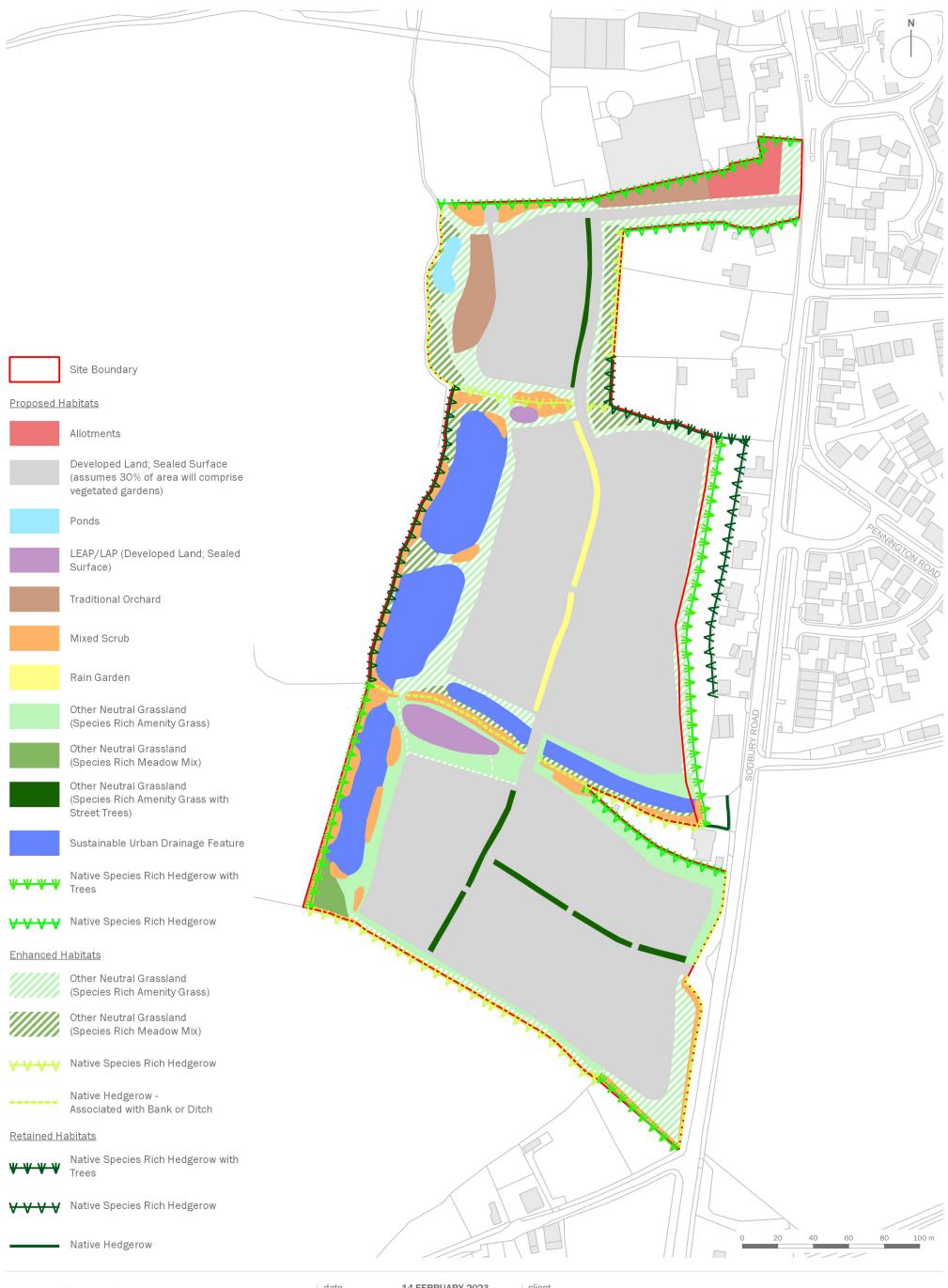
Land at South Farm, Wickwar

drawing title

Plan EDP 1: Biodiversity Net Gain Assessment – Baseline Habitats



Plan EDP 2 Biodiversity Net Gain Assessment – Proposed Habitats (edp6190_d028, 14 February 2023, MCa/EWi)





 $Registered\ office: \textbf{01285}\ 740427 \cdot www.edp-uk.co.uk \cdot info@edp-uk.co.uk$

date drawing number edp6190_d028 scale drawn by MCa checked **EWi**

GYo

QA

14 FEBRUARY 2023 1:2,000 @ A3

Bloor Homes (South West)

project title

Land at South Farm, Wickwar

drawing title

Plan EDP 2: Biodiversity Net Gain Assessment – Proposed Habitats