

Owl Lane, Chidswell
Biodiversity Gain Assessment

July 2021

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Issuing office

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1 Introduction

Background to commission

- 1.1 BSG Ecology was commissioned in February 2021 by Barratt Homes and David Wilson Homes Yorkshire West to undertake a biodiversity gain assessment of the proposed development to the east of Owl Lane, Chidswell, West Yorkshire (centred at OS grid reference SE 26587 22820); the 'Site'. The assessment reviews the Landscape Masterplan, considers existing baseline survey information and augments this with botanical survey information to enable the completion of the Defra Biodiversity Metric 3.0 Calculation Tool (Defra, December 2021). The outcome of this is a calculation of the potential for biodiversity gain to be delivered by the proposed development.

Site description

- 1.2 The Site comprises an arable field bordered by hedgerows to the northern, southern and western boundaries. The wider area is characterised by residential development to the northern boundary, Dewsbury Football Club to the west and arable fields to the east and south.

2 Methods

Stage 1 – Desk based assessment

2.1 A desk based scoping assessment was undertaken including:

- a review of online aerial photographs (such as Google Earth, Bing Maps, and Ordnance Survey Maps) to provide useful supplementary information on the presence of habitats and habitat linkages at the landscape level;
- a planning policy review of the Kirklees Local Plan (Kirklees Council, 2019) to identify any relevant ecology or strategic significance policies; and
- review of the existing Brooks Preliminary Ecological Appraisal Report (Brooks Ecological, 2019) and the Brooks Biodiversity Net Gain Assessment (Brooks Ecological, 2020) for the Site, relating specifically to the identification and mapping of habitats and assignment of condition to these.

Stage 2 – Biodiversity change assessment calculation

2.2 The Defra Biodiversity Metric 3.0 Calculation Tool (Defra, December 2021) was used to make the calculation using the Landscape Masterplan (ref: 3558/1 Rev F) shown in Appendix 2.

2.3 Using the information obtained from the previous survey work and supported (as appropriate) by relevant information obtained from the desk-based assessment, the habitats present on Site and their condition were identified, with reference to the UK Habitat Classification (The UK Habitat Classification Working Group, 2018) and the Biodiversity Metric 3.0 Technical Supplement (Panks *et. al.*, 2021), and inputted into the pre-development calculation. This provides an on-site baseline from which the biodiversity value of the Site may be derived, given by the number of biodiversity units.

2.4 The post-development calculation is based on the desired developable area as shown in the Landscape Masterplan, taking into account any habitat retention, enhancement and creation. The post-development scenario for on-site habitat enhancement and creation has been inputted into the calculator to determine the change in biodiversity units as a result of the proposed development of the Site.

Assumptions

2.5 Professional judgement has been applied to suggest realistic habitat type/s and area (in ha) of habitat/s that could potentially be created and in an achievable condition.

2.6 For the purpose of the calculator it is assumed that, where residential development is proposed, the private front and rear gardens for each property have all been recorded as 'Vegetated Garden' or 'Urban – Introduced shrub', in line with the Landscape Masterplan.

2.7 The pre-development habitat types and conditions have been taken from the previous Biodiversity Net Gain Assessment (Brooks Ecological, 2020). It is assumed that there have been no significant changes to the Site since the original field work was undertaken.

Limitations

2.8 No limitations were recorded as part of this report.

3 Results and Recommendations

Local plan policy

- 3.1 The Kirklees Local Plan adopted on 27 February 2019 (Kirklees Council, 2019), includes a reference to the delivery of biodiversity gain as follows:
- 3.2 *“All development in Kirklees, as set out in national policy and the policies described in this document, will be expected to not result in significant loss or harm to biodiversity through avoidance, mitigation and compensatory measures and seek opportunities to enhance biodiversity value and ecological links. Opportunities to achieve net gains in biodiversity within development proposals will be sought through good design, including specific habitat creation and biodiversity enhancements. Regard will need to be given to the relevant Biodiversity Opportunity Zone in which the proposed development is located and biodiversity enhancement measures will be sought which reflect the priority habitats and species identified for each zone.”*
- 3.3 Kirklees Local Plan Policy LP30 states *“Biodiversity & Geodiversity: The council will seek to protect and enhance the biodiversity and geodiversity of Kirklees, including the range of international, national and locally designated wildlife and geological sites, Habitats and Species of Principal Importance and the Kirklees Wildlife Habitat Network.”*
- 3.4 The Site is located outside the Kirklees Wildlife Habitat Network as identified within the Kirklees Local Plan.
- 3.5 The Technical advice note on Biodiversity Gain requirements for developments within Kirklees (Kirklees Council, undated) has also been consulted to inform this report.

Biodiversity gain calculation

- 3.6 The Site is a total of 7.92 ha of which 0.63 ha is proposed for semi-natural habitat creation.
- 3.7 The post-development scenario was inputted into the Defra Metric 3.0, using the Landscape Masterplan (ref: 3558/1 Rev F), with some further amendments made following discussion between BSG Ecology and the design team to enhance the post-development biodiversity value.
- 3.8 The hedgerow with trees (0.26 km) to the eastern boundary of the Site will be retained as part of the landscape design. All other habitats on Site will be lost as a result of the proposed development.
- 3.9 The following habitats will be created:
- 2.18 ha of front and rear private gardens of houses categorised as ‘Vegetated Garden’ in poor condition.
 - 0.43 ha of modified grassland located within areas of Public Open Space (POS), in poor condition.
 - 4.59 ha of buildings, footpaths, roads and Areas of Play (LAP and LEAP) categorised as ‘Urban - Developed land; sealed surface’, which does not have a condition assessment.
 - 0.09 ha of ornamental shrub planting categorised as ‘Urban – Introduced shrub’ in poor condition as it is understood they will have a low species diversity and will be of very small parcels of habitat.
 - 0.13 ha of native shrub planting within POS areas categorised as ‘Heathland and shrub - Mixed scrub’ in moderate condition as these areas will be designed more for their biodiversity value.
 - 0.26 ha of wildflower grassland within POS area categorised as ‘Grassland - Other neutral grassland’ in fairly poor condition as it is considered unlikely that a higher condition could be achieved due to the likely recreational pressures such as trampling and dog fouling.
 - A further 0.17 ha of wildflower grassland within the southern POS which will be designed to have a higher biodiversity value which is assisted by its location at the south western edge of

the development where recreational pressures are likely to be reduced. More sympathetic management of this area will also be possible. Therefore, the target condition for this area is moderate.

- 0.07 ha of orchard planting, categorised as 'Grassland – Traditional orchard', within the southern POS area.
- 0.9 km of species-rich native hedgerow within POS areas in good condition as it is understood they will be designed and managed for maximum biodiversity value.
- 0.47 km of non-native ornamental hedgerow within the development area in poor condition as it is understood they will be mostly single-species hedgerows within private gardens with no guarantee as to how they will be managed.

3.10 A summary is provided below, detailing the biodiversity outcome for the post-development scenario. The current on-site baseline is provided in Figure 1. Figure 2, showing habitat creation, and the headline results of the metric calculation, are provided in Section 6.

Biodiversity Gain Metric outcome

3.1 The Defra Biodiversity Metric 3.0 has been used to quantify biodiversity gain. With the incorporation of the above habitat creation measures, the following 'habitat unit' scores have been calculated:

- Existing site baseline = 15.84 Habitat Units
- Post-development habitat creation outcome = 9.68 Habitat Units
- Change in Habitat Units = -6.16 Habitat Units, which is equivalent to -38.91% **BNG**

3.2 The following 'linear unit' scores have been calculated:

- Existing site baseline = 6.00 Hedgerow Units
- Post-development outcome = 10.62 Hedgerow Units
- Change in Hedgerow Units = 4.62 Hedgerow Units, which is equivalent to 76.94% **BNG**

3.3 Appendix 2 provides a summary overview of the metric calculations. Please note that the full Excel spreadsheet is available on request; the Defra Biodiversity Metric 3.0 has not been devised for use in printed form.

3.4 It is recommended that a Landscape and Ecology Management Plan (LEMP) will be prepared and implemented for a period of up to 30 years to provide certainty in delivery of this outcome.

3.5 Under the proposed development, an uplift in biodiversity is not currently achievable for habitats; there will be an uplift in biodiversity for hedgerows.

4 References

Rosetta Landscape Design Ltd (2019) Owl Lane, Chidswell – Landscape Masterplan. Drawing reference: 3558-1F-Im-20jan-bs4.

Brooks Ecological (2019) *Preliminary Ecological Appraisal: Owl Lane, Chidswell*. On behalf of Barratt and David Wilson Homes, Yorkshire West. Report reference R-4282-01A.

Brooks Ecological (2020) *Biodiversity Net Gain Assessment: Owl Lane, Chidswell*, on behalf of Barratt and David Wilson Homes Yorkshire West. Report reference ER-4282-02.

Stephen Panks, Nick White, Amanda Newsome, Jack Potter, Matt Heydon, Edward Mayhew, Maria Alvarez, Trudy Russell, Sarah J. Scott, Max Heaven, Sarah H. Scott, Jo Treweek, Bill Butcher and Dave Stone (2021). Biodiversity metric 3.0: Auditing and accounting for biodiversity – User Guide. Natural England. Defra (2018) *Net Gain Consultation Proposals: December 2018*, Department for Environment Food and Rural Affairs, London.

Defra (2021) *The Biodiversity Metric 3.0 – Auditing and Accounting for Biodiversity Calculation Tool*, Department for Environment Food and Rural Affairs, London.

Kirklees Council (2019) *Kirklees Local Plan: Kirklees Local Plan Strategy and Policies*. Adopted 27 February 2019.

Kirklees Council (undated) *Biodiversity Net Gain in Kirklees: Technical advice note on Biodiversity Net Gain requirements for developments within Kirklees*.

The UK Habitat Classification Working Group (2018) *The UK Habitat Classification: Habitat Definitions Version 1.0* at <http://ecountability.co.uk/ukhabworkinggroup-ukhab>

5 Figures

Figure 1: Pre-development baseline habitat type and condition plan

Figure 2: Post-development target habitat type and condition plan (based on Rosetta Landscape Design Ltd (2019))



Legend

-  Red line boundary
-  Native hedge (Moderate condition)
-  Native hedge with trees (Good condition)
-  Arable land (condition n/a)



PROJECT TITLE
Owl Lane, Chidswell, Dewsbury

DRAWING TITLE
Figure 2: Post-development target habitats and conditions

DATE: 13.07.21 CHECKED: JF SCALE: 1:1,500
DRAWN: EM APPROVED: JF STATUS: FINAL

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Sources: BSG Ecology survey data

Legend

- red line boundary
- Scattered street trees (Moderate condition; 117 small, 44 medium)
- Native species rich hedge (Good condition)
- Non-native ornamental hedge (Poor condition)
- Retained native hedge with trees (Good condition)
- Mixed scrub (Moderate condition)
- Traditional orchard (Moderate condition)
- Other neutral grassland (Fairly poor condition)
- Other neutral grassland (Moderate condition)
- Modified grassland (Poor condition)
- Introduced shrub (Poor condition)