Wakefield Road, Grange Moor

Biodiversity Net Gain Assessment

Prepared on behalf of

Mr Phillip Cornell

Final Report v1

09 December 2024

Wakefield Road, Grange Moor
Biodiversity Net Gain Assessment

Document Control

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Report Prepared for Issue by:	Elizabeth Davies BSc (Hons) MCIEEM

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This report has been prepared, and is only valid for the named client, for the project described. The information which we have prepared and provided is in accordance with CIEEM's Code of Professional Conduct. Liz Ecology confirms that the opinions expressed are our true and professional bona fide opinions. The report is in accordance with the agreement under which our services were performed.

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Provided no significant changes are made to the proposals or on the site subsequent to the report's issue; this report can be considered valid for 18 months from the date of issue, in line with CIEEM's Advice Note on The Lifespan of Ecological Reports and Surveys (2019).

As part of membership to our professional body (CIEEM) we are required to provide our biological results to applicable biological record centres. As such, it is our intention to supply biological data collected as part of this assessment to the relevant centre unless directly instructed in writing not to do so by the client.

Wakefield Road, Grange Moor

Biodiversity Net Gain Assessment

NON-TECHNICAL SUMMARY

- Liz Ecology was commissioned by Mr Phillip Cornell to conduct a Biodiversity Net Gain Assessment of the land at Wakefield Road, Grange Moor. The survey was conducted to support a planning application for the construction of a new access road.
- The purpose of this report is to identify the net percentage change in biodiversity on-site post-development and to aim for a minimum of a 10% Biodiversity Net Gain (BNG).
- The current National Planning Policy Framework (NPPF) sets out that planning should provide biodiversity net gains where possible. Mandatory biodiversity net gain for all sites set out in the Environment Act came into force on 12th February 2024. The local plan for Kirklees Council includes the requirement for Biodiversity Net Gain in policy LP30.
- The development site is approximately 0.65ha and consists of other neutral grassland, artificial sealed surface and scattered trees.
- The baseline habitat units are 2.21 and hedgerow units are 0.00.
- Based on the current proposals, it is predicted that the scheme will have a net loss of 20.83% habitat units, however, the small size of the site does not allow for more habitat creation within the site boundaries. It is predicted that the net change in hedgerow units will be +56.45 units due to the removal of a tree line to create visibility splays, and the creation of 125km of moderate condition native hedgerow along the boundaries of the road as part of the proposed development.
- As the development is unable to deliver a net gain of habitat units for biodiversity on site, off-site biodiversity enhancement will need to be utilised on land within the client's wider ownership. The client will plant 0.07ha of species poor other neutral grassland and enhance this to lowland meadow. This will provide 0.76 habitat units, which is a net change of 0.76 habitat units off site. The net gain for biodiversity following this planting will be 13.52%.

Wakefield Road, Grange Moor
Biodiversity Net Gain Assessment

Contents

APPENDICES

1. INTRODUCTION

1.1 Liz Ecology was commissioned by Mr Phillip Cornell to conduct Biodiversity Net Gain assessment of the land at Wakefield Road, Grange Moor (Grid reference: SE 22775 15582).

1.2 The survey was conducted to support a planning application for the construction of an access road to the property to the south of Wakefield Road.

1.3 The aim of this report is to identify the net percentage change in biodiversity on site post development and where possible to seek a minimum of 10% Biodiversity Net Gain (BNG) in accordance with the Environment act 2021 and Biodiversity Net Gain policy from Kirklees Council, using Defra's Biodiversity Metric calculations. Where 10% is not achievable by the proposals within the site boundary we will seek to make recommendations for amendments to the proposals, or third party compensation to meet the 10% target.

Site description

1.4 The development site is approximately 0.65hectares and consists of other neutral grassland, bounded by hedgerow on the north and a line of trees on the east.

1.5 The site is located within the hamlet of Grange Moor, to the east of Huddersfield. The site is bounded by fields on all elevations. In the wider area there are strips of woodland, connected to the site by hedgerows. The site is well connected within the wider landscape and situated within green belt land.

Brief

1.6 To conduct a Biodiversity Net Gain (BNG) assessment using DEFRA metric version 4.0 to demonstrate, where possible, a minimum of 10% net gain.

Relevant Planning Policy and Legislation

1.7 In accordance with the Natural Planning Policy Framework (NPPF, 2021), paragraph 180, development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around the developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

1.8 The planning authority for the site is Kirklees Council. The council have an adopted local plan which states that all development will provide a minimum net gain of 10% of the current ecological value of the site.

1.9 The site will be assessed to aim to provide a minimum of 10% biodiversity net gain, in accordance with a 10% biodiversity net gain as a mandatory requirement in England, established through the Environment Bill from 2nd April 2024, and local planning policy.

2. METHODOLOGY

Assessing Strategic Significance

2.1 A desk study was conducted to collate baseline data about ecological sites within the zone of influence of the proposed development site, following guidelines set out by the Charted Institute of Environmental and Ecological Management (CIEEM, 2017). This data-gathering exercise was undertaken to obtain any available information relating to statutory nature conservation sites, ecological networks, local plans and priority habitats to help establish the strategic significance of the site. Sources of information used are shown in Table 1.

Table 1: Summary of information sources used for the desk study

Organisation/source	Information sought
West Yorkshire Ecology Service (WYES)	Records of statutory and non-statutory wildlife sites, Priority habitats, Ecological Networks within a two kilometre of the site.
MAGIC	Locations of and citations for all national statutory wildlife sites, including SSSI, and all international sites including SAC, SPA or Ramsar sites within 5 kilometres of the site. Priority Habitats within 300m.
Kirklees Council	Adopted Local Plan, evidence base, and polices map

2.2 This evidence was reviewed and used to assess the strategic significance of the site, and/or individual habitats and whether it lies within an ecological network for the area.

Baseline Assessment

2.3 A baseline botanical assessment was undertaken by Elizabeth Davies, qualified ecologist, on 25th November 2024 before works commenced on site in mostly clear, still and dry weather conditions. The survey employed techniques based on the UK Habitat Classification System. Botanical information was collected, focussing on the dominant and/or key indicator species for each habitat, to enable allocation of habitats to hierarchy levels 3 and/or 4. Where relevant priority habitats were also identified. The conditions of the habitats on the site were assessed in line with the technical sheets supplied alongside DEFRA Small Sites Metric 4.0.

2.4 The UK habitats map was digitised using QGIS. The mapped habitats were measured using the derived areas, and habitat areas are provided in hectares. Linear features were measured using the derived length and the measurements provided in kilometres.

Biodiversity Net Gain

2.5 Biodiversity Net Gain complements and works with the biodiversity mitigation hierarchy set out in the National Planning Policy Framework paragraph 180a. To achieve a net gain in a way that is consistent with the mitigation hierarchy and reflects the 'spatial-hierarchy' preference for local enhancements, the following steps should be followed:

(1) Aim to avoid or reduce biodiversity impacts through site selection and layout;

(2) Enhance and restore biodiversity on-site;

(3) Create or enhance off-site habitats, either on their own land or by purchasing biodiversity units on the market; and

(4) As a last resort, to prevent undue delays, purchase statutory biodiversity credits from the UK Government where they can demonstrate that they are unable to achieve biodiversity net gain through the available on-site and off-site options.

2.6 On completion of the fieldwork the habitat information was mapped and areas were imported into the DEFRA Biometric version 4.0 calculation tool. The metric calculates the baseline biodiversity units for the site based on the following factors:

- Area
- Habitat distinctiveness
- Habitat condition
- Strategic significance

2.7 Once inputted the metric provides biodiversity units for the proposed habitats based on the following factors:

- Area
- Habitat distinctiveness
- Habitat target condition
- Strategic significance
- Time habitat is created
- Time to target condition
- Difficulty of creation

2.8 The difference between the baseline units and proposed units is then used as a measure of change and is used to assess the number of biodiversity units achieved. Habitats, hedgerows and rivers are inputted as separate factors, with each requiring net gains.

2.9 Limitations

2.10 Whilst every effort has been made to accurately map the habitats on site there may be discrepancies associated with the projected coordinate reference system. The National Grid transformation, however, is considered to be the most accurate with an accuracy level of less than one metre.

2.11 The survey was undertaken in the winter, outside of the peak survey season for flora and fauna. Some flowering plants may not have been recorded; however, it is considered that despite this a robust assessment of the habitat could be made given the onsite habitats and mild weather of autumn 2024.

3. BASELINE CONDITIONS

3.1 The results of the Baseline Assessment are presented below. A UK Habitat survey map is shown in Appendix II. The map illustrates the location and extent of the sites surveyed, along with additional notable features.

Strategic Significance

3.2 The site is situated within a green belt boundary. There are Priority habitats and potential ecological network areas within the vicinity of the site, with the closest priority deciduous woodland located 400metres of the site. The site is functionally linked to the wider area, with a good network of hedgerows present within the immediate vicinity of the site. The habitat on site offers limited foraging and commuting habitat, with the northern boundary of the site offering foraging and commuting habitat which could act as a stepping stone between other areas with better connectivity for aerial species e.g. bats and birds.

3.3 The site is located 4.8km west of the Denby Grange Colliery Ponds SSSI and SAC, and 4.95km south west of the Sparrow Wood LNR. These are the two closest Nationally or Internationally designated sites. The site is located within a SSSI Impact Risk Zone, but does not trigger the requirement to contact Natural England regarding the proposed development.

3.4 The site is not part of any designated site or listed on any local plan, neighbourhood plan or other policy document for ecology. It is within a green belt boundary within the local plan, and is therefore considered to have high strategic significance.

3.5 On-Site Habitats

3.6 The following were recorded on site, and are described below:

- Hardstanding;
- Other neutral grassland; and
- Line of trees.

Hardstanding

3.7 There are areas of hardstanding to the south of the site, around the buildings which are considered to be hardstanding, and are mapped as ariificial sealed surface. These areas have a distinctiveness of 'very low' and condition assessment is not required.

Other neutral grassland

3.8 The site is comprised of other neutral grassland. Species present include abundant perennial rye grass, frequent creeping buttercup, Yorkshire fog, occasional ribwort plantain, cock's foot, clover, ragwort, creeping bent, rough meadow grass, nettle and rare broad leaved dock.

3.9 The grassland has a varied sward height, with a height up to approximately 20cm. There are large areas of bare ground where the paddocks have been disturbed by the horses (physical damage more than 10% and areas of bare ground more than 10%), an absence of invasive non-native

species,, and the ground is enriched from the manure. There were approximately 3-4 species per square metre.

3.10 This area has a distinctiveness of 'medium distinctiveness' and is considered to be in poor condition.

Line of trees

3.11 There is a line of boundary vegetation on the northern boundary, where access will be created. The trees include sycamore, hawthorn saplings and oak. These are sporadic, however, the canopies form a relatively continuous line of vegetation. The majority of the treeline would be removed to ensure visibility splays into the site were safe. There are also some scattered trees of a similar species on the eastern boundary of the site, which will be retained and are in similar condition.

3.12 The majority of the trees are non-native species, with gaps in canopy cover making up more than 10% of the canopy area, there are some natural ecological niches, the trees directly bound both a relatively busy road, and horse-grazed paddocks, and at least 95% of the trees are in healthy condition.

3.13 The treeline is considered to of 'low distinctiveness' and is in poor condition

Summary

3.14 Below in table 2 is a summary of the baseline habitats, areas, condition assessment and distinctiveness.

Table 2: Summary of baseline habitats

Habitat	Biodiversity Units	Area (m^2)	Strategic significance	Suggested action
Artificial sealed surface	0	1700	High strategic significance	Same distinctiveness or better
Other neutral grassland	2.21	4800	High strategic significance	Same distinctiveness or better

Table 3: Summary of hedgerow units

Habitat	Hedgerow Units	Length (m)	Strategic significance	
Treeline	506.00	110	High strategic significance	Same distinctiveness band or better

4. BIODIVERSITY NET GAIN METRIC

On site habitat proposals

4.1 The calculation has been run off the following proposals:

- Retention of 0.48hectares of other neutral grassland
- Removal of 110m of treeline.
- Creation of 125m of native hedgerow.

4.2 The biodiversity metric calculated a net change in habitat units of -72.58% for the site and a change of +86.05 hedgerow units. Table 4 below summarises the biodiversity metric results.

Table 4: DEFRA Biodiversity metric results scenario 1

On-site baseline	Habitat units	2.21
	Hedgerow units	506.00
On-site post intervention	Habitat units	1.75
	Hedgerow units	562.45
Total net change %	Habitat units	-20.83
	Hedgerow units	+11.16
Trading rules satisfied	Yes/No	Yes

Off-site compensation

4.3 The client has an area of land, measuring 0.07ha, which is comprised of artificial unsealed unvegetated surface, which appears to have been a menage previously. This will be enhanced by planting to lowland meadow to achieve an overall net gain of 13.52% in habitat units.

5. PROTECTED SPECIES

Breeding birds

5.1 All vegetation removal should be conducted outside of the bird nesting season which is considered to run from March to September.

5.2 Where this is not possible a suitably qualified ecologist should check potential nesting habitat immediately prior to clearance. Where nesting birds are encountered works must be postponed until the nestlings have fledged.

6. REFERENCES

CIEEM, CIRIA, IEMA (2016) Biodiversity Net Gain. Good practice principles for development.

CIEEM, CIRIA, IEMA (2019) Biodiversity Net Gain. Good practice principles for development. A practical guide. CIRIA C776a. London, 2019.

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.

Department for Communities and Local Government (2005), *Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.*

DEFRA (2023) Biodiversity Metric Calculation tool (spreadsheet) (Biodiversity Metric 4.0)

DEFRA (2023) Biodiversity Metric 4.0 User guide

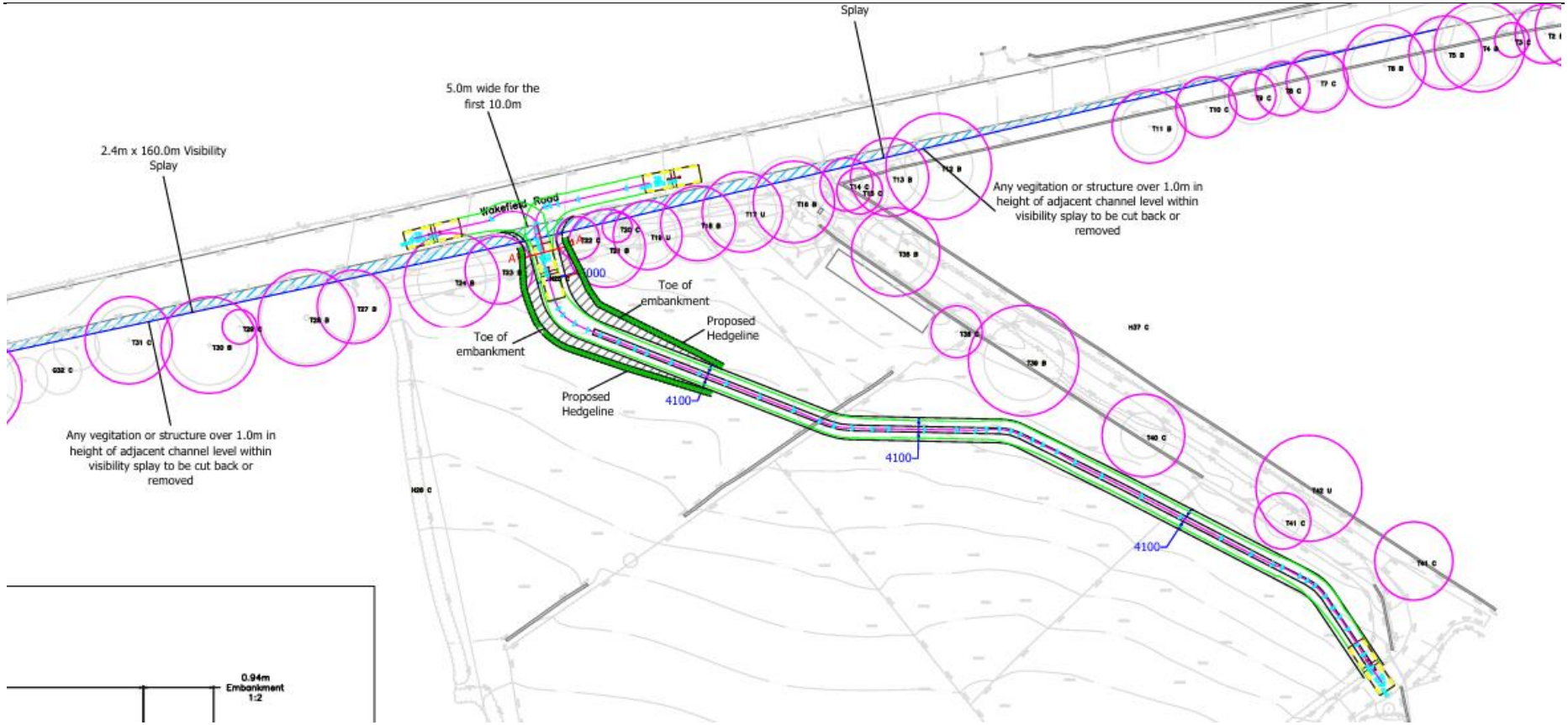
DEFRA (2023) Biodiversity Metric 4.0 and SSM: Technical Annex1 (habitat condition assessments)

Ministry of Housing, Communities and Local Government (2021), *National Planning Policy Framework.*

Multi-Agency Geographical Information for the Countryside (MAGIC) Website

Appendix I

Proposed site layout



Appendix II

Current on-site and off site habitat maps (Survey date 25th November 2024)

Key

Site boundary

Hardstanding

Other neutral grassland

Large tree

Medium tree

Small tree

Project: Wakefield Road, Grange Moor

Figure 2: On site habitats
Date: 02/12/2024 Version: Final

Author: ED

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Key

- Site boundary
- Hardstanding
- Other neutral grassland
- Large tree
- Medium tree
- Small tree
- Artificial unvegetated unsealed surface

Project: Wakefield Road, Grange Moor

Figure 3: Off-site habitats
Date: 02/12/2024 Version: Final

Author: ED

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Appendix III
Photographs

Photograph 1: Treeline

Photograph 2: General view of site

Photograph 3: General view of site