

**BIODIVERSITY ACCOUNTING  
ASSESSMENT REPORT**

at

**Land at Denby Lane  
Grange Moor  
West Yorkshire  
WF12 0NR**

**Client:  
Orion Homes**

**Client Address:  
5 Benton Office Park  
Bennet Avenue  
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**JCA Ref:  
21986/JF**

**Date of Report:  
08/07/2024**



## Quality Assurance

Version	Desktop Survey Completed:		Site Surveyed:		Report Completed:		Reviewed:	
	Date	Name	Date	Name	Date	Name	Date	Name
Planning	N/A	N/A	14/05/24	James Foster	03/07/24	James Foster	04/07/24	Alex Donovan
							07/07/24	Adam West

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development 2018* and the *CIEEM's Code of Professional Conduct*.

<b>Risk Assessment Completed</b>
<b>Bio-security Procedure Completed</b>
<b>Lone Worker Procedure Completed</b>



## Executive Summary

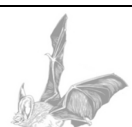
JCA Limited was instructed by **Orion Homes** to carry out a Biodiversity Accounting Assessment (BAA) of **Land at Denby Lane** (hereafter referred to as the 'Site') to inform a planning application for the construction of 22 residential units, which are a mixture of terraced, semi-detached and detached two storey houses ('the Proposed Development').

The purpose of the assessment is to determine the baseline biodiversity value of the Site and to assess if there are sufficient biodiversity enhancement opportunities available within the Site boundary to compensate for any residual biodiversity losses as a result of the Proposed Development.

To fulfil the brief, the Statutory Biodiversity Metric (February 2024) was used to calculate the baseline biodiversity value of all existing habitats on-Site. The metric was then used to provide a comparative measure of any habitat creation and enhancements associated with the Client's Proposed Development. The resulting balance determines the extent of Biodiversity Units (BU) generated through the proposed habitats post development.

On balance of impacts and habitat retention/enhancement/creation, the report concludes that the Proposed Development will result in a net loss of **-0.77** habitat BU, equivalent to a net loss of **-62.10%**. In addition, the Proposed Development has **not** satisfied the trading rules.

This executive summary is intended as a summary of the assessment of the Site based on information received by the client at the time of production. This executive summary should be read in conjunction with the full Report.



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## Introduction

### 1.1 Purpose of the Report

1.1.1 JCA Limited have been instructed by **Orion Homes** to undertake a Biodiversity Accounting Assessment (BAA) of a site located at **Land at Denby Lane** (hereafter referred to as the 'Site').

1.1.2 The purpose of this report is to:

- Assess the baseline biodiversity value of the Site through the total sum of the habitats within the Site, and their calculated biodiversity value.
- Assess if there are sufficient biodiversity enhancement and/or creation opportunities available within the Site boundary to compensate for any residual biodiversity losses as a result of the Proposed Development.
- To determine the level of overall residual biodiversity gains or losses associated with the Proposed Development.

1.1.3 The Site location and red line / survey area are shown in Appendix 1.

### 1.2 Terms of Reference

1.2.1 The principal source documents used to inform this BAA include:

- Proposed Development Plan (Drawing number: Site Layout, Revision J).
- Preliminary Ecological Appraisal (JCA Ref: 21986a/JF).

### 1.3 Site Description

1.3.1 The site is located at Ordnance Survey (OS) National Grid Reference SE 22371 16247, with nearby postcode WF12 0NR. The site is bordered to the north by hardstanding, defunct farm buildings and a small woodland. To the east by a small strip of woodland, scrub and Bristfield beck (which runs through a culvert) with arable grassland further afield. To the west by grassland, scattered trees and residential properties. To the south by residential properties with industrial units further afield.

### 1.4 Details of Proposed Development



1.4.1 The scheme is the construction of 21 semi-detached, detached and terraced residential properties with associated soft landscaping and access.



## 2. Biodiversity Accounting in Context

### 2.1 Background

- 2.1.1 Biodiversity is complex and so it is impossible to measure in its entirety. Therefore metrics, which incorporate measures of different biodiversity attributes, are used to provide surrogate measures of overall biodiversity. This report uses the 'Statutory Biodiversity Metric', which was designed by DEFRA (2024) to define the biodiversity impacts and compensation requirements associated with development proposals. The metric works by providing a comparative measure of each habitat on-Site in biodiversity units (BU) by multiplying its area (hectares), distinctiveness (habitat type) and current condition (quality). The relative impacts (habitat loss) of the development, taking into account any additional on-Site habitat creation or enhancement, can then be calculated to determine if a measurable biodiversity net gain will be achieved on-Site. If a measurable net gain is unable to be achieved on-Site, then the process of biodiversity offsetting must be undertaken.
- 2.1.2 Biodiversity offsets are conservation activities designed to deliver biodiversity benefits in compensation for residual losses, in a measurable way. Biodiversity offsetting is distinguished from other forms of compensation by the requirement for measurable outcomes. This is achieved by quantifying net biodiversity impacts caused by development; using the same metric to assess direct and indirect negative impacts to habitats and the value of any on-Site compensation, to set the framework of off-site compensation (offset) requirements and the biodiversity net gain generated by these offsets. Biodiversity offsetting ensures that off-site compensation proposed is both proportionate to the development concerned and that a measurable net gain for biodiversity can be achieved.
- 2.1.3 Biodiversity offsetting, like other forms of compensation, is the last step of the mitigation hierarchy (first avoid, then reduce, and finally, compensate) and is applied as a last resort to otherwise policy-compliant development proposals. 'Offsetting' – i.e. creating or restoring new wildlife habitat in a measurable way and in a different place to where it was lost.
- 2.1.4 In addition to providing a mechanism for quantifiable compensation and net gain, biodiversity offsets provide reliable biodiversity outcomes as they are long-term (30 years), monitored and enforceable with adaptable management plans for optimised success.

### 2.2 Biodiversity Net Gain Principles



2.2.1 Biodiversity Net Gain: Good Practice Principles for Development published by CIEEM et. al (2016) states that delivering biodiversity net gain goes beyond balancing relative gains and losses. It also involves doing everything to avoid biodiversity losses in the first instance. The application of the DEFRA metric detailed in this report supports developments to adopt this approach by:

- a) Providing a habitat balance sheet which can be used to identify those habitats with the greatest value and subsequently those with the greatest impacts if lost;
- b) Supporting and incentivising the mitigation hierarchy by quantifying the benefits of avoiding and mitigating impacts on high value features;
- c) Promoting the value of biodiversity enhancements and demonstrating the potential for additionality on retained habitats;
- d) Providing a balance of losses, enhancements or on-Site compensation to determine if a measure net gain contribution can be achieved;
- e) Providing transparent, robust and credible evidence to help inform the best possible Site options for biodiversity; and,
- f) Ensuring that any residual off-Site compensation required (e.g. through biodiversity offsetting) is proportionate to the impacts and can secure a measurable net gain contribution for biodiversity overall.

## 2.3 Biodiversity Offsetting Standards

2.3.1 Good practice standards for biodiversity offsetting are set out by the Business and Biodiversity Offsets Programme (BBOP, 2012). These standards inform the approach for selection and development of suitable Offset Sites and projects. Of these standards, the following provide the most relevant UK framework for the preliminary offset site search:

- The proposed offset site should be identified as suitable for the creation and/or enhancement of a target habitat within the vicinity of where the impact occurs;
- The site must be available and managed for a minimum specified term (typically 30 years).
- The landowner must agree to an enforceable delivery mechanism to secure the long-term management.



- The site must be available for monitoring to ensure appropriate management is being undertaken and to report biodiversity progress back to the local planning authority.

2.3.2 Further standards, with regards to offset site surveys and ensuring that appropriate target habitats and units can be achieved, will form part of the detailed site search that will precede the preliminary site search.

2.3.3 In addition to biodiversity net gains achieved on-Site, off-Site enhancements can also achieve positive outcomes for nature in the local area.



## 3. Policy and Legislation

### 3.1 Introduction

3.1.1 Planning guidelines, international commitments, legislation and planning policies relevant to the protection, conservation and enhancement of nature conservation interests are detailed below.

### 3.2 National Policy and Guidance

3.2.1 Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of policy and legislation, including:

- The Environment Act 2021 mandates that all planning applications will be required to demonstrate how a development will enhance biodiversity and protect habitats from November 2023. This is to be achieved through a measurable 10% Biodiversity Net Gain (BNG), in association with development through the use of the most up to date Defra Metric (currently Defra Statutory Biodiversity Metric);
- National Planning Policy Framework ('NPPF', as revised 2021) sets out how planning policies and decisions should contribute to and enhance the natural and local environment through amongst other things, ensuring BNG through development and protect ecological important sites and networks;
- The Conservation of Habitats and Species Regulations 2017 (as amended) details the regulations for the protection of European Protected Habitat and Species. Such European Protected Species (EPS) include all species of bats, great crested newt *Triturus cristatus*, dormouse *Muscardinus avellanarius*, and European otter *Lutra lutra*, amongst others;
- The Wildlife and Countryside Act ('WCA') 1981 (as amended) covers the legislation for endangered species in England and the framework for the designation of Sites of Special Scientific Interest (SSSIs);
- The Countryside and Rights of Way ('CRoW') Act 2000 reinforces the wildlife legislation listed in the WCA and places a duty of government departments to consider biodiversity, and provides governmental department powers for the protection and maintenance of SSSIs;
- The Natural Environment and Rural Communities Act ('NERC') 2006 places a duty upon local authorities to promote and enhance biodiversity in all their functions. Specifically, habitats and species of principal importance to the conservation of biodiversity in regards to the planning process;



- The Hedgerow Regulations 1997 provides protection by prohibiting the destruction or damage to important countryside hedges; and
- The Protection of Badgers Act 1992 includes the protected of badgers under the act and that it is unlawful to wilfully kill, injure, take, possess or cruelly ill-treat badgers or attempt to do so.

3.2.2 Where relevant, this appraisal takes account of the legislative protection afforded to specific habitats and species.

### 3.3 Local Policy and Guidance

#### 3.3.1 Kirklees Local Plan 2013 – 2031 (Kirklees Council, Adopted February 2019)

Policy LP24: Design, Policy LP30: Biodiversity and Geodiversity and Policy LP31: Strategic Green Infrastructure Network, of the Kirklees Local Plan apply to the Proposed Development.

#### 3.3.2 Policy LP24: Design

Good design should be at the core of all proposals in the district and should be considered at the outset of the development process, ensuring that design forms part of pre-application consultation of a proposal. Development briefs, design codes and masterplans should be used to secure high quality, green, accessible, inclusive and safe design, where applicable. Where appropriate and in agreement with the developer schemes will be submitted for design review.

Proposals should promote good design by ensuring:

- a. the form, scale, layout and details of all development respects and enhances the character of the

townscape, heritage assets and landscape;

- b. they provide a high standard of amenity for future and neighbouring occupiers; including maintaining

appropriate distances between buildings and the creation of development-free buffer zones

between housing and employment uses incorporating means of screening where necessary;

- c. extensions are subservient to the original building, are in keeping with the existing buildings in



terms of scale, materials and details and minimise impact on residential amenity of future and neighbouring occupiers;

- d. high levels of sustainability, to a degree proportionate to the proposal, through:
  - i. The re-use and adaptation of existing buildings, where practicable;
  - ii. design that promotes behavioural change, promoting walkable neighbourhoods and making walking and cycling more attractive;
  - iii. considering the use of innovative construction materials and techniques, including reclaimed and recycled materials;
  - iv. Where practicable, minimising resource use in the building by orientating buildings to utilise passive solar design. This includes encouraging the incorporation of vegetation and tree planting to assist heating and cooling and considering the use of renewable energy;
  - v. providing charging points to encourage the use of electric and low emission vehicles;
  - vi. incorporating adequate facilities to allow occupiers to separate and store waste for recycling and recovery that are well designed and visually unobtrusive and allows for the convenient collection of waste;
  - vii. designing buildings that are resilient and resistant to flood risk, where such buildings are acceptable in accordance with flood risk policies and through incorporation of multi-functional green infrastructure where appropriate;
  - viii. designing places that are adaptable and able to respond to change, with consideration given to accommodating services and infrastructure, access to high quality public transport facilities and offer flexibility to meet changing requirements of the resident / user.
- e. the risk of crime is minimised by enhanced security, and the promotion of well-defined routes, overlooked streets and places, high levels of activity, and well-designed security features;
- f. the needs of a range of different users are met, including disabled people, older people and families with small children to create accessible and inclusive places; any new open space is accessible, safe, overlooked and strategically located within the site and well integrated into wider green infrastructure networks;
- g. development contributes towards enhancement of the natural environment, supports biodiversity and connects to and enhances ecological networks



and green infrastructure;

- h. the retention of valuable or important trees and where appropriate the planting of new trees and other landscaping to maximise visual amenity and environmental benefits; and
- i. the provision of public art where appropriate.

### 3.3.3 Policy LP30: Biodiversity and Geodiversity

Proposals the council will support proposals that 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. that protect and enhance features of ecological and geological interest and provide net gains in biodiversity will be supported.

Proposals will be required to:

result in no significant loss or harm to biodiversity in Kirklees through avoidance, adequate mitigation or, as a last resort, compensatory measures secured through the establishment of a legally binding agreement;

- ix. minimise impact on biodiversity and provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation where opportunities exist;
- x. safeguard and enhance the function and connectivity of the Kirklees Wildlife Habitat Network at a local and wider landscape-scale unless the loss of the site and its functional role within the network can be fully maintained or compensated for in the long term;
- xi. establish additional ecological links to the Kirklees Wildlife Habitat Network where opportunities exist; and

incorporate biodiversity enhancement measures to reflect the priority habitats and species identified for the relevant Kirklees Biodiversity Opportunity Zone.

### 3.3.4 Policy LP31: Strategic Green Infrastructure Network

Within the Strategic Green Infrastructure Network identified on the Policies Map, priority will be given to safeguarding and enhancing green infrastructure networks, green infrastructure assets and the range of functions they provide.

Development proposals within and adjacent to the Strategic Green Infrastructure Network should ensure:-



- i. the function and connectivity of green infrastructure networks and assets are retained or replaced;
- ii. new or enhanced green infrastructure is designed and integrated into the development scheme where appropriate, including natural greenspace, woodland and street trees;
- iii. the scheme integrates into existing and proposed cycling, bridleway and walking routes, particularly the Core Walking and Cycling Network, by providing new connecting links where opportunities exist;
- iv. (iv) the protection and enhancement of biodiversity and ecological links, particularly within and connecting to the Kirklees Wildlife Habitat Network.

The council will support proposals for the creation of new or enhanced green infrastructure provided these do not conflict with other Local Plan policies.

#### Biodiversity Action Plan (BAP) for Kirklees

3.3.5 The BAP for Kirklees (Kirklees Metropolitan Council, No Date) concentrates on species and habitats that had national action plans produced or are of local conservation concern. These include semi natural grassland, riverine habitats, ancient woodland, water vole *Arvicola amphibius* and great crested newt.



## 4. Methodology

### 4.1 Background

4.1.1 Biodiversity accounting of existing and post-development habitats and linear features on-Site was carried out using the Statutory Biodiversity Metric Calculator Tool, following guidance set out in the metric user guide (Natural England et al, 2022). The process for data collation and analysis associated with the assessment is detailed in Sections 4.2 – 4.3 below.

### 4.2 Baseline Data

4.2.1 A baseline analysis of the existing habitats on-Site was carried out from the information gathered during the Site's ecological assessment visit carried out by James Foster (Assistant Ecologist, JCA Limited) on 14/05/24.

4.2.2 To undertake the Statutory Biodiversity Metric calculations, the following information was recorded for each habitat parcel and/or linear feature:

- Habitat type;
- Area/Length (ha/km) (using the Minimum Mappable Unit of 25m<sup>2</sup> and 5m);
- Habitat condition;
- Strategic significance; and
- Whether that habitat will be lost, retained, enhanced, succeeded and/or created, and at what scale.

4.2.3 The habitat map for the Site was digitised and interpreted using QGIS Version 3.32.3 to calculate habitat area.

### 4.3 Impact Assessment

4.3.1 The existing baseline habitat plan for the Site was overlain with the Proposed Landscape Plan (Dwg number: Site Layout, Revision J) of the Proposed Development using GIS software to provide an area (Ha) of temporary and permanent habitat loss.

4.3.2 The area of any retained/enhanced or created habitats proposed as part of the development was also mapped to provide an area (Ha) (or length (Km) for linear



features) of the on-Site compensation proposals being provided. An estimate of future condition, time until establishment and the likelihood of success was then calculated using landscaping data provided by the client and professional judgement.

#### 4.4 Habitat Creation and Enhancement

- 4.4.1 The area of any retained/enhanced or created habitats proposed on-Site as part of the Proposed Development was mapped using the Proposed Landscape Plan (Dwg number: Site Layout, Revision J) of the final development, to provide an area (Ha) (or length (Km) for linear features) estimate of on-Site compensation provided. This includes areas of developed land, which are assigned a very low (or null) value, notably, areas of buildings and/or roads.
- 4.4.2 Condition and strategic significance for each habitat or linear feature were projected using available ecological data or professional opinion about the likely value.

#### 4.5 Residual Effects

- 4.5.1 The residual effects of the Proposed Development scheme were calculated using the Statutory Biodiversity Metric Calculator Tool. This subtracts the pre-development baseline values from that of the post-development values to determine the change in overall habitat value for the Site, taking into account any habitat trading.
- 4.5.2 Habitat trading is where the loss of a habitat must be compensated for through the creation or restoration of areas of equivalent or greater distinctiveness value. Guidance by Defra is that the loss of high distinctiveness areas, such as Habitats of Principal Importance (HPI, NERC Act, S.41), require compensation in a like-for like manner (creation or restoration of habitat of the same habitat classification as that impacted). Within the Biodiversity Metric 'trading up' (where compensation through creation of a higher distinctiveness habitat) can occur, however, 'trading down' (compensation through creation of lower distinctiveness habitats) is not permitted. Therefore, if present, despite gains in lower distinctiveness habitats, these will not reduce the net gain requirement for the development. This also applies to the different habitat features i.e. habitats, hedgerows and rivers and streams. Hedgerow creation gains will not reduce net gain requirements for either rivers and streams or habitats.
- 4.5.3 Where the resulting biodiversity balance is negative, a residual net loss of biodiversity is recorded. Where the balance is positive a residual net gain of biodiversity is recorded.



## 5. Statutory Biodiversity Metric

### 4.6 Introduction

4.6.1 The assessment was carried out by JCA Limited using the ecological data gathered during the Site's ecological assessment survey carried out on 14/05/24.

### 4.7 Existing Site Value

4.7.1 The existing biodiversity value for each habitat, together with the cumulative value of all habitats is provided in Table 1. Existing on-Site habitats can be found in **Appendix 1**.

**Table 1:** Baseline habitats on site and their ecological value as categorised by the Statutory Biodiversity Metric calculator.

Biodiversity Metric Reference Number	Biodiversity Metric Habitat Type	Total Area on Site (Ha)	Distinctiveness	Condition	Strategic Significance	Ecological Baseline Habitat Unit
1	Modified grassland	0.6185	Low	Poor	Area/compensation not in local strategy/ no local strategy	1.24

4.7.2 The modified grassland (Statutory Biodiversity Metric Reference Number 1) habitat was found to be in 'Poor' condition, as it failed criteria A, B and D.

- Criteria A: "There are 6-8 vascular plant species per m<sup>2</sup> 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.
- Criteria 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.
- Criteria 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.



4.7.3 The habitats on are listed as 'Area/compensation not in local strategy/ no local strategy' under the strategic significance, as the habitats on Site are not included in the local Biodiversity Action plan, local strategy or local Wildlife Habitat Network.

4.7.4 To ensure a 10% net gain in biodiversity is achieved as part of the Proposed Development the following measures can be employed:

- Habitat retention; and/or
- Habitat enhancement; and/or
- Habitat creation.



## 5 Proposed Development Impact Assessment

### 5.1 Description of the Proposed Development

- 5.1.1 The Proposed Development involves the construction of 21 semi-detached, detached and terraced residential properties with associated soft landscaping and access.
- 5.1.2 The Proposed Development will see the removal of all on-Site habitats to facilitate the development. The modified grassland which is the only habitat on site will be lost in its entirety.

### 5.2 Habitats to be Retained

- 5.2.1 Any development should apply the Mitigation Hierarchy (British Standards Institution (BSI), 2013; shown below in Figure 1).
- 5.2.2 Development proposals should first seek to **avoid** impacts by retaining habitats. Second, development proposals should look to **minimise** the impact by producing plans that are designed to limit habitat disturbance, damage, and loss, thereby mitigating against any unavoidable impacts. Third, proposals should look to **restore** any damaged or degraded habitats. Then, only as a last resort should proposals **compensate** for unavoidable residual impacts to damaged or lost habitats that remain after avoidance and mitigation measures.



Figure 1: The mitigation hierarchy (BSI, 2013)



5.2.3 The Proposed Development will see the complete removal of the modified grassland on the site.

### 5.3 Habitats to be Lost

5.3.1 The Proposed Development will see the loss of the modified grassland on-Site to facilitate the development.

5.3.2 Modified grassland is of low distinctiveness and is not listed in the local plan. The modified grassland is of low ecological value and ‘Poor’ condition, the loss of this habitat is considered to be a minor loss.

### 5.4 Overall Impacts

5.4.1 The retention, enhancement and loss of habitats as a result of the Proposed Development are quantified in Table 2.

5.4.2 The results of the metric calculation indicates that a total of 1.24 BU for habitats are to be lost as a result of the Proposed Development, with 0 BU retained and 0 BU generated through habitat enhancement (Table 2).

**Table 2:** Summary value of baseline habitat biodiversity value through retention, creation and enhancement

Biodiversity Metric Habitat	Retained		Enhanced		Lost	
	Area (Ha)	Unit	Area (Ha)	Unit	Area (Ha)	Unit
Modified grassland	0.00	0.00	0.00	0.00	0.62	1.24

### 5.5 Proposed Habitat Creation

5.5.1 It is proposed that the following habitats be created as part of the Proposed Development (**Appendix 2**):

- Developed land; sealed surface.
- Vegetated garden.

5.5.2 Table 3 below summarises the value of all habitats that are to be created as part of the Proposed Development.

5.5.3 In total, +0.47 BU for habitats are to be created within the Proposed Development.



**Table 3:** Summary value of on-Site habitat proposals.

Biodiversity Metric Reference Number	Biodiversity Metric Target Habitat Type	Total Area on Site (Ha)	Distinctiveness	Target Condition	Strategic Significance	Biodiversity Unit Value
1	Developed land; sealed surface	0.3756	V. Low	N/A	Area/compensation not in local strategy/ no local strategy	0.00
2	Vegetated garden	0.2429	Low	N/A	Area/compensation not in local strategy/ no local strategy	0.47
	<b>Total</b>	<b>0.62</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.47</b>

5.5.4 Developed land sealed surface and vegetated garden do not have a relevant condition assessment.

5.5.5 The habitats are listed as ‘Area/compensation not in local strategy/ no local strategy’ under the strategic significance, as the habitats on Site are not included in the local Biodiversity Action plan, local strategy or local Wildlife Habitat Network.

## 5.6 Proposed Development Summary of Net Impacts

5.6.1 Table 4 below summarises the BU value of the Proposed Development together with the unit value of any biodiversity impacts or on-Site habitat creation/enhancement proposals.

5.6.2 This shows that on balance, the Proposed Development would result in a net loss of -0.77 habitat BU, equivalent to a net loss of -62.10%.

5.6.3 The Proposed Development does not satisfy the Trading Rules as unit deficits have been generated across distinctive units.

**Table 4:** Summary of Biodiversity Metric results for habitats and hedgerows

Biodiversity Units (BU)	
Existing Site habitat biodiversity value (habitats)	1.24
Value of gross habitat biodiversity loss	1.24
Value of retained and proposed on-Site habitat creation and enhancement (habitats)	0.47
Net habitat biodiversity balance (habitats)	-0.77



## 6 Conclusion

- 6.1.1 In accordance with the NPPF, where a biodiversity impact cannot be avoided or mitigated then compensation measures must be provided. If this cannot be achieved on-Site through further avoidance, mitigation or compensatory habitat creation or enhancement measures, then off-Site compensation measures will be required.
- 6.1.2 The BAA identified that the Proposed Development would have a net loss of -0.77 habitat BU, equivalent to a net loss of -62.10%. The Proposed Development does not satisfy Trading Rules.
- 6.1.3 The Proposed Development has achieved a biodiversity net loss in habitat BU. As such, off-Site compensatory habitat creation and/or enhancements measures are required.
- 6.1.4 Further details of the Statutory Biodiversity Metric calculations and associated condition assessments can be found within the Statutory Biodiversity Metric Calculator Tool excel spreadsheet and the Statutory Biodiversity Metric Habitat Condition Assessment Sheets accompanying this report.
- 6.1.5 Should the Proposed Development be subject to future change, the conclusions and recommendations in this report will need to be revised. This is to be undertaken via the recalculation of the impact assessment element through the most up-to-date biodiversity metric.



## 7 References

### Biodiversity Metric Guidance:

*Business and Biodiversity Offsets Programme (BBOP)*. (2012). *Standard on Biodiversity Offsets*. Available at: [https://www.forest-trends.org/wp-content/uploads/bbop/bbop\\_standard\\_on\\_biodiversity\\_offsets\\_1\\_feb\\_2013-pdf.pdf](https://www.forest-trends.org/wp-content/uploads/bbop/bbop_standard_on_biodiversity_offsets_1_feb_2013-pdf.pdf).

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*Panks, S., White, N., Newsome, A., Nash, M., Potter, J., Heydon, M., Mayhew, E., Alvarex, M., Russel, T., Cashion, Clare., Goddard, F., Scott, S.J., Heaver, M., Scott, S.H., Treweek, J., Butcher, B. and Stone, D.* (2022) *The Biodiversity Metric 3.1: Auditing and accounting for biodiversity –Technical Supplement*. Available at: <http://publications.naturalengland.org.uk/publication/6049804846366720>.

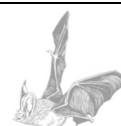
*The Environment Act 2021, c. 30*. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted> (Accessed: 16 January 2023).

*UKHab*. (2020). *The UKHab Classification System*. Available at: <https://ukhab.org/>.



# Appendices

## Appendix 1: UKHab Habitat Map



Site name & address

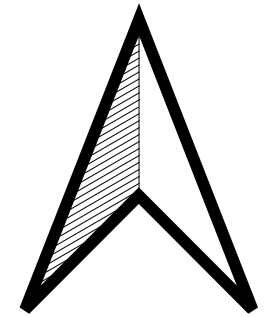
**Land at Denby Lane,  
Grange Moor, West  
Yorkshire, WF12 0NR**

**Key**

 Red Line Boundary

Habitats Baseline

 Modified grassland



Scale 0 25 50 m



Site Land at Denby Lane	Client Orion Homes
Project Biodiversity Accounting Assessment	Author JF
Plan ref 21986/JF	Revision 0

## Appendix 2: Proposed UKHab Habitat Map



Site name & address

**Land at Denby Lane,  
Grange Moor, West  
Yorkshire, WF12 0NR**

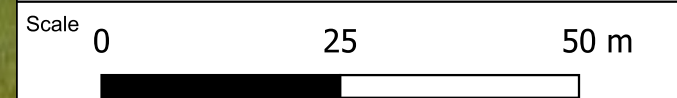
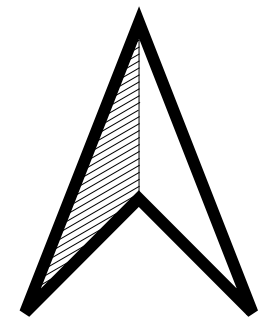
**Key**

 Red Line Boundary

Habitats Proposed

 Developed land; sealed surface

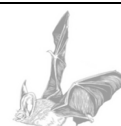
 Vegetated garden



Site Land at Denby Lane	Client Orion Homes
Project Biodiversity Accounting Assessment	Author JF
Plan ref 21986/JF	Revision 0



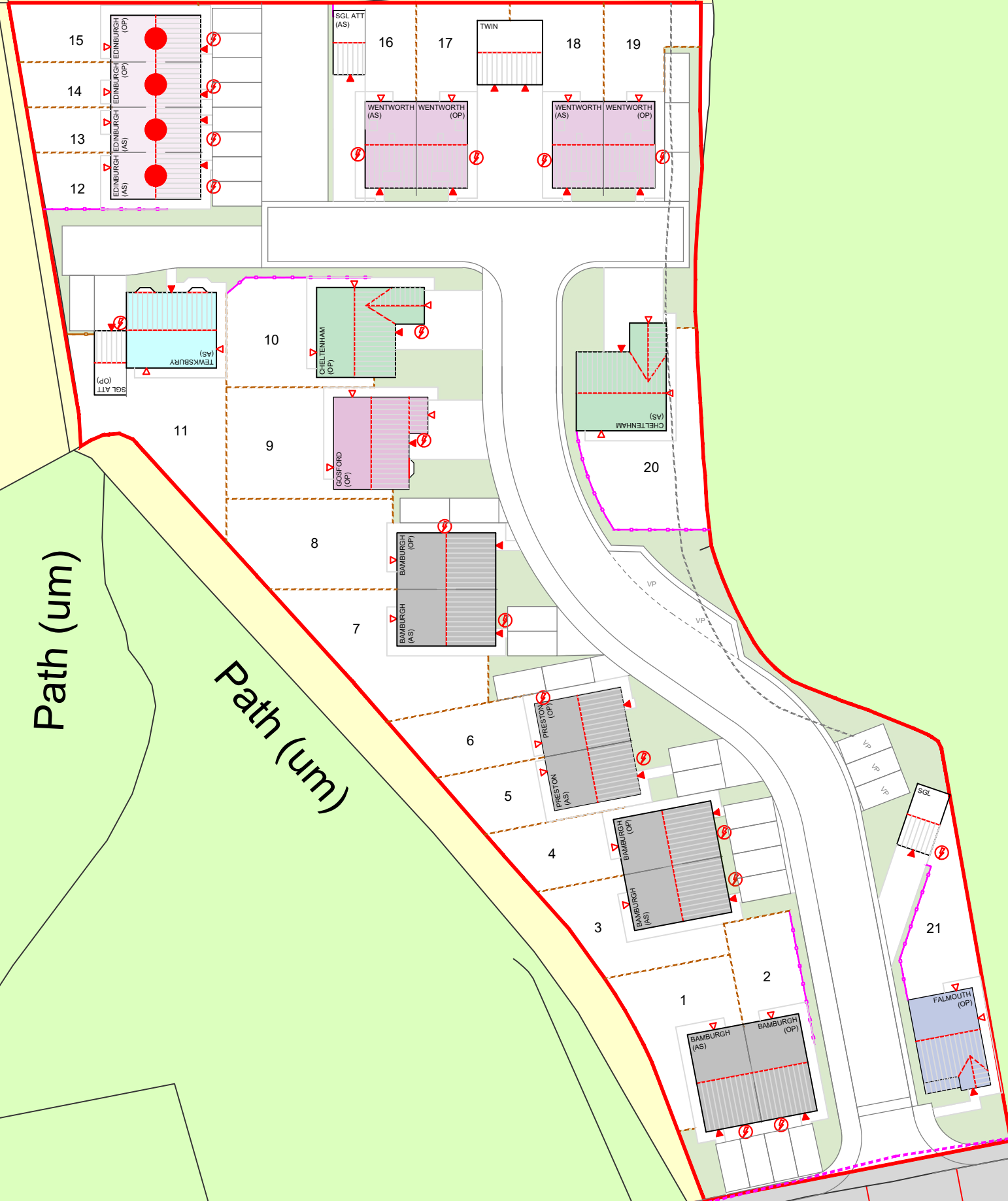
## Appendix 3: Proposed Development Plan



# Denby Lane, Grange Moor

Denby Lane, Grange Moor  
Orion Homes

Housetype	number	Beds	Storeys	sqft	total	% mix
Preston	2	3	2	1002	2004	9.52
Bamburgh	6	3	2	1002	6012	28.57
Falmouth	1	3	2	1153	1153	4.76
Gosford	1	3	2	1161	1161	4.76
Wentworth	4	4	2.5	1184	4736	19.05
Tewkesbury	1	4	2	1241	1241	4.76
Cheltenham	2	4	2	1303	2606	9.52
<b>Private total</b>	<b>17</b>				<b>18913</b>	<b>80.95</b>
Edinburgh	4	3	2	858	3432	19.05
<b>Affordable total</b>	<b>4</b>				<b>3432</b>	<b>19.05</b>
<b>Site total</b>	<b>21</b>				<b>22345</b>	<b>100.00</b>
Site Area - Gross	1.5 acres / 0.6117Hectares					
Density	34.33dph					
coverage	14,896 sqft per acre					



Path (um)

Path (um)

215.8m

Rev:	Date:	Notes:
E	28.02.24	2024 Redrawn - CD
F	29.02.24	Plots 6 and 7 & 15 to 18 amended, 3m easement to eastern boundary added - CD
G	02.03.24	Plots 1 & 2 moved back to allow for the existing FW manhole/sewer - CD
H	15.05.24	Amended to suit Sandersons comments - CD
I	31.05.24	Plots 1 to 6 moved forward to make gap between plots 6 & 7 wider to accommodate drainage easement - CD

Rev:	Date:	Notes:
J	06.06.24	Plots 1 & 2 parking spaces amended and VP amended - CD

Rev:	Date:	Notes:
-	-	-

Date:	Feb 24
Scale @ AS:	1:500
Drawn By:	CD
Project:	Denby Lane, Grange Moor
Drawing Number:	Site layout
Revision:	J



## Appendix 4: Good Practice Principles for Development

Taken from CIEEM (2016) Biodiversity Net Gain: Good practice principles for development.

**Principal 1.** Apply the Mitigation Hierarchy.

**Principal 2.** Avoid losing biodiversity that cannot be offset by gains elsewhere.

**Principal 3.** Be inclusive and equitable.

**Principal 4.** Address risks.

**Principal 5.** Make a measurable Net Gain contribution.

**Principal 6.** Achieve the best outcomes for biodiversity.

**Principal 7.** Be additional.

**Principal 8.** Create a Net Gain legacy.

**Principal 9.** Optimise sustainability.

**Principal 10.** Be transparent.



## Appendix 5: Author Qualifications

### Adam West, Principal Ecologist

*BSc (Hons) Animal and Wildlife Management.*

Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Bachelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence, a Natural England Level 2 bat survey class licence (and the Scottish and Welsh equivalents) and a CSCS card.

### James Foster, Assistant Ecologist

*BSc (Hons) Biology.*

James gained his undergraduate degree in biology in 2012 from University of Leeds. James has plenty of experience in ecology, having worked countless projects of different scales all over the north and midlands. James has 9 years of experience surveying anything from reptiles to hedgerows and holds a Great crested newt licence level 1 and is working towards his bat licence and barn owl licence.

### Alex Donovan, Graduate Ecologist

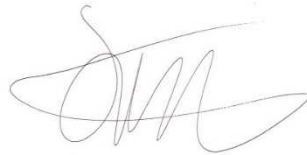
*MBIOL, BSc Biology (Industrial).*

Alex joined JCA in 2023 after graduating from the University of Leeds with a First Class Honours Integrated Master's degree in Biology. As part of his degree programme, Alex spent an industrial placement year working in the Uplands Research Department of the Game and Wildlife Conservation Trust, assisting on various ecological surveys and projects. Alex is a registered Trainee Bird Ringer, licensed through the BTO, and has previously conducted seasonal bat emergence and transect surveys. Alex is currently working towards a level 1 bat licence, level 1 great crested newt licence, and a barn owl survey licence.



The Information and advice which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and bona fide opinions.

Signed



.....  
James Foster *BSc (Hons)*

03/07/2024

Reviewed by



.....  
Alex Donovan *MBIOL BSc (Hons)*

04/07/2024

Approved by



.....  
Adam West *BSc (Hons), ACIEEM*

07/07/2024



For and on behalf of **JCA Ltd**

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## ECOLOGICAL SERVICES

### Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

### Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

## ARBORICULTURAL SERVICES

### Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

### Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

### Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

### Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

### Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

### Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control



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