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Biodiversity Impact Statement

Land west of Pearl Lane, Stourport on Severn (Ernleye Meadows)

On Behalf Of:
Barratt Homes West Midlands

Prepared By:
Rob Harrison BSc MSc MCIEEM
Harris Lamb | 17 Regent Street | Nottingham | NG1 5BS
Telephone: 0115 947 6236 E-mail: rob.harrison@harrislamb.com

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Main Contributors
Rob Harrison BSc MSc MCIEEM

Issued By

Signature…… ……

Print Name: Rob Harrison BSc MSc MCIEEM

Date: 07/01/2021

Approved By

Signature……

Print Name: Holly Smith BSc PhD AIEMA

Date: 07/01/2021

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EXECUTIVE SUMMARY

Harris Lamb Property Consultants (HLPC) was commissioned by Barrett Homes West Midlands to undertake Biodiversity Impact Calculations (BIC) for development of 331 residential units and associated infrastructure at c. 15.07ha of land (the POS area is 6.05ha which is 40% of the site) west of Pearl Lane, Stourport on Severn (Ernleye Meadows) (National Grid Reference: SO 79638 69877).

Baseline Biodiversity Impact Calculations have been incorporated into the report to inform design and confirm the biodiversity impact as a result of the development and its associated mitigation.

The total biodiversity on site pre-development is calculated as 35.13 habitat biodiversity units. Hedgerow biodiversity units were calculated at 7.2 due to the existence of c.1.2km of native boundary hedgerow.

Post development with the current landscape and layout plans the total habitat biodiversity units was calculated at 40.32 which provides a 14.78% net gain in habitat biodiversity. Similarly, for hedgerows a gain of 128.72% was seen.

These calculations show ample biodiversity net gain on site. Provided the mitigation from this report is followed and the development incorporates adequate habitats and biodiversity features, then the development will result in a net biodiversity gain and be compliant with NPPF.

1.0 INTRODUCTION

1.1 Background

1.1.1 Harris Lamb Property Consultants (HLPC) was commissioned by Barratt Homes West Midlands to undertake Biodiversity Impact Calculations (BIC) for development of 331 residential units and associated infrastructure at c. 15.07ha of land (the POS area is 6.05ha which is 40% of the site) west of Pearl Lane, Stourport on Severn (National Grid Reference: SO 79638 69877) (see Figure 1 below).

Figure 1. Site location and application boundary (NGR: SO 79638 69877). Not to scale.

1.1.2 The site is located between the A451 Dunley Road and Pearl Lane within the Worcestershire town of Stourport on Severn. The centre of the town is located approximately 4km to the north east of the site. The site is currently used for agriculture purposes and is bounded to the north by Dunley Road (A451), to the south by two large residential dwellings, to the east by Pearl Lane and to the west by another field. There is an existing residential development to the east of Pearl Lane.

1.1.3 The purpose of this report is to provide the baseline for biodiversity value of the site and show through a quantitative metric biodiversity value post development in line with National Planning Policy Framework[1].

1 National Planning Policy Framework (2019) Ministry of Housing, Communities & Local Government

2.0 LEGISLATION

2.1 Biodiversity Offsetting and Planning Policy

2.1.1 Defra advise that good developments incorporate biodiversity considerations early in their design but can still result in some biodiversity loss when there are impacts that cannot be avoided through design and location or mitigated by other measures[2].

2.1.2 Current planning policy for biodiversity and geological conservation interests is set out in the National Planning Policy Framework (NPPF)[3] which was published and came into force on 27 March 2012 and updated in 2019. For biodiversity offsetting, the most relevant principles and policies in the NPPF are:

> "Planning policies and decisions should contribute to and enhance the natural and local environment by: a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate. (para 170)

2 Defra (2012) Biodiversity Offsetting Pilots – Guidance for developers

3 National Planning Policy Framework (2019) Ministry of Housing, Communities & Local Government

2.1.3 This policy reflects the ‘mitigation hierarchy’, whereby compensation for residual harm is a last step and comes after consideration of how harm can be avoided in the first place and then, if that is not possible, how harm can be minimised through mitigation.

2.1.4 When reviewing Planning Applications, Local Planning Authorities will require a development to consider how it will deliver any compensation required under planning policy for biodiversity loss through the offsetting mechanism, or by using other existing processes.

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 Data on the ecological value of the site has been taken from the EIA screening[4] and review of aerial mapping.

3.1.2 Post development measurements for landscaping and habitat creation has been taken from the detailed planting plan by Tyler Grange[5].

3.2 Biodiversity Impact Calculations

3.2.1 Best practice guidance has been provided by Defra which recommends that development aims to provide a net gain for biodiversity. A tool (Biodiversity Impact Calculator beta v2.0 (BIC)) has been developed (and is still undergoing review and further development) which allows the quantitative presentation of biodiversity impact from a development. This tool will, therefore, be incorporated into this Biodiversity Impact Statement as detailed below.

3.2.2 The BIC has been completed following the latest Defra guidance for Biodiversity Offsetting[6]. This first sets out a hierarchy of 'avoid, mitigate, compensate'. Where development cannot avoid or mitigate on site, and there is still residual biodiversity loss, compensation is required, and this can be undertaken *via* biodiversity offsetting.

3.2.3 To aid the calculation for impacts to biodiversity, that would require compensation, the habitats on site have been viewed via aerial mapping resources.

3.2.4 Each identified habitat type has then been run through the most up to date biodiversity Impact metric published by Defra (The Biodiversity Metric 2.0)[7].

3.2.5 For linear features such as hedgerows and watercourses the total length of linear feature to be removed is measured so that replacement can be provided where possible.

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4 Harris Lamb (2019) Request for an EIA Screening Opinion - Pearl Lane - Issued - 21.08.2019

5 Tyler Grange (October 2020) Detailed Planting Plan. Sheets 1-9. Drawing number 2469/P18

6 Defra (2019) The Biodiversity Metric 2.0 – User Guide http://publications.naturalengland.org.uk/publication/5850908674228224 [accessed November 2020]]

7 Defra (2019) Biodiversity Metric 2.0 http://publications.naturalengland.org.uk/publication/5850908674228224 [accessed November 2020]

3.3 Limitations

3.3.1 These calculations are based on desk-based data for this assessment, but this is not thought to impact the outputs due to high quality of baseline reporting.

3.3.2 The Defra metric used is undergoing review, feedback and constant update. Therefore, the metric should be viewed with caution and as a guide to biodiversity offsetting requirements only. Written descriptions have been provided in support of the quantitative metric outputs where additional supporting evidence was necessary.

3.3.3 The Defra metric is due to be updated in Spring 2021 and therefore submissions to planning after this date may require the latest version of the metric to be used. Therefore, this report may require update in Spring 2021.

3.3.4 Certain elements of the Defra Biodiversity Metric involve a subjective estimate. To demonstrate and provide clarity where subjective estimates have been stated in this report, evidence has been provided where possible to show thinking.

4.0 RESULTS AND DISCUSSION

4.1 Existing Ecology and Habitats

4.1.1 The site comprises species poor agricultural fields with associated boundary hedgerows with trees and some standard mature trees (See Figure 2 below).

Figure 2. Aerial image of site habitats[8] (NGR: SO 79638 69877). Not to scale.

[8] Google maps (2020) https://www.google.co.uk/maps/@52.3264491,-2.3046008,854m/data=!3m1!1e3 [accessed: 5/3/2020]

4.2 On-site Habitat Condition Assessment

4.2.1 Habitats on site are detailed under the subheadings below with condition of each habitat determined according to the Defra methodology[9, 10].

Improved and semi-improved grassland

4.2.2 The species poor agricultural fields on site do not provide good habitat structure or species richness. Condition was assessed as **poor** since it is agricultural land characterised by vegetation dominated by a few fast-growing grasses on fertile, neutral soils and is managed.

Species-poor hedgerow and standard trees

4.2.3 Native hedgerows are present at the site boundaries and contain occasional standard trees. None of the hedgerows are classed as important under the ecological components of the Hedgerow Regulations 1997 due to a lack of required number of woody species and/or features listed on sub-paragraph 4 of the Regulations. The hedgerows qualify as a habitat of principal importance listed under Section 41 of the NERC Act 2006, as they comprise more than 80% of native species.

4.2.4 Hedgerows need consideration, and total length of hedgerow, or connectivity should not be lost from a site. If a development results in the loss of hedgerows, that loss will need to be offset as a minimum with like for like replacement plus 10%.

4.2.5 Hedgerows were assessed as a precautionary **good** condition.

4.2.6 Several standard field trees are also present but have been assessed as **moderate** condition due to ground compaction from farming activity.

Woodland strip

4.2.7 The site boundary contains a narrow woodland strip. This contained species including silver birch *Betula pendula*, oak Quercus robur, sycamore *Acer pseudoplatanus* and ash *Fraxinus excelsior*. Due to the young age of trees

[9] Defra (2019) The Biodiversity Metric 2.0 – Technical Supplement – Beta Test http://publications.naturalengland.org.uk/file/4923683225468928 [accessed December 2019]

[10] Defra (2019) The Biodiversity Metric 2.0 – User Guide – Beta Test http://publications.naturalengland.org.uk/publication/5850908674228224 [accessed December 2019]

and lack of features indicating mature woodland, the roadside woodland strip was considered to be in **poor** condition for this calculation.

4.3 Post Development habitat creation

4.3.1 Post development a landscape plan has been developed[11].

4.3.2 This landscape plan includes for significant green space. The total net development area includes c.8.75ha of net development area to include the hard structures, gardens and some amenity planting with a further 0.3ha of ancillary structures.

4.3.3 For open green space a total area of c.6.03ha has been provided which allows for significant biodiversity net gain opportunity. Of the green space area c.2.1ha of the existing woodland has been retained along with its adjoining hedgerows. Only a small area (c.0.1ha) of this woodland and hedgerow would be removed to facilitate road access to the site.

4.3.4 Within the greenspace habitats to be installed include a significant area of meadow planting, shrub planting, tree planting and inclusion of a planted SUDS area.

4.3.5 The small areas of hedgerow to be removed and the woodland strip that requires removal have been compensated for by additional hedgerow planting and tree planting. In addition, mature trees within the site boundary have been worked into the landscape plan and retained.

4.3.6 Full details of the planting schedule are provided on the detailed planting plan.

4.4 Biodiversity Impact Calculations Defra v2.0 output

4.4.1 Table 1 below shows the Defra BIC beta V2.0 output. The spreadsheet for this is provided in addendum to this report with comments provided on the calculation where necessary. The total biodiversity on site pre-development is calculated as 35.13 habitat biodiversity units. Hedgerow biodiversity units are calculated at 7.2.

4.4.2 Post development due to installation of significant open green space, the habitat biodiversity units have been increased to 40.32 and hedgerow biodiversity units have been increased to 16.47. this equates to a habitat

[11] Tyler Grange (October 2020) Detailed Planting Plan. Sheets 1-9. Drawing number 2469/P18

biodiversity net gain of 14.78% and a hedgerow biodiversity net gain of 128.72%. This goes beyond the standard requirement for at least a 10% biodiversity net gain and demonstrates compliance and best practice for adherence with the NPPF.

On-site baseline	*Habitat units*	35.13
	Hedgerow units	7.20
	River units	0.00
On-site post-intervention (Including habitat retention, creation, enhancement & succession)	*Habitat units*	40.32
	Hedgerow units	16.47
	River units	0.00
Off-site baseline	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation, enhancement &	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention/creation)	*Habitat units*	5.19
	Hedgerow units	9.27
	River units	0.00
Total net % change (including all on-site & off-site habitat creation + retained habitats)	*Habitat units*	14.78%
	Hedgerow units	128.72%
	River units	0.00%

Table 1. Biodiversity impact of habitat lost to development

5.0 Recommendations and Conclusion

5.1 Recommendations

5.1.1 Any future changes to the layout and landscape plan should bear in mind that reductions in open green space and inclusion of increased areas of hard structures can significantly reduce biodiversity on site. If changes are significant then there is a risk that biodiversity net gain may not be achieved.

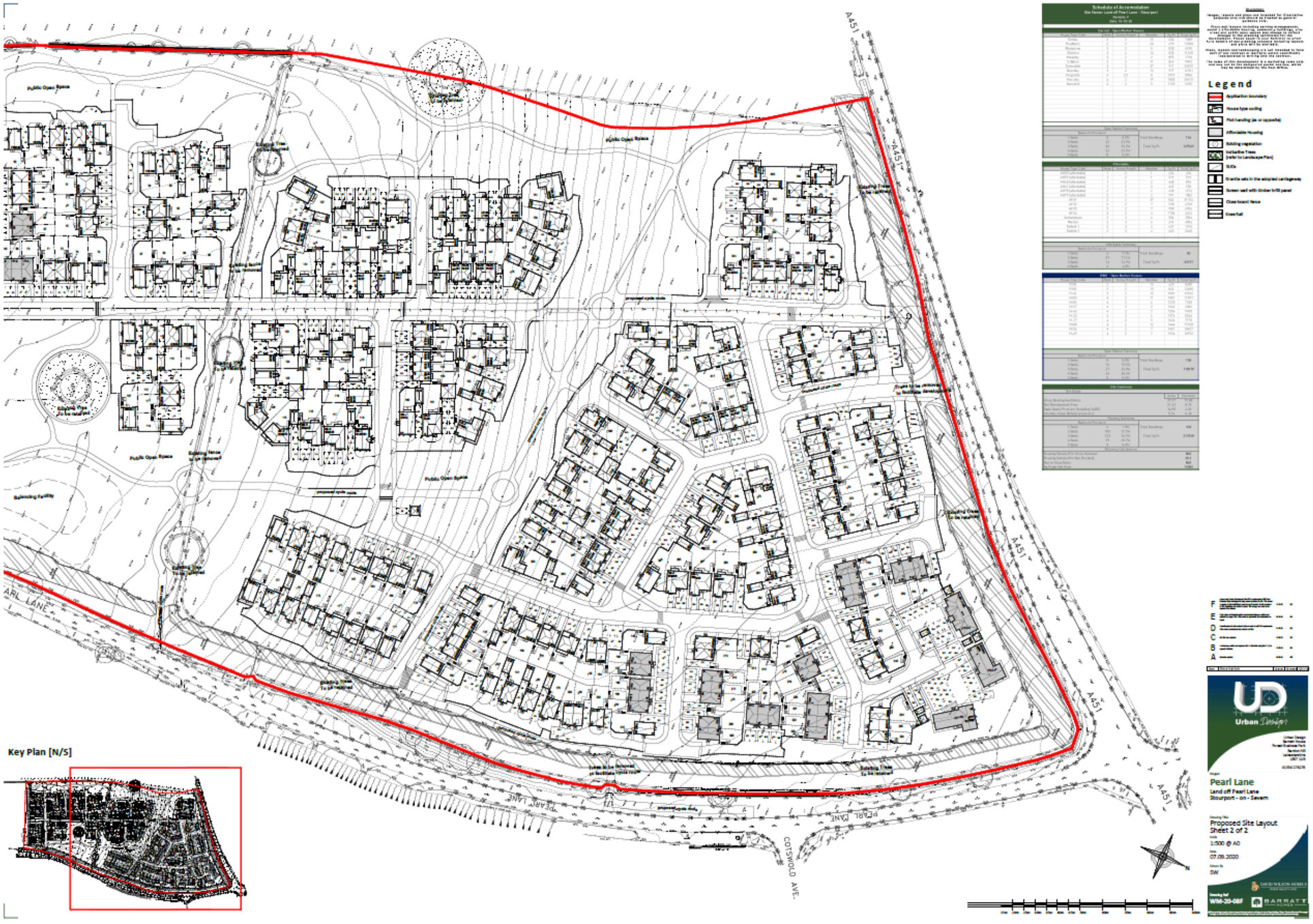
5.1.2 Further development of the plans should be undertaken in consultation with an ecologist to ensure biodiversity net gain is maintained.

5.1.3 A Habitats Management Plan should be developed for the long term to ensure that habitats on site are appropriately managed to secure the biodiversity net gain stated within this report.

5.2 Conclusion

5.2.1 Provided the habitat creation is implemented according to the current landscape plan and layout, then biodiversity net gain for the site would be seen. Therefore, the development will result in a net biodiversity gain in compliance with NPPF.

Appendix A – Proposed site layout



Legend

- Application boundary
- House type coding
- Plot handing (as or opposite)
- Affordable Housing
- Existing vegetation
- Indicative Trees (refer to Landscape Plan)
- SUDs
- Adopted carriageway & private drives to be block paved
- Screen wall with timber infill panel
- Close-board fence
- Knee Rail
- Garden Gate
- Bin locations
- Shed locations

F
E
D
C
B
A

Key Plan [N/S]

Scale Bar