# PROPOSED NEW BUILDING AT DGM GROWERS, HOLBEACH BANK, LINCOLNSHIRE



# BIODIVERSITY NET GAIN REPORT

## FINAL

**Prepared by:**
Philip Parker Associates Ltd
White Row Cottage
Leziate Drove
Pott Row
King's Lynn
Norfolk
PE32 1DB

**Prepared for:**
DGM Growers

Report ref: P2024-136 R1 Final

Date: 20/12/2024

# CONTENTS

1.0 Executive summary
2.0 Introduction
3.0 Methodology
4.0 Baseline Conditions
5.0 Proposed Biodiversity Net Gain
6.0 Proposed Habitat Design
7.0 Conclusion
8.0 References

**Drawings**

Drawing D1 Baseline habitat plan
Drawing D2 Off-site baseline habitat plan
Drawing D3 On-site habitat enhancement and creation
Drawing D4 Off-site habitat enhancement

**Appendix**

Appendix A Calculations – Headline results
Appendix B Species list for each habitat group
Appendix C Surveyor/company experience and qualifications

| DOCUMENT HISTORY | | | | |
|---|---|---|---|---|
| **Project reference: 2024-136 R1** | | **Document title: Biodiversity Net Gain Report** | | |
| **Revision** | **Status** | **Originated** | **Reviewed** | **Date** |
| Rev. 1 | Draft<br>Final | Naomi Parker | Philip Parker | 11/12/2024<br>20/12/2024 |

**Copyright © 2024 by Philip Parker Associates Ltd**
All rights reserved. No part of this report may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Philip Parker Associates Ltd.

# 1.0 EXECUTIVE SUMMARY

1.1 Biodiversity net gain is the name given to a process of biodiversity offsetting whereby any habitat loss caused by a new development is mitigated to ensure that there is an overall increase in biodiversity post-development. As part of initial development plans, developers are increasingly required to demonstrate that biodiversity net gain can be achieved. To establish the best way to protect the habitats on site, a metric is used. To achieve biodiversity net gain, developers must show evidence that a development will increase the biodiversity value of a site. This statistic is presented in the value of a biodiversity net gain metric called 'biodiversity units'. The 10% net gain requirement in England became compulsory from the 12/02/2024 for larger developments and from the 02/04/2024 for small sites.

1.2 To accompany the planning application for the construction of a new building (pallet store) at DGM Growers, Holbeach Bank, Lincolnshire, a Biodiversity Net Gain (BNG) report has been prepared. The field survey was undertaken at the site by Senior Ecologist Naomi Parker of Philip Parker Associates Ltd on the 29/11/2024. The purpose of this report is to set out the parameters of the Biodiversity Net Gain Assessment.

1.3 The statutory biodiversity net gain metric was used to calculate the baseline and proposed habitats.

1.4 Table 1 below shows the change of all unit categories on site.

**Table 1 Summary table of net unit change on site**

| Category | Baseline units | Proposed Units | Change in units |
|---|---|---|---|
| Habitat | 0.34 | 0.75 | +120.65% |
| Hedgerow | 0.0 | 0.0 | N/A |
| Watercourse | 0.0 | 0.0 | N/A |

## 2.0 INTRODUCTION

2.1 DGM Growers to facilitate the construction of a new building (pallet store) at their operational site in Holbeach Bank, Lincolnshire, a Biodiversity Net Gain assessment will accompany the application to the local planning authority, South Holland District Council.

2.2 The following report includes the findings of the survey and has been prepared following guidance in the Biodiversity Net Gain Report and Audit Templates prepared by the Institute of Ecology and Environmental Management (CIEEM) (2021).

2.3 The BNG assessment will estimate the anticipated net gain provided by the development with the information available at the time of this report's production. The biodiversity net gain calculations can only provide an assumption for the future biodiversity change on site.

# 3.0 METHODOLOGY

## HABITAT BASELINE

3.1 A field survey was conducted on the 29/11/2024 by Senior Ecologist Naomi Parker to assess the baseline habitats and habitat conditions on site.

3.2 The habitats present within the red line boundary were recorded on site using the UK Habitat Classification. All habitats and their area of coverage were subsequently mapped using QGIS mapping software.

3.3 Calculations were undertaken using the Statutory Biodiversity Metric Calculation Tool. The habitat plan formulated with QGIS software was used to calculate the habitat baseline and to measure each component area.

## HABITAT SCORE

3.4 The following habitat scores and areas are used to calculate the units provided by each habitat area.

- **Distinctiveness**
  The distinctiveness is already assigned by the metric to each habitat and was calculated using national records of occurrence and rarity of each habitat.

- **Condition assessment**
  While on site, a condition assessment was undertaken on the habitats present to determine their quality. The condition sheets list indicators which need to be met before a habitat can reach the threshold for each habitat condition.

- **Strategic significance**
  The strategic significance of the site is determined by the site's connectivity and significance and gives additional value to habitats which are in preferred locations. The strategic significance uses local biodiversity plans and designations to identify priority habitats.

3.5 **Limitations**

Habitat areas (pre-development) have been measured using QGIS mapping which uses aerial positioning. The positioning is not always completely accurate but any differences in area will be small and will not significantly impact on the overall score.

# 4.0 BASELINE CONDITIONS

4.1 The habitats listed below were recorded within the application site and as such, have been included within the on-site baseline assessment. Their condition assessment is also featured in this section. See Drawing D1 for extent and location of habitat.

## ON-SITE HABITAT

### Bare ground – B1

4.2 The majority of the site is dominated by bare ground that originates from the regular movement of vehicles in and out of the area, facilitating the movement of pallets. Shallow pockets of water filled some of the tyre ruts due to wet weather prior to the survey being undertaken.



**Figure 1** – Bare ground positioned centrally on the site



**Figure** 2 – Tyre ruts in the area of bare ground

4.3 ***Condition score:*** The bare ground was in **poor** condition due to it meeting the following criteria as shown in Table 2.

**Table 2 Condition assessment for bare ground**

| Criteria for bare ground | | Criteria achieved (Y/N) |
|---|---|---|
| A | Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area. | N |
| B | The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year. | N |
| C | Invasive non-native plant species (listed on Schedule 9 of WCA1) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of the total vegetated area. | Y |

| Criteria for bare ground | | Criteria achieved (Y/N) |
|---|---|---|
| | **Note – to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).** | |

**Table 3 Condition assessment result**

| Score criteria | Score |
|---|---|
| Passes all 3 core criteria;<br>AND<br>Meets the requirements for Good condition within criterion C. | Good |
| Passes 2 of 3 core criteria;<br>OR<br>Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C. | Moderate |
| Passes 0 or 1 of 3 core criteria. | Poor |

4.4 ***Strategic significance:*** The bare ground did **not occur in a local strategy area and was deemed not to be in an ecological significant location** nor was it considered likely to support protected species.

**Modified grassland – G1**

4.5 Segments of the site comprised of modified grassland, which were located around the site boundary varying in width (between 6m – 13m).

4.6 Along outer edges of the application area (to the west, south an east), the grassland was predominantly undisturbed (except to store some items such as pallets and other materials) and evidently unmanaged, indicated by the longer vegetation sward height. To the north, the grassland was dominated by a shorter cropped sward.



**Figure 3** – Northern boundary grassland



**Figure 4** – Northern boundary grassland looking south-east across the application area



**Figure 5** – Southern boundary grassland supporting a long vegetation sward



**Figure 6** – Eastern boundary grassland area containing several pallets and other materials

4.7 ***Condition score:*** The modified grassland was in **poor** condition due to it meeting the following criteria as shown in Table 4.

**Table 4 Condition assessment for modified grassland**

| Criteria for modified grassland | | Criteria achieved (Y/N) |
|---|---|---|
| A | There are 6-8 vascular plant species per m2 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.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet. | N |
| 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 | Y |
| C | Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type. | Y |
| 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. | N |
| E | Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) | N |
| F | Cover of bracken *Pteridium aquilinum* is less than 20%. | Y |
| G | There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA4). | Y |

**Table 5 Condition assessment result**

| Score criteria | Score |
|---|---|
| Passes 6 or 7 criteria including passing essential criterion A | Good |
| Passes 4 or 5 criteria including passing essential criterion A | Moderate |
| Passes 3 or fewer criteria;<br>OR<br>Passes 4 - 6 criteria (excluding criterion A) | Poor |

4.8 ***Strategic significance:*** The modified grassland did **not occur in a local strategy area and was deemed not to be in an ecological significant location** nor was it considered likely to support protected species.

## BASELINE HABITATS ON-SITE

4.9 Table 6 below shows the baseline habitats.

**Table 6 The baseline habitat units on site**

| Habitat type | Description | Area (ha) | Distinctiveness | Habitat units | Area to be lost/enhanced or retained |
|---|---|---|---|---|---|
| **On-site** | | | | | |
| Grassland | Modified grassland | 0.08 | Low | 0.16 | All lost |
| Urban | Bare ground | 0.09 | Low | 0.18 | All lost |
| **Total** | | **0.17** | | **0.34** | |

# 5.0 PROPOSED BIODIVERSITY NET GAIN

5.1 The habitats and areas noted in section 5 below are based on the current development plan created by Peter Humphrey Associates; Proposed Building (Drawing ref: 7090-PL09, 2024) See Drawing D2 for the proposed location of habitat creation on site.

## ON SITE

## HABITAT CREATION

### Developed land, sealed surface

5.2 The majority of the site will be surfaced with hardstanding and used to construct a new building (pallet store).

5.3 ***Condition score:*** N/A

5.4 ***Strategic significance:*** The proposed developed land, sealed surface will be in a **location which is not ecologically desirable and not in a local strategy** due to the habitats unlikeliness to support any protected species.

5.5 ***Temporal modifier****:* The developed land, sealed surface will be created within one year of the development commencing therefore it will score a 0 in the metric.

### Other neutral grassland

5.6 The soil removed to facilitate the development will be used to create a bund approximately 135m long and 4m wide. This will be seeded with a neutral wildflower grassland seed mixture (placing the subsoil on top) to reduce the nutrients present. Further to this, a 4m wide margin, again seeded with a neutral wildflower seed mixture, will front the bund to the east and north (facing into the site).

5.7 ***Condition score:*** Moderate
Given the size of the grassland area, it is reasonable to assume that the highest condition that this habitat can reach are moderate condition. In order to achieve this, the following criteria should be met;

- Planted with a suitable seed mix to achieve the appearance and composition to match the neutral grassland habitat type (UKHAB definition)

- Any bare patches will be re-seeded
- Mowing will reduce the chance of bracken growing
- Managed to encourage a diverse sward
- Mowing will reduce the occurrence of non-native species appearing in grassland.

5.8 ***Strategic significance:*** The grassland will be in a **location which is not ecologically desirable and not in a local strategy** due to the habitats unlikeliness to support any protected species.

5.9 ***Temporal modifier****:* The other neutral grassland will be created within one year of the development commencing, therefore it will score a 0 in the metric.

**Urban trees**

5.10 Seven medium sized native trees will be planted within the grassland area (fronting the bund).

5.11 ***Condition score:*** Moderate

In order to achieve a moderate condition assessment, the following criteria should be met;

- Planting of native specimens
- Replacement of failed specimens
- Selective management (when and where necessary) – allow natural niches to develop

5.12 ***Strategic significance:*** The trees will be in a **location which is not ecologically desirable and not in a local strategy** due to the habitats unlikeliness to support any protected species.

5.13 ***Temporal modifier****:* The urban trees will be planted within one year of the development commencing therefore it will score a 0 in the metric.

**Table 7 Proposed areas of on-site habitat creation**

| Broad habitat | Proposed habitat | Area (ha) | Distinctiveness | Units gained |
|---|---|---|---|---|
| **On site** | | | | |
| Urban | Developed land, sealed surface | 0.11 | Very low | 0 |
| Grassland | Other neutral grassland | 0.06 | Medium | 0.40 |
| Individual trees | Urban tree | 0.114 | Medium | 0.35 |
| **Total** | | **0.17 (excluding trees)** | | **0.75** |

**Table 8 Net habitat area and unit change**

| Habitat Baseline | Area (ha) | Units | Proposed | Area (ha) | Units |
|---|---|---|---|---|---|
| **On site** | | | | | |
| Modified grassland | 0.08 | 0.16 | | | |
| Bare ground | 0.09 | 0.18 | | | |
| | | | Developed land, sealed surface | 0.11 | 0 |
| | | | Other neutral grassland | 0.06 | 0.40 |
| | | | Urban tree | 0.114 | 0.35 |
| **Total** | **0.17ha (excluding individual trees)** | **0.34 units** | **Total** | **0.17ha (excluding individual trees)** | **0.75 units** |

# 6.0 PROPOSED HABITAT DESIGN

6.1 This section includes mitigation and enhancement works which can occur on site but cannot be included within the metric and therefore do not gain any credit within the Biodiversity Net Gain Metric.

6.2 **Bat Roosting**

To provide bat roosting provision across the site, the following box should be installed onto the new building;

- One Greenwoods two crevice bat box to be mounted on the southern elevation just below the eaves. This should be positioned away from the influences of lighting.



**Figure 7 –** Greenwoods two crevice bat box

6.3 **Bird boxes**

To provide nesting provision across the site, the following bird box should be installed onto the new building;

- Four swift boxes mounted onto the eastern elevation.

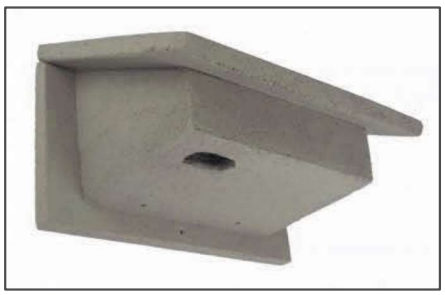


**Figure 8 –** Example swift box

# 7.0 CONCLUSION

7.1 The table below shows the baseline units, the proposed habitat creation units, and the percentage change of units;

**Table 9 Summary table of net unit change on site**

| Category | Baseline units | Proposed Units | Change in units |
|---|---|---|---|
| Habitat | 0.34 | 0.75 | +120.65% |
| Hedgerow | 0.0 | 0.0 | N/A |
| Watercourse | 0.0 | 0.0 | N/A |

7.2 This change in habitat units generates a positive net unit change in the habitat category. This will provide better quality habitat on site and encourage a greater range of species to use the area.

7.3 There are no hedgerows or watercourses present on site therefore no uplift is required.

7.4 The habitat type, condition and size as set out in this report must be achieved to reach 10% on the site. This will be secured with a habitat management and monitoring report, plus subsequent monitoring visits by ecologists.

7.5 This report is based on the site visit undertaken on the 29/11/2024. This report presents a true reflection of habitats present and wildlife usage on the site at the time of the survey and remains valid for a period of 12 months from the date of this report.

## 8.0 REFERENCES


- **Butcher,B., Carey, P., Edmonds, R., Norton, L., Treweek, J., 2020**. *UK habitat classification – Habitat Definitions V1.1*
- **CIEEM (2018).** Guidelines for ecological impact assessment in the UK and Ireland – Terrestrial, freshwater, coastal and marine.
- **CIEEM (2021).** Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK.
- **Gurnell, A., Shuker, L., (2022)**. The MORPH survey: Techinical reference manual 2022.
- **Natural England, (2023).** The Biodiversity Statutory Metric – Calculation too
- **Natural England, (2023b).** The Biodiversity Statutory Metric – Users guide

## DRAWING D1 BASELINE HABITAT PLAN




**Key**

- Red line boundary
- g4 - modified grassland
- u1c - artificial unvegetated unsealed surface

PHILIP PARKER ASSOCIATES LTD
WHITE ROW COTTAGE: 7 LEZIATE DROVE: POTT ROW NR KING'S LYNN: NORFOLK
PE32 1DB

TEL: 01553 630842
EMAIL: admin@philipparkerassociates.co.uk

CLIENT:

DGM GROWERS

PROJECT:

PROPOSED NEW BUILDING AT DGM GROWERS,HOLBEACH BANK LINCOLNSHIRE

DRAWING TITLE:

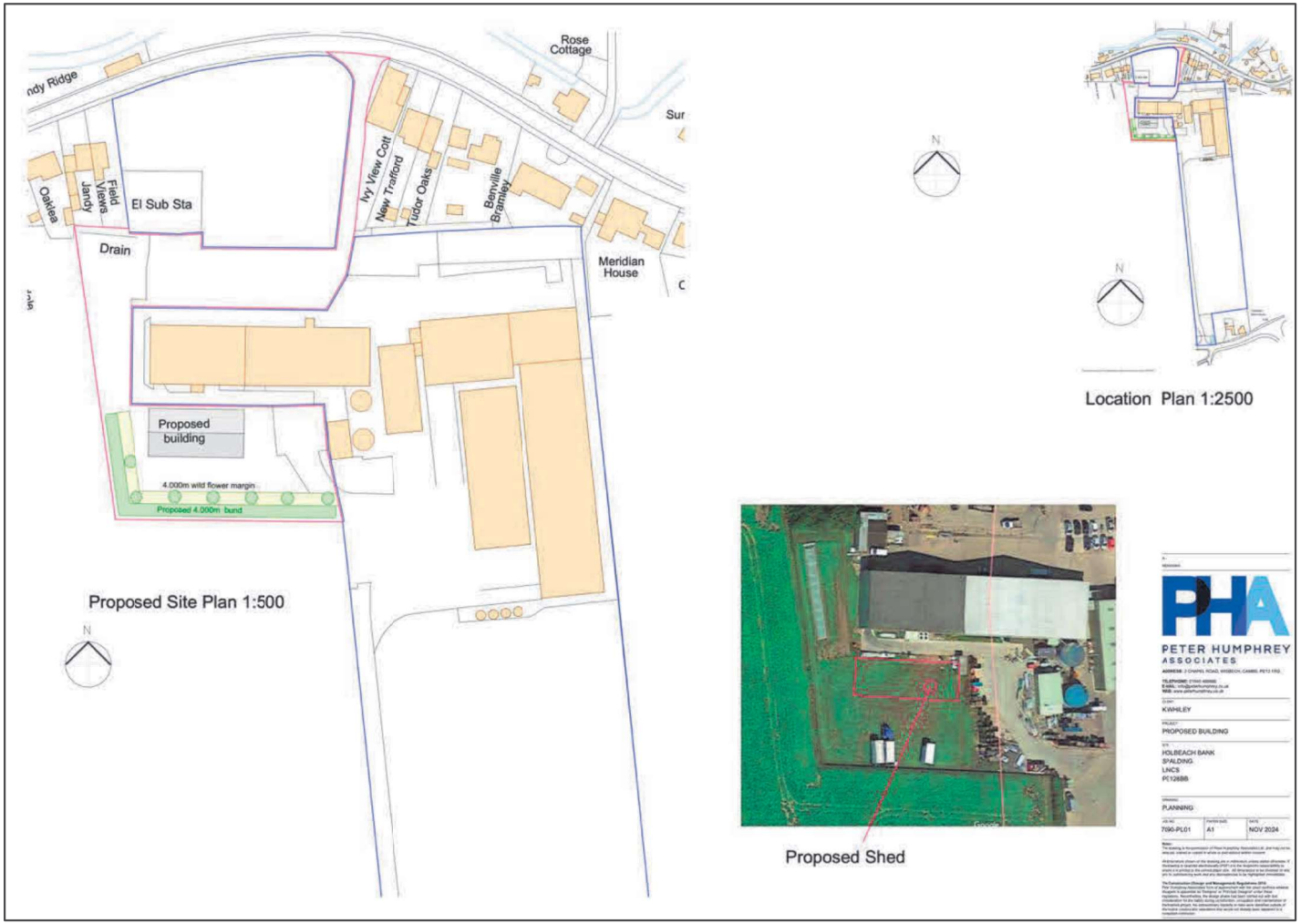
HABITAT BASELINE

DATE:

05/12/2024

Imagery @ 2024 CNES/ Airbus, Getmapping plc, Inforterra Ltd & Bluesky, Maxar Technologies, Map data @ 2024

## DRAWING D2 ON-SITE HABITAT CREATION



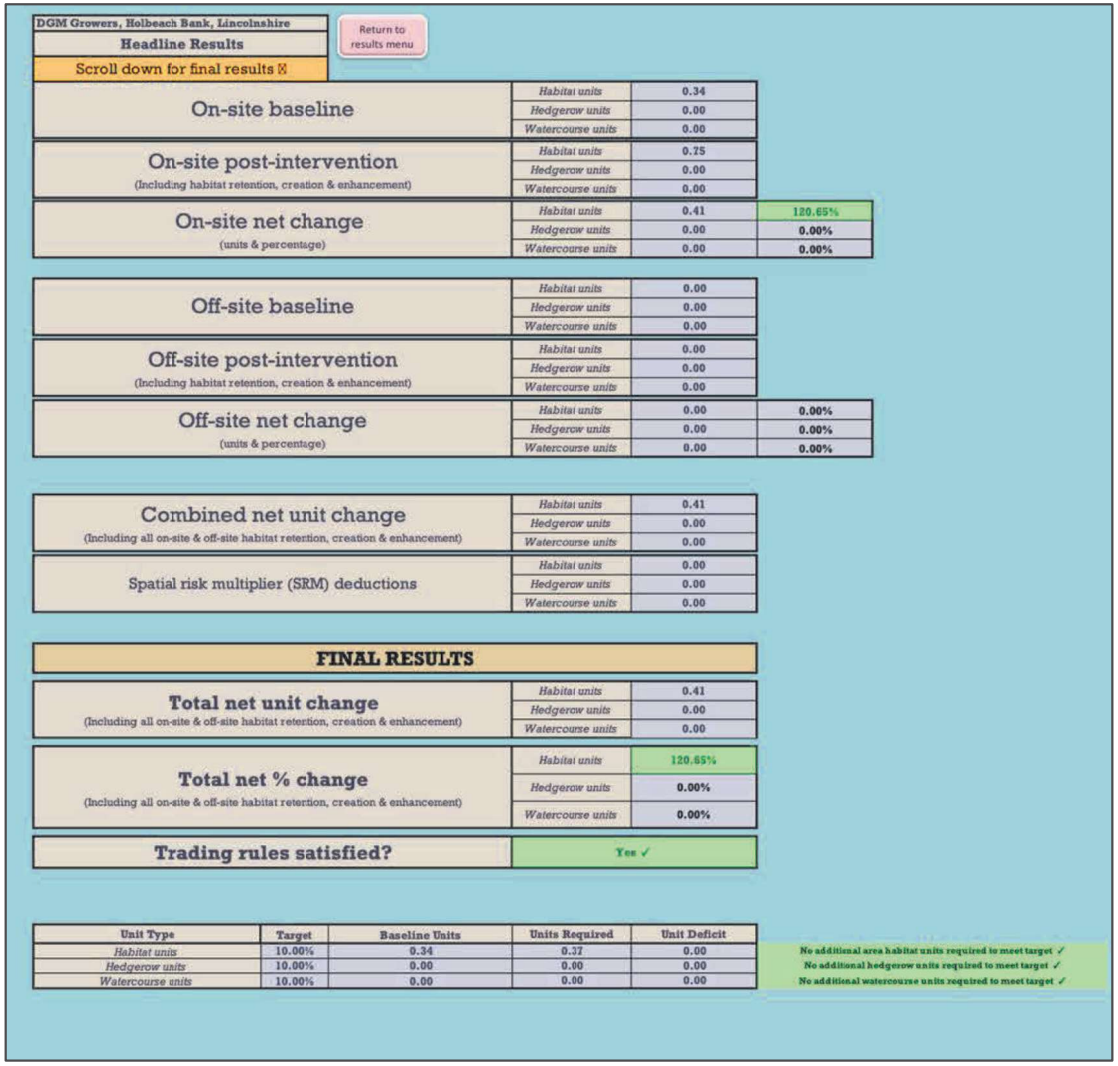

**Notes:**

Both the 4m margin and bind will be seeded with a suitable neutral wildflower mixture.

Seven native trees will be planted within the wildflower margin.

The remainder of the site will comprise of developed land; sealed surface and a building

# APPENDIX A CALCULATIONS – HEADLINE RESULTS



DGM Growers, Holbeach Bank, Lincolnshire

Headline Results

Scroll down for final results

Return to results menu

| | | | |
|---|---|---|---|
| On-site baseline | Habitat units | 0.34 | |
| | Hedgerow units | 0.00 | |
| | Watercourse units | 0.00 | |
| On-site post-intervention (Including habitat retention, creation & enhancement) | Habitat units | 0.75 | |
| | Hedgerow units | 0.00 | |
| | Watercourse units | 0.00 | |
| On-site net change (units & percentage) | Habitat units | 0.41 | 120.65% |
| | Hedgerow units | 0.00 | 0.00% |
| | Watercourse units | 0.00 | 0.00% |
| Off-site baseline | Habitat units | 0.00 | |
| | Hedgerow units | 0.00 | |
| | Watercourse units | 0.00 | |
| Off-site post-intervention (Including habitat retention, creation & enhancement) | Habitat units | 0.00 | |
| | Hedgerow units | 0.00 | |
| | Watercourse units | 0.00 | |
| Off-site net change (units & percentage) | Habitat units | 0.00 | 0.00% |
| | Hedgerow units | 0.00 | 0.00% |
| | Watercourse units | 0.00 | 0.00% |
| Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement) | Habitat units | 0.41 | |
| | Hedgerow units | 0.00 | |
| | Watercourse units | 0.00 | |
| Spatial risk multiplier (SRM) deductions | Habitat units | 0.00 | |
| | Hedgerow units | 0.00 | |
| | Watercourse units | 0.00 | |

**FINAL RESULTS**

| | | |
|---|---|---|
| Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement) | Habitat units | 0.41 |
| | Hedgerow units | 0.00 |
| | Watercourse units | 0.00 |
| Total net % change (Including all on-site & off-site habitat retention, creation & enhancement) | Habitat units | 120.65% |
| | Hedgerow units | 0.00% |
| | Watercourse units | 0.00% |
| Trading rules satisfied? | | Yes ✓ |

| Unit Type | Target | Baseline Units | Units Required | Unit Deficit | |
|---|---|---|---|---|---|
| Habitat units | 10.00% | 0.34 | 0.37 | 0.00 | No additional area habitat units required to meet target ✓ |
| Hedgerow units | 10.00% | 0.00 | 0.00 | 0.00 | No additional hedgerow units required to meet target ✓ |
| Watercourse units | 10.00% | 0.00 | 0.00 | 0.00 | No additional watercourse units required to meet target ✓ |

# APPENDIX B SPECIES LIST FOR EACH HABITAT GROUP

| Habitat | Species |
|---|---|
| Modified grassland | Broadleaf plantain *Plantago major*, common dandelion *Taraxacum officinale*, red clover *Trifolium pratense*, common ragwort *Jacobaea vulgaris*, doves foot cranesbill *Geranium molle*, common mallow *Malva sylvestris*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, ribwort plantain *Plantago lanceolata*, groundsel *Senecio vulgaris*, creeping thistle *Cirsium arvense*, mugwort Artemisia vulgaris, perennial ryegrass *Lolium perenne*, Yorkshire fog *Holcus lanatus*, cocksfoot *Dactylis glomerata*, creeping bent *Agrostis stolonifera*, spear thistle *Cirsium vulgare*, annual meadow-grass *Poa annua*, field speedwell *Veronica agrestis*, cleavers *Galium aparine*, bristly oxtongue *Helminthotheca echioides*, white clover *Trifolium repens*, bramble *Rubus fruticosus* and common daisy *Bellis perennis*. |

# APPENDIX C SURVEYOR/COMPANY EXPERIENCE AND QUALIFICATIONS

We, Philip Parker Associates, are ecological consultants suitability qualified with fifty years of combined experience in this sector. We have been undertaking habitat assessments under the new UK habitat classification since it was released in September 2022 (now using version 2) and have been completing and submitting biodiversity net gain assessments successfully since the release of the metric version 3.1 in April 2022.

In, particular, Naomi Parker has a BSc in Countryside Conservation and has been working at Philip Parker Associates for a number of years. During this time, she has undertaken and submitted numerous Preliminary Ecological Appraisals and Biodiversity Net Gain assessments varying in complexity (under metrics 3.1, 4 and statutory).

All surveyors have a university degree at BSc level or above in a relevant field of this sector. Our surveyors regularly train with a FISC level 4 Botanist Julia Masson, and any plants which cannot be identified are passed over to ensure that they are identified correctly.

Our surveyors have attended a number of conferences and virtual symposiums (many organised by CIEEM) to ensure that our knowledge of biodiversity net gain remains up to date.

Philip Parker Associates Ltd
White Row Cottage
Leziate Drove
Pott Row
King's Lynn
PE32 1DB

Tel : 01553 630842  Mob : 07850 275605
Email : admin@philipparkerassociates.co.uk