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Ecology. Mitigation. Enhancement.

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Biodiversity Net Gain Assessment Report

186 Bridge Road, Sutton Bridge

Report for:
LMP Holdings Group Ltd

Date: 25/10/2024

PEG558-08B

186 Bridge Road, Sutton Bridge



Document Control

Revision	Issue Status	Notes	Prepared By / Date	Reviewed By / Date
A	Draft 1	First Draft	Megan Gale / 18.10.2024	Oliver Amy / 25.10.2024
B	Draft 2	Final Issue	Megan Gale / 25.10.2024	

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1.0 Executive Summary

- 1.1 Pioneer Environment Group Ltd. was commissioned by LMP Holdings Group Ltd to undertake an initial Biodiversity Net Gain (BNG) assessment of a site at 186 Bridge Road, Sutton Bridge, Spalding, PE12 9SF (centred on grid reference TF 47381 21477).
- 1.2 This report details the methods, results and recommendations of the Biodiversity Net Gain assessment, the scope of which is:
 - To establish the total number of baseline habitat units and hedgerow units within the site.
 - To establish the total number of habitat units and hedgerow units which will be retained, created, or enhanced under the proposed landscape mitigation plan.
 - To determine whether the proposed development will result in a net loss, no net loss, or a net gain for biodiversity.
- 1.3 The BNG Assessment was undertaken using the DEFRA Statutory Biodiversity Metric (DEFRA, 2023) and following standard best practice guidance for biodiversity net gain.
- 1.4 The proposal for the site involves the development of three residential properties in the form of two houses and a block of flats with associated gardens and parking spaces.
- 1.5 No irreplaceable habitat or statutory designated sites will be impacted by the proposed development. Under current landscape plans, the proposed development will result in an overall net gain (+11.43%) in habitat units based on conditions.
- 1.6 No hedgerow or watercourse units are present on-site.
- 1.7 To supplement this report, the metric calculations have been supplied for the discretion of the Local Planning Authority.



2.0 Introduction

- 2.1 Pioneer Environment Group Ltd was instructed by LMP Holdings Group Ltd, to undertake an initial Biodiversity Net Gain (BNG) assessment of a site on 186 Bridge Road, Sutton Bridge, Spalding, PE12 9SF (centred on grid reference TF 47381 21477) (hereafter referred to as the 'Site').
- 2.2 The survey was undertaken to establish, as far as possible, how the proposed development will affect the Site's biodiversity, and calculations were carried out to ascertain how much biodiversity gain could be achieved following this development.
- 2.3 The following assessment is based on a Preliminary Ecological Appraisal completed by Pioneer Environment Group Ltd. in October 2024 (Report Number PEG538-01B). The purpose of this survey was to identify the habitats on-site and accurately map their extent. Biodiversity Net Gain calculations were guided by the BSI British Standard 'BS8683: Process for Designing and Implementing Biodiversity Net Gain' (The British Standards Institution, 2021) and all calculations were carried out using the DEFRA Statutory Biodiversity Metric (DEFRA, 2023) and the DEFRA Statutory Biodiversity Metric User Guide (DEFRA, 2024).

Site Description and Project Overview

- 2.4 The Site is situated on Bridge Road, located within Sutton Bridge , approximately 4.3km east of Long Sutton. The survey area covered an extent of approximately 0.09ha and consists of an existing commercial and residential property with associated garden.

Development Proposals

- 2.5 The development proposal includes the demolition of a pre-existing building and the subsequent creation on a new block of flats and two residential properties. Drawing 'A004 Block Plan' was used in the preparation of this report.



3.0 Methodology

Biodiversity Net Gain

- 3.1 A site visit was conducted by Laura Green and Megan Gale on behalf of Pioneer Environment Group Ltd., on the 17th September 2024, to advise on the habitats present and to be able to accurately create a baseline habitat plan (Figure 1) to inform calculations for the proposed habitat plan (Figure 2).
- 3.2 The assessment was carried out using BSI British Standard BS8683 and CIEEM's Good Practice Principles of BNG (Chartered Institute for Ecology and Environmental Management, 2016) and calculates the change in ecological value at a site by comparing the number of 'biodiversity units' within the site pre- and post-construction for both linear habitats and area habitats.
- 3.3 Existing biodiversity units (pre-development) are calculated by assessing the size or area, and the 'Distinctiveness' and 'Condition' of the habitat. Future biodiversity units (post-development) are calculated by assessing the retained, created, and enhanced habitat areas using similar metrics of 'Target Distinctiveness' and 'Target Condition'. Other Factors also considered include habitat connectivity, spatial importance, and temporal delivery risk.
- 3.4 The habitats on site were classified using the UK Habitat Classification System (UKHab Ltd, 2023) and the Statutory Biodiversity Metric Technical Supplement (DEFRA, 2023). The Habitats Condition Sheet, from within the technical supplement, was used to assess the condition of each habitat on site, where appropriate. The habitat areas are measured in hectares and linear habitats in kilometres.
- 3.5 Maps of the site were created for pre- and post-development in QGIS. To measure habitats, they were mapped on Site using QField, a mobile version of QGIS. Post-development plans were made by accessing CAD files and overlaying these onto the habitat maps to accurately assess the level of habitat loss resulting from the development.
- 3.6 This report is based on CIEEM's Biodiversity Net Gain Report and Audit Template (2021).

Assumptions and Limitations

- 3.7 It should be noted that whilst every effort has been made to describe the features on site as accurately as possible, this report reflects the habitat conditions noted at the time the ecology survey was undertaken. The UKHab survey was undertaken outside of the optimal survey season for plants.
- 3.8 The accuracy of habitat area measurements is limited to baseline data collection and quality of available mapping resources. In addition, post-development calculations were obtained by using illustrative designs and in the absence of detailed planting plans, reasonable assumptions have been made with regards to the type/condition of habitats.
- 3.9 Drawing 'A004 Block Plan' was used to inform the calculations. Should plans change, the calculations of Biodiversity Net Gain will no longer be accurate, and this report will require amendments.



4.0 Results

Baseline Results (Figure 1)

- 4.1 The site predominantly comprised approximately 0.03ha of 'Developed land; sealed surface' where the existing buildings stand.
- 4.2 There was approximately 0.03ha of 'Modified grassland, with approximately 0.001ha of 'Introduced shrub'.
- 4.3 Elsewhere, there was approximately 0.02ha 'Ruderal/Ephemeral' sparsely vegetated land.
- 4.4 The remaining 0.02ha consisted of 'Artificial unvegetated, unsealed surface' in the form of a gravel driveway.
- 4.5 There were no trees or hedgerows existing on this site.

Habitat Overview and Baseline Biodiversity Units

- 4.6 The habitats on-site ranged from 'V.Low' distinctiveness (e.g. 'Developed land; sealed surface') to 'Low' distinctiveness (e.g. 'Introduced shrub').
- 4.7 The baseline score for the site is 0.09 habitat units.

Table 1: Summary of Baseline Area Calculations

Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition
Sparsely Vegetated Land	Ruderal/Ephemeral	0.015	Low	Poor
Urban	Artificial unvegetated, unsealed surface	0.02	V.Low	N/A
Urban	Developed land; sealed surface	0.0308	V.Low	N/A
Urban	Introduced shrub	0.0014	Low	N/A
Grassland	Modified Grassland	0.0277	Low	Poor



5.0 Post-Development Habitats

Proposed development (Figure 2)

- 5.1 The proposed development involves the demolition of the existing buildings and removal of the existing habitats to facilitate the construction of three new residential properties with associated parking and gardens.

Retained and Enhanced Habitats

- 5.2 The proposal will retain 0.02ha of the existing 'Developed land, sealed surface' for the new development, as well as 0.0004ha of the 'Modified grassland'.
- 5.3 No further retention or enhancement of existing habitat is anticipated within the scope of development.

Habitat Creation Opportunities

- 5.4 Where the new properties and associated hardstanding are planned, 0.05ha of 'Developed Land; Sealed Surface' will be created.
- 5.5 0.02ha of 'Vegetated Garden' is also proposed.
- 5.6 Elsewhere, 0.003ha of 'Modified grassland' will also be created on site. These areas will be designated as areas for biodiversity and managed accordingly.
- 5.7 There will also be ten small-sized trees (Diameter at Breast Height (DBH) >7.5cm to ≤30cm) planted within the grounds of the site. Five of these will be planted outside of gardens and are therefore included in the BNG result for this site.

Table 2: Proposed trees

Tree helper						
Tree size	Number of trees and area (ha) for each condition state					
	Poor	Area	Moderate	Area	Good	Area
Small	5	0.0204		0.0000		0.0000
Medium		0.0000		0.0000		0.0000
Large		0.0000		0.0000		0.0000
Very large		0.0000		0.0000		0.0000
Total	5	0.0204	0	0.0000	0	0.0000

Summary of Habitat Change

- 5.8 A summary of the on-site change is presented in Table 3. Overall, the proposed scheme will create 0.01 habitat units.

Table 3: On-Site Change By Broad Habitat Type

Habitat group	Baseline		Post-development on-site		On-site change	
	On-site existing area (ha)	On-site existing value	On-site proposed area (ha)	On-site proposed value	On-site area change (ha)	On-site unit change



Grassland	0.03	0.06	#N/A	0.01	#N/A	-0.05
Urban	0.05	0.00	0.09	0.03	0.04	0.03
Sparsely vegetated land	0.02	0.03	0.00	0.00	-0.02	-0.03
Individual trees	0.00	0.00	0.02	0.06	0.02	0.06



6.0 Conclusion

- 6.1 No irreplaceable habitat or statutory designated sites will be impacted by the proposed development. Under current landscape plans, the proposed development would result in an overall net gain (+11.43%) in habitat units (Table 3).

Table 3: Headline Results

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)		<i>Habitat units</i>	0.01	
		<i>Hedgerow units</i>	0.00	
		<i>Watercourse units</i>	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)		<i>Habitat units</i>	11.43%	
		<i>Hedgerow units</i>	0.00%	
		<i>Watercourse units</i>	0.00%	
Trading rules satisfied?		Yes ✓		
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Habitat units</i>	10.00%	0.09	0.10	0.00
<i>Hedgerow units</i>	10.00%	0.00	0.00	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00

- 6.2 With the current development proposal, the site will deliver the required 10% net gain on-site.
- 6.3 This result is based on the condition that the areas designated as 'Modified grassland' are planted with a grassland seed mix and managed for this habitat type.
- 6.4 Additionally, it is important to recognise that the Site is located within Buglife's B-Lines network (Buglife, 2024), a national project aimed at establishing and restoring interconnected wildflower-rich habitats across the UK to form an 'insect superhighway'. This network is critical for supporting pollinators and other invertebrates by providing them with essential habitat corridors. Therefore, any proposed planting schemes within the development should be designed with the B-Lines objectives in mind, incorporating native wildflower species that are beneficial to insects, and ensuring habitat connectivity to adjacent wildlife-rich areas.



7.0 References

Buglife, 2024. B-Lines. [Online] Available at: <https://www.buglife.org.uk/our-work/b-lines/>

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DEFRA, 2023. *Statutory Biodiversity Metric*, s.l.: s.n.

DEFRA, 2023. *Statutory Biodiversity Metric Condition Assessments*, s.l.: s.n.

DEFRA, 2024. *Statutory Biodiversity Metric User Guide*, s.l.: s.n.

The British Standards Institution, 2021. *BS8683: Process for designing and implementing biodiversity net gain - Specification*, s.l.: s.n.

UKHab Ltd, 2023. *UK Habitat Classification Field Key*, s.l.: s.n.



**Appendix A: Supplementary Material – Statutory Biodiversity Metric
(Read only Excel Version)**

**Appendix B: Supplementary Material – Statutory Biodiversity Metric
Condition Assessments (Read only Excel Version)**





Key

Red Line Boundary

HABITATS

Artificial unvegetated, unsealed surface

Developed land; sealed surface

Introduced shrub

Modified grassland

Ruderal/Ephemeral

0 4 8 12 16 m

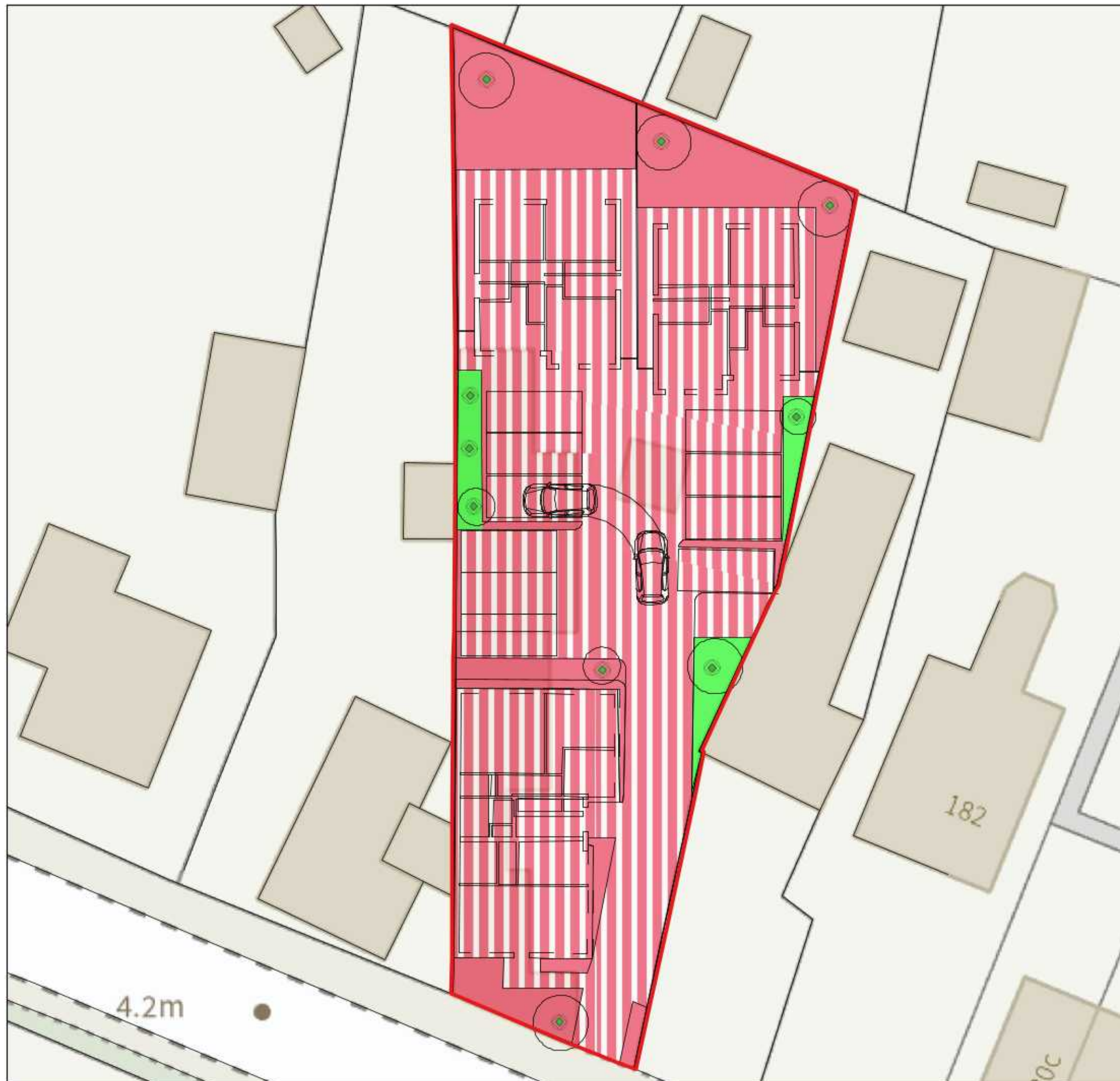
Project Name: **186 Bridge Road, Sutton Bridge**

Client: **LMP Holdings Group Ltd**

Figure No: **Figure 1**

Date: 18/10/2024 Title: Biodiversity Net Gain Baseline

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Key

Red Line Boundary

HABITATS

Developed land; sealed surface

Modified grassland

Vegetated garden

INDIVIDUAL TREES

Proposed Small Urban Tree

0 4 8 12 16 m



Project Name: **Bridge Road, Sutton Bridge**

Client: **LMP Holdings Group Ltd**

Figure No: **Figure 2**

Date: 18/10/2024

Title: Biodiversity Net Gain Proposed Plan

