



LIZARD

Landscape Design and Ecology

BIODIVERSITY NET GAIN ASSESSMENT REPORT

CORNERSTONE, UNIVERSITY OF CHICHESTER, BOGNOR REGIS

University of Chichester

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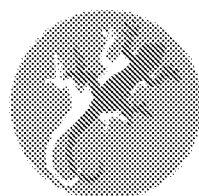
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SUMMARY

Lizard Landscape Design and Ecology has been commissioned by University of Chichester to undertake a Biodiversity Net Gain (BNG) Assessment & Report for development proposed at Cornerstone, University of Chichester, Bognor Regis (*Grid Reference: SZ 9442 9968— hereafter referred to as 'the site'*).

A habitat appraisal survey was undertaken on 15th March 2022. The habitat appraisal survey comprised a baseline survey conforming to the *UK Habitat Classification system* (Butcher *et al*, 2020) and the condition of habitats assessed in accordance with the *Biodiversity Metric 3.0 - Technical Supplement* (Panks *et al*, 2021), to identify and map existing habitats. Biodiversity Net Gain calculations contained in this report were undertaken in March 2022 (Lizard Landscape Design and Ecology, 2022) using the Defra Metric 3.0, to provide a quantitative analysis of biodiversity value of proposals in regard to policy within the Environment act 2021.

During the initial habitat assessment, the site largely consisted of modified grassland in poor condition.

On site, proposals are for the provision of student accommodation building with associated pedestrian pathways and boardwalks. Bike and bin store provision will also be included.

Metric calculations have identified that the existing value of Habitat units on site is 1.36. Proposals are to result in the delivery of 1.60 Habitat units, resulting in a biodiversity net gain of 17.29%. Therefore, proposals would meet National Planning Policy (Ministry of Housing, Communities & Local Government, 2021) and the Environment bill 2021.

1.0 INTRODUCTION

- 1.1 Landscape Design and Ecology has been commissioned by University of Chichester to undertake a Biodiversity Net Gain (BNG) Assessment & Report for development proposed at Cornerstone, University of Chichester, Bognor Regis (*Grid Reference: SZ 9442 9968— hereafter referred to as ‘the site’*).
- 1.2 A habitat appraisal survey was undertaken on 15th March 2022. The habitat appraisal survey comprised a baseline survey conforming to the *UK Habitat Classification system* (Butcher *et al*, 2020) and the condition of habitats assessed in accordance with the *Biodiversity Metric 3.0 - Technical Supplement* (Panks *et al*, 2021), to identify and map existing habitats. Biodiversity Net Gain calculations contained in this report were undertaken in March 2022 (Lizard Landscape Design and Ecology, 2022) using the Defra Metric 3.0, to provide a quantitative analysis of biodiversity value of proposals in regard to policy within the Environment act 2021.
- 1.3 The field survey data and Biodiversity Net Gain calculations and analysis contained in this report was undertaken and prepared by Joshua Harwood (*Assistant Ecologist; Lizard Landscape Design and Ecology*). The report has been reviewed by George Sayer (*MCIEEM, Senior Ecologist; Lizard Landscape Design and Ecology*).

Site Information

- 1.4 The site comprises c.0.68 hectares (ha) currently in use as 2 amenity fields. The site lies c.3.0 metres above sea level. Soils on site are described as *Loamy and clayey soils of coastal flats with naturally high groundwater*.

Surrounding Landscape

- 1.5 The surrounding landscape is urban with the university of Chichester, Bognor Regis campus located immediately south and west of the site. Land to the north consists of parking spaces with 2 large football fields located further north, beyond this northern landscape is area of woodland and arable fields. Land to the east is comprised of the town of Felpham.

Development Proposals

- 1.6 On site, proposals are for the provision of student accommodation building with associated pedestrian pathways and broadwalks. Bike and bin store provisions will also be included, the eastern parcel of land is to remain unchanged as a result.

2.0 METHODOLOGY

2.1 Site Visit

- 2.1.1 A habitat appraisal survey was undertaken on 15th March 2022 and the site subjected to an ecology survey using guidelines set out in the *UK Habitat Classification system* (Butcher *et al*, 2020) and the condition of habitats assessed in accordance with the *Biodiversity Metric 3.0 - Technical Supplement* (Panks *et al*, 2021), to identify and map existing habitats.

2.2 Biodiversity Net Gain Assessment

- 2.2.1 A Biodiversity Net Gain (BNG) assessment was conducted to calculate the proposed change in biodiversity units across the site resulting from proposals, to determine the extent to which development could benefit / detriment biodiversity interests. The calculation is based on the existing extent, distinctiveness and condition of habitats on site, compared with the extent, distinctiveness and condition of proposed habitats.
- 2.2.2 The BNG assessment uses the latest DEFRA 3.0 metric (Natural England, 2021) with current guidance methodology in accordance with the *Biodiversity Metric 3.0 - User Guide* (Panks *et al*, 2021). The extent of existing habitats is calculated using aerial imagery, whereas proposed habitats are calculated based on mapping provided by the *Landscape Masterplan Strategy* (Lizard Landscape Design and Ecology, 2022). The distinctiveness of habitats was assessed using the *UK Habitat Classification system* (Butcher *et al*, 2020) and the condition of habitats assessed in accordance with the *Biodiversity Metric 3.0 - Technical Supplement* (Panks *et al*, 2021).

2.3 Survey Constraints / Considerations

- 2.3.1 Due to the field survey consisting of only one site visit, certain species, particularly flowering plants, may not have been visible or may have been otherwise inconspicuous at the time of the survey and hence overlooked. However, it is considered that this does not significantly constrain the broad accurateness of the habitat and condition assessment.

- 2.3.2 Due to imprecisions associated with mapping the extent of existing and proposed habitats using aerial imagery and landscaping proposals based on desktop study, the Biodiversity Net Gain (BNG) assessment cannot conclusively ensure that the extent of habitats is exactly quantified, although due care and attention has been given to ensure that the accuracy of the assessment is not misleading and is appropriate for the scale of development proposed. The area of habitats was rounded to the nearest 100m² for ease of interpretation within the Biodiversity Net Gain assessment.
- 2.3.3 The Biodiversity Net Gain calculation does not take into account the provision of wildlife features, such as bat, bird and insect boxes, or log piles.

3.0 EXISTING HABITAT ASSESSMENT

3.2 Habitats

3.2.1 The habitats on site are considered to be of strategic importance due to the as the entire site lies within a local strategy area for wildlife (Brighton and Lewes Downs Biosphere Reserve. Habitats within the site include:

- *Grassland: Modified Grassland;*
- *Developed Land: Sealed Surfaces;*

Grassland: Modified Grassland

3.2.2 The sward of the grassland on site is managed short due as amenity space. Perennial rye grass *Lolium perenne*, was abundant throughout the grassland, with other species only appearing at irregular intervals and more focused to the exterior margins of the habitat. The area is large comprising the majority of the site (c 6,800. m²) and is of low distinctiveness. C. 3,600m² is to be retained throughout proposals, 1,100 m² to be enhanced whereas c. 2,100m² is scheduled to be removed in favour of the new buildings, access and parking. The modified grassland was found to be of poor condition. The habitat is of poor condition as it passed 3 of the 7 condition assessment criteria outlined in Table No. 02 below.

3.2.3 The Modified Grassland has previously been proposed to be wildflower grassland within previous planning applications. Although prior to the flowering season for the majority of wildflower species, no indicator species or evidence of wildflower grassland was present during the survey.

Table No. 01 – Condition Assessment of Modified Grassland

Condition Assessment Criteria		Pass / Fail
1	<i>There must be 6-8 species per m2. Note - if a grassland has 9 or more species per m2 it should be classified as a moderate distinctiveness grassland habitat type. NB - this criterion is non-negotiable for achieving good condition.</i>	Fail
2	<i>Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.</i>	Fail
3	<i>Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.</i>	Pass
4	<i>Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.</i>	Fail
5	<i>Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.</i>	Fail
6	<i>Cover of bracken less than 20%.</i>	Pass
7	<i>There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species¹ make up less than 5% of ground cover.</i>	Pass

Developed Land: Sealed Surfaces

- 3.2.3 The edges of the site and a stretch to the centre separating the two parcels of grassland is formed of Developed Land: Sealed surfaces in use as access road and some parking and pedestrian space. The area is c. 1,500m², with none scheduled to be removed during proposals. The habitat is of low distinctiveness and no condition is applicable to this habitat.

4.0 BIODIVERSITY NET GAIN ASSESSMENT

4.1 Overview / Considerations

- 4.1.1 On site proposals are for the provision of two accommodation buildings and cycle storage with associated hard and soft landscaping. This will result in the loss of a large area of modified grassland. The developments will provision neutral grassland, mixed scrub and developed land sealed surfaces, with retained areas of modified grassland to be enhanced as neutral grassland and retained for amenity grassland. As the site is larger than 0.5ha it was not possible to use the DEFRA *Small Sites Metric (JP040)*. Consequently, the *Biodiversity Metric 3.0* has been used and where the area of habitats is required in hectares, the area of habitats on site have been round to the nearest 100m², in line with guidance.

4.2 Baseline Inputs

A-1 Site Habitat Baseline

- 4.2.1 The existing habitat variables identified in section 3 of this report were inputted into the metric which calculated that the ecological baseline. Total Habitat Units on site were 1.36 habitat units of all of which which was attributed to the modified grassland.

4.3 Proposed Habitats

A-2 Site Habitat Creation

- 4.3.1 Proposals are to result in c. 1,600m² of 'Developed land; sealed surface' (comprising access, parking, cycling storage, bin storage and proposed buildings i). Proposals are also to result in the provision of c. 5 small size 'Urban trees' (these trees calculate an area below 100m² and as such haven't been included within the BNG calculation). The urban tree helper (Main Menu tab of the calculator) was used to calculate the total area of these trees. The condition of the 'Developed land; sealed surface' is not applicable. Areas of healthland and and scrub; Mixed scrub a habitat of medium distinctiveness is proposed to the site, this habitat is calculated at C 500m² and it's condition is assumed and proposed to be of poor condition due to the location planting and likely use and management from regular students, the area will not have a full age range of species and is too small to offer glades or rides as such poor condition is assumed most likely. Small

parcels of ornamental shrubs are also proposed, these have not been included within the BNG calculation with an area of c.35m². This will result in the delivery of 0.19 habitat units.

A-3 Site Habitat Enhancement

- 4.3.2 Although areas of existing grassland will be lost, 1,100m² will be retained and enhanced to 'moderate' condition 'Neutral grassland', a habitat of medium distinctiveness, which will be achieved through altering the existing sward and species complexion of the grassland. The grassland shall be overseeded with wildflower mix and the management regime altered. The grassland is targeted to achieve moderate condition and will achieve so targeting criteria, 1,2 & 5. Criteria 3 & 4 are considered to be difficult to achieve at this current stage with the regular usage from students in the general area anticipated and the potential for scrub to overgrow some areas onto the grassland. Good condition for a site so small and compact at this stage is considered to be unrealistic aim for the 30 year management. This enhancement will deliver 0.68 Habitat units.

Table No. 02 – Condition Assessment of Neutral Grassland

Condition Assessment Criteria	
1	<i>The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.</i>
2	<i>Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.</i>
3	<i>Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.</i>
4	<i>Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.</i>
5	<i>There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species¹ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.</i>

4.4 Biodiversity Net Gain Metric Results

- 4.4.1 Metric calculations have identified that the existing value of Habitat units on site is 1.36. Proposals are to result in the delivery of 1.60 Habitat units, resulting in a biodiversity net gain of 17.29%. Therefore, proposals would meet National Planning Policy (Ministry of Housing, Communities & Local Government, 2021) and the Environment bill 2021.

5.0 CONCLUSION

- 5.1 Biodiversity net gain assessment of the site has shown that, based on the existing habitats of poor condition modified grassland, the existing biodiversity value of the site is 1.36 Habitat Units. Proposals are for the provision of student accommodation building with associated pedestrian pathways and broad walks. Bike and bin store provisions will also be included which will result in the loss of modified grassland. Enhancement of the retained modified grassland and the creation of heathland and scrub; mixed scrub will result in an overall 1.60 habitat units This will result in an overall Biodiversity Net Gain of 17.29%. Therefore, it is demonstrated that proposals would meet national planning policy (Ministry of Housing, Communities & Local Government, 2021) and the environment Bill 2021.

6.0 REFERENCES

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