Queen Elizabeth II Pavilion, Fremington, Devon

Biodiversity Net Gain Assessment

A report on behalf of

Fremington Parish Council

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Site Details

Site name	Queen Elizabeth II Pavilion
Site location	Fremington, Devon
Central OS grid reference	SS 53143 31807
Client	Fremington Parish Council
Report title	Biodiversity Net Gain Assessment

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1 INTRODUCTION

This document has been produced by Chris Turner BSc MCIEEM of Lakeway Ecological Consultancy Ltd. It presents Biodiversity Net Gain Assessment for Queen Elizabeth II Pavilion, Fremington, Devon (central OS grid reference: SS 53143 31807). The works were commissioned by Fremington Parish Council.

This report provides a summary of the results of a Biodiversity calculation using the Defra Small Sites Metric published by Natural England in November 2023. The UK Habitats data was extracted from QGIS and the results of this and the condition assessments were then entered into the Metric Calculation Tool along with data on the proposed habitat creation. The spreadsheet that contains the calculation is provided alongside this summary report.

The area within the application boundary is hereafter referred to as the 'Site'.

1.1 Context

The Small Sites Metric (SSM) and the Statutory Biodiversity Metric are the standard methods in England for measuring biodiversity change from development in order to demonstrate that policy has been met. Furthermore, the metric is designed to quantify biodiversity to inform and improve planning, design and decision-making. It can support planning applications to calculate the losses and gains in biodiversity from development.

The SSM can only be used when both of these criteria are met:

1. The development is either;

    a. A residential development: where the number of dwellings to be provided is between one and nine inclusive on a site having an area of less than one hectare

    b. Where the number of dwellings to be provided is not known, there is a site area of less than 0.5 hectares

    c. For commercial development types where the site area is less than 1 hectare or 1000 square metres of commercial floorspace.

2. There is no priority habitat, within the development area. (excluding hedgerows and arable margins).

Proposals include the extension of the existing building to provide additional changing rooms. Plans are shown on the accompanying drawings issued by Woodward Smith Chartered Architects.

1.2 Aims and Objectives

This report aims to bring together the Ecological Impact Assessment (Lakeway Ecology, 2024a) and the Biodiversity Metric Calculations (Lakeway Ecology, 2024b), to provide a rationale for the approach decided upon and to demonstrate how a 10% Biodiversity Net Gain will be achieved on Site. This report is based on guidance provided by CIEEM[1] and is tailored to the predicted impacts from the development described above.

[1] CIEEM (2021). Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK.

1.3 Personnel

The habitat survey, site appraisal and reporting were carried out by Principal Ecologist Chris Turner BSc. Chris is an ecologist with 12 years commercial experience in quantitative field surveys and assessments and with expertise in habitats, although primarily a specialist in the mitigation of impacts to legally protected species. Chris is a Registered consultant on Natural England's earned recognition class licence scheme for bats and has acted as named ecologist on Mitigation Licences for bats and badgers since 2013. Chris is a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and is bound by their professional Code of Conduct.

This report has been peer reviewed by Senior Ecologist Ruth Testa MSc MCIEEM. Ruth has 16 years professional experience of ecology and wildlife conservation in both the voluntary and private sectors. She has extensive experience of carrying out quantitative and qualitative ecological surveys, and both writing and peer reviewing ecological reports. Ruth is registered to use a Level 1 class licence to survey for bats (2023-11531-CL17-BAT).

2 SITE DESCRIPTION

2.1 General

The Site comprises a brick building surrounded by hardstanding. A carpark lies to the east and Tews Lane Playing Field surrounds to the west and south. A hedgerow lies c.10m north of the building, connecting the Site to the semi-natural habitats a short distance to the west. The site lies on the western edge of Bickington, to the south-west of Barnstaple in North Devon. A location plan is provided as **Diagram 1** below. Photographs are included in the text.

Diagram 1: Site Location (© Bing Maps)

3 METHODS

3.1 Condition Assessment

The surveyor visited the site in September 2024 and recorded all identifiable plant species with an indication of their relative abundance following the DAFOR scale. The purpose of the survey was to complete a baseline habitat survey of the Site using the UK Habitats Classification system. The UKHab-

Professional system was used as reference with habitats assigned to either Level 3 or to Level 4 where applicable, the minimum mapping unit used was 25m^2 and all Secondary Codes were utilised where the relevant conditions pertained.

Using the open-source software QGIS, the habitats were then digitally mapped according to UK Habitats Classification to allow accurate quantification of area in hectares (ha) and for a baseline habitat map to be produced for this BNG summary report (**Figure 1**).

3.2 Biodiversity Net-Gain Calculation

The UK Habitats data was extracted from QGIS and the results of this were entered into the Small Sites Metric along with data on the proposed habitat creation. The spreadsheet that contains the calculation is provided alongside this summary report.

3.3 Information to Inform the Assessment

The calculation for post development habitat areas and created habitats has been informed by the soft landscaping scheme provided by the client. The habitat types within the landscaping scheme were re-classified during the calculation exercise with an explanation provided in the results section of this report. The Local Plan was consulted to determine if the site fell in any policy areas that could construe a level of Strategic Significance, a variable described within the metric.

3.4 Constraints

Care has been taken to ensure that balanced advice is provided on the information available and collected during the study periods, and within the resources available for the project. However, the possibility of important ecological features being missed due to survey timings, absence during surveys or the year of survey cannot be ruled out. In addition, the lack of evidence or records of protected species on Site does not preclude their presence from Site.

All areas of the Site were accessible to survey.

4 HABITAT BASELINE, CREATION & ENHANCEMENT

4.1 Baseline Habitat Descriptions

The grassland is species-poor, dominated by perennial rye grass *Lolium perenne* and annual meadow grass *Poa annua*, with white clover *Trifolium repens*, common daisy *Bellis perennis*, dandelion *Taraxacum* agg. And creeping buttercup *Ranunculus repens* present. The grassland across the majority of the area and wider playing field is of similar composition and is regularly mown to a height of 50mm.

Photograph 1	Photograph 2
	

4.2 Habitat Retention, Enhancement & Creation

4.2.1 Modified grassland

A strip of modified grassland to the north of the car park will be enhanced to other neutral grassland through the development. Plants will be allowed to grow throughout the summer months (**April to September**), and will set seed before being mown. Arisings will be removed and composted elsewhere.

4.2.2 Developed land, sealed surface

100m^2 of buildings and hardstanding will be created through the development.

4.2.3 Introduced Shrub

Planters will be provided to the south of the extended building, equating to 31m^2.

4.3 Habitat Loss

There will be a loss of 100m^2 of modified grassland in poor condition.

5 BNG CALCULATIONS

Table 2 summarises the results of the BNG calculations.

Table 2 – BNG Headline Results

	Units	Value	
On-site baseline	Habitat units	0.0860	
	Linear units	n/a	
	River units	n/a	
On-site post intervention	Habitat units	0.1033	
	Linear units	n/a	
	River units	n/a	% Change
On-site net change	Habitat units	0.0173	20.10
	Linear units	n/a	n/a
	River units	n/a	n/a

In order to deliver a 10% net-gain inside the redline boundary, the target was to provide 0.0946 units, up from a baseline of 0.0860. this value has been exceeded.

6 NEXT STEPS

Whilst the net gain calculations have demonstrated that a 20.10% BNG can be achieved for area habitats, the implementation and future management of these habitats is necessary to ensure that the strategy is effective in the long term.

The applicants will deliver the strategy as they will have ownership and management responsibility for the Site.

Owing to the relatively minor nature of the proposals, it is expected that there will be minimal delay to the creation of habitats and implementation of habitat condition improvements such that gains should be noticed in the first growing season after completion of works.

The plan and habitat condition should be monitored yearly by the applicants, and an adaptive approach will be taken to ensuring that the habitats develop as prescribed.

7 CONCLUSIONS

The existing habitats are of low ecological value currently, and the enhancements proposed have meant that it is possible to achieve 20.10% (area habitats) biodiversity net-gain within the redline boundary. This is in line with local and national policy.

8 REFERENCES

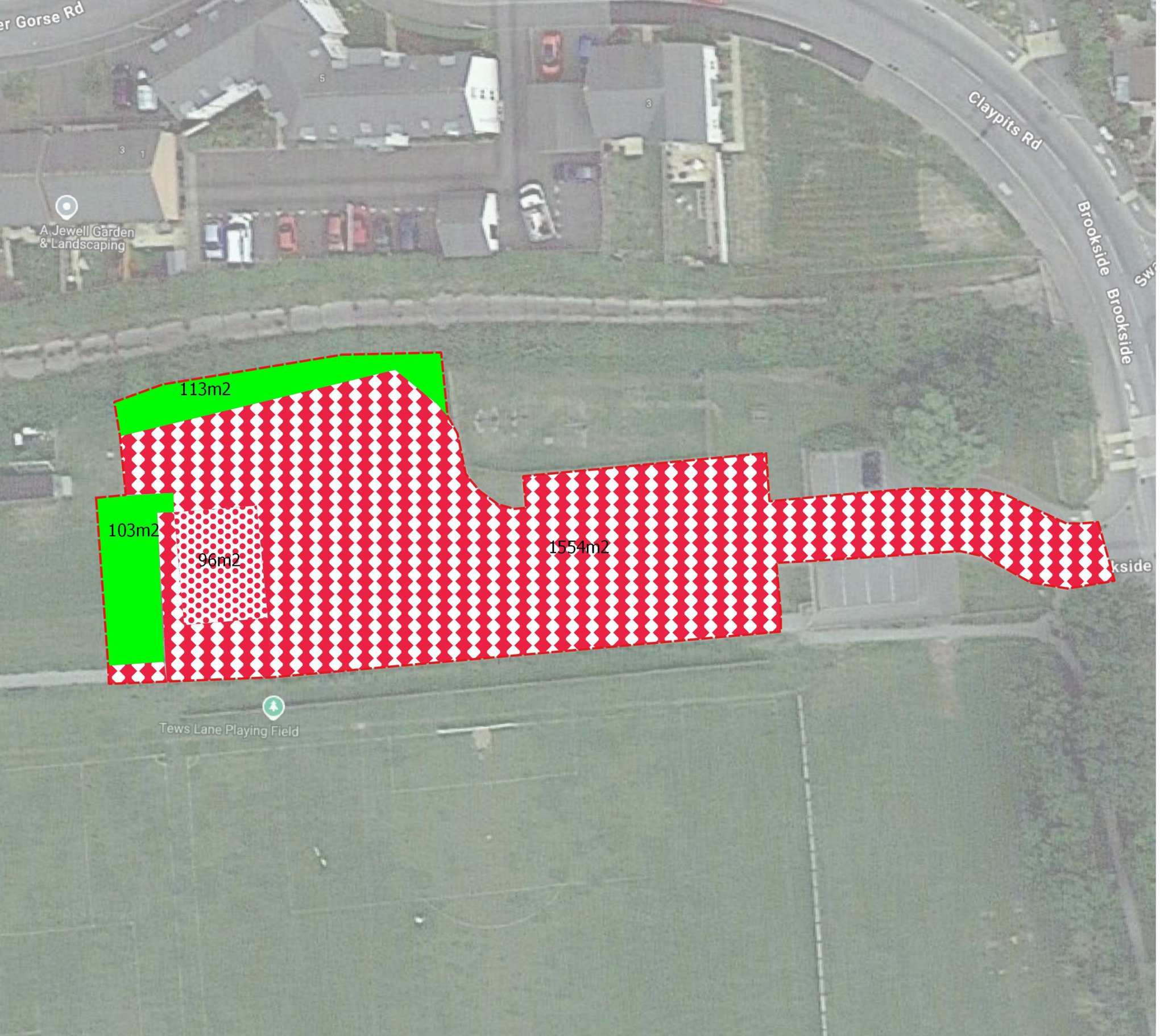
BSI (2013) BS42020: 2013 *Biodiversity. Code of practice for planning and development*. British Standards Institution, London, UK.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal* version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

DEFRA (2011) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*.

Lakeway Ecology (2024a) 24-774-EcIA-CT *Ecological Impact Assessment – Queen Elizabeth II Pavilion*

Lakeway Ecology (2024b) 24-774*The Small Sites Metric Calculation Tool – Queen Elizabeth II Pavilion*



Key

- Site Boundary
- g4 - modified grassland
- u1b5 - buildings
- u1b6 - other developed land

N

0 6 12 18 24 m

Figure 1:

Baseline UK Habitats Classification Plan

Project:

Proposed Queen Elizabeth II Community Pavilion

Client:

Fremington Parish Council

Date: 15/09/2024

Drawn by: RT

Ref: 24-774-P1

Revision: -

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Key

- Site Boundary
- g3c - other neutral grassland
- u1 - built-up areas and gardens
- u1b5 - buildings
- u1b6 - other developed land

N

0 6 12 18 24 m

Figure 2:

Post Intervention UK Habitats Classification Plan

Project:

Proposed Queen Elizabeth II Community Pavilion

Client:

Fremington Parish Council

Date:
15/09/2024

Drawn by:
RT

Ref:
24-774-P2

Revision:
-

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Appendix 1 – Enhancement Prescriptions

Other Neutral Grassland (Enhancement)

The grassland will be enhanced by changing management. Whilst initial management will be as for traditional hay meadow – late cut once seed has set with potentially a second cut in early spring. If species-richness has not increased, it may be necessary to oversow with a mixture such as https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/standard-general-purpose-meadow-mixture/ .

Seed should ideally be sown in autumn or spring, following harrowing/scarification, but can be sown during the summer as long as it is regularly watered. Broadcast the seed evenly and then firm into the soil by rolling or treading. In year 1 after establishment, aim to cut the growth regularly between September and March to allow the meadow plants to establish and to remove annual weeds, all arisings must be removed. After this period, the meadow should be managed with two cuts per year, one in early spring (Feb/March) and one in late summer once seed has set. All arisings will be removed and composted off site, to prevent nutrient enrichment of the meadow.

Appendix 2 – Habitat condition targets

Other neutral grassland

By year 10, there should be;

- At least 10 or more plant species per m^2, including flowering plants (not grasses) typical of this habitat type (see below), which should be comprise at least 20% of the vegetation.
- Sward height should be varied with at least 20% over 7cm and 20% under 7cm.
- Scrub (including bramble) should be present across no more than 5% of the grassland.
- Physical damage (poaching, machinery damage / storage) should be across no more than 5% of the area.
- Cover of bare ground should be between 1% and 5%.
- Bracken should cover less than 20% of the area.

Species typical of this grassland include grasses such as; common bent, false oat-grass, Yorkshire fog, crested dog's tail, rough meadowgrass and cock's-foot. Flowering plants include yarrow, ribwort plantain, white clover, red clover, meadow buttercup, creeping buttercup and common daisy.

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