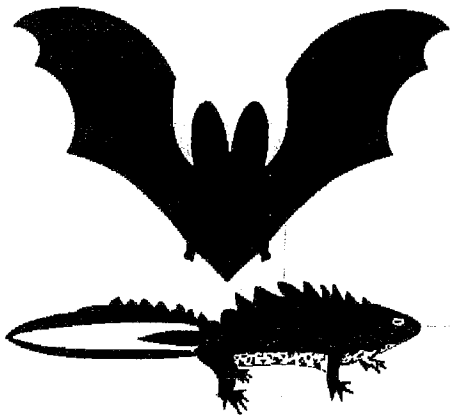




AEWC Ltd

Animal Ecology & Wildlife Consultants

Biodiversity Net Gain Assessment

Land to Rear of 1 Sea Drive

**Ferring
Worthing
West Sussex
BN12 5HD**

Natalie Arscott

**24-115
November 2024**

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Contents

Summary	2
1. Introduction.....	3
2. Background	3
3. Method and Constraints	5
4. Habitat data	6
5. Results	10
6. Conclusions & Recommendations.....	10
7. Wildlife Enhancements	11
References	13

FIGURE 1: SHOWING THE SITE LOCATION	3
FIGURE 2: AERIAL VIEW OF THE SITE SHOWING THE BOUNDARY	4
FIGURE 3: PROPOSED WORKS	4
FIGURE 4: SITE CONDITION IN APRIL 2020	8
FIGURE 5: EXISTING ON-SITE HABITATS	9
FIGURE 6: POST-DEVELOPMENT ON-SITE HABITATS	9

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Summary

- AEWCLtd were commissioned by Saqib Butt to undertake habitat mapping and a Biodiversity Net Gain Assessment at Land to Rear of 1 Sea Drive, Ferring, Worthing, West Sussex, BN12 5HD at grid reference TQ 09980 01649 to help inform the proposed development of the site.
- Due to recent clearance work, the baseline habitats were assessed using a combination of information from the habitat survey of the site, carried out on the 10th October 2024, and Google Earth satellite imagery from 2020.
- The estimated existing and post-development biodiversity value of the habitats on the site is calculated using the Defra Statutory Biodiversity Metric Calculation Tool.
- The proposed development consists of the construction of a single new dwelling with associated parking and private garden space. This involves the loss of the existing vegetated garden and ornamental hedgerow on-site and their replacement with an increased area of developed land; sealed surface surrounded by vegetated garden.
- New tree and shrub planting are proposed at the site boundaries, however, in line with guidance these have not been included as separate habitats since the entire site comprises a private garden and the long-term management of these features cannot be secured. The entire vegetated area has instead been recorded as vegetated garden.
- **The headline results indicate that there is an estimated negative BNG (i.e. loss) of 53.25% for habitat units.**
- **The hedge-line results show an estimated decrease of 0.04 hedgerow units which corresponds to a 100% net loss.**
- **There is currently a deficit of 0.05 habitat units and 0.04 hedgerow units to reach a 10% gain. If an acceptable gain is not possible to achieve on-site, off-site unit credits may be purchased to offset the losses with agreement from the local planning authority.**

This report has been prepared by AEWCLtd, with all reasonable skill, care and diligence within the terms of the Contract with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

The information and data which has been prepared and provided is true and has been prepared and provided in accordance with the 'Guidelines for Preliminary Ecological Appraisal' and 'Code of Professional Conduct' issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). We confirm that the opinions expressed are our true and professional bona fide opinions.

1. Introduction

- 1.1 AEWCLtd were commissioned by Saqib Butt to undertake habitat mapping and a Biodiversity Net Gain Assessment at Land to Rear of 1 Sea Drive, Ferring, Worthing, West Sussex, BN12 5HD to help inform the proposed development of the site.
- 1.2 The purpose of this report is to give an estimate of the BNG units that may be achieved under the current development proposals, where a BNG of +10% is not achieved suggestions for additional ecological enhancement are provided.

2. Background

- 2.1 The proposed development site is located at Land to Rear of 1 Sea Drive, Ferring, Worthing, West Sussex, BN12 5HD at central grid reference TQ 09980 01649. The site is located in a semi-urban area in Ferring, 2km to the south of the A259 and 150m to the north of the coastline. The surrounding landscape comprises predominantly residential development, arable fields, and the sea and coastline to the south. See Figure 1.

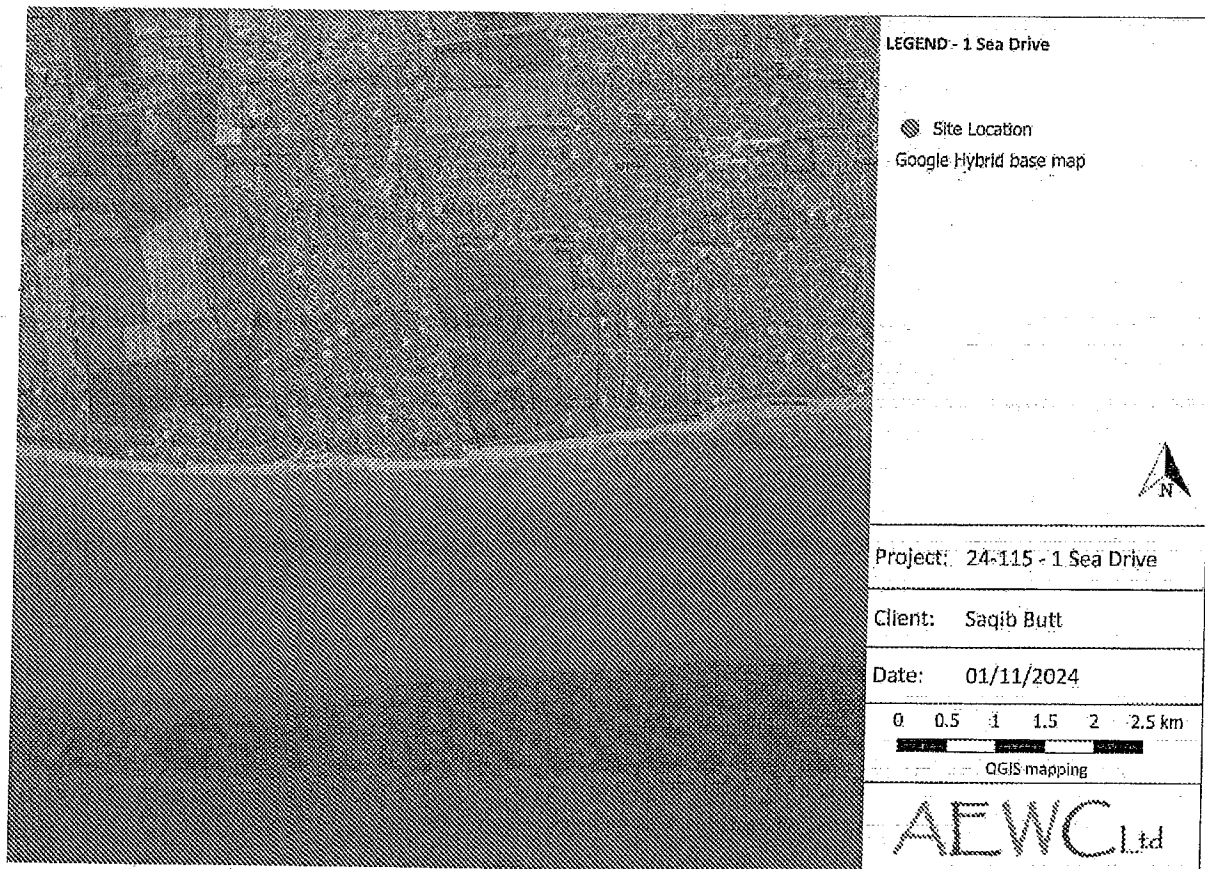


FIGURE 1: SHOWING THE SITE LOCATION

- 2.2 The proposed development site is approximately 0.041ha and comprises the northern half of the rear garden of 1 Sea Drive. There has been some recent vegetation clearance and surfacing work within the site, associated with the construction of a new dwelling adjacent to the south, within the same ownership. See Figure 2.



FIGURE 2: AERIAL VIEW OF THE SITE SHOWING THE BOUNDARY

2.3 The proposed development consists of the construction of a single new dwelling with associated parking and private garden space. See Figure 3.

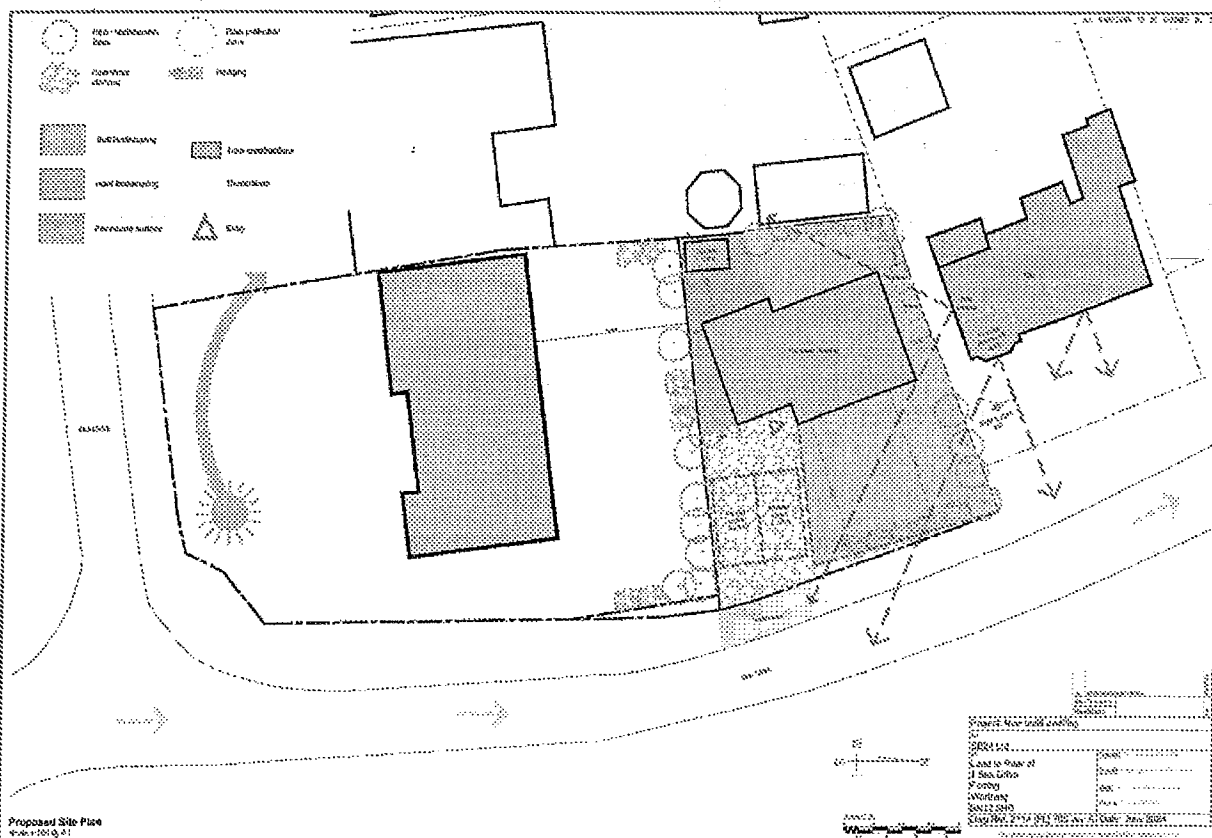


FIGURE 3: PROPOSED WORKS

3. Method and Constraints

UK Habs Habitat Survey

- 3.1 A daytime ecological walkover assessment was carried out on the 10th October 2024 by qualified ecologist Natalie Arscott, to record, map, and condition assess the habitats present.
- 3.2 The survey involved a UK Habitat Classification System Survey which was carried out based on the standard methodology produced by UKHab Ltd (2023). This involves habitat mapping using a set of standard colour codes to indicate habitat types on a UK Habitat Classification Map.
- 3.3 Habitat condition was assessed using the Statutory Biodiversity Metric – Technical Annex 1 Condition Assessment Sheets where applicable.

Biodiversity Net Gain Calculation

- 3.4 The estimated existing and post-development biodiversity value of the habitats on the site is calculated using the Defra Statutory Biodiversity Metric Calculation Tool.
- 3.5 The following assumptions have been made and therefore associated constraints should be considered when looking at BNG unit values obtained:
 - The potential for protected and notable species is not covered within the scope of this report;
 - Existing habitats on-site are taken from a combination of those identified within the survey undertaken in October 2024 and from aerial satellite imagery between January 2020 and now, provided by Google Earth;
 - Post-development habitats have been inferred from those given with the Proposed Site Layout as shown in Figure 3;
 - All areas and lengths are approximate;
 - Areas in hectares and length in km are both given to four decimal places, therefore rounding errors and occasional adjustments to values, to ensure consistency of total areas in existing and post-development habitat size, are unavoidable;
 - Habitat quality has been estimated in some instances (i.e. for post-development habitats); and
 - Tree areas are calculated using the tree helper tool within the metric. Within amenity gardens only medium and large trees are included within mapping and calculations.
- 3.6 Given the above constraints the values for BNG obtained should be considered to be an **estimate** only.
- 3.7 Calculations may need to be adjusted in future should the BNG metrics or requirements be revised.

4. Habitat data

- 4.1 The site comprises a portion of the amenity garden associated with 1 Sea Drive. Two small outbuildings are present, including a timber shed in the northwest corner with some surrounding hardstanding and a circular summerhouse near the centre of the site. These areas are classified as 'developed land; sealed surface'.
- 4.2 The western and northern site boundaries are lined by a garden privet (*Ligustrum ovalifolium*) hedge, with a second short length of garden privet hedge cutting into the site in the northeast corner. These are classified as 'non-native and ornamental hedgerow'.
- 4.3 At the time of the survey, some clearance of ground-level vegetation resulting in bare ground had already occurred, particularly within the southern half of the site. The southeast portion of the site had been resurfaced with gravel hardstanding. Grassland was still present in parts of the northern half of the site. This was a species-poor grassland with less than six species present per m², considered to meet the classification of 'modified grassland' in poor condition. Species making up the grassland were typical of high nutrient amenity lawn and included rough meadow-grass (*Poa trivialis*), creeping bent (*Agrostis stolonifera*), creeping buttercup (*Ranunculus repens*), dandelion (*Taraxacum* sp.), ribwort plantain (*Plantago lanceolata*), dock (*Rumex* sp.), and creeping cinquefoil (*Potentilla reptans*).
- 4.4 Ornamental shrubs, which meet the UKHab classification of 'introduced shrub', were also present at the eastern boundary. These included bay (*Laurus nobilis*), pampas grass (*Cortaderia selloana*) and oleaster (*Eleagnus* sp.). Photos 1 – 6 show the site condition during the 2024 survey.

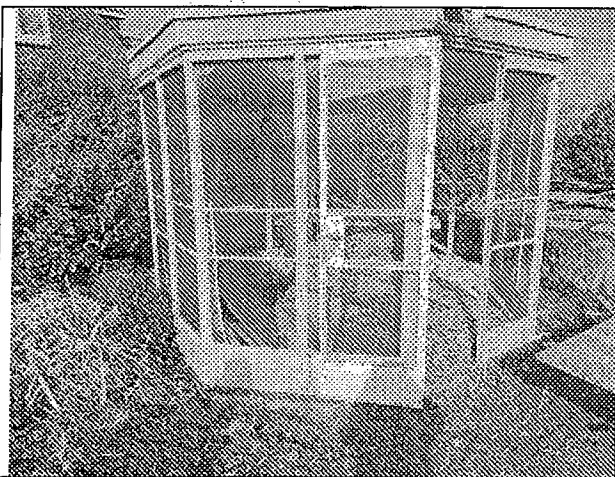


Photo 1: Round summerhouse.



Photo 2: Boundary garden privet hedge.

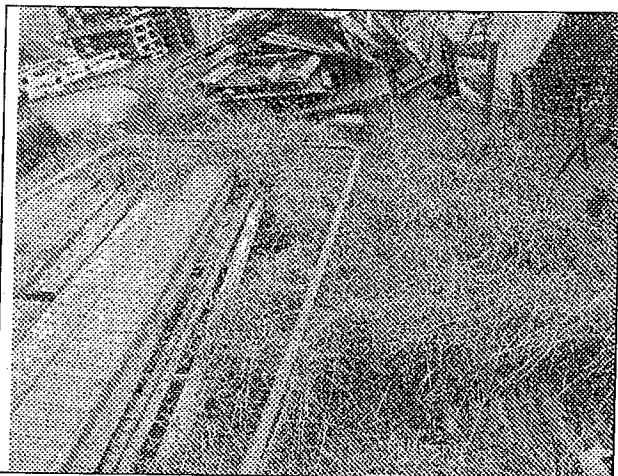


Photo 3: Retained grassland.



Photo 4: Introduced shrub.



Photo 5: Cleared ground in the south of the site.

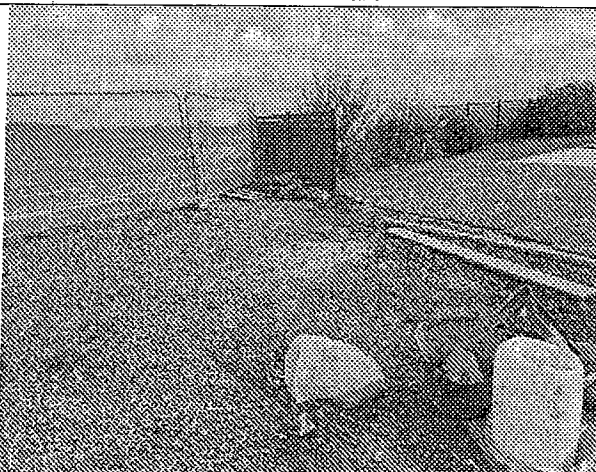


Photo 6: New gravel surfacing in the southeast of the site.

- 4.5 Due to recent clearance having taken place, historic Google Earth satellite imagery was also used to assess the site's condition prior to the recent works. This shows the site to have been mostly grass lawn with some introduced shrubs. The two outbuildings and ornamental hedgerows have remained unchanged. See Figure 4.



FIGURE 4: SITE CONDITION IN APRIL 2020

- 4.6 Based on the combined findings of both the site survey and assessment of historic satellite imagery, it was considered that the site should be mapped as 'vegetated garden' except for the two outbuilding areas which are 'developed land; sealed surface'. This best represents the historic condition of the site, prior to recent clearance, as species-poor grass lawn with ornamental shrub planting. The ornamental hedgerow at the site boundaries is also shown.
- 4.7 The site comprises only habitat and hedgerow types which are allocated a fixed condition score in the biodiversity metric and therefore do not require a separate condition assessment to be completed.
- 4.8 The existing and post-development habitats used for this assessment are illustrated in Figures 5 and 6 respectively.

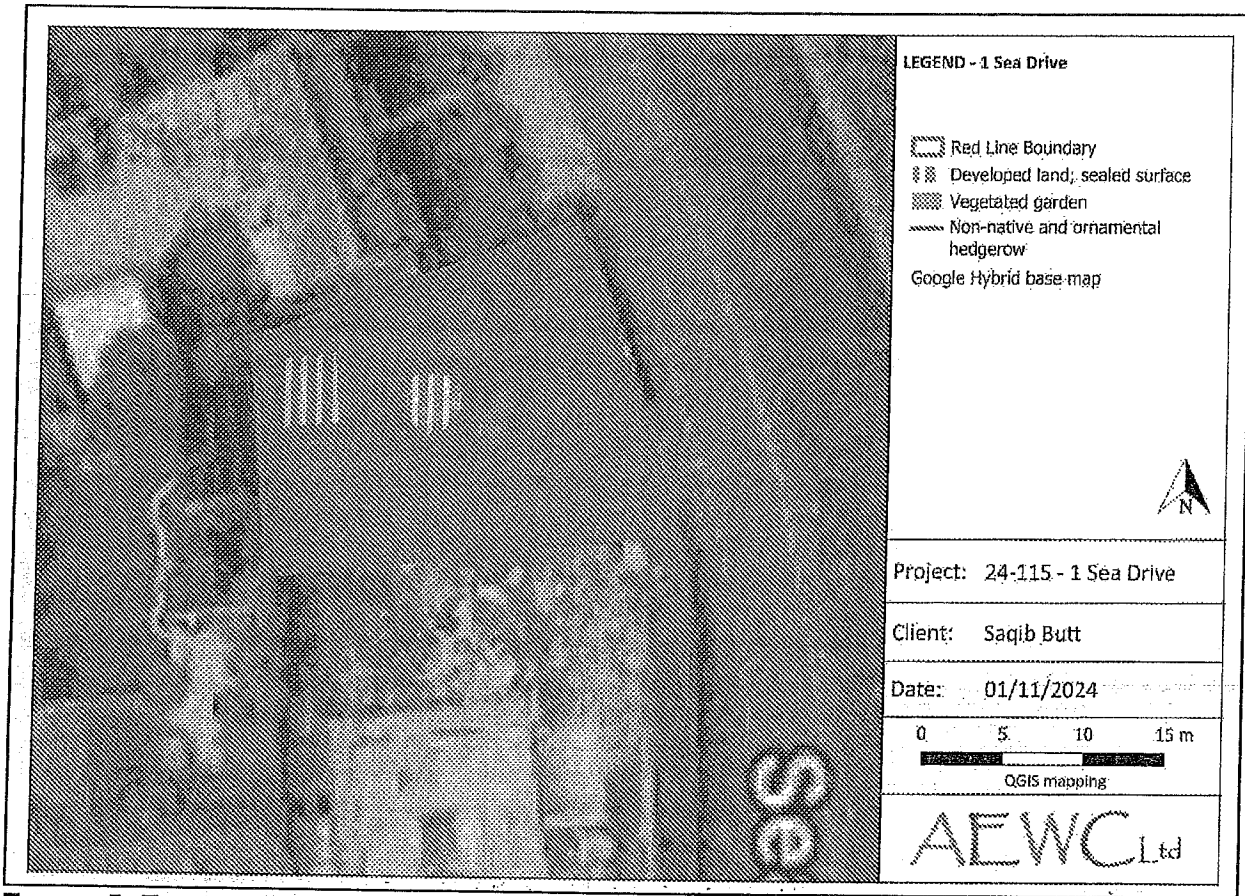


FIGURE 5: EXISTING ON-SITE HABITATS

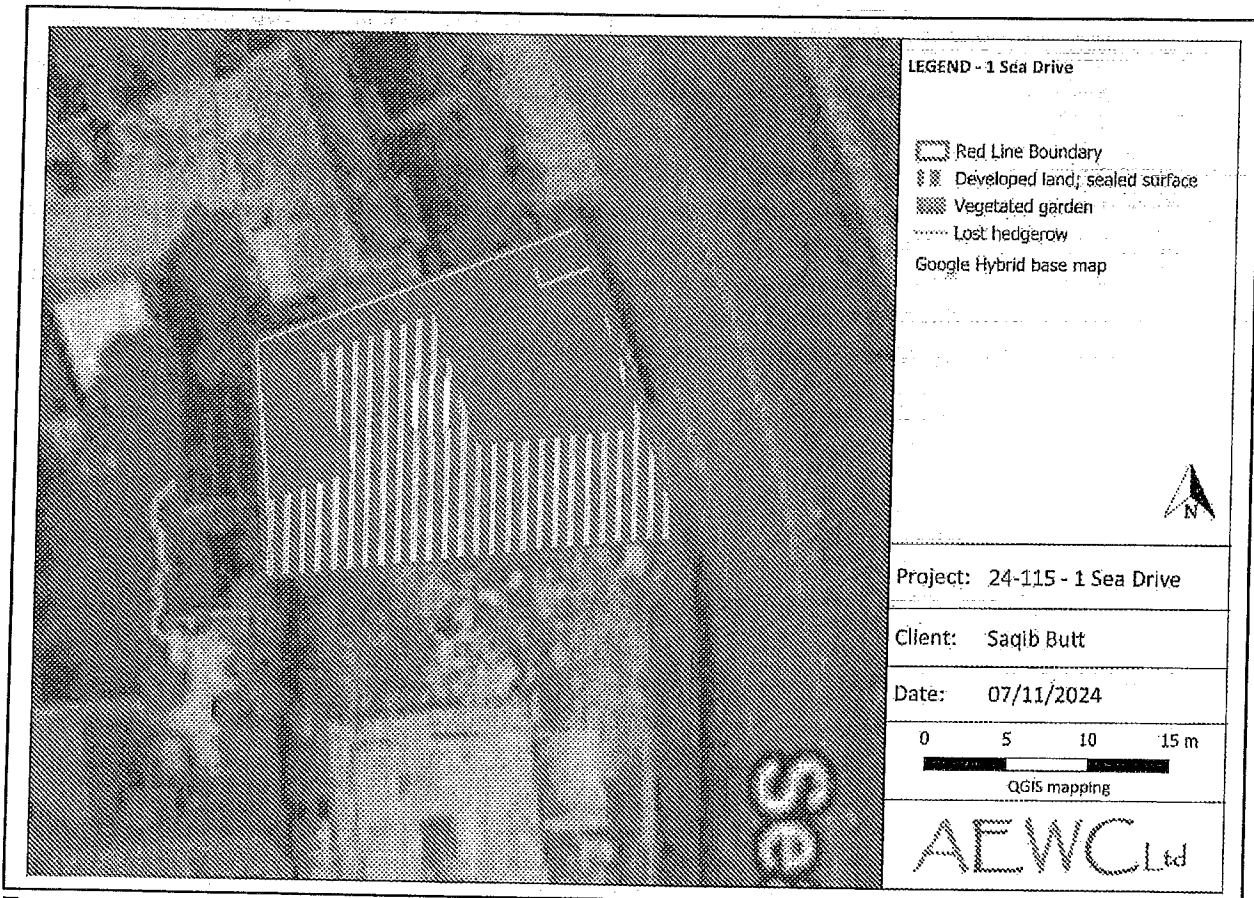


FIGURE 6: POST-DEVELOPMENT ON-SITE HABITATS

5. Results

5.1 The headline results using the above habitats and calculations are given below (refer to the metric for full details).

Table 1: Headline estimated BNG values

FINAL RESULTS		
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	-0.04
	<i>Hedgerow units</i>	-0.04
	<i>Watercourse units</i>	0.00
Total net % change (including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	-53.25%
	<i>Hedgerow units</i>	-100.00%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

6. Conclusions & Recommendations

- 6.1 The development includes the loss of the existing vegetated garden and ornamental hedgerow on-site and their replacement with an increased area of developed land; sealed surface surrounded by vegetated garden.
- 6.2 New tree and shrub planting are proposed at the site boundaries, however, in line with guidance these have not been included as separate habitats, since the entire site comprises a private garden and the long-term management of these features cannot be secured. The entire vegetated area has instead been recorded as vegetated garden.
- 6.3 Due to the reduction in area of vegetated garden and loss of the existing hedgerow with no habitat enhancements able to be recorded within the garden, BNG targets have not been met.
- 6.4 **The headline results indicate that there is an estimated negative BNG (i.e. loss) of 53.25% for habitat units.**
- 6.5 **The hedge-line results show an estimated decrease of 0.04 hedgerow units which corresponds to a 100% net loss.**
- 6.6 Trading rules have not been satisfied.
- 6.7 The BNG value achievable on the site can be increased by reducing the built footprint and / or increasing the area or quality of the habitats post-development. Some examples include:
- Including green roofs
 - Including green walls or vertical planting
 - Replacing areas of hard standing with planted surface

- 6.8 In England BNG is becoming mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). This came into force in February 2024 for major developments and April 2024 for minor developments. Under the legislation developers must deliver a biodiversity net gain of 10%.
- 6.9 There is currently a deficit of 0.05 habitat units and 0.04 hedgerow units to reach a 10% gain. See Table 2. If an acceptable gain is not possible to achieve on-site, off-site unit credits may be purchased to offset the losses with agreement from the local planning authority.

Table 2: Headline unit results

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	0.08	0.08	0.05
Hedgerow units	10.00%	0.04	0.04	0.04
Watercourse units	10.00%	0.00	0.00	0.00

- 6.10 It is understood that the preference is to reach 10% gain through purchasing off-site units or statutory credits. If statutory credits are purchased, 0.1 credits from Tier A1 and 0.09 credits from Tier H would be required to achieve 10% gain. See Table 3.

Table 3: Unit shortfall with credit and spatial risk multipliers applied

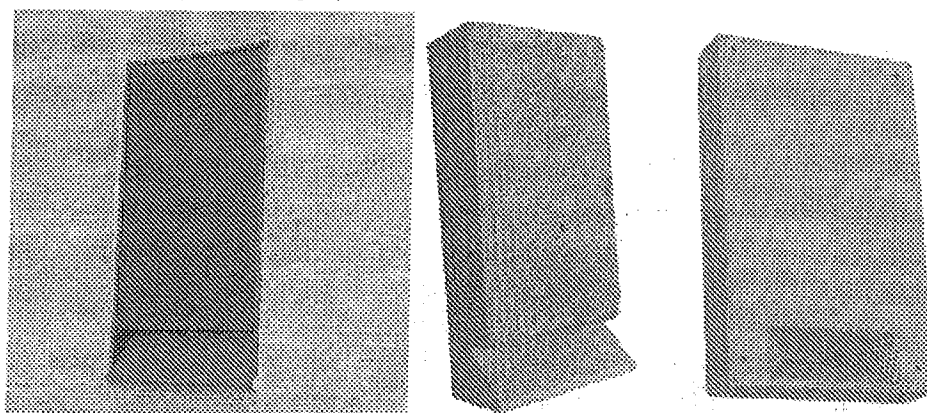
Unit Shortfall by Tier/Module		
Tier	Unit Shortfall	
A1	0.10	▲
A2	0.00	
A3	0.00	
A4	0.00	
A5	0.00	
H	0.09	▲
W	0.00	

7. Wildlife Enhancements

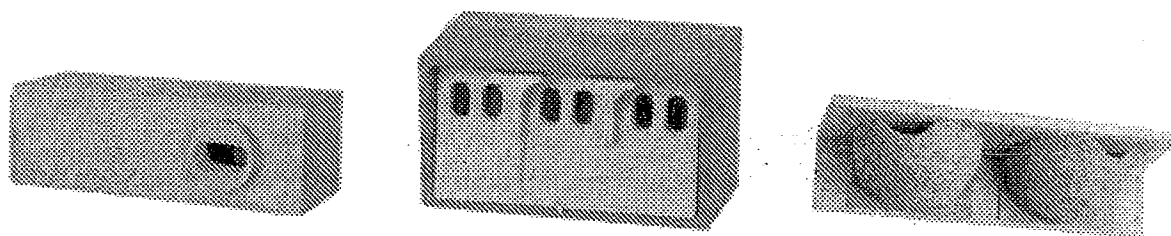
Bats and Birds

- 7.1 To enhance the site for bats and birds known to be present within the local area it is recommended that at least one bat box and one bird box be installed within the site. As there are no suitable trees present on site, boxes should be integrated into the new building.
- 7.2 Ideally bat boxes would be woodcrete or similar hard-wearing material (rather than the less durable wooden boxes) and should be installed at least 3m above the ground (where safe installation is possible), sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west facing).

- 7.3 Example integrated bat boxes are shown below: Integrate Eco Bat Box (below left), Habibat Bat box - Plain for rendering (below centre) and a Schwegler 1WI Summer and Winter bat box (below right) or similar bat boxes.



- 7.4 Integrated bird boxes should comprise of swift bricks which are suitable for a range of species (below left), these should be installed at a minimum of 4m above the ground, north or east facing and with open flight access, or sparrow terraces (below centre) which should be installed in line with vegetation such as trees or hedge lines to allow the birds the use of jumping off points and be installed a minimum of 3m above the ground on a north or east elevation. Where suitable overhanging eaves are present house martin cups (below right) may also be suitable.



References

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