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## Biodiversity Net Gain Assessment

### Site Address:

Val Wyatt, Willow Marina, Willow Lane, Wargrave, Berkshire RG10 8LH

### Client:

Val Wyatt

### Assessment Date:

10<sup>th</sup> October 2025

### Project:

This report is prepared to inform a planning application with the Wokingham Borough Council. The proposal is described as:

*The construction of three new jetties supported by sheet piling.*

BNG assessment methodology and legislation can be found in the Arbtech Supplement: **BNG Methodology and Legislation – 2025.**

The results and recommendations contained within this report are valid for 18 months. An updated site visit and BNG assessment may be required if the report is to be used any longer than 18 months after completion.

| Version Control |       |                                       |            |
|-----------------|-------|---------------------------------------|------------|
| Status          | Issue | Name                                  | Date       |
| Final           | 1.0   | Kat Aburrow BSc, Consultant Ecologist | 16/10/2025 |

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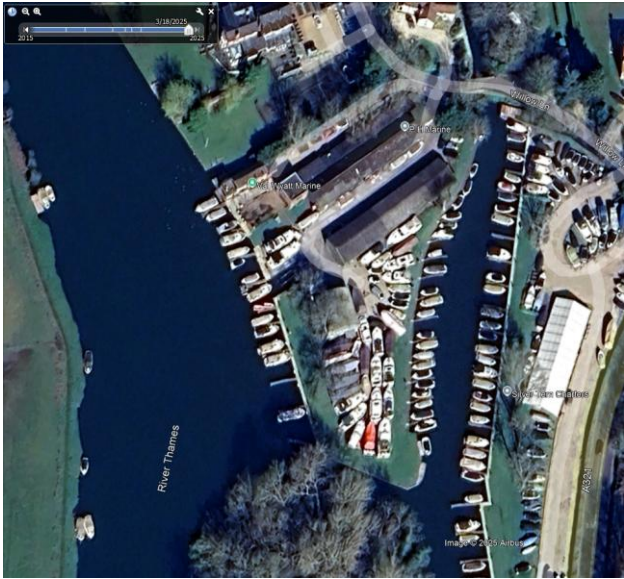
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| Site Location and Context                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A baseline habitat map is provided in <b>Appendix 1</b>, a post development habitat map in <b>Appendix 2</b>, a proposed development plan in <b>Appendix 3</b>, headline BNG results in <b>Appendix 4</b>, and condition assessments in <b>Appendix 5</b>.</p> <p>The site is centred at National Grid Reference SU 78529 79234 and has an area of approximately 0.01ha. The wider site is characterised by frequently managed amenity grassland, scattered trees, hardstanding, buildings, wooden jetties and other associated infrastructure necessary for the marina to operate. The site is surrounded by residential properties, minor roads and the River Thames. The wider landscape comprises agricultural land, the town of Wargrave to the south and Lower Shiplake to the west and small parcels of woodland.</p> <p>This report should be read in conjunction with the following documents:</p> <ul style="list-style-type: none"><li>❖ Statutory BNG Metric – Val Wyatt, Willow Marina, RG10 8LH – v1 (Arbtech Consulting Ltd., 2025)</li><li>❖ River Condition Assessment File Note - Val Wyatt, Willow Marina, RG10 8LH – v1 (Arbtech Consulting Ltd., 2025)</li><li>❖ Preliminary Ecological Appraisal (PEA) – Willow Marina, Reading (Eco 360, 2025)</li></ul>                                                                   |
| Executive Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"><li>❖ The baseline area-based habitat units equal 0.02 and the baseline watercourse-based habitat units equal 0.14.</li><li>❖ The post development area-based habitat units equal 0.01 and the baseline watercourse-based habitat units equal 0.13.</li><li>❖ <b>This results in a -0.01 net change in both area-based habitat units and watercourse-based habitat units equating to a -70% loss in biodiversity for area-based habitat units and -8.00% loss in biodiversity for watercourse-based habitat units.</b></li><li>❖ There is limited scope on site, and this provision may not be possible to achieve on site or adjacent with the current arrangement (within the redline boundary or offsite on other owned land) considering the purpose of the wider site and the limited amount of soft landscaping within the parcel.</li><li>❖ Based on the proposed plans, it is unlikely that net gain will be achieved by ways of habitat creation/enhancement without significant changes to the proposals on site or require unfeasible commitments off-site. As such, a financial contribution to off-site ecological enhancements (i.e. purchasing biodiversity units) within an approved scheme is required to make up the +10% net gain for area-based and watercourse-based habitat units.</li></ul> |

Introduction

| BNG Informative               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Habitat Degradation Statement | Date reflected by BNG calculations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10 <sup>th</sup> October 2025 |
|                               | <p>The baseline biodiversity value of the site is derived from the site as observed during the PEA field survey (Eco 360, 2025) and the River Condition Survey (Arbtech, 2025). As evident in the screenshots of satellite imagery obtained from GoogleEarth dated 21<sup>st</sup> June 2018 (left) and 18<sup>th</sup> March 2025 (right), the site does not appear to have undergone any degradation. The habitats on site, and therefore biodiversity value of the site, is not considered to have undergone degradation since 30th January 2020.</p> <div></div> |                               |

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |               |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------|
| Irreplaceable Habitat Statement                 | No irreplaceable habitats as listed under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations (2024) are currently present nor were present before 30 <sup>th</sup> January 2020.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |               |
| Metric Version & Publication Date               | Statutory Biodiversity Metric Calculation Tool first published 29 <sup>th</sup> November 2023 with last updates to metric tools and user guides on 23 <sup>rd</sup> July 2024.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |               |
| BNG Target Uplift                               | +10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |               |
| National Character Area (NCA)                   | 129 – Thames Basin Heaths                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |               |
| Strategic Significance                          | The Royal Borough of Windsor and Maidenhead (RBWM), the responsible authority for drafting the Local Nature Recovery Strategy (LNRS) for Wokingham Borough Council, has yet to adopt a comprehensive LNRS. As advised by the RBWM, the following documents from its adopted Local Plan (including Supplementary Planning Documents, SPDs), were used to determine strategic significance: <ul style="list-style-type: none"><li>❖ Berkshire Local Nature Recovery Strategy</li><li>❖ Berkshire Local Nature Recovery Strategy Map</li><li>❖ Wokingham Borough Local Development Framework Adopted Core Strategy Development Plan Document January 2010</li></ul> |                             |               |
|                                                 | Habitat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Baseline / Post-Development | Justification |
|                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | N/A                         | N/A           |
| Limitations                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |               |
| There were no specific limitations this survey. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |               |

**Commented [MH1]:** Your LPA's website about LNRS should reference which responsible authority you need. Listed here: <https://www.gov.uk/government/publications/local-nature-recovery-strategies-areas-and-responsible-authorities/local-nature-recovery-strategies-responsible-authorities>

**Commented [MH2R1]:** Sometimes this guidance on LNRS will also tell you which interim documents should be used. In that event, use those interim documents

Baseline

| Baseline Biodiversity Value: On-Site |           |                                                                                                                                                                                                                                            |                                                                                                                                                               |                                   |
|--------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| Area-Based Habitats (A-1)            |           |                                                                                                                                                                                                                                            |                                                                                                                                                               |                                   |
| Habitat                              | Area (ha) | Description                                                                                                                                                                                                                                | Condition Assessment                                                                                                                                          | Strategic Significance            |
| Modified Grassland                   | 0.01      | A small area of modified grassland was present along the banks of the river in the location of the proposed jetties. More information is available in the Preliminary Ecological Appraisal (PEA) – Willow Marina, Reading (Eco 360, 2025). | <i>Poor: passes 5 of 7 criteria excluding essential criterion A.</i><br><br>Assessed using the ‘Grasslands Low Distinctiveness’ habitat type condition sheet. | <b>Low</b> Strategic Significance |

| Baseline Biodiversity Value: On-Site |             |                                                                                                                                                                                                                                                                                          |                      |                                   |
|--------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------|
| Watercourse-Based Habitats (C-1)     |             |                                                                                                                                                                                                                                                                                          |                      |                                   |
| Habitat                              | Length (km) | Description                                                                                                                                                                                                                                                                              | Condition Assessment | Strategic Significance            |
| Other rivers and streams             | 0.025       | Willow marina is situated along the River Thames, a large and navigable river. This was subject to a River Condition Assessment and further details are available in the River Condition Assessment File Note - Val Wyatt, Willow Marina, RG10 8LH – v1 (Arbtech Consulting Ltd., 2025). | Fairly poor          | <b>Low</b> Strategic Significance |

Post-Development

| Post-Development Biodiversity Value: On-Site |                                |           |                                                                                                                                                                                                                                                              |                                                                                                                                         |                            |                        |
|----------------------------------------------|--------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------|
| Area-Based Habitats                          |                                |           |                                                                                                                                                                                                                                                              |                                                                                                                                         |                            |                        |
|                                              | Habitat                        | Area (ha) | Description                                                                                                                                                                                                                                                  | Condition Assessment                                                                                                                    |                            | Strategic Significance |
| Retained (A-1)                               | Modified Grassland             | 0.003     | The proposed development involves the construction of 3 jetties and sheet piling along the river edge, retaining a section of the amenity grassland area along the banks. Post construction, any damaged grassland will be restored to it current condition. | See “biodiversity baseline” section.                                                                                                    |                            |                        |
| Created (A-2)                                | Developed land; sealed surface | 0.007     | A section of the riverbank and modified grassland will be removed to create the proposed development.                                                                                                                                                        | Habitat condition pre-determined as ‘ <b>N/A-Other</b> ’ as detailed within the Statutory Biodiversity Condition Assessment Supplement. | Low strategic significance |                        |

| Post-Development Biodiversity Value: On-Site |                          |             |                                                                                                                                                                                  |                                      |                        |
|----------------------------------------------|--------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------|
| Watercourse Habitats                         |                          |             |                                                                                                                                                                                  |                                      |                        |
|                                              | Habitat                  | Length (km) | Description                                                                                                                                                                      | Condition Assessment                 | Strategic Significance |
| Retained (c-1)                               | Other rivers and streams | 0.023       | A small section of the riverbank will be altered through sheet piling and the construction of three new jetties. The rest of the 250m section of river will be retained in full. | See “biodiversity baseline” section. |                        |

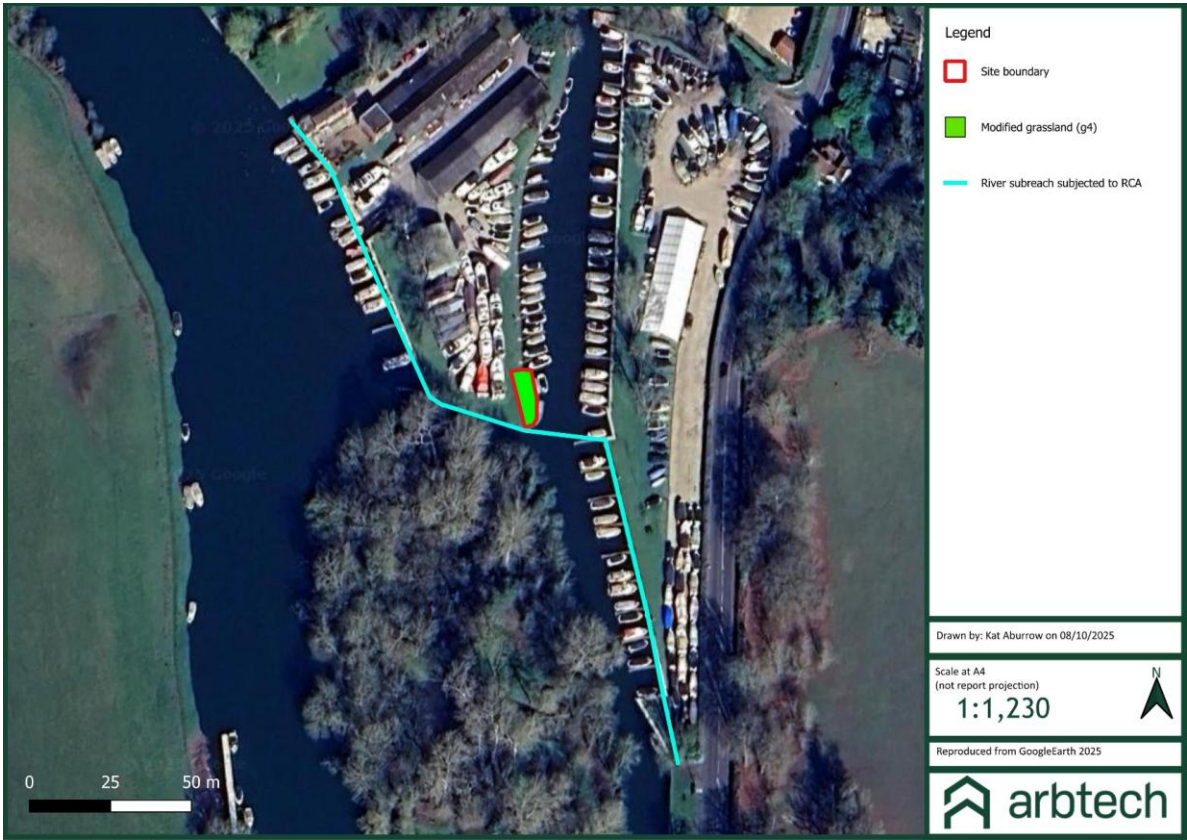
Change of Biodiversity Value

|                    |                  | Biodiversity Units |              |                   |
|--------------------|------------------|--------------------|--------------|-------------------|
|                    |                  | Area-Based         | Linear-Based | Watercourse-Based |
| On-Site            | Baseline         | 0.02               | N/A          | 0.14              |
|                    | Post-Development | 0.02               | N/A          | 0.13              |
|                    | Net Change       | 0.00               | N/A          | -0.01             |
| Overall Net Change |                  | 0.00%              | N/A          | -8.00%            |

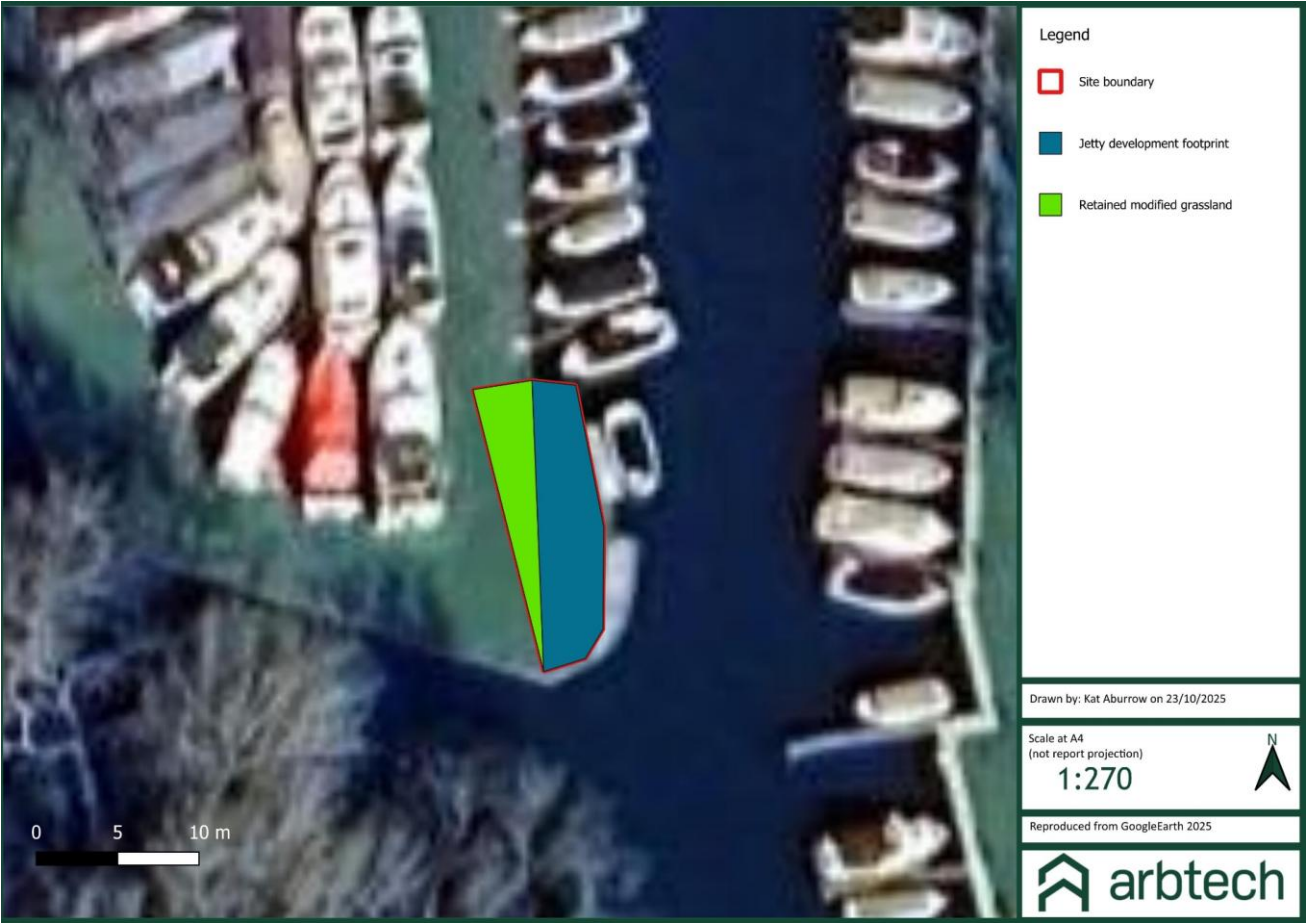
Results, Discussion, and Next Steps

| BNG Informative                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Results                        | <p>The current landscaping proposal generates a net loss of area-based habitat units (-70%) and a net loss of watercourse-based habitat units (-8.00%) with unmet trading rules. In line with the Statutory Biodiversity Metric User Guide (2024), any loss of a habitat must be replaced on a like-for-like or like-for-better principle. At present, trading conditions are not satisfied for the loss of 0.002 kms of other rivers and streams. With unmet trading conditions and a net loss, the proposal fails principal Rules 1 and 2 of BNG and is not compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024; Wokingham Borough Local Development Framework Adopted Core Strategy Development Plan Document January 2010).</p> <p>In order to achieve a +10% biodiversity net gain for area-based habitats, a minimum area-based unit score of 0.02 will need to be achieved. At present, there is a unit deficit of <b>0.02</b> units. Of these units, 0.01 units must be of modified grassland habitats.</p> <p>To achieve a +10% biodiversity net gain for watercourse-based habitats, a minimum linear-based unit score of 0.16 will need to be achieved. At present, there is a unit deficit of <b>0.03</b> units. Of these units, <b>0.01</b> units must be of a high distinctiveness watercourse-based habitat to satisfy trading rules.</p> |
| Recommendations and Next Steps | <p>There is limited scope on site, and this provision may not be possible to achieve on site or adjacent with the current arrangement (within the redline boundary or offsite on other owned land) considering the purpose of the wider site and the limited amount of soft landscaping within the parcel.</p> <p>Based on the proposed plans, it is unlikely that net gain will be achieved by ways of habitat creation/enhancement without significant changes to the proposals on site or require unfeasible commitments off-site. As such, a financial contribution to off-site ecological enhancements (i.e. purchasing biodiversity units) within an approved scheme is required to make up the +10% net gain for area-based and watercourse-based habitat units. The mechanism for securing this off-setting will need to be proposed to and confirmed by the LPA and would be linked to the application through a planning obligation Section 106 (s106) agreement. The proposed habitat compensation must be of an appropriate distinctiveness to meet the trading rules of BNG.</p>                                                                                                                                                                                                                                                                                                                                  |

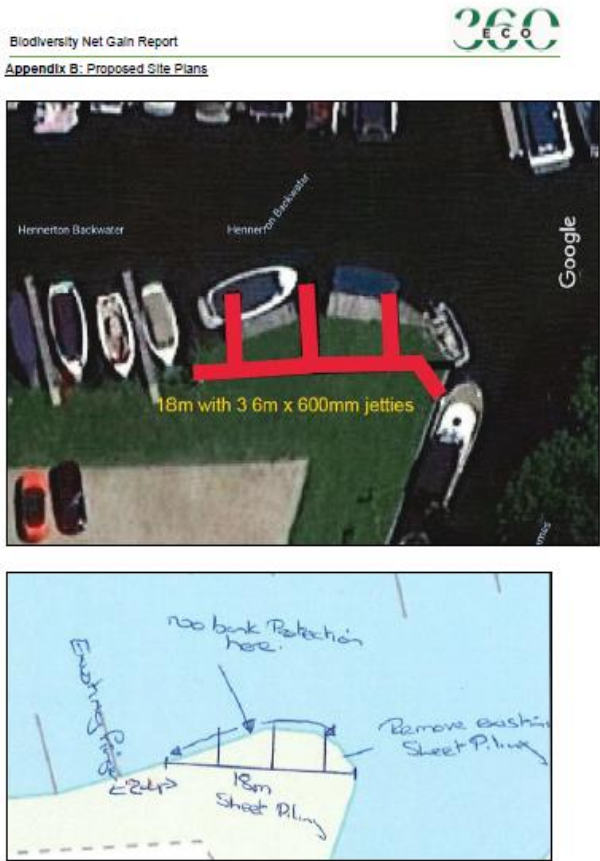
Appendix 1: Baseline Habitat Plan



Appendix 2: Post-Development Habitat Plan



Appendix 3: Proposed Development Plan



Appendix 4: Headline BNG Results

| FINAL RESULTS                                                                                                                |                                |                |                                                   |                                                        |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------|---------------------------------------------------|--------------------------------------------------------|
| Total net unit change<br><small>(Including all on-site &amp; off-site habitat retention, creation &amp; enhancement)</small> | Area habitat units             | -0.01          |                                                   |                                                        |
|                                                                                                                              | Hedgerow units                 | 0.00           |                                                   |                                                        |
|                                                                                                                              | Watercourse units              | -0.01          |                                                   |                                                        |
| Total net % change<br><small>(Including all on-site &amp; off-site habitat retention, creation &amp; enhancement)</small>    | Area habitat units             | -70.00%        | Total net gain achieved is less than target set ▲ |                                                        |
|                                                                                                                              | Hedgerow units                 | 0.00%          |                                                   |                                                        |
|                                                                                                                              | Watercourse units              | -8.00%         | Total net gain achieved is less than target set ▲ |                                                        |
| Trading rules satisfied?                                                                                                     | No - Check Trading Summaries ▲ |                |                                                   |                                                        |
|                                                                                                                              |                                |                |                                                   |                                                        |
| Unit Type                                                                                                                    | Target                         | Baseline Units | Units Required                                    | Unit Deficit                                           |
| Area habitat units                                                                                                           | 10.00%                         | 0.02           | 0.02                                              | 0.02                                                   |
| Hedgerow units                                                                                                               | 10.00%                         | 0.00           | 0.00                                              | 0.00                                                   |
| Watercourse units                                                                                                            | 10.00%                         | 0.14           | 0.16                                              | 0.03                                                   |
|                                                                                                                              |                                |                |                                                   | No additional hedgerow units required to meet target ✓ |
| Input errors/rule breaks present in metric ▲                                                                                 |                                |                |                                                   |                                                        |

Appendix 5: Baseline Habitat Condition Assessment Sheets

Modified Grassland; assessed using 'Grasslands Low Distinctiveness' habitat type condition sheet:

| Condition Assessment Criteria:                                                         |                                                                                                                                                                                                                                                         | Condition passed<br>(Yes or No) | Notes/Justification                                              |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------|
| A                                                                                      | There must be 6-8 vascular plant species per m², including at least 2 forbs.<br><b>Note – this criterion is essential for achieving moderate condition.</b>                                                                                             | N                               | Fewer than 6 vascular plant species per m².                      |
| 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.                                         | N                               | Managed area of grassland due to site requirements               |
| C                                                                                      | 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.          | Y                               | No scattered scrub present (less than 20% coverage).             |
| 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. | Y                               | Physical damage present in less than 5% of total grassland area. |
| E                                                                                      | Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).                                                                                                                                 | Y                               | Bare ground cover between 1% and 10%.                            |
| F                                                                                      | Cover of bracken less than 20%.                                                                                                                                                                                                                         | Y                               | No bracken recorded                                              |
| G                                                                                      | There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).                                                                                                                                                              | Y                               | Absence of invasive species.                                     |
| Essential criterion achieved (Y/N)                                                     |                                                                                                                                                                                                                                                         |                                 | N                                                                |
| Number of criteria passed                                                              |                                                                                                                                                                                                                                                         |                                 | 5                                                                |
| Condition Assessment Result                                                            |                                                                                                                                                                                                                                                         | Condition Assessment Score      | Score Achieved ✓                                                 |
| Passes 6 or 7 of 7 criteria including passing essential criterion A                    |                                                                                                                                                                                                                                                         | Good (3)                        |                                                                  |
| Passes 4 or 5 of 7 criteria including passing essential criterion A                    |                                                                                                                                                                                                                                                         | Moderate (2)                    |                                                                  |
| Passes 0, 1, 2 or 3 of 7 criteria; OR<br>4, 5 or 6 of criteria but failing criterion A |                                                                                                                                                                                                                                                         | Poor (1)                        | ✓                                                                |