Oxpens River Bridge, Oxford

Biodiversity Net Gain Report

On behalf of **Oxford City Council**

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For and on behalf of Stantec UK Limited				

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Executive Summary

Stantec UK Limited was commissioned by Oxford City Council to undertake a Biodiversity Net Gain Assessment in relation to the proposed new Oxpens River Bridge across the River Thames, between Osney Mead and Oxpens in the West End of Oxford (hereafter referred to as the Proposed Development). The Proposed Development is to be sited between Grandpont Nature Park, south of the river, and Oxpens development site, north of the river (hereafter referred to as the Site).

The Site was subject to UK Habitat classification survey and Modular River Physical Habitat survey, to quantify the extent of baseline habitats present prior to development in a format compatible with Defra's Biodiversity Metric 4.0. The Biodiversity Net Gain Assessment includes a calculation of the net change in Biodiversity Units using the Biodiversity Metric 4.0 following best practice guidance. In line with Oxford City Council's planning policy requirements, a target of 5% Biodiversity Net Gain was sought for the Proposed Development.

The Site includes areas of grassland habitats, woodland, and lines of trees with the River Thames flowing through it. Based on the landscape proposals the Proposed Development can achieve a 30.82% net gain for habitat units and a 20.97% gain from water course units. However, owing to the loss of a line of trees the Proposed Development achieves a -73.13% loss for linear habitat. Despite achieving the required habitat unit gain the loss of some areas of woodland means that the trading rules of the metric cannot be satisfied. However, it is noted that there is no specific local policy requirement to satisfy the trading rules of the metric.

Measures to secure offsite net gain for linear habitat and if required, to satisfy the trading rules can be achieved through the purchasing of biodiversity credits third party suppliers such as the Trust for Oxfordshire's Environment or through delivery of offsite units within Oxford City Councils land holdings. Therefore, subject to the delivering of onsite biodiversity enhancements measures and the purchasing of biodiversity credits the Proposed Development will be capable of delivering a 5% biodiversity net gain in both habitat units and river units.

This Executive Summary contains an overview of the key findings and conclusions. However, no reliance should be placed on any part of the executive summary until the whole of the report has been read.

1 Introduction

1.1 Overview

1.1.1 Stantec Uk Ltd (Stantec) was commissioned by Oxford City Council (the applicant) to undertake a Biodiversity Net Gain (BNG) Assessment in relation to the proposed Oxpens River Bridge (the proposed Development) between Osney Mead and Oxpens in the West End of Oxford (hereafter referred to as the Site).

1.1.2 Stantec has been working closely with Ecology By Design who have been commissioned directly by Oxford City Council (OCC) to undertake the ecological baseline survey work. Their Preliminary Ecological Appraisal which has informed the baseline of this BNG Report is provided within the Ecological Appraisal Report prepared by Stantec[1].

1.2 Site Location and Description

1.2.1 The Site is located at approximate Ordnance Survey grid reference SP507058 and covers approximately 2.2 ha comprising the River Thames and areas of land immediately north and south of the river.

1.2.2 A Site location plan is provided at **Figure 1**, which also shows the extent of the Site.

1.3 Proposed Development

1.3.1 In March 2020 OCC confirmed it would accept Growth Deal Funding from Oxfordshire County Council to deliver a bridge, for use by pedestrians and cyclists, over the River Thames between Oxpens and Grandpont Nature Park, connecting through to Osney Mead and a footpath cycle path link from the northern end of the bridge to Oxpens Road or Osney Lane.

1.3.2 The Proposed Development will provide an enhanced capacity connection between Osney Mead and the City centre, Oxpens development and the station. The proposed Bridge is to be sited between Grandpont Nature Park, south of the river, and Oxpens development site, north of the river.

1.3.3 The bridge is to be designed as a dry route in times of flood (a continuous pedestrian route that would remain dry during a flood event).

1.3.4 The bridge will require construction access from the south via Grandpont and via the Oxpens development site and floodplain in the north. Construction will consist of localised tree clearance and excavation for small, reinforced concrete piled bridge foundations. The new Oxpens River Bridge and its approach ramps will be fabricated off-site and installed via a crane located behind the Ice Rink on Oxpens Meadows.

1.3.5 The design will complement the proposed development at Oxpens, to which the bridge will connect. Although to be delivered by the City Council, the bridge is to be owned, adopted and maintained by Oxfordshire County Council, as the highway authority.

1.4 Report Objectives

1.4.1 The objectives of this report are to:

- Set out the legislation and policy framework for use of the Biodiversity Metric and delivering Biodiversity Net Gain (BNG);

[1] Stantec (2023) Ecological Appraisal Report OXPEN-STN-GEN-ALL-RP-J-3001

- Set out the methodology and assumptions used in the application of the Biodiversity Metric 4.0 to the Proposed Development;
- Provide a summary of the results of the Biodiversity Metric 4.0 calculations.
- Confirm any required next steps and the mechanism for securing BNG, as appropriate.

1.5 Relevant Policy and Legislation

1.5.1 The Government committed (Spring Statement, 13 March 2019) to mandate BNG in England through the Environment Act 2021 (given Royal Assent 9th Nov 2021), and the revision of the National Planning Policy Framework (NPPF). The Government has also stated that the Environment Act 2021 will require development to achieve a 10% net gain for biodiversity expected to apply from January 2024 onwards.

1.5.2 In addition to the Environment Act 2021, Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. Section 41 of the NERC Act 2006 defines Habitats and Species of Principal Importance to nature conservation in England which should be considered by all public bodies, including Local Planning Authorities, when carrying out their Section 40 duties

1.5.3 The NPPF was revised on 20th July 2021 and sets out the government's planning policies for England and how these are expected to be applied (Ministry of Housing, Communities and Local Government, 2021). Underpinning the NPPF is the principal aim of 'sustainable development' which is to be pursued through the fulfilment of interdependent economic, social and environmental objectives.

1.5.4 Chapter 15 of the NPPF details core policy principles with respect to conserving and enhancing the natural environment. Securing 'net gains' for biodiversity, in accordance with the Government's paper *'A Green Future; Our 25 Year Plan to Improve the Environment',* is a key theme running through the chapter, whereby planning decisions are required to contribute to and enhance the natural environment by *'minimising impacts on and providing net gains for biodiversity', and plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'*. The chapter also places planning decisions in the context of the mitigation hierarchy where, if impacts on biodiversity cannot be avoided, mitigated, or as a last resort compensated for, then planning permission should be refused.

1.5.5 Under the NPPF, LPAs have powers to stipulate BNG requirements for new developments through their own Local Plan policies. Oxford City Council, within Policy G2: Protection of biodiversity and geodiversity, states that;

"Compensation and mitigation measures must offset the loss and achieve an overall net gain for biodiversity. For all major developments proposed on greenfield sites or brownfield sites that have become vegetated, this should be measured through use of a recognised biodiversity calculator. To demonstrate an overall net gain, the biodiversity calculator should demonstrate an improvement of ***5%*** *or more from the existing situation. Offsetting measures are likely to include identification of appropriate off- site locations/projects for improvement, which should be within the relevant Conservation Target Area if appropriate, or within the locality of the site. When assessing whether a site is suitable for compensation, consideration will be given to the access, enjoyment and connection to nature that the biodiversity site to be lost has brought to a locality. A management and monitoring plan might be required for larger sites. The calculation should be applied to the whole site."*

1.5.6 As the requirement within the Environment Act 2021 for sites to deliver a minimum of 10% BNG has not yet been mandated, the Proposed Development will seek to deliver a minimum

of a **5%** BNG in accordance with local and national planning policy requirements at the time of submission.

2 Methods

2.1 Overview

2.1.1 To determine whether the Proposed Development would deliver a predicted BNG a biodiversity metric has been used which is informed by the results of the habitat surveys completed in 2021, 2022 and 2023. This habitat baseline has then been compared against the post-development habitat as shown on the landscape plan provided as **Appendix A.**

2.1.2 The methodology, limitations and assumptions are set out below, with the habitat methodologies further reported on within Ecological Appraisal Report[2].

2.2 UK Habitat Survey

2.2.1 In 2021 and 2022 a UK Habitat classification (UKHab) assessment[3], was completed of the Site. In parallel to the survey a condition assessment of the habitats present was undertaken using the guidance provided for the DEFRA Metric v2.0 and v3.1 (the versions available at the time of each survey).

2.2.2 Subsequent to the completion of the habitat survey in 2022 a revised UKHAB survey methodology has been published and revised DEFRA Metric 4.0 condition assessment guidelines[4]. In consultation with Oxford City Council ecologist, it was agreed that an update survey to confirm that baseline conditions remained as previously recorded in 2022 would be sufficient to inform the revised submission.

2.2.3 Given the potential changes between metric v3.1 and v4.0 when assigning a condition, a precautionary approach has been undertaken.

2.3 Modular River Physical Survey

2.3.1 A Modular River Physical (MoRPh) survey was carried out on the section of the River Thames which falls within and immediately adjacent to the redline boundary for the Site. This methodology characterises physical and biological aspects of river habitat and allows a condition assessment to be made[5].The survey was completed on 25th February 2022. Full survey methodology and results are provided within a separate Water Course BNG Assessment Report provided as **Appendix B**.

2.4 Surveyor Experience

2.4.1 All survey work and reporting were undertaken by experienced and qualified ecologists, in accordance with the Code of Professional Conduct of the Chartered Institute of Ecology and Environmental Management (CIEEM).

2.5 Limitations

2.5.1 The initial field survey was completed in July 2021, within the optimal period for habitat and vegetation surveys (typically considered to be between April and September). The subsequent update surveys were completed in January 2022 and October 2023 which is outside of the optimal survey period. Given the small size of the Site and that the habitats recorded are

[2] Stantec (2023) Ecological Appraisal Report OXPEN-STN-GEN-ALL-RP-J-3001

[3] Butcher, B., Carey, P., Edmonds, R., Treweek, J. 2020. The UK Habitat Classification System.

[4] NE (2023) Biodiversity Metric 4.0. Auditing and accounting for biodiversity-Technical Supplement Part 1a

5 Gurnell, A., Shuker, L. (2022). The MoRPh Survey Technical Reference Manual 2022 version.

relatively common (woodland and grassland) it is not considered that this presents a significant constraint as the surveys completed in 2022 and 2023 were aimed at confirming that the broad habitats previously recorded had not changed in extent or condition.

2.6 Biodiversity Metric

2.6.1 This BNG Assessment is underpinned by a Biodiversity Metric calculation which has been used to quantify the predicted BNG delivered by the Proposed Development that requires planning permission. The process by which this has been done is set out below. Version 4.0 of the Biodiversity Metric has been used to undertake the assessment.

2.6.2 The Biodiversity Metric 4.0 tool has been used to undertake the biodiversity metric calculations. The Biodiversity Metric 4.0 was published by Natural England in April 2023, alongside a user guide[6].

2.6.3 The metric calculates the biodiversity value of each parcel of habitat within the Site (measured as biodiversity units). Habitat area is used, except for linear habitats, where length is used (i.e. for hedgerows and watercourses). The value of each habitat type is adjusted to site specific circumstances, taking into account distinctiveness, condition and if the habitat parcel is located in an area identified as being of significance for nature, typically in a Local Plan. A score is applied to each component, which when multiplied with the habitat area produces a value that represents the number of biodiversity units associated with each habitat parcel. The sum of these scores across the whole Site represents the overall baseline or 'pre-development' value in biodiversity units.

2.6.4 The predicted post-intervention (or 'post-development') unit value is calculated in the same way, but with the addition of factors to take into account risks associated with creating, enhancing or restoring habitats.

2.6.5 The calculated value of the 'post-development' biodiversity units is then deducted from the calculated value of the 'pre-development' biodiversity units to give a predicted net change biodiversity unit value.

2.6.6 Within the Biodiversity Metric 4.0 User Guide there are a number of rules and key principles which apply to BNG assessments. Of particular relevance to this assessment is Rule 3 "Trading down". This rule required that habitats of a certain distinctiveness present pre-development should be re-created post development on a 'like for like basis or better approach.

2.6.7 Where BNG is not achievable with the desired design on-site, then off-site compensation areas can be used, and the same calculation undertaken. The biodiversity unit value of the off-site habitats is calculated for the 'pre-intervention' and 'post-intervention' stages. The 'pre-intervention' units are then subtracted from the 'post-intervention' units to work out how many predicted biodiversity units will result from that habitat change.

2.6.8 When off-site compensation areas are to be used, to achieve BNG for a development, an additional multiplier is applied in the metric, "spatial risk category." This multiplier allows the spatial risk of off-site habitat creation to be factored into the assessment and encourages off-site measures to be delivered local to where the impact occurs (i.e. within the same LPA or National Character Area).

2.7 Report Qualification

2.7.1 The survey described here was undertaken in accordance with the best practice methodologies current at the time of commissioning. Site circumstances, scientific knowledge

[6] NE (2023) Biodiversity Metric 4.0. Auditing and accounting for biodiversity-Technical Supplement Part 1a

or methodological requirements can change during the course of a project, and these external factors may impact on the scope of subsequent work requirements.

2.7.2 All ecological surveys have an expected validity period owing to the tendency of the natural environment to change over time. This validity period varies from receptor to receptor and is also dependent on the degree of change in a site's management and overall landscape ecology. Where the potential for change is considered to be relevant to the Site, this is highlighted in the appropriate section.

2.7.3 This report does not purport to provide detailed, specialist legal advice. Where legislation is referenced, the reader should consult the original legal text, and/or the advice of a qualified environmental lawyer.

3 Baseline Conditions

3.1 Site Baseline

Terrestrial Habitats

3.1.1 The following habitats and their relevant habitat condition which have been recorded on Site during the gathering of baseline data are summarised in Table 1 below. The locations of these habitats within the Site are shown on **Figure 2.** Detailed condition assessment results are provided within the Ecological Appraisal Report.

Table 1. Terrestrial Habitat Baseline Score

Habitat type UKHAB	Habitat Condition	Area (Ha)	Total Habitat Units
Modified grassland	Poor	1.2749	2.55
Other neutral grassland	Poor	0.009	0.04
Tall forbes	Poor	0.1266	0.25
Artificial unvegetated, unsealed surface	N/A	0.0508	0.00
Built Linear Feature	N/A	0.1929	0.00
Developed land; sealed surface	N/A	0.0239	0.00
Introduced shrub	N/A	0.0056	0.01
Watercourse footprint (River Thames Stream)	N/A - Other	0.0936	0.00
Other woodland, broadleaved	Moderate	0.4213	3.37
Other woodland, broadleaved	Poor	0.0194	0.08
Rural/ Urban tree	Moderate	0.219	1.75
Total Habitat Units (excluding trees)			8.05

Hedgerows/ linear features

3.1.2 The following linear features and their relevant habitat condition which have been recorded on Site during the gathering of baseline data is summarised in Table 2 below. The locations of these habitats within the Site are shown on **Figure 2.** Detailed condition assessment results are provided within the Ecological Appraisal Report

Table 2. Terrestrial Habitat Baseline Score

Linear feature	Habitat Condition	Length (km)	Total Habitat Units
Line of trees	Moderate	0.117	0.47
Line of trees	Poor	0.086	0.086

Aquatic habitats

3.1.3 The MoRPh survey recorded that the River Thames within the Site is a navigable river type characterised by a deep central channel with heavily modified bank protection and modified riparian habitat on the right-hand bank. The left-hand bank riparian habitat was natural, with trees present within marginal features and at the top of bank. On the basis of MoRPh survey this sub-reach of the River Thames has a river condition class of 'Fairly Poor'.

3.1.0 A summary of the condition of the River Thames and the total number of baseline river units is provided in Table 2 below, with further details provided within **Appendix B**.

Table 3 Watercourse Baseline Score

Watercourse	Length (within site boundary) (km)	Distinctiveness	Final Condition	Strategic significance	Watercourse encroachment	Riparian encroachment	Total River Units
River Thames	0.288	High	Fairly Poor	Within River Basin Management Plan	No encroachment	No encroachment	2.98

3.2 Post-development Assumptions

Terrestrial habitats

3.2.1 Areas of grassland, scrub and woodland are to be created within the Site with these areas shown on the landscape masterplan provided as **Appendix A**. The following assumptions have been made with regards to these habitats and the most appropriate UKHab classification, this shown as a post-development habitat plan, provided as **Figure 3.** The likely achievable target condition, as discussed below has been chosen taking into account the Technical Supplement condition assessment criteria for each of the habitats being created . This target condition will be achieved through the delivery of favourable management secured via a Landscape and Ecological Management Plan (LEMP) .

- **Grassland**: a range of grassland habitats have been proposed as shown in **Appendix A.** After a review of the proposed grassland habitats and their species composition against the UK HAB Classification system, these proposed areas of grassland have been assigned to the following habitat types for the purpose of the metric;
  - Shade Tolerant Grass - Modified grassland – poor condition
  - Ornamental Grass Mix - Modified grassland – poor condition
  - Flowering Lawn Grass - Other neutral grassland – poor condition
- **Mixed Scrub**: Native scrub species planted which will be of moderate condition
- **Other neutral grassland:** the proposed River with Marginal Mix has been assumed to best fit the UK HAB habitat other neutral grassland has been assumed will be of moderate condition.
- **Woodland**: proposed enhancements to the woodland includes additional native herbaceous woodland perennial plug and bulb planting and herbaceous woodland perennial seed mix. However, this would not result in an enhancement to the current condition of the retained woodland in accordance with the UK HAB criteria and therefore cannot be entered into the metric. Areas of woodland are to be planted adjacent to the

retained woodland and this has been mapped as 'other woodland, broadleaved and will be of moderate condition.

- **Trees**: the proposed trees have been assumed to be medium in size and will be of moderate condition. This was entered into the Urban/Rural tree helper in the metric and the associated calculated area used in the calculation.

3.2.2 No weighting has been given to the suitability of habitats to support protected / notable species.

3.2.3 Table 4 below summarises the habitats units which are proposed to be lost, retained and/ or created and the resulting post intervention habitat units score.

Table 4 Terrestrial habitats post intervention summary

Habitat type UKHAB	Baseline habitat units	Habitat Units Lost	Habitat units retained	Baseline units enhanced	Habitat Units Created
Modified grassland	2.55	2.28	0.27	0	0.13
Other neutral grassland	0.04	0.00	0.04	0	4.84
Mix scrub	0	0	0.00	0	0.01
Tall forbes	0.25	0.25	0.00	n/a	0
Artificial unvegetated, unsealed surface	0.00	0.00	0.00	n/a	0
Built Linear Feature	0.00	0.00	0.00	0	0
Developed land; sealed surface	0.00	0.00	0.00	0	0
Introduced shrub	0.01	0.01	0.00	0	0
Watercourse footprint (River Thames Stream)	0.00	0.00	0	0	0
Other woodland, broadleaved	3.37	0.36	3.01	0	0.23
Other woodland, broadleaved	0.08	0	0.08	0	0
Urban/ rural tree	1.75	0	1.75	0	0.16
Total Habitat Units	**8.05**	**2.9**	**5.16**	**0**	**5.38**

Hedges/ Linear features

3.2.4 Table 5 below summarises the length of linear features which are proposed to be lost, retained and/ or created and the resulting post intervention habitat units score.

Table 5 Linear habitat post intervention summary

Linear feature	Baseline units	Units Lost	Units retained	Baseline units enhanced	Units created
Line of trees	0.47	0.47	0	0	0
Line of trees	0.086	0.00	0.086	0	0
Total units	**0.556**	**0.47**	**0.086**	**0**	**0**

River habitats

3.2.5 The opportunity for improvements to River Thames are limited by factors such as channel size, water level and channel energy (e.g. flow velocity) and the development footprint. However, there is space to achieve betterment in the river corridor through a enhancements to the bank, including the placing of a 50 m planted coir rolls as shown on **Appendix A.**

3.2.6 Table 6 below summaries the baseline results from the Biodiversity Metric 4.0 calculation for the Proposed Development and shows the areas of habitats which are proposed to be lost or retained. Further details are provided within **Appendix B**.

Table 6 River habitat post intervention summary

Watercourse	Length (Km)	Total River Units	Length lost (Km)	Length retained (Km)	River Units Lost	River Units Enhanced/ delivered
River Thames	0.288	2.98	0	0.298	0	0.63

4 Biodiversity Net Gain Metric Outcome

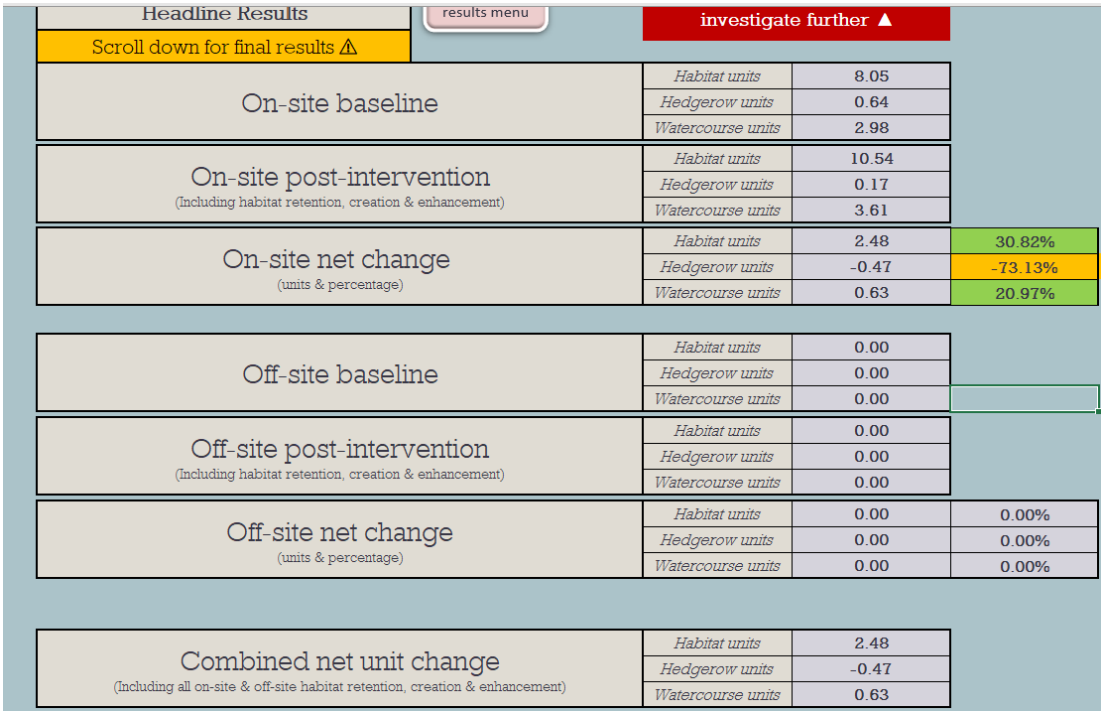
4.1 Overview

4.1.1 This section contains the indicative headline results of the Biodiversity Net Gain calculations and identifies if the project complies with current BNG legislative and policy requirements. The completed Biodiversity Net Gain metric is provided in full at **Appendix C**.

4.2 BNG Metric Outcome

4.2.1 As shown in Plate 1, the Proposed Development will result in a predicted net gain in biodiversity of 30.82% habitat units, a loss of -73.13% hedgerow/ linear habitat units and a 20.97% increase in watercourse units.

Plate 1: Headline Results from the completed Biodiversity Net Gain Metric



Headline Results	results menu	investigate further ▲		
Scroll down for final results ⚠				
On-site baseline	*Habitat units*	8.05		
	Hedgerow units	0.64		
	Watercourse units	2.98		
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	10.54		
	Hedgerow units	0.17		
	Watercourse units	3.61		
On-site net change (units & percentage)	*Habitat units*	2.48	30.82%	
	Hedgerow units	-0.47	-73.13%	
	Watercourse units	0.63	20.97%	
Off-site baseline	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	*Habitat units*	0.00	0.00%	
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	2.48		
	Hedgerow units	-0.47		
	Watercourse units	0.63		

4.3 Biodiversity Net Gain Good Practice Principles for Development

4.3.1 The Proposed Development has had due regard to the Biodiversity Net Gain Key rules as described in Table 7 below. However, owing to the unavoidable loss of a small areas of woodlands the trading rules have not been met.

Table 7: BGN Key Rules.

Key Rules (Version 4.0)	Commentary in relation to the BNG Assessment completed for the Proposed Development
Rule 1: Where the metric is used to measure change, biodiversity unit values need to be calculated prior to the intervention and post-intervention for all parcels of land / linear features affected.	All land parcels/water course features to be affected have been included in the calculation for both pre and post intervention.
Rule 2: Compensation for habitat losses can be provided by creating new habitats, or by restoring or enhancing existing habitats.	Compensation is to be delivered via on-site delivery and the purchasing of biodiversity credits through a third party.
Rule 3: 'Trading down' must be avoided. Losses of habitat are to be compensated for on a "like for like" or "like for better" basis. New or restored habitats should aim to achieve a higher distinctiveness and/or condition than those lost.	Trading rules are not satisfied on-site. However, there is no specific local policy requirement to satisfy the trading rules of the metric. If required, trading rules can be satisfied through the purchasing of offsite credits. through a third party.
Rule 4: Biodiversity unit values generated by biodiversity metric 4.0 are unique to this metric and cannot be compared to unit outputs from version 4.0, the original Defra metric or any other biodiversity metric.	No comparison to other metrics has been or is intended to be undertaken.
Rule 5: It is not the area/length of habitat created that determines whether ecological equivalence or better has been achieved but the net change in biodiversity units. Risks associated with creating or enhancing habitats mean that it may be necessary to create or enhance a larger area of habitat than that lost, to fully compensate for impacts on biodiversity.	As the required compensation and delivery of net gain cannot be delivered on site (in full) additional offsite credits (and therefore additional areas of compensatory habitat) are required.
Rule 6: Deviations from the published methodology of biodiversity metric 4.0 need to be ecologically justified and agreed with relevant decision makers. While the methodology is expected to be suitable in the majority of circumstances it is recognised that there may be exceptions. Any local or project-specific adaptations of the metric must be transparent and fully justified.	No deviations

The Site includes areas of grassland habitats, woodland, and lines of trees with the River Thames flowing through it. Based on the landscape proposals the Proposed Development can achieve a 30.82% net gain for habitat units and a 20.97% gain from water course units. However, owing to the loss of a line of trees the Proposed Development achieves a -73.13% loss for linear habitat. Despite achieving the required habitat unit gain the loss of some areas of woodland means that the trading rules of the metric cannot be satisfied. However, it is noted that there is no specific local policy requirement to satisfy the trading rules of the metric.

Measures to secure offsite net gain for linear habitat and if required, to satisfy the trading rules can be achieved through the purchasing of biodiversity credits third party suppliers such as

the Trust for Oxfordshire's Environment or through delivery within offsite areas within Oxford City land holdings.

5 Implementation, Management and Monitoring

5.1.1 On-site delivery

5.1.2 A Landscape and Ecology Management Plan (LEMP) will be produced for Proposed Development and should be secured by a suitably worded condition attached to the relevant planning consent. The LEMP will include:

- detailed management practises for the first 5 years of operation and an outline management schedule for years 6-30,
- targets specific to each habitat condition that can be measured, are reasonable to achieve within the project scope and time-bounded,
- proposals for monitoring including methods, frequency, timing, reporting requirements and triggers for remedial measures,
- the roles, responsibilities and competency requirements of those involved in management and monitoring,
- legal, financial and other resource requirements for delivery, and
- maps and drawings to allow accurate monitoring using spatial digital software.

5.1.3 Off-site delivery

5.1.4 Given the loss of linear habitat it is proposed that these will be purchased from third party provider such as the Trust for Oxfordshire's Environment or alternatively via delivery offsite within Oxford City Councils land holdings. Additional woodland units could be purchased to ensure the trading rules are met if this is required.

5.1.5 It is therefore considered that a 5% net gain can be delivered for the Site through on-site habitat creation and the purchase of off-site units.

6 Conclusion

6.1.0 On the basis of the proposed landscape design the Proposed Development will deliver a 30.82% net gain for terrestrial habitat units and a 20.97% net gain for water course units, as summarised in Table 6 below. However, owing to the loss of linear habitat the Proposed development will result in a 73.13% loss.

Table 7: Summary of the BNG Calculation

	On Site Baseline (Units)	On Site Post Intervention (Units)	Total Net Change (Units)	Percentage Change (% Units)
Habitats	8.05	10.53	-0.37	30.82
Hedgerows/ linear habitat	0.64	0.17	-0.47	-73.13
River	2.98	3.61	0.63	20.97

6.1.1 In addition, owing to the loss of woodland the trading rules have not been met when undertaking the calculation.

6.1.2 The Trust for Oxfordshire's Environment have confirmed that biodiversity units can be purchased for delivery of biodiversity enhancements within the wider Oxfordshire area. Additional woodland, units can also be purchased to ensure the trading rules are met. It is therefore considered that a 5% net gain for linear habitats can be delivered through this option.

Figures

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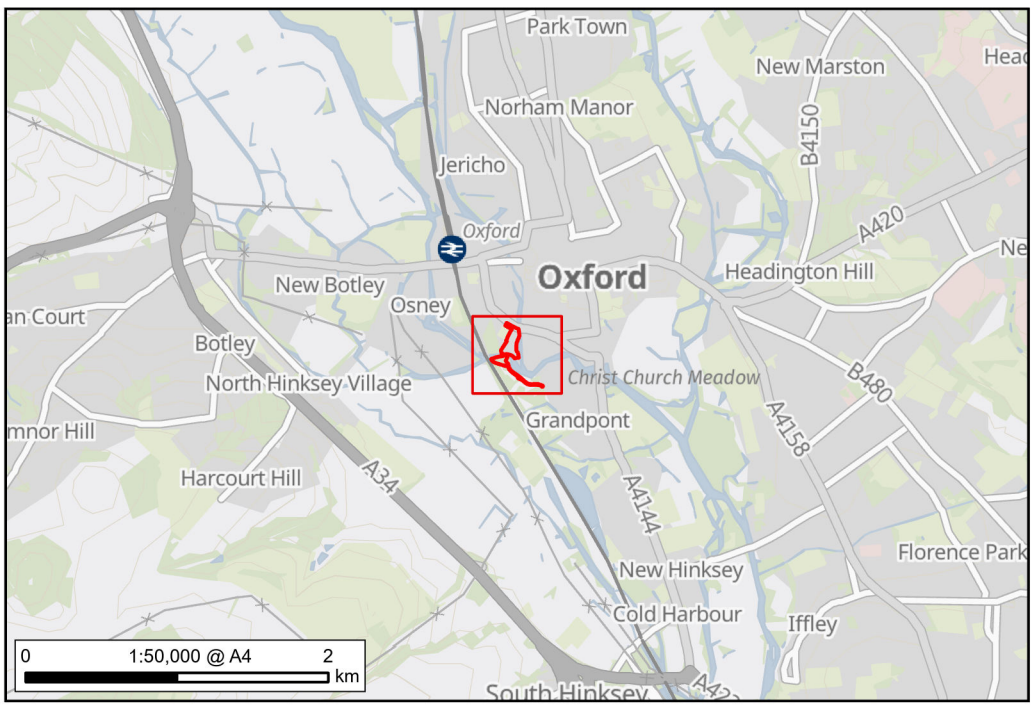

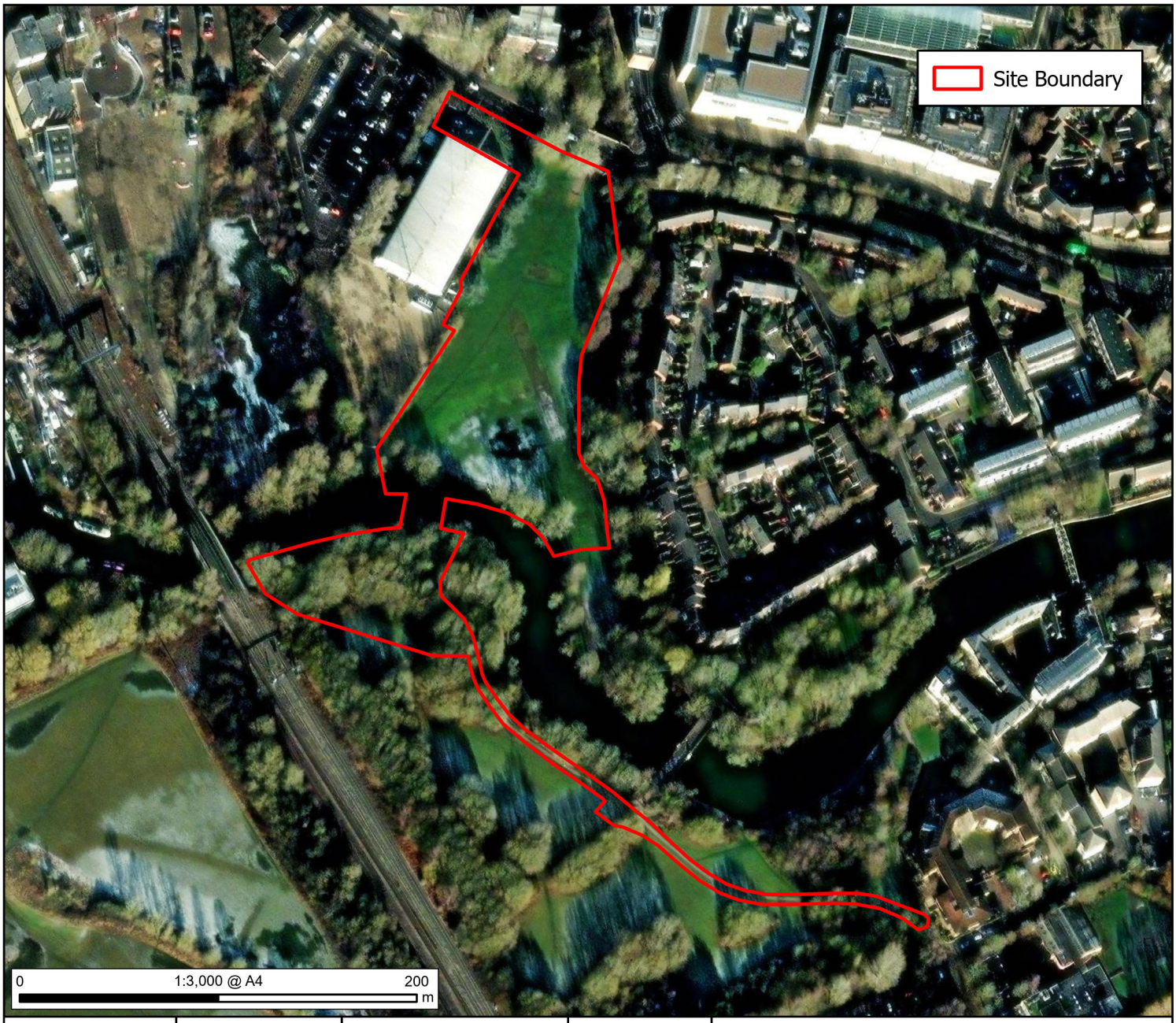

Stantec

Client

Oxford City Council

World Imagery: Maxar, Microsoft
GB Background: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Date: 18/10/2023

Drawn: LW

Checked: GS

OPXENS RIVER BRIDGE

Site Location Plan

N

Figure 01

Rev A

Figure 2: Habitat Baseline Plan

Stantec

Client: Oxford City Council

OXPENS RIVER BRIDGE

Baseline UK Habitat Plan

0 50 100 m

World Imagery: Maxar, Microsoft

1:1,650 @ A3	Date: 18/10/2023
Drawn: LW	Checked: JG
Figure 01	Rev A

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Figure 3: Post development Habitat Plan