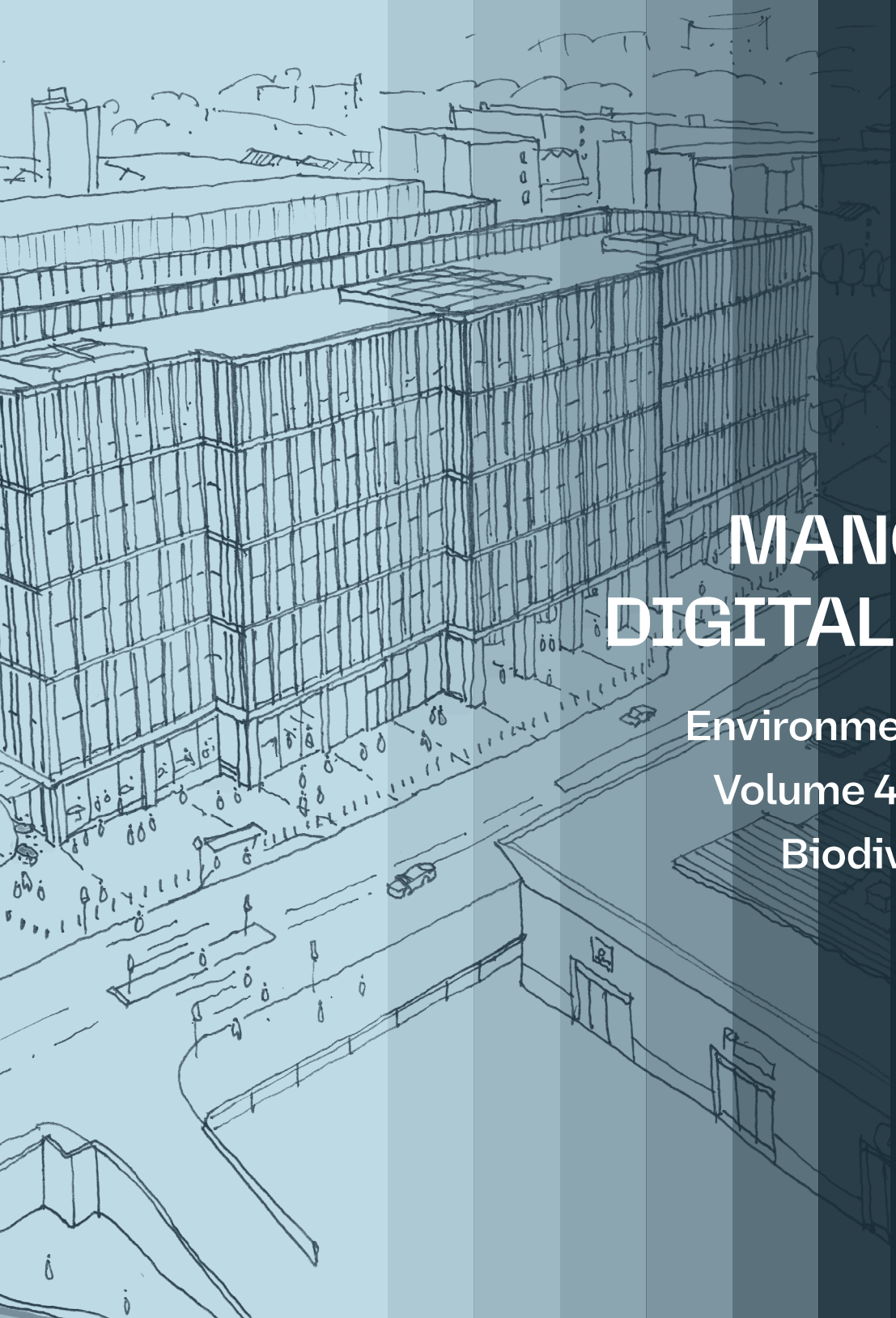
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MANCHESTER DIGITAL CAMPUS

Environmental Statement

Volume 4 - Appendix 8.2: Biodiversity Net Gain Assessment

NOVEMBER 2024

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Appendix 8.1. Biodiversity Net Gain Assessment

8.1.1 Introduction

8.1.1.1 Terms of reference

This appendix provides the Biodiversity Net Gain (BNG) assessment in relation to the Proposed Development through providing an assessment of the changes in biodiversity units as a result of the Proposed Development (from a baseline scenario to a post development scenario). It follows the framework set out by the Chartered Institute of Ecology and Environmental Management (CIEEM)[1] for reporting in relation to BNG assessments.

The British Standard BS 8683:2021[2] defines BNG as *"a specific, quantifiable outcome from project activities that deliver demonstrable benefits for biodiversity compared to the baseline situation."*

BNG is an approach which aims to leave the natural environment in a measurably better state than beforehand. Biodiversity metrics provide a way of measuring and accounting for biodiversity losses and gains resulting from development and/or land management change. To measure and account for biodiversity losses and gains resulting from the Proposed Development, a BNG assessment has been undertaken using the Statutory Biodiversity Metric published by Defra[3].

This report provides an assessment of changes in biodiversity as a result of the Proposed Development (from a pre-development baseline scenario to a post-development scenario). It follows the framework set out by the Chartered Institute of Ecology and Environmental Management (CIEEM)[4] for reporting in relation to BNG assessments. The assessment has been undertaken by a competent person with reference to the British Standard BS 8683:2021[2].

For a review of the relevant policy and legislation relating to biodiversity, refer to Table 8-1 within the ES.

8.1.1.2 Scope of the assessment

BNG is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation[1]. Biodiversity metrics provide a way of measuring and accounting for biodiversity losses and gains resulting from development and/or land management change.

This BNG assessment quantifies the baseline biodiversity value of land within the Site (using habitat as a proxy and measured in biodiversity units), quantifies the habitats to be lost, retained and/or enhanced, and predicts the post--development biodiversity units to be delivered within the Site.

The Statutory Biodiversity Metric[3], hereafter referred to as 'the Metric', has been used to calculate biodiversity units and measure the change in biodiversity at the Site as a result of the Scheme. The Metric is an updated version of the original biodiversity metric piloted by Defra in 2012 and its subsequent revisions (Biodiversity Metric 2.0 beta

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

[2] The British Standards Institution 2021. BS 8683:2021 Process for designing and implementing Biodiversity Net Gain – Specification. BSI Standards Limited 2021.

[3] Defra (2023) Statutory Biodiversity Metric tools and guides. [Available at: Statutory biodiversity metric tools and guides - GOV.UK (www.gov.uk)] [Accessed April 2024].

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

test version (2019), Biodiversity Metric 3.0 (2021), Biodiversity Metric 3.1 (2022) and Biodiversity Metric 4.0), building on the knowledge and experience gained across a variety of different sectors since the Defra pilot.

8.1.2 Methodology

8.1.2.1 Data Collection, manipulation, and editing

8.1.2.1.1 Desk study

A desk study was undertaken on 24 January 2024 to inform the ES for the Proposed Development. The desk study was used to evaluate the potential for important ecological features, and how their presence may influence the feasibility of delivering BNG, within and adjacent to the Site.

Impacts to international/national statutory designated sites for nature conservation and irreplaceable habitats are not adequately measured by the Metric and they require separate consideration that complies with relevant policy and legislation.

To identify any designated sites for nature conservation, irreplaceable habitat and/or priority habitats within or adjacent to the Site, the following online data sources were accessed:

- Multi-Agency Geographic Information for the Countryside (MAGIC)[5]
- The Woodland Trust's Ancient Tree Inventory[6]

8.1.2.1.2 Strategic significance

The desk study was also used to identify any local biodiversity strategies and plans to determine the strategic significance of the Site and/or habitats within the Site. The Metric applies a strategic significance score based on whether the location of a site and/or the baseline habitats present within a site or proposed habitat interventions have been identified as being locally important for biodiversity. This should be based on the relevant Local Nature Recovery Strategy (LNRS), if available. A LNRS for Greater Manchester has not been published at the time of writing this report, and as such, the following online data sources were accessed in its stead:

- Manchester's Core Strategy 2012 – 2027[7]
- The Greater Manchester Biodiversity Action Plan (GM BAP)[8]
- Greater Manchester Open Data Infrastructure Map[9]

8.1.2.2 Baseline area and hedgerow habitats

Pre-development baseline biodiversity units were calculated using habitat survey data collected on 13 July 2023 and updated on 10 April 2024. The survey comprised identifying the habitats present within the Site using the classification system that the Metric uses for area-based habitat features, (the UK Habitat Classification (UKHab)[10]), and undertaking condition assessments of the habitats. Condition assessment scores, which reflect the quality of a

[5] magic.defra.gov.uk. 2022. Magic Map Application. [online] Available at: https://magic.defra.gov.uk/ [Accessed 24 January 2024].

[6] ati.woodlandtrust.org.uk. 2022. Ancient Tree Inventory – Woodland Trust. [online] Available at: https://ati.woodlandtrust.org.uk/ [Accessed 24 January 2024].

[7] Core Strategy 2012-2027 | Core Strategy 2012-2027 | Manchester City Council

[8] GMLRC Projects - Greater Manchester Biodiversity Action Plan

[9] available at https://mappinggm.org.uk/gmodin/

[10] UKHab Ltd (2023). UK Habitat Classification V2.01. [online] Available at: https://ukhab.org/ukhab-documentation/

habitat, were assigned using professional judgement and the criteria for habitat in 'good', 'moderate', or 'poor' condition as set out in the Technical Annex of the Metric[11].

The survey was led by a suitably experienced Atkins ecologist with a Level 4 Field Identification Skills Certificate (FISC) and who has appropriately evidenced their competency as being capable in the identification of habitats and plant species in accordance with the CIEEM Competency Standard for Preliminary Habitat Survey[12].

The survey data was collected using ESRI ArcGIS FieldMaps and then exported and analysed using QGIS. GIS specialists processed the habitat mapping data to remove small overlaps and gaps between polygons that result from digitising at low resolution. The habitat survey data was then clipped to exclude habitat data outside of the Site boundary. Using GIS, area habitats (measured in ha) were calculated for each area habitat feature; linear habitats (measured in km), where present, were calculated for linear hedgerow and watercourse features. These measurements were further broken down, where applicable, into habitat parcels, comprising an area/length of habitat with a distinct type, condition and strategic significance.

In order to calculate the area of the urban trees within the Site, the Tree Helper Tool within the Metric was utilised. This tool calculates the projected area of each tree according to the tree size (small, medium, or large) as well as the condition score. These results were then incorporated within the Metric.

8.1.2.3 Baseline watercourse habitats

Watercourses should be included in the Application Site's BNG assessment when either the watercourse itself or the watercourse's riparian zone lies within the Site boundary. Note that the riparian zone extent (distance from bank top) differs based on the watercourse[13] typology.

As directed by Metric guidance, rivers and canals are assessed under the Watercourse module of the Metric. Different watercourse habitat types use different methodologies to assess condition. Culverts are automatically assigned a condition of Poor, ditches are assessed using the ditch Biodiversity Metric condition assessment sheet, and all other watercourses (including canals) are determined using the River Condition Assessment (RCA) methodology[14], which consists of two parts:

1. Site-based Modular River Physical Habitat (MoRPh) survey; and
2. Desk-based River Type assessment.

Baseline river condition was assessed for watercourse reaches within the Application Site using the Modular River Physical Survey 5 (MoRPh5) methodology[14]. The MoRPh5 approach is a quantitative visual geomorphological assessment of a river and riparian zone that records a list of features which are marked as "extensive" (>33% cover), "present" (5-33%), "trace" (<5%) or "absent" (0%) based on their extent across the survey reach. Such features include channel form, in-channel habitats (e.g., riffles, pools, berms), bed substrates, bank material and flow types. Broad aquatic ecological plant community structure and characteristics of the bankside and riparian zone are also recorded.

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[11] Defra. The Statutory Biodiversity Metric (February 2024). Available at: The_Statutory_Biodiversity_Metric_-_User_Guide_.pdf (publishing.service.gov.uk)

[12] CIEEM. 2022. Competency Standard for Preliminary Habitat Survey. [online] Available at: https://cieem.net/wp-content/uploads/2022/05/Preliminary-Habitat-Survey-Competency-Standard-May-2022.pdf

[13] 0 m riparian zone for culverts; 5 m riparian zone for ditches; 10 m riparian zone for canals, priority rivers, and other rivers and streams.

[14] Gurnell, A.M., England, J., Scott, S.J., and Shuker, L.J. (2024). *A GUIDE TO ASSESSING RIVER CONDITION: Part of the Rivers and Streams Component of the Biodiversity Metric Watercourse Module for calculating Biodiversity Net Gain* [online]. Available at: https://docs.modularriversurvey.org/pro

The RCA methodology requires “a minimum survey of 20% of the total river/canal length and to represent the range of local river conditions”[14] within the Application Site. The length of survey required for each MoRPh5 survey is determined by the river’s width or whether the watercourse is classified as a canal or as a navigable river.

Field surveys to establish the baseline condition of watercourses within the Application Site were undertaken on 23 May 2024, by a MoRPh-accredited survey team. The antecedent conditions were wet and it was also raining during the survey period.

The only watercourse requiring assessment is the Rochdale Canal, of which 139 m falls within the Proposed Development. Therefore, one MoRPh survey was undertaken along the Rochdale Canal using a module length of 50 metres (250 m total survey length), as determined by the RCA guidance, therefore exceeding the minimum requirement to survey 20% of the watercourse within the Proposed Development. No further surveys were undertaken on watercourses.

The site-derived MoRPh survey data was then uploaded to Cartographer website[15] to determine an RCA score for the one survey on the Rochdale Canal. Cartographer then uses the MoRPh5 field survey data to calculate 32 river condition indicators for each surveyed reach. The river condition indicators are scored on a +4 to 0 scale for positive indicators, and a 0 to -4 scale for negative indicators. A Preliminary Condition Score is automatically calculated in Cartographer using the individual river condition indicator scores for a MoRPh5 sub-reach.

A preliminary condition score is automatically calculated in Cartographer using the individual river condition indicator scores for a MoRPh5 sub-reach. The Preliminary Condition Score is scaled according to River Type to produce the Final River Condition Class for each reach (5 - Good, 4 - Fairly Good, 3 - Moderate, 2 - Fairly Poor, 1 - Poor). The threshold to attain each of the Final Condition Classes differs for each of the River Types. River Type is determined by undertaking a desk-based River Type assessment; however this is not required here as the River Type is automatically determined by the Rochdale Canal being an engineered canal, with no further desk study required.

The Final River Condition Class can then be used to inform the Metric calculations.

8.1.2.4 Post development

The Landscape General Arrangement plan[16] has been used to inform the post development scenario. These plans were imported into a GIS environment where it was overlaid on the baseline habitat data. Areas of proposed post development intervention (habitat creation and/or habitat retention/enhancement), including built development, were calculated using GIS.

Using the Landscape General Arrangement plan[17] the proposed habitats were translated to the Metric habitat types. Descriptions of the landscape proposals (including the justification of translation from landscape proposal type to Metric habitat type) and assumptions for realistic target condition scores (using the criteria set out in the relevant condition assessment sheets provided with the Metric[3]) are provided below.

The post development scenario was designed using professional judgement of what might be feasible to create and/or enhance on the Site and what would deliver BNG in terms of both biodiversity units and wider landscape-scale nature benefits (e.g. increasing species diversity and improving ecological functionality).

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[15] Available at: https://cartographer.io/

[16] AtkinsRéalis (November 2024) Landscape / Public Realm Masterplan. Drawing Reference: MDCX-ATR-ZZ-ZZ-DR-L-231000 (Also available through ES (Volume 4) Appendix 2.1).

[17] AtkinsRéalis (November 2024) Landscape / Public Realm Masterplan. Drawing Reference: MDCX-ATR-ZZ-ZZ-DR-L-231000 (Also available through ES (Volume 4) Appendix 2.1).

Target condition scores for the proposed post development habitat interventions have been assigned based on the realistic likelihood of achieving the target condition. The assumptions made when assigning a target condition for the proposed habitat interventions, based on the relevant criteria set out in the Metric, are set out below.

8.1.2.5 Calculating biodiversity units

The Metric uses a number of measures to quantify baseline biodiversity value for each habitat type within a site boundary. These measures include the habitat's distinctiveness (a measure based on the type of habitat and its distinguishing features), its condition (a measure of the habitat against its ecological optimum state) and its size (hectares for area habitat features/kilometres for linear hedgerow and watercourse features). In addition, the local strategic significance of a site and/or the habitats within it, is taken into account by applying a spatial multiplier.

Area habitat units, hedgerow units and watercourse units are calculated in separate modules of the Metric and the delivery of biodiversity units, including the overall net unit change for a site, are reported separately for each module.

A habitat's distinctiveness score is derived from its intrinsic biodiversity value, reflecting the rarity of the plant community, the time it takes to reach maturity, its value to fauna, and its ecosystem function. This score is preassigned and is pre-populated in the Metric.

The calculation of baseline area habitat units are outlined below. The calculation of watercourse units includes additional multipliers that take into account whether a watercourse has been modified by built development through the presence of encroachment into the watercourse channel or riparian zone, i.e. the multipliers reduce the number of watercourse units to reflect the negative impact that such encroachment has on a naturally functioning river system.

Post-development biodiversity units are calculated the same way but with the addition of risk multipliers that take into account the difficulty and time it takes to create new habitat or enhance existing habitat. These temporal and risk related multipliers are set within the Metric and cannot be changed. Where habitat creation or enhancement is off-site, biodiversity units are calculated the same way but a spatial risk multiplier is applied based on the distance of habitat creation or enhancement to the site of habitat loss.

The Metric also takes into account whether habitat creation or enhancement is delivered in advance of any impact it is compensating for or whether there will be any significant delay in an intervention relative to the impact. If taken into account, the standard temporal risk multiplier is adjusted accordingly. There will be no habitat created or enhanced in advance of the development works but there also will not be a significant delay to the proposed habitat interventions and, therefore, a standard temporal multiplier has been applied for this assessment.

To calculate the overall net change in biodiversity units, the baseline units are subtracted from the post-development units, as detailed in Figure below.

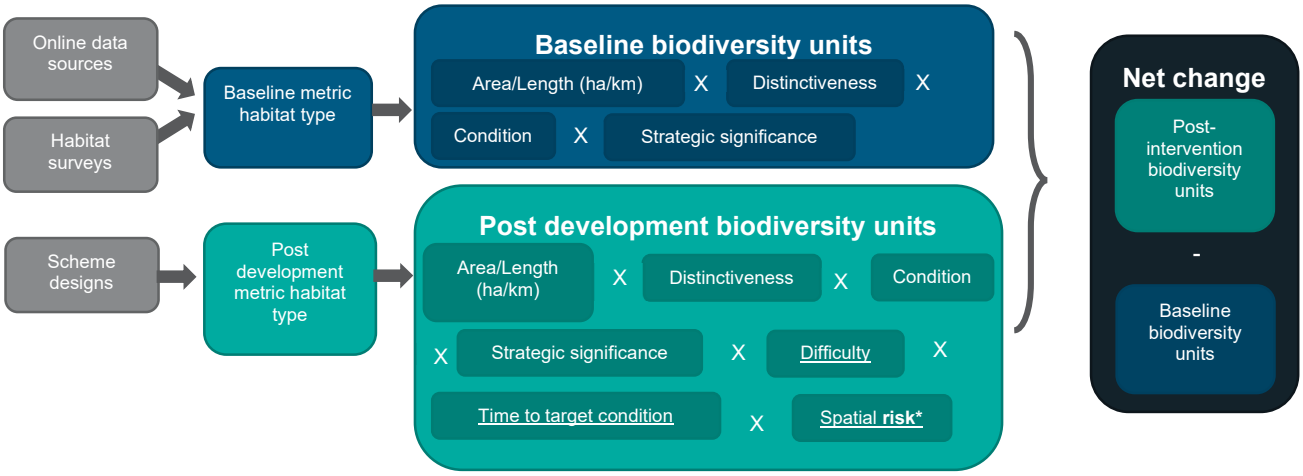


Figure 1 – Infographic depicting data source and biodiversity calculations

NB. Illustration does not fully depict calculation of watercourse units; additional multipliers taking into account watercourse and riparian encroachment are applied.
Text underlined indicates a risk factor applied when creating or enhancing habitats.
**Applies to off-site habitat interventions only.*

8.1.2.6 Mitigation hierarchy

In accordance with good practice[18], the principles of the mitigation hierarchy and the avoidance of impacts to irreplaceable habitats must be applied when committing to achieving BNG. This is reinforced through the publication of the British Standard BS 8683:2021[2].

The sequential approach to applying the mitigation hierarchy is to:

1. Avoid – Where possible habitat damage should be avoided.
2. Minimise – Where possible habitat damage and loss should be minimised.
3. Remediate – Where possible any damaged or lost habitat should be restored.
4. Compensate – As a last resort, damaged or lost habitat should be compensated for[19].

Application of the mitigation hierarchy is encouraged by the Metric because BNG can be more easily achieved by avoiding the loss of habitat through either retention or enhancement. Principle 1 of the Metric adds "*The use of this, Metric does not override the ecological mitigation hierarchy and other requirements (such as consenting or licensing processes, for example woodlands).*".

8.1.2.7 BNG good practice principles

The User Guide for the Metric includes rules and principles. Amongst these, Principle 3 states "*This Metric should be used in accordance with established good practice guidance and professional codes*".

[18] CIEEM, CIRIA, IEMA. Biodiversity net gain. Good practice principles for development. A practical guide. CIRIA C776a. London, 2019.
[19] Compensation should be undertaken on-site. If this is not possible then off-site habitat compensation may be an option; however, this should be undertaken as close to the on-site area as possible.

To claim BNG, evidence that demonstrates a project has clearly applied all ten of the good practice principles for achieving BNG[20], as detailed in Table below, must be provided. Adhering to all principles together underpins the good practice required for achieving and sustaining BNG.

Table 1 - BNG good practice principles

Principle	In practice
1. Apply the mitigation hierarchy	Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision-makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.
2. Avoid losing biodiversity that cannot be offset by gains elsewhere	Avoid impacts on irreplaceable biodiversity – these impacts cannot be offset to achieve no net loss or net gain.
3. Be inclusive and equitable	Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to net gain. Achieve net gain in partnership with stakeholders where possible and share the benefits fairly among stakeholders.
4. Address risks	Mitigate difficulty, uncertainty and other risks to achieving net gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between losses occurring and the gains being fully realised.
5. Make a measurable net gain contribution	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.
6. Achieve the best outcomes for biodiversity	Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly justified choices when: ▪ Delivering compensation that is ecologically equivalent in type, amount and condition and that accounts for the location and timing of biodiversity losses; ▪ Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation; ▪ Achieving net gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels; ▪ Enhancing existing or creating new habitat; ▪ Enhancing ecological connectivity by creating more, bigger, better and joined areas for biodiversity.
7. Be additional	Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway).

[20] CIEEM-CIRIA-IEMA. 2016. Biodiversity Net Gain – Good practice principles for development.

Principle	In practice
8. Create a net gain legacy	Ensure net gain generates long-term benefits by: ▪ Engaging stakeholders and jointly agreeing practical solutions that secure net gain in perpetuity[21]; ▪ Planning for adaptive management and securing dedicating funding for long-term management; ▪ Designing net gain for biodiversity to be resilient to external factors, especially climate change; ▪ Mitigating risks from other land uses; ▪ Avoiding displacing harmful activities from one location to another; ▪ Supporting local-level management of net gain activities.
9. Optimise sustainability	Prioritising BNG and, where possible, optimise the wider environmental benefits for a sustainable society and economy.
10. Be transparent	Communicate all net gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

8.1.2.8 Assumptions and limitations

A full list of limitations for the biodiversity assessment is provided within Chapter 8 of the ES. The limitations and assumptions stated below relate to the BNG assessment only.

It is not anticipated that habitat creation or enhancement can be delivered in advance of any impact it is compensating for. It is assumed that there be a four year construction period; therefore, a four year delay in starting habitat creation has been inputted into the Metric.

It is assumed that an appropriate BNG management and monitoring plan will be implemented for the duration of the maximum time for the habitat creation and enhancement proposals to reach their target condition (i.e. 10 years for proposed enhancement of 'other neutral grassland' from poor to moderate condition) and to give surety that the Scheme will deliver the predicted net gain in biodiversity units. It is then assumed that the habitats will be subject to suitable management to maintain that condition for a minimum of 30 years.

No hedgerow habitats were recorded within the Site; therefore, they have not been included within this BNG assessment and are not considered further.

The MoRPH5 surveys record the habitat conditions as they appear on the specific survey day. The RCA guidance has been closely followed, and professional judgement has been used where required to establish the most accurate depiction of the habitat condition of a watercourse.

[21] For development in the UK, the expectation is that compensation sites will be secured for at least the lifetime of the development (e.g. often 25-30 years) with the objective of net gain management continuing in the future.

8.1.3 Baseline conditions

The results of the desk study are provided within ES (Volume 2) Chapter 8 – Biodiversity Section 8.5.

8.1.3.1 Baseline area habitats

A summary of the Site area habitat baseline is provided in Table below. The baseline area-based terrestrial habitat features present within the Site are shown on ES (Volume 5) Figure 8.2.

The unmanaged urban and individual tree habitats within the Site (including urban trees, introduced shrub, other neutral grassland, and developed land; sealed surface) do not contribute positively towards any identified strategies and are not local priority habitats, and for this reason, these habitats have been given a 'low' score (which equates to *"habitat not included in local plans, strategy or policy"*). Therefore, all habitats within the Site have been assigned 'low' strategic significance.

Table 2 - Site area habitat baseline

Baseline Ref[22]	Broad Habitat	Habitat Type	Area (ha)	Distinctiveness		Condition		Strategic Significance		Ecological Baseline
				Band	Score	Band	Score	Band	Multiplier	Habitat Units
1	Urban	Developed land; sealed surface	2.56	Very low	0	N/A	0	Low	1	0.00
2	Urban	Introduced shrub	0.28	Low	3	N/A	1	Low	1	0.56
3	Individual trees	Urban trees	0.34	Medium	4	Poor	1	Low	1	1.35
4	Individual trees	Urban trees	0.10	Medium	4	Moderate	2	Low	1	0.81
5	Grassland	Other neutral grassland	<0.01	Medium	4	Poor	1	Low	1	0.20
Total Area (ha)			2.84 (3.28 incl. urban trees)	**Total Habitat Units**						2.75

Overall, the baseline area-based terrestrial habitats comprise **2.75 area-based biodiversity units**.

8.1.3.2 Baseline watercourse habitats

A summary of the MoRPh5 survey results the Site is shown in Table including the River Type, average of positive and negative indicator scores, Preliminary Condition Score, and Final Condition Class (taking River Type into account). A detailed breakdown of the river condition indicators for the surveyed reach is provided in Table , and a

summary of the multipliers inputted to the Metric (see Appendix A) is included in Table 5. Illustrative photographs of the Rochdale Canal taken during the site survey are shown in Table .

As a canal, the Rochdale Canal scores poorly due to the level of reinforcement of the channel bed and banks (C7-C9, E8-E10), the scarcity of natural bed (E1-E6), bank face (C1-C6) and bank top (B1-B3) features, and also the high level of siltation within the channel (E7). Given the urban location of the canal, the bank top cover is man-made (i.e. towpath and other hardstanding) (B5), resulting in a lack of riparian complexity (B2) which also contributes to a lower Preliminary Condition Score for the canal. The Rochdale Canal performs better in indicators regarding non-native invasive plants (NNIPs) (B4, C10, E11) as no invasive species were identified during the survey, and also the lack of filamentous algae (E12) within the canal. Overall, the Rochdale Canal adjacent to the Proposed Development attains a Final Condition Class of Poor (i.e. the lowest of the five habitat condition rankings).

Canals are automatically given a Habitat Distinctiveness of Medium, and the Rochdale Canal is given High Strategic Significance as it is included within the Manchester Biodiversity Strategy and Action Plan 2022[23]. Watercourse encroachment is assessed as Major due to the extensive presence of revetments throughout the canal, and the riparian encroachment is assessed as Major/Major due to the extensive presence of hardstanding within 10 m of the bank tops as a result of the urban nature of the Site.

Overall, the baseline watercourse habitats comprise **0.24 watercourse biodiversity units**.

Table 3 - MoRPh5 survey results summary

Survey Code	River Name	River Type	Positive Index Avg.	Negative Index Avg.	Preliminary Condition Score	Final Condition Class
GPA - Rochdale Canal	Rochdale Canal	Navigable	0.316	-2.385	-2.069	Poor

Table 4 - MoRPh5 survey indicators

Indicators				Survey Code
Group	**Code**	**Description**	**Positive/ Negative**	**GPA - Rochdale Canal**
River type	A1	Braiding index (BI)	N/A	-
	A2	Sinuosity index (SI)		-
	A3	Anabranching index (AI)		-
	A4	Level of confinement (U, PC, C)[24]		-
	A5	Valley gradient		-
	A6	Bedrock reaches		FALSE
	A7	Coarsest bed material size class[25]		SI
	A8*	Average alluvial bed material size class[25]		SI

[23] https://www.manchester.gov.uk/downloads/download/7516/manchester_biodiversity_strategy_and_action_plan

[24] U – unconfined; PC – partly confined; C – confined.

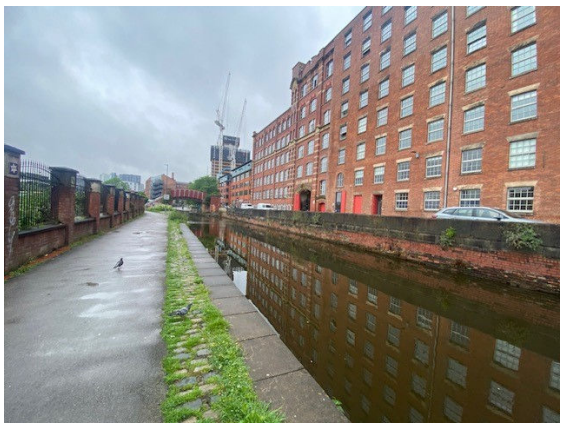
[25] Sediment size codes for sediment comprising river banks, riverbed, and some physical features: AR-artificial, BE-bedrock, BO-boulder, CO-cobble, GP-gravel-pebble, SA-sand, SI-silt, CL-clay, OR-organic, PE-peat, EA-earth, NV-not visible.

Indicators				Survey Code
Group	Code	Description	Positive/ Negative	GPA - Rochdale Canal
Bank top	B1	Bank top vegetation structure	Positive	2
	B2	Bank top tree feature richness	Positive	0
	B3	Bank top water-related features	Positive	0
	B4	Bank top NNIPS cover	*Negative*	0
	B5	Bank top managed ground cover	*Negative*	-4
Bank face	C1	Bank face riparian vegetation structure	Positive	2
	C2	Bank face tree feature richness	Positive	1
	C3	Bank face natural bank profile extent	Positive	0
	C4	Bank face natural bank profile richness	Positive	0
	C5	Bank face natural bank material richness	Positive	0
	C6	Bank face bare sediment extent	Positive	0
	C7	Bank face artificial bank profile extent	*Negative*	-4
	C8	Bank face reinforcement extent	*Negative*	-4
	C9	Bank face reinforcement material severity	*Negative*	-4
	C10	Bank face NNIPS cover	*Negative*	0
Channel-water margin	D1	Channel margin aquatic vegetation extent	Positive	0
	D2	Channel margin aquatic morphotype richness	Positive	0
	D3	Channel margin physical feature extent	Positive	0
	D4	Channel margin physical feature richness	Positive	0
	D5	Channel margin artificial features	*Negative*	0
Channel bed	E1	Channel aquatic morphotype richness	Positive	0
	E2	Channel bed tree features richness	Positive	0
	E3	Channel bed hydraulic features richness	Positive	0
	E4	Channel bed natural features extent	Positive	0
	E5	Channel bed natural features richness	Positive	0
	E6	Channel bed material richness	Positive	1
	E7	Channel bed siltation	*Negative*	-4
	E8	Channel bed reinforcement extent	*Negative*	-4
	E9	Channel bed reinforcement severity	*Negative*	-4
	E10	Channel bed artificial features severity	*Negative*	-3
	E11	Channel bed NNIPS extent	*Negative*	0
	E12	Channel bed filamentous algae extent	*Negative*	0

Table 5 - Site watercourse linear habitat baseline

Watercourse information	**Watercourse name**	Rochdale Canal
	Watercourse type	Canals
	Length (km)	0.139
Distinctiveness	**Band**	Medium
	Score	4
Habitat condition	**Band**	Poor
	Score	1
Strategic significance	**Band**	High
	Multiplier	1.15
Watercourse encroachment	**Band**	Major
	Multiplier	0.5
Riparian encroachment (both banks)	**Band**	Major/Major
	Multiplier	0.75
Total Watercourse Habitat Units		**0.24**

Table 6 - Photographs of the Rochdale Canal

Survey Code	Photographs	
GPA - Rochdale Canal		





8.1.3.3 Summary

Overall, the baseline comprises **2.75 area habitat units** and **0.24 watercourse linear habitat units**.

8.1.4 Post development

8.1.4.1 Post development habitat translations

An outline of how the habitats within the Landscape General Arrangement plan have been translated into UKHab classification habitats that can be inputted into the metric is outlined below, in Table . Each proposed planting type was translated into a UKHab classification category using professional judgement.

Table 7 - Habitat translations

Landscape Design Label	Description	Metric Habitat Type
Shrub planting (Type 1 and 2)	Ornamental shrub planting beds will be 70% evergreen, planted at five species per m^2 in topsoil to a depth of 450 mm. Plants will be centred in containers, firmed, and well-watered with adequate nutrients and grown in the open for at least two months before being supplied.	Introduced shrub
Tree planting	Semi-mature fastigiate trees with 2.5 m clear stem, formal habit and dense crown. Trees to have an overall height in excess of 4 m and or a diameter at breast height of 20 cm or larger. Tree will be 50% native and 50% non-native.	Urban trees

8.1.4.2 Post development strategic significance

The Site is within a priority tree planting area[26] for habitat creation, restoration, and enhancement across the Greater Manchester city-region. Therefore, tree planting could contribute positively to these strategies. Whilst this

[26] This dataset represents the areas in Greater Manchester where trees could potentially be planted. The data is produced by City of Trees based on an analysis of multiple datasets, using the Ordnance Survey Mastermap as a base. The 'priority' value relates to the degree to which

has not been formally identified within a document, the habitat type (tree planting) is ecologically important within this locality and would provide ecological linkage to other strategically significant locations (such as Cotton Field Park to the north of the Site). Therefore, urban trees have been assigned a 'medium' strategic significance.

The remaining habitats, which include developed land; sealed surface, artificial unvegetated/unsealed surface, introduced shrub, and ground-based green wall within the Site have been given a 'low' strategic significance due to containing limited ecological value and not significantly contributing to any local strategies.

8.1.4.3 Post development habitats

Area habitats

A summary of the Site area habitat post development is provided in Table .

The post development area-based habitat features present within the Site are shown on ES (Volume 5) Figure 8.3.

Table 8 - Site post development habitat

Baseline Ref	Broad Habitat	Habitat Type	Area (ha)	Distinctiveness		Condition		Strategic Significance		Ecological Baseline
				Band	Score	Band	Score	Band	Multiplier	Habitat Units
1	Urban	Developed land; sealed surface	2.09	Very low	0	N/A	0	Low	1	0.00
2	Urban	Introduced shrub	0.20	Low	2	N/A	1	Low	1	0.34
3	Individual trees	Urban trees	0.17	Medium	4	Poor	1	Medium	1.1	0.46
4	Individual trees	Urban trees	0.17	Medium	4	Moderate	2	Medium	1.1	0.48
5	Urban	Artificial unvegetated, unsealed surface	0.55	Very low	0	N/A	0	Low	1	0.00
6	Grassland	Other neutral grassland	<0.05	Medium	4	Moderate	2	Low	1	0.02
Total Area (ha)			2.84 (3.18 incl. urban trees)	**Total Habitat Units**						1.29

Overall, the post development area-based biodiversity units equate to **1.29 area habitat units.**

Watercourse habitats

Whilst the Landscape General Arrangement Plan does include some changes which fall within the Rochdale Canal's riparian zone, these changes are not sufficient to result in a material change to the condition of the watercourse. For example, the Landscape General Arrangement Plan includes laying of granite setts within 10 m of the canal bank top, however the baseline land use is already hardstanding and the post-development scheme does not change the socres of any of the individual MoRPh indicators for the Rochdale Canal. Therefore, there is no change to the Final Condition Class derived through the River Condition Assessment or other multipliers (e.g.

each area provides a range of opportunities. Each parcel may provide a particular opportunity from tree planting, such as helping to reduce flooding, or removing particulates from the air. In these cases, the values are presented as meeting the particular need, or significantly meeting the need.

watercourse encroachment or riparian encroachment) used in the Metric to calculate the watercourse units. As such, there is no change between the baseline and post-development scenario, and no mitigation is required to get to a position of no net loss. To achieve BNG, only a 10% uplift from the baseline is required, this equates to a requirement of **0.024 watercourse units**.

8.1.4.4 Post development retention/enhancement

No area habitats will be enhanced or retained within the Site.

8.1.4.5 Post development conditions

An outline of the condition scores for the post development area habitats is provided below in Table .

Table 9 - Post development conditions

Proposed habitat	Proposed condition	What's needed	Time to target condition (years)	Difficulty of creation
Urban trees (non-native)	Poor	The condition criteria for urban trees is as follows: ▪ **Criterion A:** The tree is a non-native species (or at least 70% within the block are native species). ▪ **Criterion B:** The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion). ▪ **Criterion C:** The tree is mature (or more than 50% within the block are mature). ▪ **Criterion D:** There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height. ▪ **Criterion E:** Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark. ▪ **Criterion F:** More than 20% of the tree canopy area is oversailing vegetation beneath. The proposed individual trees would fail **Criterion A** (through use of non-native trees), **Criterion B** (automatically passes), **Criterion D** (tree will be maintained to be healthy), and **Criterion F** (tree planted within planters oversailing vegetation). The passing of three criteria would mean the urban trees would be in 'poor' condition.	14	Low
Urban trees (native)	Moderate	The condition criteria for urban trees is as follows: ▪ **Criterion A:** The tree is a native species (or at least 70% within the block are native species).	30+	Low

Proposed habitat	Proposed condition	What's needed	Time to target condition (years)	Difficulty of creation
		▪ **Criterion B:** The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion). ▪ **Criterion C:** The tree is mature (or more than 50% within the block are mature). ▪ **Criterion D:** There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height. ▪ **Criterion E:** Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark. ▪ **Criterion F:** More than 20% of the tree canopy area is oversailing vegetation beneath. The proposed individual trees would pass **Criterion A** (through use of native trees), **Criterion B** (automatically passes), **Criterion D** (tree will be maintained to be healthy)**, and Criterion F** (tree planted within planters oversailing vegetation). The passing of four criteria would mean the urban trees would be in 'moderate' condition.		
Other neutral grassland		The condition criteria for medium distinctiveness grassland is as follows: **Criterion A:** The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type. Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only. **Criterion 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 insects, birds and small mammals to live and breed. **Criterion C:** Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens. **Criterion D:** Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus *fruticosus agg*.) is less than 5%. **Criterion E:** Combined cover of species indicative of suboptimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any	9	Low

Proposed habitat	Proposed condition	What's needed	Time to target condition (years)	Difficulty of creation
		invasive non-native plant species4 (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed. **Criterion F:** There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type. Note - this criterion is essential for achieving Good condition for non-acid grassland types only." The grassland is likely to pass **Criterion A** (through native species rich seed mix), fail **Criterion B** due to likely being an even sward, pass **Criterion C** (no bare ground), pass **Criterion D** (bracken/scrub will be managed), pass **Criterion E** (invasive and suboptimal species will be managed), and fail **Criterion F** (due to not likely achieving more than ten species per m^2). The passing of four criteria would mean the other neutral grassland would be in 'moderate' condition.		

8.1.5 Trading summary

The Metric sets out a number of rules and principles that must be followed in applying the Metric. Rule 1 is "*The trading rules of this biodiversity metric must be followed*"[27]. These trading rules set minimum habitat creation and enhancement requirements to compensate for specific habitat losses up to the point of no net loss; they are based on habitat type and distinctiveness of the lost habitat. The trading rules are set out in Table . As there are no hedgerows within the Site, they are not included below.

No very high or high distinctiveness habitats are being lost or enhanced as part of the Proposed Development and are therefore, not considered further.

Table 10 - Metric trading rules (Rule 1)

Baseline Habitat Distinctiveness	Area Module	Watercourse Module
Very High	Priority should be given to replacing losses with area habitat units of the same habitat type (bespoke compensation likely to be required).	Priority should be given to replacing losses with watercourse units of the same habitat type.
High	Losses must be replaced with area habitat units of the same habitat type.	Losses must be replaced with watercourse units of the same habitat type.
Medium	Losses must be replaced by area units of either: ▪ Medium band habitats within the same broad habitat type. Or	Losses must be replaced with watercourse units of the same habitat type.

[27] Defra (2024). *The Statutory Biodiversity Metric User Guide.*

Baseline Habitat Distinctiveness	Area Module	Watercourse Module
	▪ Any habitat from a higher band (from any broad habitat type).	
Low	Losses must be replaced with area units of the same or higher distinctiveness band.	Losses must be replaced with watercourse units of a higher distinctiveness band.
Very Low	N/A	N/A

8.1.5.1 Medium distinctiveness habitats

Losses of medium distinctiveness habitats must be replaced by area habitat units of either medium band habitats within the same broad habitat type or, any habitat from a higher band from any broad habitat type.

There is no change to the Rochdale Canal, which is a habitat of medium distinctiveness. Therefore, there is no net loss within the same broad habitat. There are no other watercourses (of medium distinctiveness or otherwise) assessed under BNG for this Site.

From the post development units, the Site includes the following negative results for medium distinctiveness habitats:

- -1.23 biodiversity units of urban trees

Therefore, the trading rules for medium distinctiveness habitats have not been satisfied.

8.1.5.2 Low and very low distinctiveness habitats

Losses of area-based habitat features of low distinctiveness must be replaced with an equal number of units of the same or higher distinctiveness band. There is no requirement for this to come from the same broad habitat type.

The Site includes developed land; sealed surface (very low distinctiveness) and introduced shrub (low distinctiveness). There is currently a negative result of -0.23 area-based biodiversity units for low distinctiveness habitats.

Therefore, the trading rules for very low and low distinctiveness habitats have not been satisfied.

8.1.6 Achieving Biodiversity Net Gain

Biodiversity Net Gain is not achieved for either area habitats or linear watercourse habitats.

This BNG assessment accounts for on-site changes only (i.e. changes to biodiversity within the Application Site only). Opportunities for off-site compensation will need to be identified within the boundary of the same local planning authority (i.e. Manchester City Council) or National Character Area (i.e. Manchester Conurbation), to achieve a 10% net gain and satisfy the trading rules.

To account for the loss of medium distinctiveness habitats, this would mean losses must be replaced by area habitat units of either medium band habitats within the same broad habitat type or, any habitat from a higher band from any broad habitat type. For example, the loss of ‘urban trees’ would need to be replaced by the broad habitat type: ‘individual trees’, or any habitat type of higher distinctiveness.

If a 10% net gain cannot be achieved either on-site or off-site, there will be a requirement to purchase Statutory Biodiversity Credits[28]; however, this should be a last resort and evidence must be provided as to why the Proposed Development cannot meet BNG using on-site and off-site options.

The predictions are based on retention of certain habitats, and management to enhance the condition of some of these retained habitats. They are also based on planned habitat creation. Following receipt of planning consent, a biodiversity gain plan and an appropriate Habitat Management and Monitoring Plan (HMMP) will need to be produced.

For watercourse linear habitats, whilst there is no net loss, the requirement for a 10% uplift (gain relative to baseline) in biodiversity units has not been met. Due consideration has been given to achieving this uplift through on-site enhancement, however it is not considered feasible here due to the urban location and the nature of the wider site. For example, the canal's riparian zone is comprised of hard-standing, forms part of the public realm, and needs to retain its function as a towpath/footpath. The lack of on-site opportunity is exacerbated by the requirement for the canal to retain its navigation function, meaning that the options for in-channel enhancement are very limited. Off-site enhancements have also been considered, however, discussions held with the Local Planning Authority did not identify any suitable projects to target for unit yield. It should be noted that the required level of assessment, liaison, and third-party planning needed to secure off-site enhancement, is considered disproportionately large to achieve the required units (0.024).

Therefore, for watercourse habitats, it is recommended that the required 10% uplift in biodiversity units is achieved by purchasing Statutory Biodiversity Credits[29]. Although the purchase of Statutory Biodiversity Credits is considered a last resort to achieve net gain, given the especially small number of units required, it is considered the most appropriate course of action for the Proposed Development. Statutory Biodiversity Credits can be purchased from Defra, where one watercourse credit has a price of £230,000 (not including VAT)[30]. However, in order to ensure that the Statutory Biodiversity Credits do not compete with the off-site market and remain a last resort, a spatial risk multiplier (SRM) is applied, which doubles the number of statutory credits required. Therefore, the Proposed Development requires an additional uplift of 0.024 units which equates to 0.048 statutory credits. However, statutory credits can only be purchased to 2 decimal places (d.p.), therefore, the purchase of 0.05 statutory credits would be at a financial cost of £11,500 (not including VAT). It is also worth noting that the guidance[31] states that "*if the developer needs less than 0.25 units they can buy statutory credits without having to approach at least three local or national suppliers, habitat banks, or trading websites and demonstrate that insufficient off-site options are available*" which is the case here.

8.1.7 Conclusion

The Metric has been applied to calculate the existing baseline, and predicted biodiversity units gain of the Site, based on the habitats (area and linear) present and condition scores that appear to be achievable.

A summary of the baseline and post-development habitat units and % change between the two is included in Table 11 below. Overall, the Proposed Development will deliver 1.29 area-based biodiversity units resulting in a net loss of -52.95%. There is also trading deficit of -1.23 units of individual tree habitats to ensure the trading rules are satisfied.

[28] Statutory biodiversity credits - GOV.UK

[29] https://www.gov.uk/guidance/statutory-biodiversity-credit-prices

[30] Prices of statutory credits may change. Defra will review prices every 6 months, and any planned price changes will be announced, giving at least 10 weeks' notice. Prices last updated 12th Feburary 2024.

[31] https://www.gov.uk/guidance/statutory-biodiversity-credits#How-to-prove-statutory-credits-are-needed

For watercourse linear habitat units, there is no change to the baseline (0.24 units) as a result of the Scheme, but there is a requirement to achieve 0.024 watercourse units in order to meet the 10% uplift.

No hedgerow habitats are included within the Site baseline, and are not considered in the assessment.

Table 11 – Summary of results

Module	Baseline Units	Post-Development Units	% Change	Units Required to Achieve 10% Uplift	10% Uplift Achieved?
Area habitat	2.74	1.29	-52.95%	1.724	N – Off-site units required
Hedgerows	0.00	0.00	0%	N/A	N/A
Watercourses	0.24	0.24	0%	0.024	Y – Statutory Biodiversity Credits purchase recommended

Note that the trading rules have not been satisfied for either medium distinctiveness area habitats, or for low and very low distinctiveness area habitats.

A Biodiversity Gain Plan will be submitted to Manchester City Council (as the Local Planning Authority) prior to commencement of the development, but is not required to support the planning application at this stage.

Appendix A - Statutory Metric

Project Name: Manchester Digital Campus	Map Reference:
A-1 On-Site Habitat Baseline	

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Area habitat summary	
Total Net Unit Change	-1.48
Total Net % Change	-52.95%
Trading Rules Satisfied	No - check trading summaries ▲

	Existing area habitats				Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline						Bespoke compensation agreed for losses of VHDH or irreplaceable habitat	Comments		
Ref	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier		Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost		User comments	Planning authority comments	Habitat reference number
1	Urban	Developed land; sealed surface	No	2.5569	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00			0.00	0.00	2.56	0.00		Former Central Retail Park, Great Ancoats Street. Retail units have been demolished. Despite being vacant and with Butterfly-bush establishing where the paved or concrete surface has broken, the Site is still predominantly paved or concreted. The area mapped as this habitat type has less than 10% vegetation cover of successional species (e.g. Butterfly-bush) and, therefore, conforms to the UKHab description of 'Developed land; sealed surface'.		
2	Urban	Introduced shrub	No	0.2821	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.56			0.00	0.00	0.28	0.56		Ornamental shrub planting associated with former retail park and contained within original raised planters. Negelected with Butterfly-bush and Traveller's-joy establishing but still dominated by planted ornamental species, including Wilson's Honeysuckle, Snowberry, Wall Cotoneaster and Shrub Ragwort.		
3	Grassland	Other neutral grassland	No	0.0038	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (2)	0.02			0.00	0.00	0.00	0.02		Narrow strip of unmanaged "other neutral grassland" (>20% cover forbs; abundant Red Fescue; no Rye-grass sp. or White Clover), dominated by Red Fescue with a range of forbs, including: Ribwort Plantain, Dandelion sp, Common Ragwort, Red Clover, Groundsel, Oxeye Daisy, Selfheal, Michaelmas-daisy sp, Lesser Trefoil and Greater Bird's-foot-trefoil.		
4	Individual trees	Urban tree	No	0.3379	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (2)	1.35			0.00	0.00	0.34	1.35		Urban tree planting associated with former Central Retail Park, Great Ancoats Street. Trees have been planted in raised paved planters and predominantly overhang paved or concrete surfacing. 47 small trees and 9 medium trees in poor condition.		
5	Individual trees	Urban tree	No	0.1018	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (2)	0.81			0.00	0.00	0.10	0.81		Urban tree planting associated with former Central Retail Park, Great Ancoats Street. Trees have been planted in raised paved planters and predominantly overhang paved or concrete surfacing. 5 small trees and 5 medium trees in moderate condition.		
6																							
7																							
8																							
9																							
10																							
		Total habitat area		3.28									2.75	0.00	0.00	0.00	0.00	3.28	2.75				
		Site Area (Excluding area of individual trees, green walls, intertidal hard structures)		2.84																			

Total area lost (excluding area of individual trees, green walls and intertidal hard structures)	2.84

Project Name: Manchester Digital Campus	Map Reference:
A-2 On-Site Habitat Creation	

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Area habitat summary	
Total Net Unit Change	-1.45
Total Net % Change	-52.95%
Trading Rules Satisfied	No - check trading summaries ▲
Area Check	Area Acceptable ✓

Note; Habitat selected has a time to target condition greater than 30 years. Non standard agreement may be required.

				Distinctiveness		Condition		Strategic significance			Post intervention habitats														
											Temporal multiplier						Difficulty multipliers						Comments		
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier	Standard time to target condition (years)	Habitat created in advance (years)	Delay in starting habitat creation (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	Habitat units delivered	User comments	Planning authority comments	Habitat reference number
1	Urban	Developed land; sealed surface	2.0891	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0		4	Standard time to target condition applied	4	0.867	Low	Standard difficulty applied	Low	1	0.00	New built infrastructure		
2	Urban	Introduced shrub	0.2008	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1		4	Check details- Delay in starting habitat in required condition? ⚠	5	0.837	Low	Standard difficulty applied	Low	1	0.34	Landscape design - shrub planting		
3	Individual trees	Urban tree	0.171	Medium	4	Poor	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	10		4	Check details- Delay in starting habitat in required condition? ⚠	14	0.607	Low	Standard difficulty applied	Low	1	0.46	Landscape design - planting of 42 x non-native small trees - assumed poor condition. Trees are non-native and either planted in concrete or within narrow planters, so unlikely to oversail significant vegetation. Considered to be ecologically desirable as Site is within the Greater Manchester 'City of Trees' tree planting opportunity area.		
4	Individual trees	Urban tree	0.171	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	27		4	Check details- Delay in starting habitat in required condition? ⚠	30+	0.320	Low	Standard difficulty applied	Low	1	0.48	Landscape design - planting of 42 x native small trees - assumed moderate condition. Trees are native and either planted in concrete or within narrow planters, so unlikely to oversail significant vegetation. Considered to be ecologically desirable as Site is within the Greater Manchester 'City of Trees' tree planting opportunity area.		
5	Urban	Artificial unvegetated, unsealed surface	0.5479	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0		4	Standard time to target condition applied	4	0.867	Low	Standard difficulty applied	Low	1	0.00	Area of land cleared to facilitate adjacent MCC The Park application; not landscaped as part of GPA MDC application.		
6	Grassland	Other neutral grassland	0.003	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5		4	Check details- Delay in starting habitat in required condition? ⚠	9	0.726	Low	Standard difficulty applied	Low	1	0.02	Landscape design - meadow planting		
7																								
8																								
9																								
10																								
		Total habitat area	3.18																	Total Units	1.29			

Site Area (Excluding area of individual trees, green walls, intertidal hard structures)	2.84

Project Name: Manchester Digital Campus Map Reference:

C-1 On-Site WaterC' Baseline

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Watercourse summary	
Total Net Unit Change	0.00
Total Net % Change	0.00%
Trading Rules Satisfied	Yes ✓

Existing watercourse type			Distinctiveness		Condition		Strategic significance			Watercourse encroachment		Riparian encroachment		Required Action to Meet Trading Rules	Ecological baseline						Bespoke compensation agreed for losses of VHDH	Comments		
Ref	Watercourse type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier	Extent of encroachment	Multiplier	Extent of encroachment for both banks	Multiplier		Total watercourse units	Length retained	Length enhanced	Units retained	Units enhanced	Length Lost	Units Lost		User Comments	Planning authority comments	Habitat reference number
1	Canals	0.139	Medium	4	Poor	1	Formally identified in local strategy	High strategic significance	1.15	Major	0.5	Major/Major	0.75	Same habitat required =	0.24	0.139	0	0.24	0.00	0.00	0.00	No	Rochdale Canal not within RLB but adjacent to - i.e. riparian zone (10m) within RLB. River condition of Poor confirmed with MoRPh survey (undertaken May 2024). No impact of development on either Condition or other multipliers - full length retained. No change to canal baseline units in post-development scenario, only 10% uplift required.		
2																								
3																								
4																								
5																								
6																								
7																								

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