

Heywood Stores, Oldham



Ecological Impact Assessment

ER-6197-02B

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Summary

The proposals have engaged with the NPPF Mitigation Hierarchy and have been able to avoid most potential significant effects at the Site.

Residual significant effects can be mitigated and compensated on site and secured via standard conditions provided in the British Standard BS:42020.

Based on the mitigation and compensation strategy, the proposed development delivers a net gain for biodiversity in both habitat and hedgerow categories.

1. Introduction

1.1.1. Brooks Ecological Ltd was commissioned by Trammell Crow Company Logistics (Heywood) Ltd to carry out an Ecological Impact Assessment (EcIA) for a Site referred to as Heywood Stores, Manchester Road, Heywood, OL10 2QR.

1.1.2. The British Standard BS:42020 recommends that a proportional assessment of ecological impacts should be made - such that decision making relating to the NPPF 'mitigation hierarchy', the planning balance', and the use of conditions is suitably informed.

1.1.3. The purpose of the EcIA report is to use the information gathered, alongside the proposals for the Site, to:

- identify any significant effects associated with the proposed development,
- set out any mitigation (including monitoring) required to address these effects, and to ensure compliance with legislation and policy,
- identify suitable enhancement,
- identify measures required to secure mitigation and enhancement,
- identify and assess any residual effects and their legal, policy and development management consequences.

1.1.4. This report adapts the format set out in the Chartered Institute for Ecology and Environmental Management (CIEEM) guidelines for Ecological Report Writing (December 2017).



Ecological Impact Assessment (EcIA) Checklist



EcIA Criteria (to ensure decisions are based on adequate information in accordance with Clauses 6.2 and 8.1 of BS42020:2013)		Yes No n/a	Paragraph reference number(s)
Pre-app/ scope	1. Where pre-application advice has been received from the Local Planning Authority and/or an NGO and/or statutory body (e.g. NE DAS, NRW DAS), it has been fully accounted for in the EcIA		
	2. The scope, structure and content of the EcIA is in accordance with published good practice ^(i, ii and iv)		
Surveys, Sites, Species and Habitats	3. Adequate* and up-to-date ⁽ⁱ⁾ : a. Desk study has been undertaken ⁽ⁱⁱ⁾ b. Phase 1 habitat survey (or equivalent) has been undertaken ⁽ⁱⁱ⁾ c. Phase 2 ecology surveys have been undertaken (where necessary) ⁽ⁱⁱⁱ⁾		
	4. All statutory and non-statutory sites likely to be significantly affected are clearly and correctly identified		
	5. All protected or priority species and priority habitats ⁽ⁱⁱ⁾ likely to be significantly affected are clearly and correctly identified, and adequate surveys have been undertaken to inform the baseline		
	6. Any invasive non-native plant species present are clearly and correctly identified		
	7. Where a separate PEA Report states that Phase 2 ecology surveys are required, these have been undertaken in full and results submitted with the application (or lack of such surveys is justified)		
Impacts and Effects	8. The assessment is based on clearly defined development proposals along with relevant drawings/plans (and any plans used are the same version number as those submitted with the application) or		
	9. The residual ecological effects are considered to be not significant at any geographical scale irrespective of the detailed development proposals, and the assessment is based on a worst-case scenario		
	10. The report describes and assesses all likely significant ecological effects (including cumulative effects) clearly stating the geographical scale of significance (where relevant)		
Mitigation, Compensation and Enhancement	11. The mitigation hierarchy has been clearly followed ⁽ⁱ⁾		
	12. The report: a. Clearly identifies the proposed mitigation and compensation measures, and explains how these will adequately address all likely significant adverse effects b. Includes, where necessary, proposals for post-construction monitoring c. Recommends how proposed measures may be secured through planning conditions/obligations and/or necessary licences		
	13. A summary table of proposed mitigation and compensation measures has been provided		
	14. The need for any mitigation licences required in relation to protected species is clearly identified		
	15. Proposals to deliver ecological enhancement/Biodiversity Net Gain have been provided		
Competence/Good Practice	16. Limitations ⁽ⁱ⁾ of the ecological work have been correctly identified and the implications explained		
	17. All relevant key timing issues (e.g. site vegetation clearance or roof removal) that may constrain or adversely affect the proposed timing of development have been identified		
	18. All ecological work and surveys accord with published good practice methods and guidelines OR deviation from such guidelines is made clear and fully justified, and the implications for subsequent conclusions and recommendations made explicit in the report ⁽ⁱⁱ⁾		
	19. All ecologists and surveyors hold appropriate species licences (where relevant) and/or have all necessary competencies to carry out the work undertaken		
Conclusions	20. The report clearly identifies where the proposed development complies with relevant legislation and policy, highlighting any possible non-compliance issues, and highlighting circumstances where a conclusion cannot be drawn as it requires an assessment of non-ecological issues (such as socio-economic ones)		
	21. The report provides a clear summary of losses and gains for biodiversity, and a justified conclusion of an overall net gain for biodiversity		
	22. Justifiable conclusions ⁽ⁱⁱⁱ⁾ based on sound professional judgement ⁽ⁱⁱⁱ⁾ have been drawn as to the significance of effects on any designated site, protected or priority habitat/species or other ecological feature, and a justified scale of significance has been stated		

2. Method

Scope of Assessment

- 2.1.1. The application site 'the Site' comprises a number of large storage sheds within a large compound which includes pockets of amenity grassland and a small woodland. The extent of this assessment is the development area within the red line boundary defined in Figure 2.1, overleaf.
- 2.1.2. The assessment uses a 2 km area of search around the Site for records of protected and notable species and locally or nationally designated wildlife sites.
- 2.1.3. Ecological surveys and reports informing this assessment comprise of the following:
- Preliminary Ecological Appraisal (PEA) carried out by RSK Biocensus in 2021. Ref: 2483038, December 2021
 - Updating walkover survey carried out by Brooks Ecological in May 2022.
 - Bat Emergence survey carried out by Brooks Ecological in 2022. ER-6197-01, July 2022.
 - Bat Activity survey carried out by Brooks Ecological in 2022. ER-6197-03 October 2022
 - Great crested newt eDNA survey carried out by Brooks Ecological in 2022. SI-6197-01, May 2022.
 - Invasive species survey carried out by Ecological Estates in 2022. R-EE-6197-01, July 2022.
 - Landscape Masterplan produced by TPM Landscape in October 2022, 4146-101-E, Oct 2022.

Desk Study

- 2.1.4. A full desk study including consideration of local biological records, aerial photographs, local designations and planning guidance has been carried out.

Field Survey

- 2.1.5. The following dedicated field surveys have been carried out at the Site. Full details of the methodologies used, and the results obtained are contained in the relevant documents referenced opposite. Unless stated otherwise these followed the relevant survey guidelines referenced in reports.
- Walkover / Extended Phase 1 Habitat Survey
 - Updating walkover survey to allow habitat condition assessments.
 - Bat Activity Surveys - Transect and Remote Monitoring*
 - Bat Emergence Survey*
 - GCN eDNA analysis

Figure 2.1 Site area under assessment (red line)**Assessment Method**

2.1.6. In assessing the significance of effects, we refer to Section 5 of CIEEM (2018) - that a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. In relation to ecological features, we consider the following factors in combination, including;

- the feature's value on an ascending scale, from Site to international value,
- the site's position in the local landscape,
- its current management, and
- its size, rarity, or threats to its integrity

2.1.7. There are several tools available to aid this consideration, including established frameworks such as Ratcliffe Criteria or concepts such as Favourable Conservation Status. Also of help is reference to Biodiversity Action Plans in the form of the Local BAP and Section 41 of the NERC Act (2006) to determine if the Site supports any Priority Habitats or Habitats of Principal Importance or presents any opportunities in this respect.

2.1.8. The assessment considers the development proposals set out below, from which the potential impacts can be summarised as:

- Vegetation and habitat removal
- Disturbance, pollution, or interference arising from the Site's construction
- Disturbance, pollution, or interference arising from the Site's operation

This report deals with any significant effects potentially arising from these impacts. It looks at how the mitigation hierarchy can be applied to any effects and the implications of any residual significant effects.

3. Ecology Baseline

3.1.1. A summary of the points salient to this assessment are set out below:

Designated Sites and Conservation Areas

3.1.2. Impacts on both Statutory (International and National) and Non-Statutory designations or their interests have been ruled out at PEA Stage.

Habitats

3.1.3. The Site comprises habitats mapped opposite and described in the table overleaf. Mapping does not include urban trees, the area for which has been calculated using the Metric "Urban Tree Helper".

Potential future changes to the baseline

3.1.4. The Site's use and ecological baseline will likely be unchanged until the time of the proposed development.

3.1.5. In the absence of re-development, it is assumed that the Site would continue under its current management regime.

3.1.6. If left un-managed, the landscaped areas on site would likely succeed to tall ruderal vegetation and native scrub over time. Areas of sealed surface and buildings would remain intact.

Figure 3.1 The Site's habitats



3.1.7. The table below sets out the habitats at this Site and their relevance in this assessment.

Table 3.1 Site Habitats Summary

Codes	Habitat Feature	Notes	Valued at what scale
g4 u1b	Habitats of Low or Very Low Distinctiveness.	Areas of built development (roads and buildings) and modified grassland. These two habitat types occupy the vast majority of the site area. Both remain under intensive management and offer minimal ecological value. These habitats have relevance to biodiversity at this site on the basis of their extent - mitigation / compensation for any loss of these habitats is dealt with through the Biodiversity Net Gain process and they are not considered further in the EclA process.	Negligible
h3h	Bramble Scrub	A single pocket of bramble scrub has developed behind the north-western most building, this was previously mapped as modified grassland indicating bramble has recently colonised here from the adjacent woodland. This is a common habitat type locally and it does not support rare or otherwise notable species here. Loss will be mitigated through the Biodiversity Net Gain process - which will need to target scrub habitat on/off site and it is not considered further in the EclA process.	Negligible
w1g	Other woodland; broadleaved	Semi natural broadleaved woodland marking the northwest border of the site. This area is dominated by willow with sycamore and birch. The woodland provides a good band of habitat which supports higher biodiversity and offers more varied structure than those in its vicinity, with Heywood Stores to its east, pasture and development to its north and west, and pasture and the new bypass construction to the south. However, these surrounding habitats serve to sever links to other similar areas of elevated value.	Local Level
1170	Urban Trees	Numerous semi mature trees are found within the sites landscaped areas, species include sycamore, birch, hornbeam, ash, cherry, Scots pine and poplar. While these specimens add some value at a site wide level, owing to their position within a developed and managed site they fail to offer significant wider ecological value. Loss will be mitigated through the Biodiversity Net Gain process - which will need to target the provision of additional urban trees on site and it is not considered further in the EclA process.	Site level
	Ponds (non-priority)	A single small pond is present within the band of woodland, at the time of survey water depth was no greater than 5cm. The pond is fed by a small, culverted outflow, which drains into an unvegetated depression within the woodland with marginal areas occupied by buttercup, horsetail and yellow flag iris. Loss will be mitigated through the Biodiversity Net Gain process - which will need to target pond habitats on site and it is not considered further in the EclA process.	Site level

3.1.8. The table overleaf shows the Site's habitats in terms of their measured extent (ha or km) and Biodiversity Value in Habitat Units. This is an excerpt from the DEFRA Biodiversity Metric 3.1 Spreadsheet Calculator:

Figure 3.2 Site Habitats as defined in Biodiversity Net Gain calculations – Site Baseline¹.

Ref	Habitats and areas			Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline
	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units
1	Grassland	Modified grassland	0.2024	Low	Good	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	1.21
2	Grassland	Modified grassland	0.0002	Low	Good	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	0.00
3	Grassland	Modified grassland	2.0069	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	8.03
4	Grassland	Modified grassland	0.4276	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	1.71
5	Grassland	Modified grassland	0.4403	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	1.76
6	Grassland	Modified grassland	0.4834	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	1.93
7	Heathland and shrub	Bramble scrub	0.0195	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	0.08
8	Heathland and shrub	Bramble scrub	0.0358	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	0.14
9	Lakes	Ponds (Non- Priority Habitat)	0.006	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	0.02
10	Urban	Developed land; sealed surface	6.1942	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
11	Woodland and forest	Other woodland; broadleaved	1.352	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	10.82
12	Urban	Urban Tree	2.9	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	11.60
13								
14								
15								
16								
Total habitat area			14.07					37.31

¹ Our report provides an estimate of the sites value in Biodiversity Units. This is based on thorough assessment at the time of survey and using the information available at this time. In this assessment we have used the latest version of DEFRA's Biodiversity Metric Tool, the UK Habitats Classification and relevant guidance. This assessment requires subjective judgments to be made in terms of habitat type and condition and could be open to other interpretations. Reliance on the Unit Score, or conversion of this into a monetary value, would be at the developer's own risk. Where conversion to monetary value is required, it is always advisable to get calculations checked independently.

Species and Species Groups

3.1.9. Potential constraints relating to relevant groups were investigated through the surveys listed above. Those highlighted are of relevance to the Site and are referenced later in the assessment.

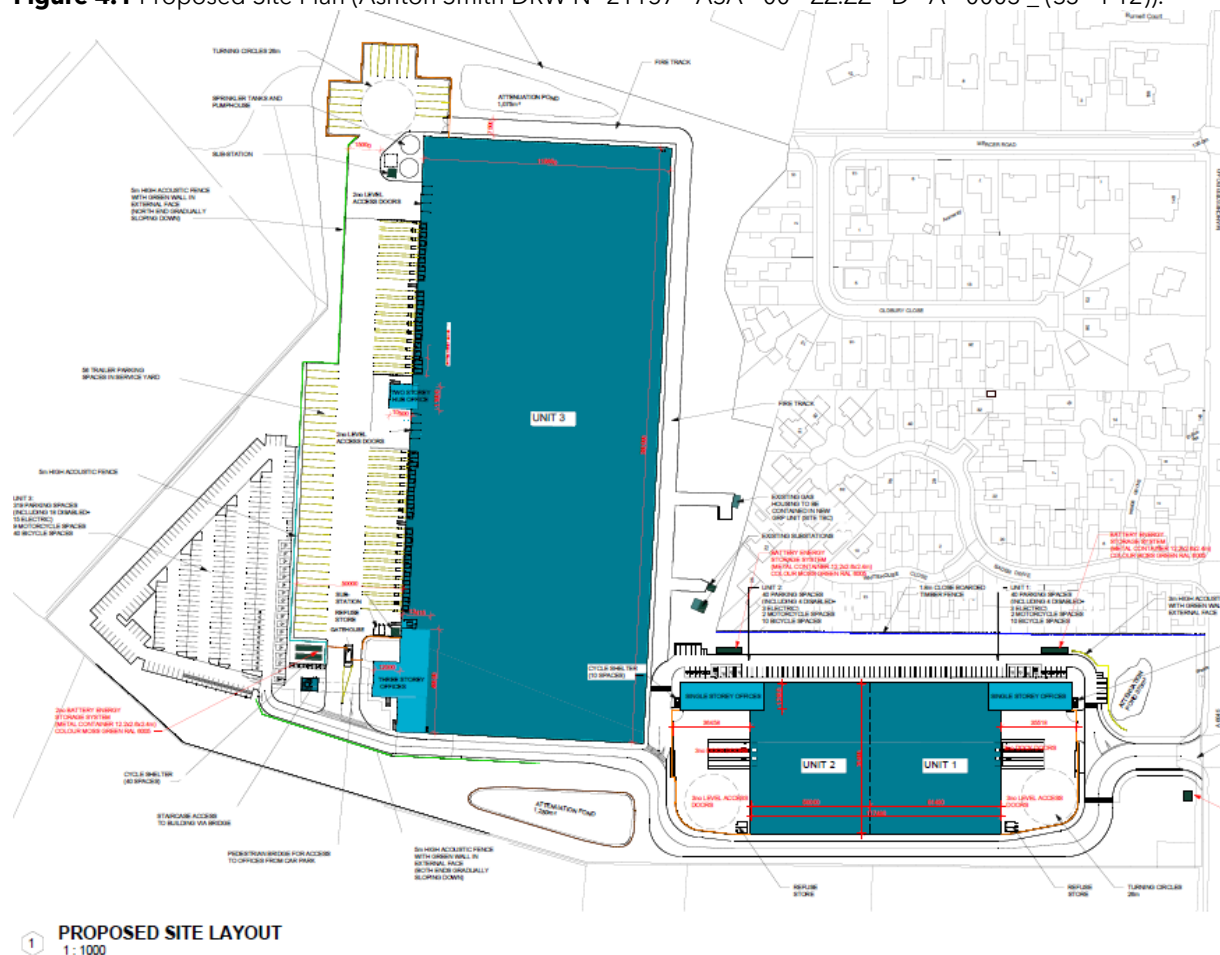
Table 3.2 Summary of relevant faunal issues

Species/ Group (Feature)	Notes	Valued at what scale
Amphibians	Surveys concluded likely absence of great crested newt in the onsite and adjacent ponds within 250m. The site is unlikely to be of value to any amphibian species.	N/A
Bats	Seasonal activity surveys confirmed very low-level foraging by common pipistrelle bats only, activity is sporadic both spatially and temporally within the site. Emergence survey of all buildings offering potential roosting features on the site have confirmed likely absence of roosting. Site of low importance to bats.	Site Level
Birds	The site supports habitat which offers nesting opportunities to urban fringe bird species including woodland, scrub and urban trees, these habitats will all be lost in part. Standard precautions apply regarding clearance of vegetation.	<u>Local Level</u>
Invasive non-native plant species	Himalayan balsam is abundant in isolated patches around the site's margins, while very small amounts of Japanese knotweed are also present. Cotoneaster and rhododendron are also present on the south-eastern boundary. Standard precautions apply regarding clearance of vegetation.	Site level

4. Description of the Proposed Development

- 4.1.1. Planning application seeking redevelopment of the site comprising the demolition of all existing units and erection of new storage and distribution units (Use Class B8) with ancillary office space, vehicular, pedestrian and cycle access, external yards, parking, landscaping and associated works.
- 4.1.2. All existing structures will be cleared from the site to facilitate the new development.
- 4.1.3. It will be possible to retain and enhance much of the existing boundary vegetation, though some will be lost and replaced to allow the required cut and fill operation to achieve the desired site levels.
- 4.1.4. The Ecologist has been able to feed into the proposals masterplan to build in all potential avoidance - in terms of layout. The following sections examine impacts resulting from the proposals which could not be avoided.
- 4.1.5. Impacts are assessed on the basis of the effects impacting the valued habitats, species, or sites which have been identified above.

Figure 4.1 Proposed Site Plan (Ashton Smith DRW N° 21157 - ASA - 00 - ZZ.ZZ - D - A - 0003 _ (S3 - P12)).



5. Impacts and Effects of Development

- 5.1.1. Figure 5.1 shows the development footprint in relation to the mapped habitats (black hatch).
- 5.1.2. The development footprint shows the sum extent of proposed built development and associated clearance works; this includes areas of existing built development which will be cleared to facilitate the provision of new green space.
- 5.1.3. The majority of the Site will be cleared, the exception being most of the boundary habitats.

Figure 5.1 Development footprint in relation to existing on-Site habitats



5.1.4. Figure 5.2 summarises the impacts of development on existing habitat.

5.1.5. Areas shown in red will be cleared of existing habitat and subject to extensive earthworks, which will result in the permanent loss of baseline habitats. These areas will then be built out.

5.1.6. Orange areas will be cleared of existing built development to create new green space, with the aim of maximising biodiversity value on site.

5.1.7. The areas marked green will be retained in situ, protected from development and subject to enhancement works.

Figure 5.2 Summary of impacts on existing habitats



Table 5.1 lists the anticipated Impacts and Effects associated with the proposals.

	Impacts during Site Clearance	Stage
1	Habitat will be removed from the Site by clearance and soil stripping using heavy machinery.	<i>Clearance</i>

	Significant Effects - in the absence of mitigation	Acting on	Acting at scale (Maximum)
1a	Direct habitat loss. There will be a loss of habitat generally which will be managed through the Biodiversity Net Gain process. Habitat loss will affect connectivity through and around the Site. Habitat loss will be likely to effect identified features of the Site.	Other woodland: broadleaved	Local
1b	Damage to retained habitat such as by storage of clearance machinery or materials in these areas.	Other woodland: broadleaved	Local
1c	Disturbance. The noise and activity at the Site will render it and areas immediately off-site inhospitable to wildlife during this period. Wildlife in this area is likely to be habituated to noise levels associated with adjacent relief road construction activities.	Birds	Local
1d	Pollution. There is the potential for sediment or chemicals to be released from the Site, or into retained habitat during this stage.	Other woodland: broadleaved	Local
1e	Potential effects on Protected Species . Precautions will be required to ensure that impacts on badgers, nesting birds, and the spread of Invasive Non-Native Species (INNS) can be avoided.	Protected Species	Criminal Offence

	Impacts during Construction	Stage
2	Construction activities will take place over a 2-3 year period. Construction of required infrastructure will be followed by footings and then above ground construction of buildings.	<i>Construction</i>

	Significant Effects - in the absence of mitigation	Acting on	Acting at scale (Maximum)
2a	Damage to retained habitat such as by storage of machinery or materials in these areas.	Other woodland: broadleaved	Local
2b	Disturbance. The noise and activity at the Site will render it and areas immediately off-site inhospitable to wildlife during this period.	Birds	Local
2c	Pollution. There is the potential for sediment or chemicals to be released from the Site during this stage.	Other woodland: broadleaved	Local

	Impacts during Construction	Stage
3	Landscaping activities will take place period during the construction period and will, be phased around completion of roads and buildings.	<i>Construction</i>

	Significant Effects - in the absence of mitigation	Acting on	Acting at scale (Maximum)
3a	Damage to retained habitat such as by storage of machinery or materials in these areas. Access will be required to retained areas to commence management and in itself could result in damage.	Other woodland: broadleaved	Local
3b	Pollution. There is the potential for sediment or chemicals to be released from the Site during this stage.	Other woodland: broadleaved	Local
3c	Inappropriate habitat creation or management techniques could mean that the proposals fail to deliver on BNG commitments	All habitats and species	Local

	Impacts during Operation	Stage
4	The Site will be occupied. Units will be occupied, and traffic and services will access the Site regularly. Flow of heavy goods vehicles to and from the site will increase	<i>Operation</i>

	Significant Effects - in the absence of mitigation	Acting on (feature)	Acting at scale (Maximum)
4a	Damage to retained and created habitat such as by inappropriate use, littering, release of invasive species.	Other woodland: broadleaved	Local
4b	Disturbance. The noise and activity at the Site will be present of a lower order and will likely be tolerable to species habituated to the urban conditions prevailing locally.	Birds	Local Off-site
4c	In the absence of correct management retained and created habitats will not provide the necessary biodiversity units committed to through the BNG process.	All habitats	Local

6. Mitigation & Residual Effects

- 6.1.1. Where feasible, the **avoidance** of unnecessary impacts has been considered at the design stage and worked into the Site Layout plan. The proposals will incorporate the following **mitigation** in relation to the identified **effects** above, as illustrated below and set out in Table 6.1 overleaf.
- 6.1.2. Habitat creation and management will need to be applied to the proposals to achieve the calculated BNG position are set out (and committed to) in the plan below. These themes would need to be the subject of a suitable Biodiversity Management which would provide a means of achieving the required habitats and condition.
- 6.1.3. Achieving the required Biodiversity Net Gain position will ensure that effects relating to habitat loss are addressed - both in respect of the habitats identified as valued features, and also the lower value habitats which would previously have been scoped out of Impact Assessments. Our impact assessment therefore only highlights where habitats present place a particular constraint on the protection of, or delivery of habitats on Site; or on off-set agreements.
- 6.1.4. Planning permission for the Site would be anticipated to be subject to standard conditions requiring the production of the following documents:
- A BS:42020 Biodiversity Management Plan (BMP). This will detail habitat creation and enhancement measures, and their required management to achieve the outlined final BNG position. Briefly, this will include the provision of species rich grassland throughout landscaping, with specific areas targeted as wildflower meadows, enhancement of retained existing grassland, provision of a new pond and planting and management of new scrub and urban trees.
 - A BS:42020 Construction Environmental Management Plan (CEMP: Biodiversity) to detail the protection of retained habitats and avoidance of impacts on protected or notable species, this will include but not be limited to the implementation of BPZ's, specifications for faunal checks and implementation of dark zones during construction.

7. Biodiversity Net Gain

- 7.1.1. There will be a requirement for the proposals to secure **Biodiversity Net Gain (BNG)** (in accordance with BS:8683) at a level determined by the Local Planning Authority (LPA in line with their own policies and guidance in the NPPF). Achieving this gain will form a vital part of the overall strategy in avoiding potential significant affects, as outlined above.
- 7.1.2. Any shortfall in Units will need to be off-set through the creation of Units off-Site by direct works, or through contribution to a strategic fund operated by the LPA or a third party. An agreement detailing any off-setting required would be the subject of a condition of planning.
- 7.1.3. Calculations setting out the position of the proposals in relation to BNG are set out below. These are based on the Landscape Masterplan available at this time. Habitat types which will need to be applied to the proposals to achieve the calculated BNG position are set out (and committed to) in the plan opposite. As with the baseline, Urban Trees have not been mapped, but areas calculated using the tool provided within the Metric. See Landscape Masterplan for tree positions.
- 7.1.4. Achieving the required Biodiversity Net Gain position will ensure that effects relating to habitat loss are addressed - both in respect of the habitats identified as valued features, and also the lower value habitats which would historically have been scoped out of Impact Assessments.

Net Gain Calculations

- 7.1.5. The proposals will lead to an overall net gain in all assessed unit types, providing 8.10 additional Habitat Units (+21.74%) and 0.52 additional Hedgerow Units (+34.11%) predicted.
- 7.1.6. While the required 10% net gain position is achieved in both Habitat and Hedgerow Units trading conditions are not met for all habitat types.
- 7.1.7. Pond habitats are lost in the developed site, though proposals will include three SUDS basins, exceeding the area currently occupied by ponds. These will be

temporarily wet and as such have been put through the Metric as the corresponding grassland habitat, not ponds.

- 7.1.8. The second shortfall in trading rules relates to the loss of woodland habitat. Development of the site will lead to the loss of 5.76 woodland derived units. While not a woodland habitat, proposals will see the gain of 11.06 units through the provision of urban trees ensuring tree cover at the site remains significant.

- 7.1.9. The client has been provided with a full copy of the Biodiversity Metric 3.1 Calculation Tool.

Figure 7.1 Post development habitat types



Table 7.1 Habitat Creation and enhancement Summary extracted from Biodiversity Metric 3.1 Calculator tool

Post development/ post intervention habitats										
Broad Habitat	Proposed habitat	Area (hectare s)	Distinctivene	Conditio	Strategic significance		Temporal multiplier		Difficulty	Habitat units delivered
			Distinctivene ss	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition/years	Final difficulty of creation		
Grassland	Modified grassland	0.0024	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	4	Low	0.01	
Grassland	Modified grassland	0.3068	Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.59	
Grassland	Other neutral grassland	0.0932	Medium	Good	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	10	Low	0.78	
Grassland	Other neutral grassland	0.4746	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	3.18	
Heathland and shrub	Mixed scrub	0.4097	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	2.74	
Urban	Artificial unvegetated, unsealed surface	0.0225	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Low	0.00	
Urban	Built linear features	3.54	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Low	0.00	
Urban	Developed land; sealed surface	4.2459	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Medium	0.00	
Urban	Introduced shrub	0.0793	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.15	
Urban	Vacant/delict land/ bareground	0	Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.00	
Urban	Urban Tree	5.59	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	10	Low	15.66	
									</	

		Post development/ post intervention habitats											Habitat units delivered	
Baseline habitats		Proposed Habitat (Pre-populated but can be overridden)		Change in distinctiveness and condition		Area (hectares)	Distinctiveness	Condition	Strategic significance		Temporal risk multiplier			Difficulty risk final difficulty of enhancement
Baseline ref	Baseline habitat	Proposed Broad Habitat	Proposed habitat	Distinctiveness change	Condition change				Strategic significance	Standard or adjusted time to target condition	Final time to target condition/years			
3	Grassland - Modified grassland	Grassland	Other neutral grassland	Low - Medium	Lower Distinctiveness Habitat - Good	0.3133	Medium	Good	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	15	Low	2.72	
4	Grassland - Modified grassland	Grassland	Other neutral grassland	Low - Medium	Lower Distinctiveness Habitat - Moderate	0.3627	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	10	Low	2.47	
5	Grassland - Modified grassland	Heathland and shrub	Mixed scrub	Low - Medium	Lower Distinctiveness Habitat - Moderate	0.6621	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	4.86	
8	Heathland and shrub - Bramble scrub	Heathland and shrub	Mixed scrub	Medium - Medium	Condition Assessment N/A - Moderate	0.0195	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	0.14	
						1.36							10.20	

Table 6.1 lists the mitigation put in place to address the effects identified in table 5.1

	Mitigation during Site Clearance	Stage
1	Habitat will be removed from the Site by clearance and soil stripping using heavy machinery.	<i>Clearance</i>

	Significant Effects - in the absence of mitigation	Mitigation / Compensation	Residual Magnitude
1a	Direct habitat loss.	Complies with current Biodiversity Net Gain policy. The BMP will detail the provision and management of new higher value habitat. The BMP will detail the provision bird nesting and bat roosting features	Neutral / Minor Positive
1b	Damage to retained habitat such as by storage of clearance machinery or materials in these areas.	The CEMP will detail installation of barrier fencing to protect retained habitat.	Neutral
1c	Disturbance. The noise and activity at the Site will render it, and areas immediately off-Site, inhospitable to wildlife during this period.	The CEMP will detail time limits to work on Site and the installation of screened fencing to limit visual disturbance of sensitive habitat.	Minor Negative
1d	Pollution. There is the potential for sediment or chemicals to be released from the Site, or into retained habitat during this stage.	The CEMP will detail silt fencing to protect retained habitat and the location of bunded compounds for storage of machinery and materials	Neutral
1e	Potential effects on Protected Species . Precautions will be required to ensure that impacts on badgers, nesting birds, and the spread of Invasive Non-Native Species (INNS) can be avoided.	The CEMP will detail necessary pre-works checks for badgers, nesting birds and INNS.	Avoided entirely.

	Mitigation during Construction	Stage
2	Construction activities will take place over a 2-3 year period. Construction of required infrastructure will be followed by footings and then above ground construction of buildings.	<i>Construction</i>

	Significant Effects - in the absence of mitigation	Mitigation / Compensation	Residual Magnitude
2a	Damage to retained habitat such as by storage of machinery or materials in these areas.	The CEMP will detail installation of barrier fencing to protect retained habitat – creating a Biodiversity Protection Zone.	Neutral
2b	Disturbance. The noise and activity at the Site will render it, and areas immediately off-Site, inhospitable to wildlife during this period.	The CEMP will detail time limits to work on Site and the installation of screened fencing to limit visual disturbance of sensitive habitat.	Minor Negative
2c	Pollution. There is the potential for sediment or chemicals to be released from the Site during this stage.	The CEMP will detail silt fencing as required to protect retained habitat and the location of bunded compounds for storage of machinery and materials	Neutral

	Mitigation during Construction	Stage
3	Landscaping activities will take place period during the construction period and will, be phased around completion of roads and housing.	<i>Construction</i>

	Significant Effects - in the absence of mitigation	Mitigation / Compensation	Residual Magnitude
3a	Damage to retained habitat such as by storage of machinery or materials in these areas. Access will be required to retained areas to commence management, and in itself could result in damage.	The CEMP will detail installation of barrier fencing to protect retained habitat and any precautions required in accessing the Biodiversity Protection Zone The BMP will specify habitat creation and management activities.	Minor Positive
3b	Pollution. There is the potential for sediment or chemicals to be released from the Site during this stage.	The CEMP will detail silt fencing as required to protect retained habitat and the location of bunded compounds for storage of machinery and materials	Neutral
3c	Inappropriate habitat creation or management techniques could mean that the proposals fail to deliver on BNG commitments	The BMP will detail; the planting and management required to achieve BNG commitments. This will include monitoring so that evidence can be provided, or remedial action can put in place as required.	Minor Positive

	Mitigation during Operation	Stage
4	The Site will be occupied. Units will be occupied, and traffic and services will access the Site regularly. Flow of heavy goods vehicles to and from the site will increase	<i>Operation</i>

	Significant Effects - in the absence of mitigation	Mitigation/Compensation	Residual Magnitude
4a	Damage to retained and created habitat such as by inappropriate use, littering, release of invasive species.	Given the nature of the site, inappropriate use of habitats is not anticipated. The layout and landscaping plan have been designed to minimise the impact of people or vehicles on retained, enhanced or created higher value habitat areas.	Neutral
4b	Disturbance. The noise and activity at the Site will be present of a lower order and will likely be acceptable to species habituated to the urban conditions prevailing locally.	Landscaping is designed to maximise the amount of habitat which groups such as birds can use for cover, and to provide connectivity. While there will be some loss of landscaping within the centre of the site, landscaping has been designed to increase the value of habitat around the boundaries. New nesting (for birds) and roosting (for bats) will be installed on retained trees around the site.	Minor Positive
4c	In the absence of correct management retained and created habitats may not provide the necessary biodiversity units committed to through the BNG process.	The BMP will provide full details of habitats to be created and their suitable management suitable management The BMP will include monitoring so that evidence can be provided, or remedial action can put in place as required.	Minor Positive

8. Timing Issues

8.1.1. Other than the standard constraint surrounding nesting birds and vegetation clearance, no specific timing issues are foreseen.

9. Cumulative Effects

9.1.1. No in-combination effects have been identified. Most potential significant effects have been ruled out, or act at a limited scale, as such, impacts arising from this proposed development are unlikely to act in combination with those of adjacent developments.

10. Offsite Measures or Compensation

10.1.1. The scheme is expected to result in a net gain for biodiversity on-site, and as such no off-site measures of compensation will be required.

11. Enhancement

11.1.1. Opportunities to provide enhancement, and how to secure this, have been identified in Figure 7.1 and Table 7.1 above and will be detailed in the BMP and Landscaping Plan documents to be produced as a standard condition of planning.

12. Monitoring

12.1.1. The CEMP document will detail the role of an Ecological Clerk of Works (ECoW) in overseeing protection measures.

12.1.2. The BMP document will identify any management specific monitoring which might be required in respect of habitat enhancement proposed.

13. Policy and Legislation

13.1.1. Given the implementation of the mitigation set out above, it is anticipated that the proposals will comply with the relevant policy and legislation relating to wildlife and ecology.

14. Conclusion

14.1.1. Mitigation to be agreed by standard conditions of planning will be able to address all significant effects resulting from the development.

14.1.2. The scheme is able to deliver a 10% net gain for biodiversity on site, for both habitat and hedgerow units.

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