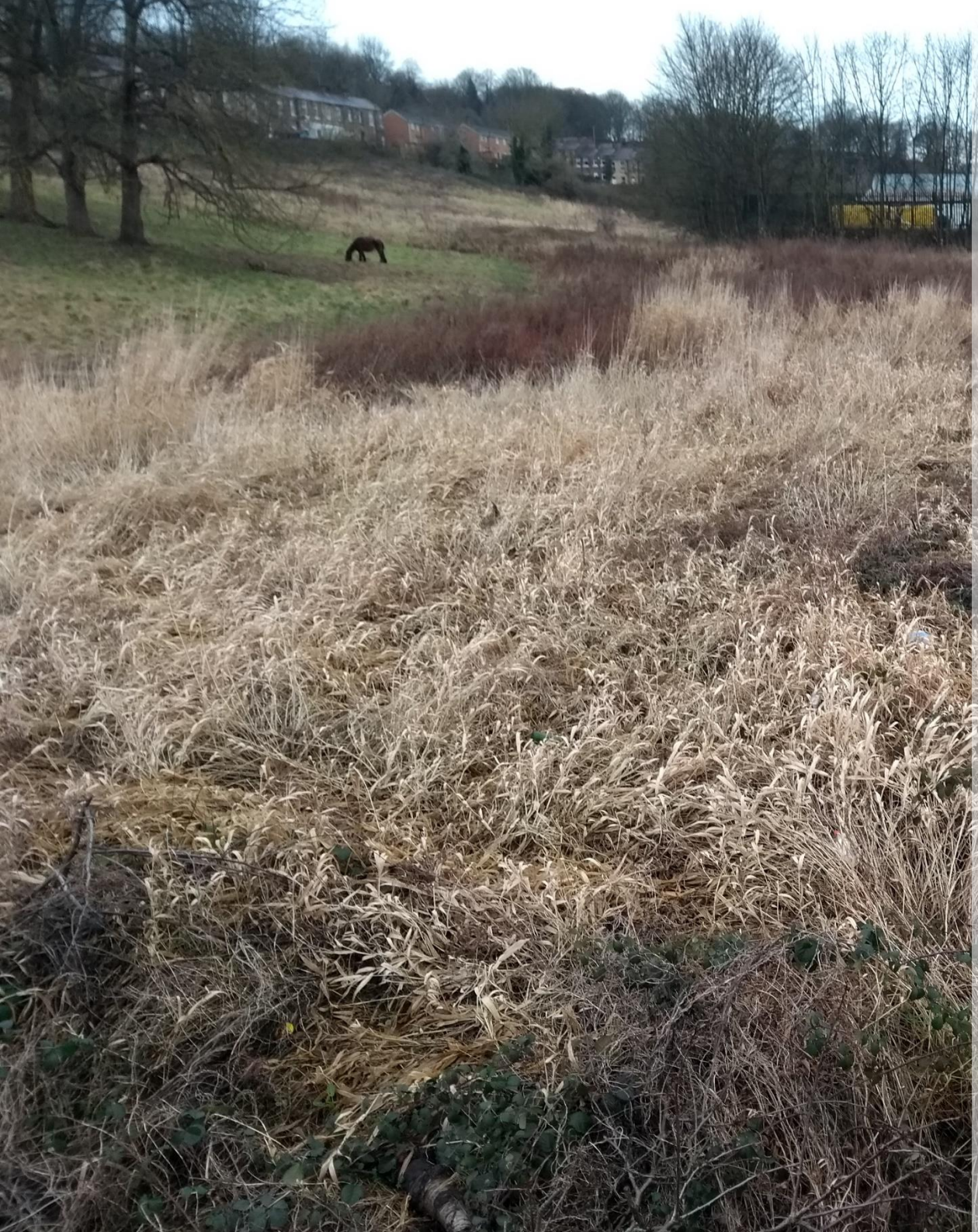

Brooks Ecological
Grounded advice

Ecological Impact Assessment

Lady Anne Road, Soothill

D. Noble Ltd.

Report Reference: ER-3787-01-E

29/11/2022

Report Title:	Ecological Impact Assessment Lady Anne Road, Soothill
Report Reference:	ER-3787-01-E
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Date:	Written 10/02/2020 Rev. A - 14/01/2021 Rev. B - 26/01/2021 Rev. C - 04/06/2021 Rev. D - 29/11/2022 Rev. E – 02/02/2023

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Contents

Summary

The Site is occupied primarily by grassland and scrub habitat, with mature trees, flowing water and tall herb habitat representing the habitats of greatest ecological value. Due to the Site's topography, most of the baseline vegetation will need to be cleared to facilitate development, with a strip of vegetation along the eastern boundary being retained and enhanced.

Using the Defra Metric 3.1 Calculator tool, the scheme is expected to result in a moderate loss in Habitat Units and a minor loss in River Units. In order for the scheme to achieve a 10% net gain, some form of Biodiversity Offsetting will be required.

The following mitigation is recommended to deal with residual significant effects; these documents could be secured via standard conditions provided in the British Standard BS:42020.

- A BS:42020 Biodiversity Management Plan (BMP).
- A BS:42020 Construction Environmental Management Plan (CEMP: Biodiversity)
- Invasive weed Management Plan

1. Introduction

1.1. Brooks Ecological Ltd was commissioned by D. Noble Ltd. to carry out an Ecological Impact Assessment (EcIA) for a Site referred to as Lady Anne Road, Soothill.

1.2. It is proposed to re-develop the Site to remove the old factory and office buildings to make way for a garden centre occupying the same footprint.

1.3. The British Standard BS42020 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.

1.4. 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.

1.5. 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

CIEEM

ASSOCIATION OF Local Government Ecologists

	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)[i], 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[ii, iii and iv]		
Surveys, Sites, Species and Habitats	3. Adequate[v] and up-to-date[vi]: a. Desk study has been undertaken[vii] b. Phase 1 habitat survey (or equivalent) has been undertaken[viii] c. Phase 2 ecology surveys have been undertaken (where necessary)[viii]		
	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[ix] 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[x]		
	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[xi] 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[xii]		
	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[xiii] based on sound professional judgement[xiv] 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. An Extended Phase 1 Habitat Survey of the Site was carried out in April 2016 by Witcher Wildlife Ltd. (Report Ref. 160518). This report recommended further survey for bats and water vole, the latter of which has been undertaken by Brooks Ecological.

2.2. Given the amount of time that has elapsed since the initial assessment was carried out, an updating walkover survey was undertaken in January 2020, and then again in January 2023 by Brooks Ecological; so as to reconfirm the Site's baseline.

2.3. The extent of the survey area is the land within the red line boundary defined in Figure 2.1. Where possible or relevant, this was extended into adjacent habitat to provide context to the site. The Survey Site included gaining access down to the riparian habitats adjacent to the Site wherever this was possible.

2.4. 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.

2.5. The application site 'the Site' comprises a former allotment, which has been left vacant and allowed to succeed to a mosaic of rough grassland, tall ruderal and scrub habitat, with a beck and wetland habitat along the eastern boundary.

2.6. To provide information on the Site's ecological value, the following studies have been carried out; with the relevant reports produced being:

- Extended Phase 1 Habitat Survey (Ref. 160518). Witcher Wildlife Ltd. May 2016.
- Water Vole Assessment & Mitigation Plan (R-3009-01.1). Brooks Ecological. September 2017.
- Water Vole Survey. (R-3787-01). Brooks Ecological. June 2019.

Desk Study

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

Field Survey

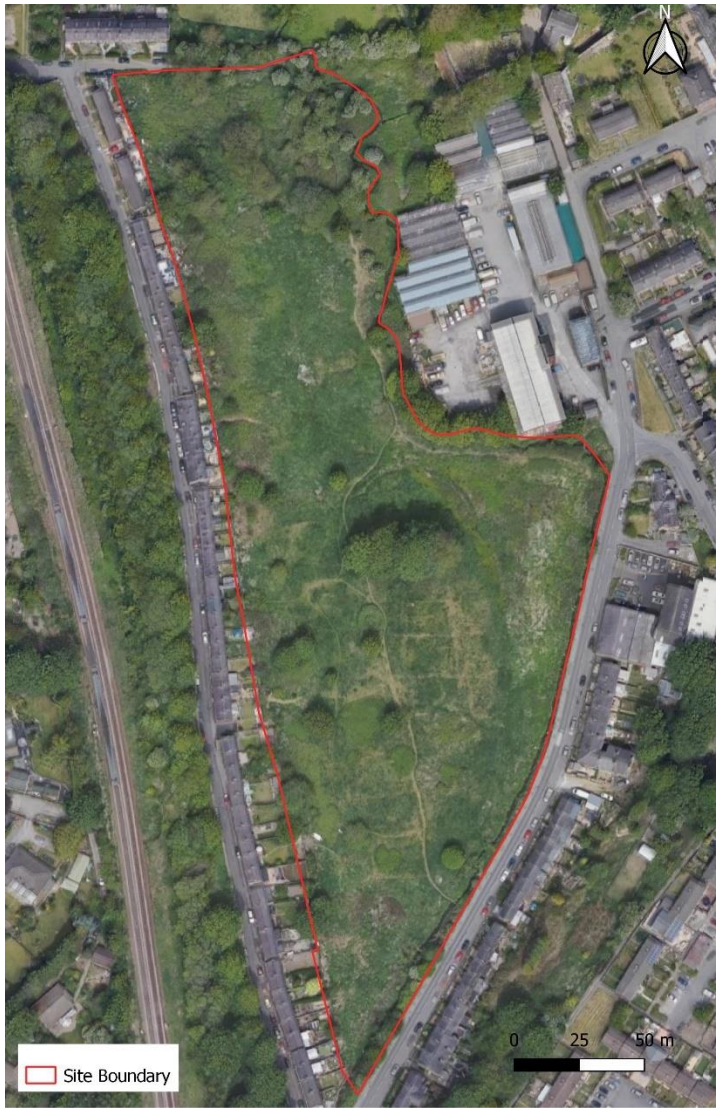
Walkover – Extended Phase 1 Habitat Survey

2.8. The initial walkover survey was carried out during April 2016 and followed Phase 1 Habitat Survey Methodology (JNCC, 2010).

Water vole survey

2.9. Survey followed the methodology for field survey outlined in Dean and Strachan (2016).

Figure 2.1 The Survey Site



Assessment Method

2.10. 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

2.11. 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, Habitats of Principal Importance or presents any opportunities in this respect.

2.12. 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

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

Designated Sites and Conservation Areas

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

Kirklees Wildlife Habitat Network

3.3. The entire Site lies within the Kirklees Wildlife Habitat Network.

Habitats

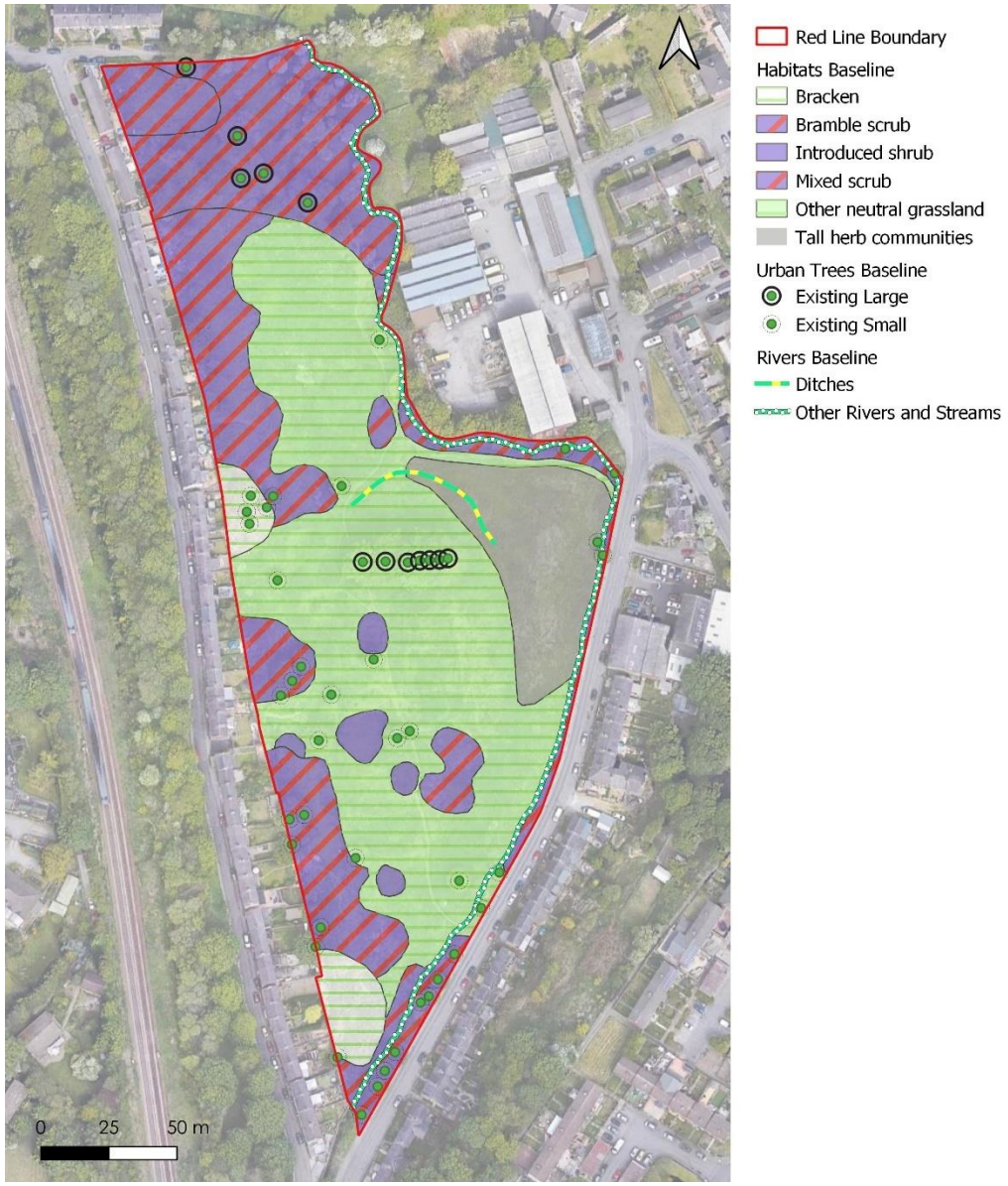
3.4. The Site comprises of the following habitat types, all of which have been described and mapped below.

Potential future changes to the baseline

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

3.6. In the absence of re-development, succession would likely result in the further expansion of scrub into areas of grassland, with scrub continuing towards woodland. Some areas of grassland would remain due to rabbit and informal horse grassing.

Figure 3.1 The Site's habitats



Code	Habitat Feature	Notes
g3c	Other neutral grassland	Species-poor rough neutral grassland, growing over an east facing slope. The Site is subject to no formal management resulting in succession to scrub, tall ruderal and bracken along the margins. Unauthorised grazing from tethered horses maintains grassland within the centre.
h3d	Bramble scrub	Dense impenetrable scrub which has arisen naturally due to an absence of management. Comprises largely of bramble, with small amounts of elder, hawthorn and other native woody species and competitive herbs.
f2	Tall herb communities	Area of marshy grassland characteristic of S28 NVC community *Phalarus arundinacea* tall herb fen.
17	Ruderal / ephemeral	Typical assemblage of tall ruderal herbs, which have established within area of rough grassland.
g1c	Bracken	Habitat of limited ecological value. Low distinctiveness, poor condition.
c1f	Introduced shrub	Small isolated stands of Spirea – most likely garden escapes.
1170	Trees	Scattered broadleaf trees, mostly goat willow and sycamore. Of young to semi-mature stature.
LT4	Line of Trees	Line of mature sycamore trees through the centre (west-east) and semi-early mature alder, willow and birch along the southern end of the eastern boundary.
R4	Headwater stream	Small intermittent stream arising from a natural spring within the centre of the Site, flowing east into the fen habitat.
R9	Rivers & Streams (Other)	Howley Beck. Permanently flowing water feature, running north-south along the eastern boundary. Flanked by a mix of scrub and tall ruderal vegetation. Evidence of pollution.

The table below shows the site's habitats in terms of their measured Extent (ha or km) and Biodiversity Value (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 Baseline[1].

Lady Ann Road, Soothill

A-1 Site Habitat Baseline

Condense / Show Columns | Condense / Show Rows | Main Menu | Instructions

	Habitats and areas			Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Rete	
Ref	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units	Area retained	Area enhanced
4	Grassland	Other neutral grassland	0.2121	Medium	Poor	Formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.98	0	0.2121
5	Grassland	Other neutral grassland	0.0004	Medium	Poor	Formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.00	0	0.0004
6	Grassland	Tall herb communities	0.0966	High	Poor	Formally identified in local strategy	Same habitat required =	0.67	0	0
7	Grassland	Tall herb communities	0.2393	High	Poor	Formally identified in local strategy	Same habitat required =	1.65	0	0.2393
8	Heathland and shrub	Bramble scrub	0.7094	Medium	Condition Assessment N/A	Formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	3.26	0.0152	0
9	Heathland and shrub	Bramble scrub	0.1716	Medium	Condition Assessment N/A	Formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.79	0	0.1716
10	Heathland and shrub	Mixed scrub	0.4677	Medium	Moderate	Formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	4.30	0.1161	0
11	Urban	Introduced shrub	0.0655	Low	Condition Assessment N/A	Formally identified in local strategy	Same distinctiveness or better habitat required ≥	0.15	0	0
12	Urban	Urban Tree	0.1506	Medium	Moderate	Formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	1.39	0.061	0
13	Urban	Urban Tree	0.917	Medium	Good	Formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	12.65	0.535	0
14										
15										
16										
		Total habitat area	4.54					32.51	0.73	0.63

[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.

Existing river type			Habitat distinctiveness	Habitat condition	Strategic significance	Watercourse encroachment	Riparian encroachment	Suggested action	Ecological baseline	Retention
Baseline ref	River type	Length (km)	Distinctiveness	Condition	Strategic significance	Extent of encroachment	Extent of encroachment		Total river units	Length retained	Length enhanced
1	Ditches	0.068	Medium	Poor	Low potential/action not identified in any plan	No Encroachment	No Encroachment	Restore	0.27	0	0
2	Other Rivers and Streams	0.017	High	Moderate	Within Local Plans	Major	Major	Restore	0.09	0	0
3	Other Rivers and Streams	0.499	High	Moderate	Within Local Plans	Major	Major	Restore	2.58	0.499	0
4											
5											
6											
7											
8											
		0.58							2.94	0.50	0.00

Species and Species Groups

3.7. Potential constraints relating to relevant groups were investigated through the surveys carried out.

Table 3.2 Summary of relevant faunal issues

Species/ Group	Presence	Notes
Water vole	Likely absence confirmed through dedicated survey by Brooks Ecological in 2017 and 2019. Species is potentially present upstream of the Site, but outside of the developments sphere of influence.	No direct or indirect impacts expected.
Bats	Five trees were identified as having bat roost suitability. Presence / absence survey was recommended should any of these trees be impacted by development. Survey has not been undertaken at this point. The Site can be expected to attract moderate levels of foraging and commuting bats, with Howley Beck, mature trees and dense scrub being the focus of activity.	Possible direct impacts on trees scheduled for removal. Beck likely to be of importance to local bat population.
Other fauna	The Sites potential to support other protected or notable fauna was scoped out at the PEA stage.	No direct or indirect impacts expected.
Invertebrates	The potential for the Site to support rare or protected invertebrates was scoped out at the PEA stage by Whitcher Wildlife Ltd. The feature of greatest potential interest for this group is the tall herb / fen habitat – which will be largely retained and protected, and with it, any invertebrate interest it supports.	Impacts on this groups not likely to be significant.
Invasive non-native species	Himalayan balsam is present within the tall herb community and along the course of Howley Beck.	

4. Description of the Proposed Development

4.1. Revised proposals are for the construction of 65 new residential units, with associated infrastructure and Public Open Space.

4.2. The following plans have been provided by the client and form the basis of this assessment:

- Landscape Proposals. Topia Landscape Architects drwg 0138-GA-004 Rev. PL02 (30/01/2023).

4.3. Given the Site's topography, large-scape earthworks will be required to create the necessary development platforms, with bankings created between the development and retained habitats.

4.4. Habitats of greatest ecological value, namely Howley Beck and the Tall Herb Fen will be largely retained and made available for ecological enhancement.

Figure 4.1 Proposed Site Plan

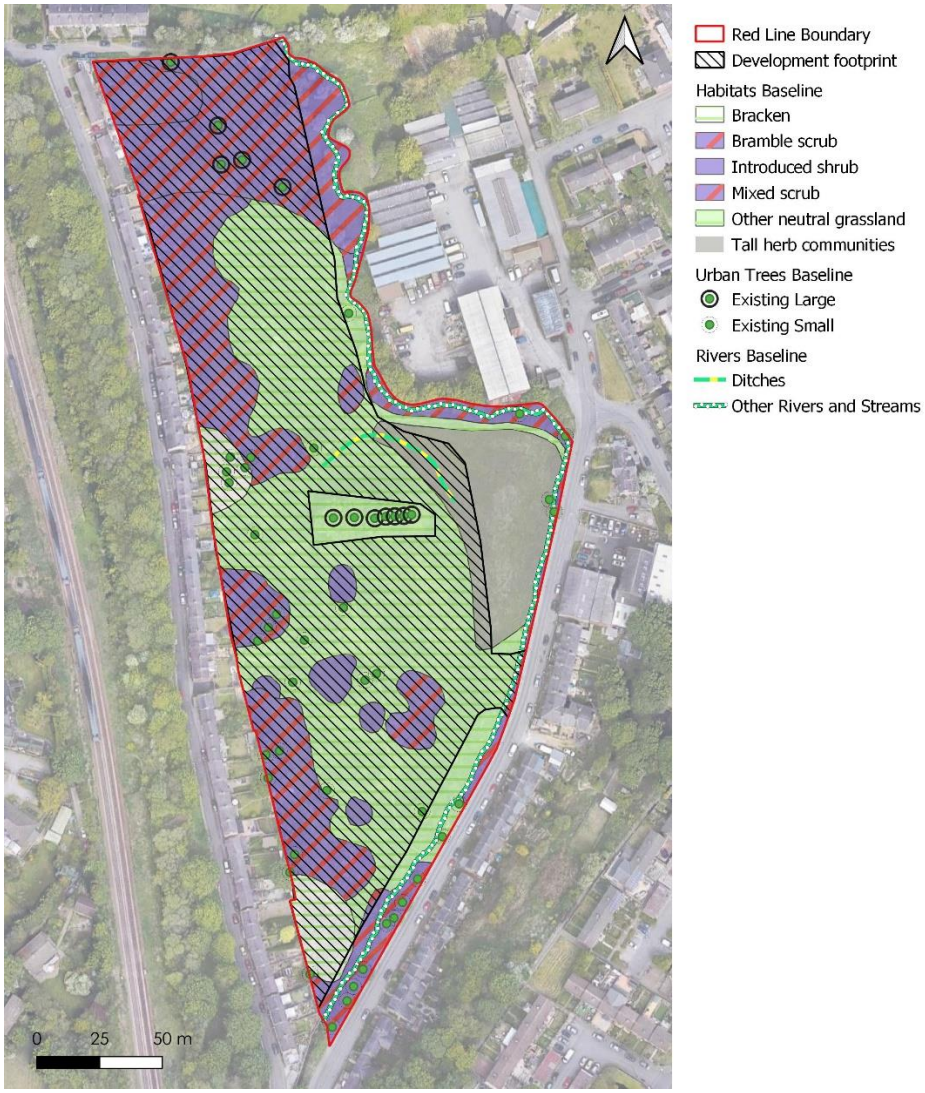
5. Impacts & Effects on the Proposed Development

5.1. Figure 5.1 shows the development footprint in relation to the mapped habitats.

5.2. The development footprint mapped in black shows the sum extent of proposed built development, as well as re-profiling works required to create the development platforms.

5.3. Given the Site's topography, banking will need to be created along the eastern boundary.

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



5.4. Figure 5.2 summaries the impact of development on existing vegetation, with habitat permanently lost to residential development shown in Red, whilst vegetation temporarily lost during the initial reprofiling operation shown in Orange.

5.5. Habitat retained and protected is shown in Green.

5.6. Areas marked green and orange will be made available for ecological enhancement – details of which would be outlined in the Site's Biodiversity Management Plan (BMP).

Figure 5.2 Summary of impacts on existing habitats (lost and retained)

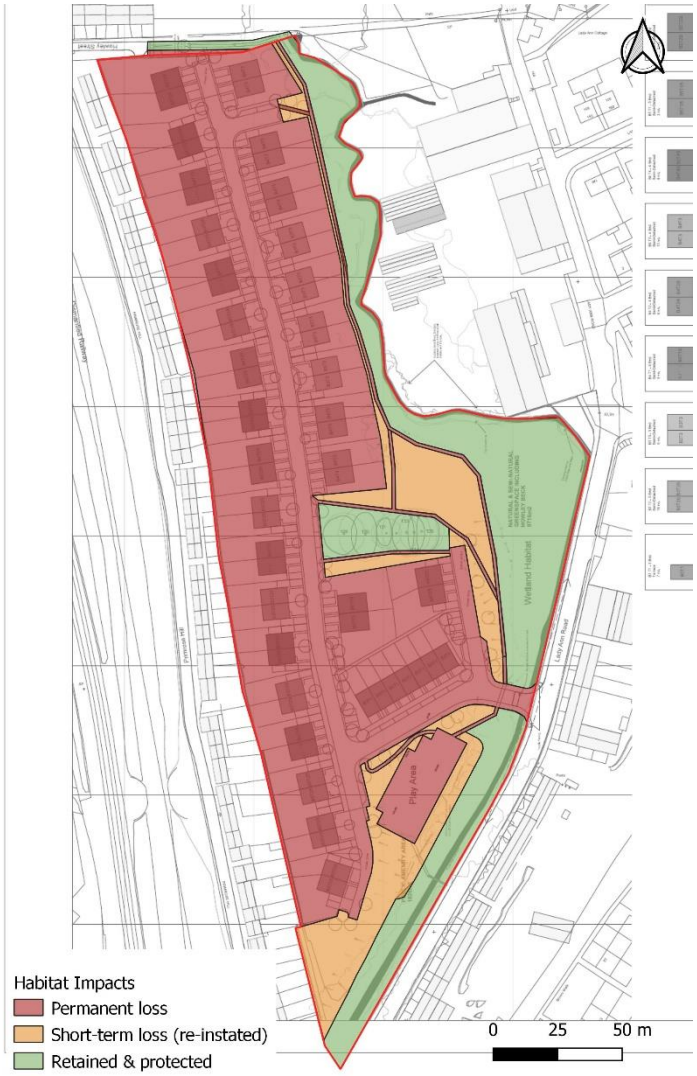


Table 5.1 Summary of impacts and effects

Feature	Impact	Stage	Significant Effects
Tall herb communities	Loss of 0.0966ha (29%) of this habitat.	*Clearance*	Moderate loss of high value habitat. Significant at Site level. Mitigation and compensation required.
Rivers & Streams	Loss of spring and associated headwater stream. Loss of c.20m of Howley Beck to facilitate new bridge point for access road. Pollution/ damage of watercourse and downstream habitats.	*Construction*	Significant at district level. Small loss of high value habitat during construction, plus the potential to damage retained section of stream and pollute downstream habitats. Mitigation and compensation required.
Low value habitat	Permanent loss of rough neutral grassland, scrub, tall ruderal vegetation bracken and introduced shrubs.	*Clearance*	Largescale loss of low value habitat. Significant at Site level. Mitigation / Compensation will be required to ensure a no-net loss in biodiversity.
Water vole	Currently (likely) absent – no impact during construction. Habitat could be degraded during operation, stopping any future colonisation.	*Operation*	No significant impacts.
Bats	Potential loss of roosting opportunities (trees). Loss of foraging habitat. Degradation of retained habitat (artificial lighting) – interrupting commuting routes / displacing foraging bats.	*Clearance* *Construction* *Operation*	Significant at a local level. Should tree roosts be present, there is the potential for clearance to result in the damage or destruction of bat roosts. This would most likely impact small summer day roosts or low conservation significance. Construction would result in the permanent loss of foraging habitat, leading to the displacement of local bats into the wider landscape. Addition lighting and the new bridge point could also sever the Howley Beck corridor – resulting in fragmentation.
Invasive Species	Potential to spread Himalayan balsam further throughout the Site and off-site.	*Clearance* *Construction*	Significant at a local level. Potential to spread Himalayan balsam through the local area.

Feature	Impact	Stage	Significant Effects
Kirklees Wildlife Habitat Network	Potential to disrupt the continuity of the KWHN.	*Construction* *Operation*	Significant at a local level. Potential for development to impede the movement of wildlife though the local landscape, along the Howley Beck corridor. This could result in the fragmentation of local populations. Mitigation and compensation required.

6. Mitigation & Residual Effects

6.1. Any possible **avoidance** of unnecessary impacts has already been designed into the plan at this stage. The proposals will incorporate the following **mitigation** in relation to the identified **effects** above.

- A BS:42020 Biodiversity Management Plan (BMP); see ER-3787-02
- A BS:42020 Construction Environmental Management Plan (CEMP: Biodiversity) will be produced this can be secured by use of a standard condition and will set out measures detailed below;
- An Invasive Weed Management Plan (IWMP) will be produced, to set out the control of Himalayan balsam. This can be secured by use of a standard condition.

Table 6.1 Summary of Mitigation and Residual Effects

Effect	Features	NPPF Hierarchy	Residual Effect
Habitat loss	The BMP and landscaping plans will show: • The enhancement of retained habitat through better management and planting/ sowing - to increase floral diversity and condition assessment. • Measures to improve Howley Beck for water vole • Removal of litter and other contaminants. • The creation of new habitats within areas impacted by earthworks. • Installation of faunal boxes for birds, bats and invertebrates, as well as creating connectivity for hedgehogs.	**Compensation** *and* **Enhancement**	**Minor Negative** Residual net loss in Habitat Units
Damage / pollution of retained habitat and Howley Beck	The CEMP will detail the protection of retained habitats (namely the tall herb community and Howley Beck) during construction.	**Mitigation**	**Neutral** Retained habitat protected.
Degrading connectivity along Howley Beck corridor and the KWHN	The CEMP will detail the protection of the Howley Beck corridor, specifically the use of artificial lighting and maintaining a darkened corridor. The BMP and landscaping plans will work in combination to improve the quality of riparian habitat alongside the beck and strengthen its connectivity for groups such as bats.	**Mitigation** *and* **Enhancement**	**Neutral** Connectivity maintained through the Site along Howley Beck
Spread of INNS	The IWMP will outline how Himalayan balsam can be brought under control, so as to prevent its spread during site clearance / construction. Long term management will be required to keep the infestation in check, however permanent eradication is unlikely due to upstream material.	**Mitigation**	**Minor Positive** Control of INNS

7. Biodiversity Net Gain

7.1. There will be a requirement for the proposals to secure a 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). In most cases, this is set at a 10% net gain.

7.2. 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.

7.3. Calculations setting out the position of the proposals in relation to BNG are set out below. These are based on the Planning Site Layout plan 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. These are considered realistic and achievable. Measures to ensure habitats attain the habitat types and condition scores outlined in the plan opposite and the Defra Metric would be covered by the Biodiversity Management Plan, and would need to dovetail with any Landscape Masterplans.

7.4. 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

7.5. The proposals will lead to an overall loss in Habitat and River Units, with a shortfall of 12.42 Habitat Units (-38.21%) and -0.33 River Units (-11.27%) currently being predicted.

7.6. The proposals also fail to satisfy the Trading Rules, with a deficit in Medium and High Distinctiveness habitats, caused by the loss of Tall herb community, Urban Trees, other neutral grassland, and scrub habitats; this may need to be addressed through offsetting, which could result in a higher offsetting contribution being required.

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

Figure 7.1 Headline Summary, Metric 3.1

Lady Ann Road, Soothill

Headline Results

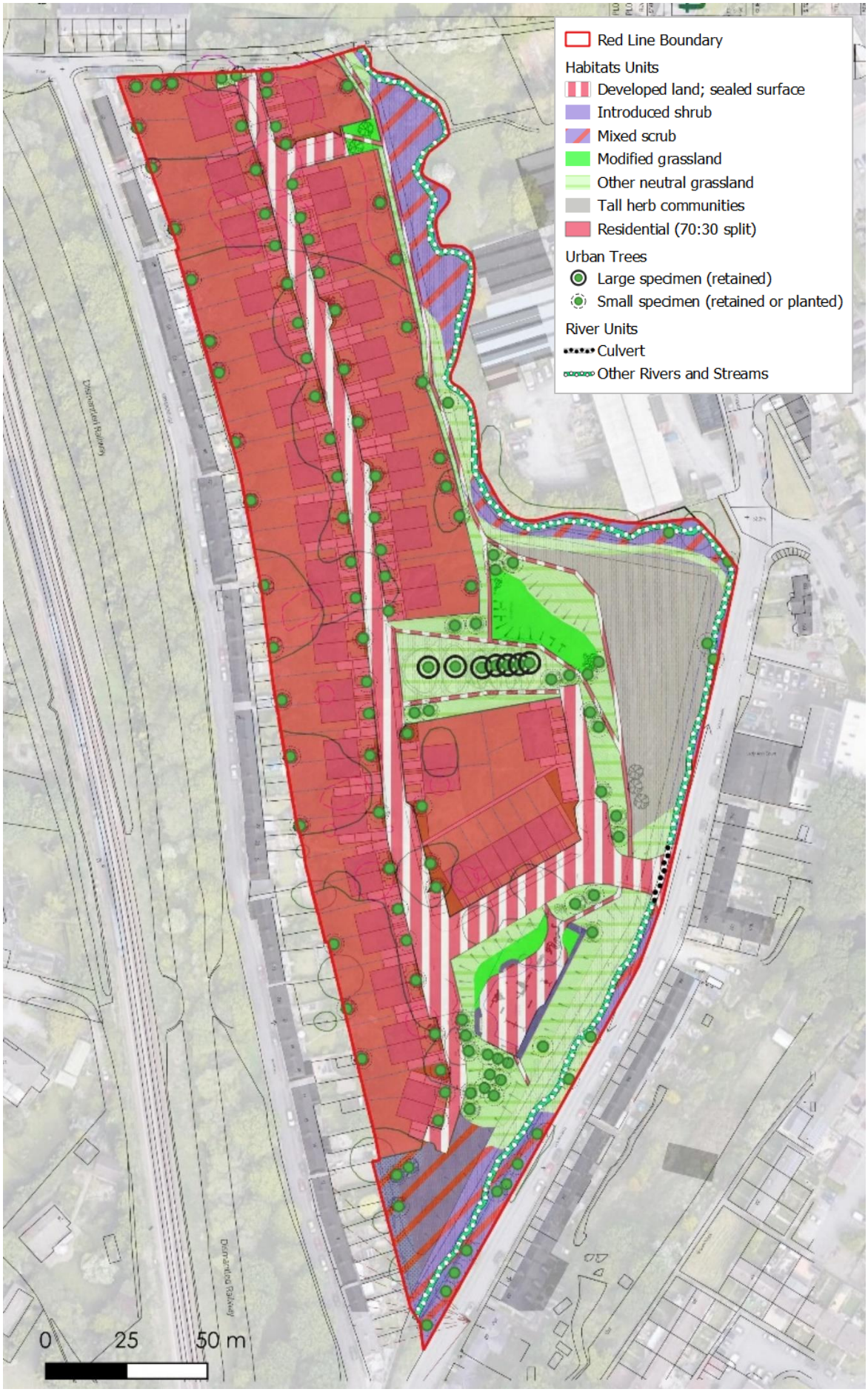
Return to results menu

On-site baseline	*Habitat units*	32.51
	Hedgerow units	0.00
	River units	2.94
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	20.09
	Hedgerow units	0.00
	River units	2.61
On-site net % change (Including habitat retention, creation & enhancement)	*Habitat units*	-38.21%
	Hedgerow units	0.00%
	River units	-11.27%
Off-site baseline	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-12.42
	Hedgerow units	0.00
	River units	-0.33
Total on-site net % change plus off-site surplus	*Habitat units*	-38.21%
	Hedgerow units	0.00%
	River units	-11.27%
Trading rules Satisfied?	No - Check Trading Summary ▲	

Trading Summary

Distinctiveness Group	Trading Rule	Trading Satisfied?
Very High	Bespoke compensation likely to be required 🛠	Yes ✓
High	Same habitat required =	No ▲
Medium	Same broad habitat or a higher distinctiveness habitat required (≥)	No ▲
Low	Same distinctiveness or better habitat required ≥	Yes ✓

Figure 7.1 Post development Habitats



8. Timing Issues

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

9. Cumulative Effects

9.1. No in-combination effects have been identified.

10. Offsite Measures or Compensation

10.1. Despite on-site mitigation and compensation, an overall net loss of 12.42 Habitat Units and 0.33 River Units is predicted for the proposed development.

10.2. Should the LPA require a 'no net loss' in biodiversity score to be achieved here, some form of biodiversity offsetting will be required. The details of delivering a net neutral or net gain status through offsetting would need to be agreed with the LPA.

11. Enhancement

11.1. Opportunities to provide enhancement, and how to secure this, have been identified in Table 6.1 above and will be detailed in the BMP document to be produced as a standard condition of planning.

12. Monitoring

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

12.2. 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. 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.

13.2. Detailed bat survey will be required on any tree scheduled for removal, prior to any works commencing. Should roosting be confirmed, a European Protected Species Mitigation Licence will need to be secured prior to works commencing.

14. Conclusion

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

14.2. An overall net loss in Habitat and River Units is predicted and offsetting will be required to achieve a net neutral or net gain for biodiversity.

References

Andrews H. L. (2011) A habitat key for the assessment of potential bat roost features in trees.

Bat Conservation Trust (2016) Bat Surveys for Professional Ecologists – Good Practice Guidelines

Chanin, P. (2003) *Ecology of the European Otter*. Conserving Natura 2000 Rivers Ecology Series No. 10, English Nature.

BSI (2013) British Standards Institute *BS 42020:2013 Biodiversity — Code of Practice for Planning and Development.*

CIEEM (2017) Guidelines for Ecological Report Writing 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 3rd edition. Chartered Institute of Ecology and Environmental Management, Winchester

English Nature (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

English Nature (2001) Great Crested Newt Mitigation Guidelines. http://www.naturalengland.org.uk/Images/GreatCrestedNewts_tcm6-21705.pdf

Harris S, Jefferies D, Cheeseman C and Booty C (1994). Problems with Badgers, revised 3rd Edition. *RSPCA*, ISBN 0-901098-04-3

Gent T and Gibson S, 2003, *Herpetofauna Workers' Manual*, JNCC

IEA. (1995). *Guidelines for Baseline Ecological Assessment*. Chapman and Hall

Hill et al. 2005, *Handbook of Biodiversity Methods*. Cambridge

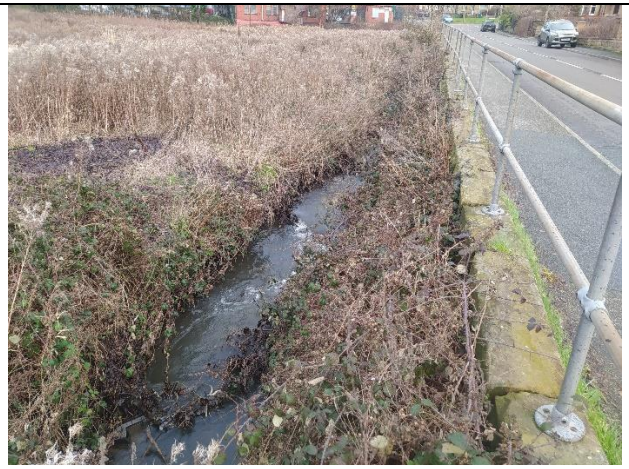
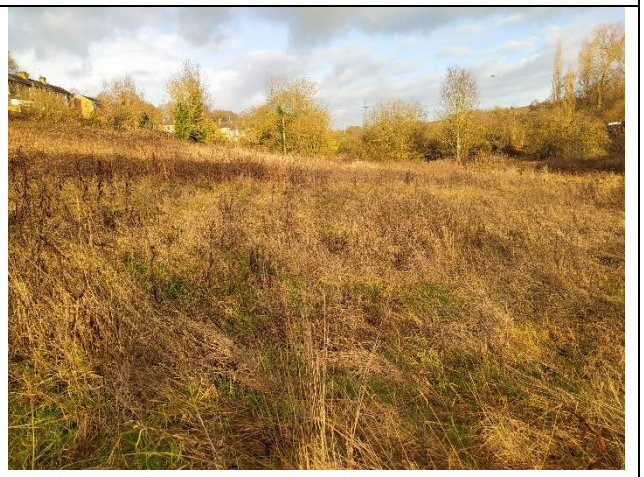
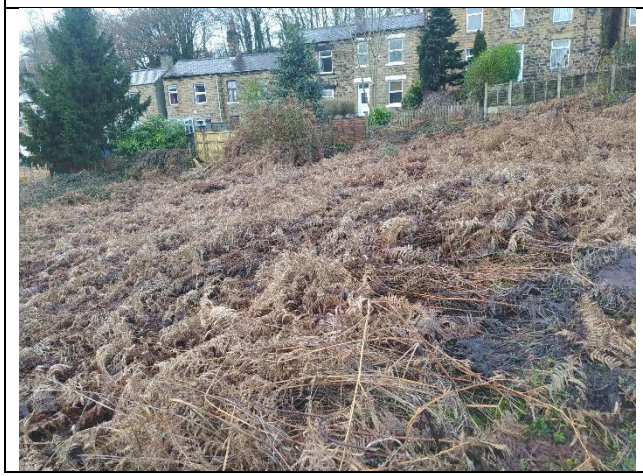
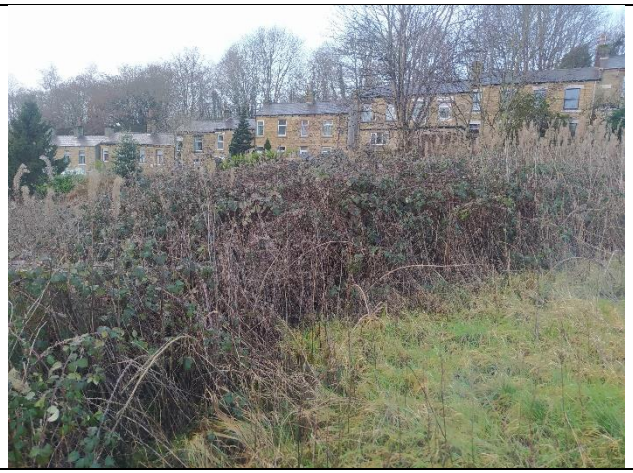
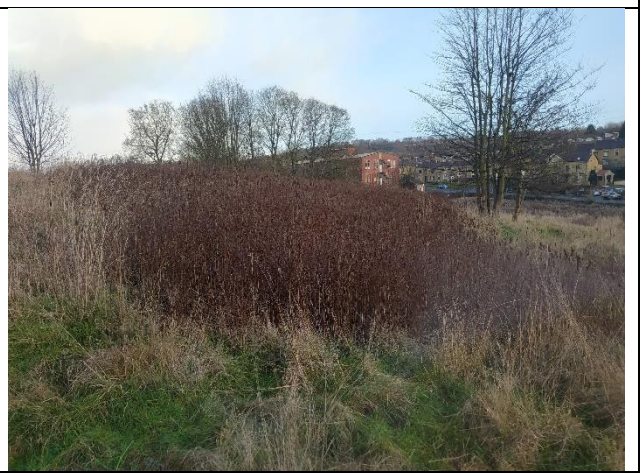
JNCC (2004) The Bat Workers Manual. 3rd Edition.

JNCC (2010). *Handbook for Phase 1 Habitat Survey: A technique for environmental audit*.

Ratcliffe, D.A. (1977) *A Nature Conservation Review*, Cambridge University Press

Strachan and Moorhouse (2006), Watervole Mitigation Handbook, University of Oxford

Appendix 1 – Photographs (11.01.2023)

Tall herb fen habitat	Howley Beck	Rough neutral grassland
		
Bracken	**Dense Bramble scrub**	**Stands of Introduced shrubs**
		

Mature trees	Spring and stream	Mixed scrub